POOLING OF PATENTS

APPENDIX TO HEARINGS

BEFORE THE

COMMITTEE ON PATENTS
HOUSE OF REPRESENTATIVES

SEVENTY-FOURTH CONGRESS

ON

H. R. 4523

A BILL PROVIDING FOR THE RECORDING OF PATENT POOLING AGREEMENTS AND CONTRACTS WITH THE COMMISSIONER OF PATENTS

FEBRUARY 11, 14, 20, 25, 28, MARCH 7
OCTOBER 15, 16, 17, 18, DECEMBER 2, 3, 4, 5, 6, 9, 10, 12, 1935

PART III

Printed for the use of the Committee on Patents

UNITED STATES
GOVERNMENT PRINTING OFFICE
49629 WASHINGTON : 1936

Digitized by Google

COMMITTEE ON PATENTS

WILLIAM I. SIROVICH, New York, *Chairman*

FRITZ G. LANHAM, Texas
BRASWELL D. DEEN, Georgia
THOMAS O'MALLEY, Wisconsin
MATTHEW A. DUNN, Pennsylvania
CHARLES J. COLDEN, California
CHARLES KRAMER, California
J. BURRWOOD DALY, Pennsylvania
J. HARDIN PETERSON, Florida
GRAHAM A. BARDEN, North Carolina
JOHN L. McCLELLAN, Arkansas
FRANK W. BOYKIN, Alabama
WM. B. BARRY, New York

RANDOLPH PERKINS, New Jersey
CLARENCE J. McLEOD, Michigan
FRED A. HARTLEY, JR., New Jersey
L. C. ARENDS, Illinois
RALPH E. CHURCH, Illinois
CHARLES F. RISK, Rhode Island

R. T. BUCKLER, Minnesota
THOS. R. AMLIE, Wisconsin

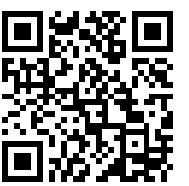
EDWIN FAIRFAX NAULTY, *Clerk*

Digitized by Google

This is a reproduction of a library book that was digitized by Google as part of an ongoing effort to preserve the information in books and make it universally accessible.

Google™ books

https://books.google.com



WILS
GOVU
Y 4.P 27/1:P 78/2/pt.3-4

Digitized by Google

THE LIBRARY
OF THE


CLASS
BOOK

Digitized by Google

Digitized by Google

Digitized by Google

POOLING OF PATENTS

INVENTOR CARROLL'S STATEMENT

NEW YORK CITY.

HOUSE PATENTS COMMITTEE,
Washington, D. C.

DEAR SIRS: If you are investigating patents, here is something should interest you as showing the Navy's policy of utter hostility to intelligence. I worked for them as a draftsman three times. The first time, over 20 years ago and the second time during the war, and resigned. The third time, in 1931, on the new cruisers, I was discharged for pointing out mistakes in plans—which were proven—and kicking at the inefficiency of the office, which held up work while five shipyards were idle, waiting for plans. This office was abandoned and the work of designing cruisers turned back to private concerns. I was offered rentention if I would promise not to write more letters listing mistakes to the Secretary of the Navy, Adams. The Democrats were coming in and I preferred to force the issue.

The cruisers are hamstrung by cutting holes through the sides, below waterline, and admitting sea water into reserve fuel-oil spaces. This cuts speeds, cuts cruising radius and weakens the ships, and adds hundreds of tons weight, utterly useless weight, to ships where aluminum has been used to conserve weight. This was to correct antirolling. I objected to the General Board. I filed a patent—means for stabilizing ships with fuel oil, serial 584,970, January 6, 1932—showing how the oil should and could be used for the same purpose with no added weight or loss of fuel capacity and no structural changes. This has some claims allowed, but I think the Navy is preventing its issuance. The patent lawyer, Townsend, got a one-third assignment on misrepresentation that it did not allow him to sell separately—I found it does and presume he is in cahoots with the Navy. It was used on the *Manhattan* and *Washington*, the Navy denying, and Mr. Bardo admitting, it was by their direction.

The above patent is important as evidence of the sabotage by the Navy itself. It is wholly out of my hands, as I cannot revoke power of attorney, since he holds an interest, and have no funds for lawing. But if you want to know what ails your Navy, it is important to you.

I offered the Navy many other important ideas and improvements. After my discharge, I wrote repeatedly, describing a new-type Diesel I had designed and sold the Russian Government in 1930, the features of which are through scavenging and upper exhaust and welded steel construction. Two-cycle. At the time I invented these, no manufacturer in the United States was at all interested in two-cycle. I had to go to Russia to get rid of it, and on my return, offered these features for a few hundred dollars to the Bendix Research Co., of East Orange, N. J., a subsidiary of General Motors. The reason I went to them is, I had sold them an aviation patent in 1928 or 1929. They rejected my offers after I divulged most features, but retained the head, as the design was useless without it.

The Navy was building an "experimental" 4-cycle, high-pressure air-injection Diesel at the Brooklyn Yard in 1930-31. To understand what utter stupidity this implies, think that Bermeister & Wain, who had the greatest success with this type and built more of it than all the world together, abandoned it in 1927 for 2-cycle. Krupp has built no four-cycle, except for American yacht owners, for 10 years, etc. And high-pressure air injection has been abandoned for at least 8 years. I could not credit the Navy with willful stupidity all the way up, or expected Roosevelt to change things. So I sent Roosevelt, before he took office, particulars of my engine designs, also to the Navy.

I was astonished in the summer of 1933 to read of the Winton Diesels "greatest and most revolutionary advance in Diesels in a decade", being built and

686170

Digitized by Google

exhibited at Chicago. A Diesel man told me there were two embodying my features under construction by the Winton Co. for the Navy. I protested to Roosevelt and Swanson of the Navy, the Naval Affairs Committee, and President Roosevelt—also to General Motors. No results except dodging—even to the point of lying. Assistant Secretary of the Navy Roosevelt denied to Park Trammell that the Navy was interested in the new-type Winstons. The Navy had previously turned me down on the plea that it had no money for "new and untried features." I offered the correct and full design for $2,000.

This is the engine going into the submarines, into the trains built by Public Works Administration funds, like the *Zephyr*. Through the permission of the Navy and by Navy aid, the Winton subsidiary of General Motors has been allowed to get patents on features that it in turn collected millions for inventing and will collect hundreds of millions for, if allowed to stand, as this is the ony Diesel applicable for airplane, cruiser, and railway work.

I think that Kettering, of General Motors, or who is named as inventor of these features, should be compelled to prove how he developed them, that he did in fact invent them. My letters are on file in the Navy patent office describing these features. "Uniflow scavenging and welded steel construction" applied to two-cycle. I thought, in my naive innocence, that revealing to the President or Navy was equivalent to a patent.

I offer that Kettering and Sloan of General Motors built yachts in 1929 with Winton old-style four-cycle, and I know positively they were not interested in two-cycle at that time, for I tried to sell the ideas before I went to Russia. They would never adapt these ideas without promise of financial support from the Navy. Now, Bessemer and others are going two-cycle and I have not been paid a cent by anyone. My Russian experience cost me ten thousand.

The Winton engines are defective as they are like a lot of kids and depend on ballyhoo and don't know or care what they are doing. I omitted revealing my type head which requires no valves, and they substituted four poppet valves for exhaust in the head. These are impossible to cool and warp and gave trouble even in the administration building at the fair, they have caused the *Zephyr* to be towed in by a steam engine, and I have repeatedly warned the Navy that they will give trouble in the subs.

The *Macon* and *Akron* and *Chicago* disasters, all under Roosevelt, are only the high spots that become public. There are a thousand minor mishaps that are covered up to the one the public knows of. The Navy is far below any other great power in efficiency per ton of ship. It is sure to be knocked over if it has to fight soon. I thought for a long time that this was just stupidity, due to the insularity of our naval men, lack of pressure on them, etc., and never having lost a war, overconfidence. But some things point to deliberateness.

The Navy is hostile to anyone of overaverage intelligence, in their ranks as officers as well as civilian employees. I have known several naval constructors forced to resign and draftsmen forced out. All were the best brains. I never knew the Navy to discharge anyone for stupidity. If you cover them they will cover you.

I know nothing of your committee, and my experiences with the House and Senate Naval Affairs Committees leaves me very skeptical of the power or desire of Congress to influence or reform the Navy. But I think that task will shortly be efficiently performed by outsiders, and I expect that Congress will cease to exist. If so, blame yourselves.

You would learn a lot by putting Mr. Kettering on the stand and asking the president of General Motors Research and the National Research Council to tell, under oath, just how he invented the Diesels he is so fortunate as to sell the Public Works Administration and the Navy. You might also be surprised if you put Admirals Land or Rock on the stand, and asked them a list of questions which I would be delighted to furnish you. I think you might learn about navies from them.

If I wanted an efficient Navy, I would make it a felony to be the head of a bureau under whose authority a major disaster took place. I would make the head primarily responsible, not the immediate commander on the ship or fleet.

But the Navy boys know their stuff. They get by. Go along for years and years, surviving all disasters and retiring on pension and all by keeping pesky fellows with brains out. They know that Congressmen are saps who wilt at "technicalities"—though anyone who can drive a car can understand a battleship.

Digitized by Google

Get Kettering and show him one of the two-page spread ads he is running in the Saturday Evening Post and ask him if every single statement in those ads is not a bare lie.

It is a lie that General Motors Research invented uniflow scavenging or welded steel applied to Diesels.

It is a lie that they were the first to build Diesels giving a horsepower for 30 pounds of weight or less. The M. A. N. Diesels in the German pocket battleships, dating back to 1927 are 17 pounds per horsepower. Junkers airplane Diesel is 3–4 pounds per horsepower. The Danish state railways had Bermeister & Waln Diesel locomotives "with through or uniflow scavenging back in 1928", these exhausted through the head, though I improved on it. I admit, and always did admit, it was from them I got the ideas of uniflow scavenging and upper exhaust. My invention is making these practical for ships by doing away with the upper cross head and connecting rods. Krupp had a good Diesel locomotive here in the United States in 1930 and in 1929, I believe. It was better than Wintons.

Over radio, in newspapers, and trade papers, and at the fair, Mr. Kettering has broadcasted his "inventions." The theft is of no moment except as an added cost to us in Diesel designs; if it were a good design, if Kettering actually knew what he was about. He knows absolutely nothing about Diesels; the Winton organization does not know what it is doing. The result will be crippled submarines when we need them. But do Admiral Robinson or Mr. Kettering lose sleep over it? Will they lose money over it? Will they go to jail if the subs limp, or get shot if we lose a war?

What is going to be done to the chaps who built the *Macon?*

Sincerely,

E. R. CARROLL.

NEW YORK, N. Y., *February 15, 1935.*

Chairman SIROVICH,
House Patents Committee, Washington, D. C.

DEAR SIR: I gather from newspaper reports that your committee is in charge of the inquiry concerning the *Macon* disaster. For this reason I wish to call your attention to the fact that in 1931, Mr. Glenn Wasson Parrish, registered architect, informed me that the present-day design of dirigibles was structurally weak. His prediction of structural weakness was confirmed by the *Akron* in 1933, and now by the *Macon.*

Since 1931, he has sought to inform the Goodyear Zeppelin Corporation of his deductions and calculations. The corporation would not send an engineer to New York to interview Mr. Parrish, nor would they pay expenses for him to come to Akron.

Mr. Parrish has invented a rigid type dirigible in which the present structural weaknesses are eliminated. The story of Mr. Parrish is contained on page 2 of Invention and Finance, a copy of which is enclosed herewith.

Mr. Parrish has requested me to inform you that he is willing to go to Washington to testify before your committee.

Very truly yours,

INVENTION AND FINANCE MAGAZINETTE.
EDWARD GOTTLIEB, *Publisher.*

DIRIGIBLE PIONEERING AND FALLACIES

(By Glenn Wasson Parrish)

(An article of constructive criticism. Upon request, permission may be obtained for reprinting)

The *Shenandoah* had been broken in two in mid-air as if struck by a giant hammer. The shriek of the tortured metal girders as they were torn asunder by the merciless savage forces of the maddened elements had echoed in the saddened hearts of millions of patriotic Americans. "It must not be again" was the cry that arose everywhere. The huge bulk of the first American-built lighter-than-air rigid airship lay like a fallen giant upon the Ohio countryside.

It was almost 8 years later when the second American-built airship, the famous *Akron*, pronounced by Admiral Moffet, "the safest airship ever built",

Digitized by Google

was caught in a storm off Barnegat Light on the Atlantic coast, and fell into the sea, carrying to their doom 73 officers and men of the United States Navy, including Admiral Moffett himself

What will be the fate of the new airship *Macon*? Is it not but a question of time until she also meets the tragic destiny of the *Shenandoah* and *Akron*? The history of American and foreign airship construction leads to the conclusion that only by the most careful maneuvering, and the most happy combination of circumstances can she escape this tragic end.

I was convinced when the *Shenandoah* disaster occurred and still am convinced that a radical departure from conventional methods of airship construction was and is now urgently necessary. Going deep into the technological problems involved, it will be seen how pitifully inadequate is the scope of the mental concept of present airship psychology. The bulky, clumsy, akwardness of this monstrous Frankenstein which has devoured the lives of the pride of the navies of the world, became so much more and more absurdly apparent as to strengthen my already deepening conviction that airship plans as at present applied to the problem must be completely junked. That conviction has become firmly cemented on the bedrock of hard uncompromising and uncontrovertible facts of science.

THE NAVY

The "finest traditions of the Navy" so heroically upheld by the stalwart officers and men, who perished in the saddest disaster of our time, the destruction of the ill-fated airship *Akron*, can best be maintained not by romantic lamentations of badly informed critics, but by a thorough debunking of claims, a frank exposure of popular fallacies, and a high patriotic and firm resolve that, as Lincoln has said, "These dead shall not have died in vain."

Glamorous traditions do not win battles; thrilling stunt flights do not pay dividends, nor ring up records for passengers carried and miles flown in safety and comfort. There are two kinds of traditions—those based on fundamental and basic truths of human, political, and social relationships, and those which have become mere archaic forms, existing by virtue of human sufferance, though based on false assumptions, which time has proven inadequate, and which are completely out of harmony with irrevocable laws, the existence of which is now known, but the presence of which past generations were ignorant.

Great popular fallacies live long and die hard. Of such nature are the methods of constructing lighter-than-air ships of which the United States Navy airship *Shenandoah* and the *Akron* were lamentable examples.

ZEPPELIN DESIGN

It is utterly absurd that these gangling unwieldy almost uncontrollable mammoths of the air can serve any reliable purpose except that of sporting dirigible power balloons designed for training daredevil and Navy aeronauts in the useful art of flirting with death and tempting fate.

So delicately constructed are these clumsy monsters that any ordinary summer thunderstorm accompanied by a little playful or prankish wind may rip open their thin and flimsy canvas backs and send them reeling and tottering like a half-intoxicated idiot, running wild and out of control.

Painful as the task may be, it is time that the utter fallacy of present airship philosophy should be exposed to the public view, not only for the good of the defense agencies of the United States but for the good of commercial aeronautics.

It is astounding that rational men should trust their lives to material that has, comparatively speaking, the strength of a paper bag. The flimsy gas bags of cotton, cloth, rubber, cement, etc., weighing not more than 5 ounces per square yard, and could be easily punctured by a small boy's rule, yet they are presented to the Nation as formidable instruments of warfare, capable of engaging an enemy fleet. One shrapnel shell from an antiaircraft gun, even if poorly placed, would end forever the career of any airship such as the *Akron* or *Macon*.

AKRON DESTRUCTION

C. E. Rosendahl, a former commander of the *Akron*, in a published article on the destruction of the *Akron* tries to present the argument that structural failure did not take place in the ship causing her fall, stern first, into the sea, but that down draft air currents in the center of the storm area forced her

Digitized by Google

descent. According to his account she was traveling with a forward engine speed of about 70 miles per hour, and this added to a tail wind of about 30 miles an hour caused her stern to strike the water with an impact of 100 miles an hour, which broke her back. This was the report of an inquiry by Congress at which only naval officers testified, and at which no disinterested testimony was offered. Would these naval officers have a credulous public believe that downward air currents continue indefinitely downward into the sea, carrying anything with them to destruction?

A German airship expert expressed astonishment at this lame explanation of the event, remarking that in all his long experience in flying ships he had not encountered air currents so peculiar as to be capable of driving a ship right down to the ground. This explanation even if true, discloses a most fatal weakness of this type of ship in that they are wholly incapable of landing on water areas, and are soon hopelessly swamped by an ordinarily disturbed sea Heaver-than-air ships or airplanes, designed to fly over large water areas are equipped to land safely on the surface in any moment of emergency.

There is no other logical explanation of the fall of the *Akron* except that her stern was damaged, thus releasing gas that made it impossible to rise again. Either explanation reveals the absurd folly of this system that has become outmoded and should be outlawed.

(Picture, aerial view showing wreckage of the U. S. S. *Shenandoah* which crashed in Ohio in September 1925, on file with the committee.)

Do the American people wish to offer any more lives on the altar of the "finest traditions of the Navy"? Do American taxpayers wish to continue to spend fabulous fortunes in treasure for these flying sepulchers that have been the doom of some of the best minds in aeronautical science? Not if they are apprised of the facts. Enlightened public opinion will demand something more than a mere structural gas bag that is so utterly lacking in those air-worthy characteristics that modern air travel requires.

PARRISH DESIGN

Over 2 years ago, I proposed to the Navy a practical plan for the construction of an airship that, facing a situation such as the *Akron* encountered would have been able to land on the sea more easily than a seaplane, and ride safely there while repairs were made to the damaged functions which caused the descent.

This plan called for a type of structural frame work and cell structure that could not be damaged under such circumstances by freak air currents. Such a ship would be waterproof and fireproof, would need no dock or hangar of any kind, and would not need a regiment of marines to haul it to safety every time Mother Nature indicated a coming fit of temperament. It was designed to carry seven times the load of the *Akron* and provided for a cell system that allowed for wide fluctuations in gas pressure under the varying conditions of flight.

Added to these advantages were increased lateral stability, axial propeller thrust, a great inherent longitudinal stability, compactness, and simplicity of construction and a simple and safe method of landing, without man power that completely eliminates this hazard from airship operation. However, Navy admirals with pet baby airship designs "Made in Germany" look askance at upstart hopefuls not in the social register. My plans were referred by the Navy to the National Advisory Committee for Aeronautics, that dreary graveyard of progressive inventive science. The letter intimated that an impartial view of the project would be given by this committee but the letter head of the committee stationery was emblazoned with the gold-braided names of Navy admirals who walk out of the die-hard counsels of hard-shell military matters, into the unbiased open-minded atmosphere of the committee rooms, in the same building, shed lightly the memory of their former loves and render a snap judgment without even bothering to thoroughly study one's plans. That is a model of ponderous, dignified, and weightily judicial fairness.

COMMITTEE RESPONSE

Imagine my amazement when I received a letter from the National Advisory Committee for Aeronautics containing statements that were cut cold, word for word from a book entitled, "Airship Design", by Prof. C. P. Burgess, of Massachusetts Institute of Technology, accusing me of proposing to control the

Digitized by Google

weight of airships by compressing air in containers and increasing weight to balance loss of weight by fuel consumption. Needless to say I had not proposed anything of the kind, but the letter plainly indicated that neither the Navy Department nor the National Advisory Committee had bothered themselves to examine the plans and specifications carefully but had tossed off a form letter in reply, much as a gesture of one brushing off a fly.

Pestiferous inventors have brought to the world a fabulous mountain of wealth in endless mechanical inventions of many kinds. Yet endless patience and persistence is required to overcome the dead inertia of men who resent any outside attempts to have a thing done today differently than it was done yesterday. I urged that I did not propose to compress air or gas in tanks in my specifications sent to the Navy Department. The form letter did not quite fulfill the need in this case. I did propose control of buoyancy by heating and controlling temperature of gases in the gas cells of the airship. This called forth another choice excerpt from Professor Burgess' book.

Reaching for a book and referring to chapter and page is the neat method by which the National Advisory Committee for Aeronautics disposes of troublesome questions, problems, and incidentally, cranky inventors. It seems to me a function of the Advisory Committee to advise the American public regarding the nature and contents of technical works, since they apparently have little first-hand information or experience of their own that may form the basis of conclusions. They cited the weight of the apparatus required to heat the gas, using Prof. C. P. Burgess' argument. I pointed out that more than three times the necessary heat required for the purpose was available from waste heat in the exhaust and jacketing of the engines. But nothing disturbs the smug self-complacency of Government bureaus; figures and facts mean nothing where traditions must be upheld and a false prestige maintained.

AERONAUTICAL EXPERT

Imagine my surprise when upon presenting my proposals to an aeronautical expert of national reputation, I was told he could not pass judgment without going into technical questions involved very thoroughly. He immediately invited me to cooperate with him in experiments to prove the aerodynamic efficiency of my proposed design. Surely this great aeronautic authority, with many years of experience in design and research work, has much to learn from Navy admirals, who can dismiss these trifling matters with a snap of the fingers.

Can an intelligent and enlightened public opinion be aroused to a realization of the tragedy of the modern lighter-than-air ship, and brought to play against an absurd traditional policy of Government agencies, that persist in squandering public moneys on a type of aircraft which has long since been dismissed from consideration by every leading nation in the world?

Will Navy admirals see the light, or must we wait for another repetition of the *Akron* horror, before an enraged public forces the hand of a recalcitrant minority and relegates these man-killing monsters to the scrap heap?

I hope the awakening, which must eventually come, will precede another shocking disaster such as befell the brave men of the airships *Shenandoah* and *Akron*.

FRANCOIS MARCEL,
Brooklyn, N. Y., February 26, 1935.

HOUSE PATENTS COMMITTEE,
Washington, D. C.

GENTLEMEN: I have read the article of Roy W. Knabenshue, manufacturer of balloons, this day, February 26, in the New York Journal, page 24, and evidently he is trying to blame a dead man.

I wish to bring to your attention that I have written to our dear President, Franklin D. Roosevelt, April 10, 1933, outlining to him exactly what would happen to the *Macon*. It did happen just exactly as I had foretold it. The letter was transferred over to the Navy Department from whom I received an answer from Commander A. C. Read, thanking me for the information and I presume this is just as far as it went. However, in my letter of April 10 I was very anxious and told the President, by no means to go up in the *Macon*, nor Mrs. Roosevelt. If upon your request, you wish me to send you a copy of the letter of April 10 to President Franklin D. Roosevelt I will do so, which

Digitized by Google

outlines in detail the cause of the disaster as I predicted, which was the same cause for the *Akron*, but even if I had written to the President on that occasion I presume it would have received the same attention as for the *Macon*. I also suggested in my letter that a piece from the *Los Angeles* and a piece from the *Macon* be examined by chemists which is so necessary in all kinds of engineering and the real cause is actually the metal that has been used in the construction of the airship.

To my mind an airship is quite plausible, but should be made of an entire different construction as those made heretofore. It would answer all purposes of transportation and safety.

I have had several captains of the police department to whom I have demonstrated just exactly how the metal would vary in my laboratory and machine shop at the above premises and Captain Walsh questioned me if it is possible to write to the Government in regard to same which I did. It is very lucky that only a few men lost their lives and not the entire crew of the ship and it is surprising that they would not listen to someone that warned them in advance.

Yours very truly,

FRANCOIS MAROEL.

AERONAUTICAL PROGRESS AND THE MACON TRAGEDY

HEMPSTEAD, N. Y., *February 16, 1935.*

To the Chairman of the Patent Committee, House of Representatives, Washington, D. C.

Senator JOSEPH ROBINSON,
House of Representatives, Washington, D. C.

DEAR SENATOR ROBINSON: The United States Treasury has been and is traveling in a dark dirigible circle, led by superengineers insisting upon reckless aeronautical sacrifice.

I believe it is about time aeronautical progress and the *Akron* tragedy receives intelligent consideration.

I believe it is about time the Krammer separable safety device received practical consideration.

I believe it is about time the Krammer separable aircraft receives useful consideration.

I believe it is about time to consider a new useful means in place of an old destructive one.

Very often national matters never reach the right man.

Respectfully yours,

H. E. KRAMMER.

(Photograph of the U. S. Navy's dirigible *Macon*, which met with disaster is on file with committee.)

LEHMANN LAYS "MACON" COLLAPSE TO CONSTRUCTIONAL FAILURE

BERLIN, February 14.—Capt. Ernst Lehmann, commander of the *Graf Zeppelin* on many of its voyages, stated today that, in his opinion, the collapse of the *Macon* was due solely to a "constructional failure."

He said that both the *Akron* and the *Macon* had been constructed by Dr. Karl Arnstein of the Goodyear.

HENRY E. KRAMMER,
Hempstead, N. Y., May 8, 1933.

To the honorable Committee Investigating the "Akron" Disaster, House of Representatives, Washington, D. C.

GENTLEMEN: I herewith wish to take the liberty of extending to you my sincere sympathy for the great loss of the honorable and brave men who went under with the *Akron*. New ships can be produced, but not leaders and men like the 73.

During my 25 years of aeronautical interest I have seen many ships going up and many of them going down—the airplane type and the dirigible type—and do know at this time from my own study and experience that each success and each tragedy in aviation is an individual element each one by itself—so was the *Akron* tragedy, the *Shenandoah* tragedy and all other tragedies in England, France, Italy, and Germany.

Digitized by Google

Dirigible bridge engineering and helium transportation, while a perfect success mechanically and mathematically, is still an infant art.

Dirigible transportation is in the same stage of development as marine transportation was 20 years ago. Dirigible transportation shall continue to follow the road of development the ocean steamer followed.

Development of dirigible transportation depends on time, experience, and knowledge accumulated for building better and safer ships.

Dirigible transportation cannot be condemned without proper analysis, justice, and wisdom.

The lesson learned and knowledge gained from past history justifies me to write to the honorable committee investigating the *Akron* tragedy.

The *Akron*, while a mechanical and mathematical structural success, was far from perfection; the *Akron* represented and was an experimental ship, following a new road in dirigible engineering.

The *Akron* was, and the *Macon* is, a successfutl United States production.

As a matter of fact, the Navy accepted the *Akron* and operated the ship successfully 18 months.

As a matter of fact, the *Akron* could have never delivered 18 months of successful service structurally defective.

As a matter of fact the *Akron* could not have withstood the severe punishment fully 6 hours on the night of the tragedy, structurally defective.

As a matter of fact, the three survivors could never tell the tale, had there been any structural weakness.

As a matter of fact, the three survived men told the naval court with their own lips that not alone did they consider the *Akron* structurally perfect, but they also testified in open court that the lights were on the *Akron* and visible up to the time the ship went under.

THE NAVAL COURT REPORT

WASHINGTON, May 1.—The cause of the Akron disaster will ever remain in the "realm of conjecture", Judge Advocate Ralph G. Pennoyer today told a naval court of inquiry.

In his summation of the case he said:

"I believe the evidence shows that the officers and men of the *Akron* were well trained and skilled in the operation of this type of craft, and they performed their duties to the full limit of their abilities. In the light of hindsight, some may say that a certain course of procedure might have saved the ship.

"It may be accepted in the case of the loss of any craft at a certain place at a certain time that any change of action on the part of any individual directly or indirectly connected with the movement of such craft might have averted such loss. In this sense, and in this sense only, can allegation of direct or indirect individual responsibility for the loss of the *Akron* and the loss of life consequent thereon be supported.

"If any action taken in the light of hindsight be termed 'errors of judgment', clearly they were without negligence or culpability. This disaster is part of the price which must inevitably be paid in the development of any new and hazardous art.

"As someone has said, the minds of men have projected a fleet of such craft in the air and some day it must fly there."

"One important lesson was learned from the *Akron* tragedy, and that is, thunder storms must be avoided", concluded Mr. Maguire, counselor for the judge advocate.

I regard the counselor for the judge advocate with high respect, and while I agree with Mr. Maguire on some of his conclusions, I cannot help but disagree to a certain measure on some of the others.

Mr. Maguire stated in open court that the *Akron* disaster is part of the price which must unavoidably be paid in the development of the art.

The history of dirigible transportation goes way back to the early days of Count Zeppelin; the count was one of the first leaders on rigid dirigibles. Some of his ships went up and some of them went down, and while the *Akron* and the *Macon* type is a successful United States production, yet this type is far from a commercial or military success.

Engineers in the United States and Germany forge their way on one road, building giant ships with speed and comfort.

Digitized by Google

All the wonderful aeronautical equipment and speed the *Akron* possessed did not mean any more during the crash than does the finest traveling steamer having a cargo of human freight without the proper life-saving equipment in a disaster.

Emergency equipment is compulsory with marine transportation, why not with a flying experimental laboratory?

It is reckless to permit the transportation of passengers over land or water without the proper emergency equipment.

To transport human bodies without the proper emergency equipment is the equivalent of housing men, women, and children in one building without the proper life protection.

The superengineer insists on going through a steel wall, building giant ships, fast ships, and ships with smoking facilities, although all speed and comfort put together doesn't mean a thing in the world when life hangs at the edge of jumping overboard or sinking in deep sea.

It is not clear why a tragedy like the *Shenandoah* or the *Akron* must be the unavoidable price for developing the art. It is also not clear why everything went under in 30 years of dirigible engineering.

The lesson for detouring thunderstorms is old; there is nothing new about that, and is a poor defense for continuous aeronautical disasters.

Engineers right down to this very day strive for speed and comfort, while nothing effective or constructive has been accomplished to save life and property in a disaster, and so the future hope for protecting life during an emergency still rests on the realm of conjecture, which is the equivalent of other aeronautical tragedies.

The Navy declared that the *Akron* tragedy takes its place with other tragedies and it was a necessary risk.

Development of all scinetific military weapons is a national necessary risk, but there is one important element overlooked, and that is—each time a ship goes under without the proper emergency equipment, nothing effective or constructive is gained. Without it dirigible sacrifice is a perpetual aeronautical wound.

PROGRESS CANNOT BE ACCOMPLISHED IN THE DARK

I trust this letter will prove of useful service to the honorable committee of inquiry, I am,

Very sincerely yours,

HENRY E. KRAMMER.

DR. HENRY W. WALDEN,
New York, December 27, 1935.

Dr. WILLIAM I. SIROVICH,
24 Fifth Avenue, New York City.

MY DEAR DR. SIROVICH: I acknowledge your letter of December 19, enclosing for my inspection and comment the letter of the Commissioner of Patents referring to my cases. I herewith return the letter in accordance with your request.

The Commissioner's letter is correct except that he does not refer to the fact that the four applications starting with March 5, 1929, were all directed to the same broad invention, and have been part of a continuous attempt by me to obtain patent protection on this invention. These various new applications were filed to comply with the technicalities of Patent Office proceedure.

The present application was filed as a continuation of the prior application because the examiner was limited by Patent-Office proceedure from granting me claims commensurate with my invention. Claims had been allowed in the prior application covering the invention as applied to a machine using two-bladed propellers, and when this omitation was noted and the claims were inserted to cover the same invention with a three-bladed propeller, the examiner was unable to allow them without again searching the art, and this made it necessary to file the application over again.

The examiner in the new case now rejected all the claims, even those which had been allowed, so that 6 years after filing of an invention regarded by the important engineers in the industry as of great merit, I am still without any protection at all. I shall shortly enter my response to the latest Patent Office action, and shall have to await their future action which will likely take, as is usual, several months.

Digitized by Google

The routine delays have caused me great hardship, the effects of which I am still suffering and, if my request is proper, I will greatly appreciate your kind intervention so that I may receive prompt action, in my case, from the Patent Office.

Yours respectfully,

HENRY W. WALDEN.

DEPARTMENT OF COMMERCE,
UNITED STATES PATENT OFFICE,
Washington, December 17, 1935.

Hon. WILLIAM I. SIROVICH,
Chairman, House Committee on Patents,
Fifth Avenue Hotel, New York, N. Y.

MY DEAR DR. SIROVICH: I am in receipt of your letter of December 10, 1935, asking that you be advised of the facts in connection with certain applications for patent filed by Dr. Henry W. Walden, who recently testified before the Committee on Patents at the hearings held in New York.

Although Dr. Walden has filed other applications relating to photography and to the packing of coffee, the following are the only cases under his name which relate to the field of aviation:

On March 5, 1929, application, serial no. 344325, was filed in the Patent Office. The examiner made two actions in the case in which all of the claims were rejected as lacking novelty over the prior art or on the ground of new matter. After the second action the application was permitted to become abandoned on May 6, 1931.

On July 1, 1929, Dr. Walden presented application, serial no. 375228. This application was finally rejected on the ground that the claims presented were not patentable over the prior art. No appeal being taken, as provided by law, the applicant permitted this case to become abandoned on December 11, 1930.

A third application was filed on December 24, 1930, serial no. 504615. The examiner held that four claims in this case were patentable, and on January 29, 1934, the case was passed to issue. The applicant might have received his patent by paying the final fee of $30. After the allowance, the applicant endeavored to file a further amendment under the provisions of rule 78, but the amendment was not accepted for the reason that it would require a complete reopening of the prosecution. The final fee was not paid by the applicant, and the case became abandoned on January 29, 1935.

The fourth application, serial no. 2290, was filed on January 17, 1935. This application is still pending and is awaiting applicant's response to the official action of November 9, 1935, in which claims were rejected as lacking novelty in view of the prior art.

I shall be glad to supply any further information upon request.

Cordially yours,

CONWAY P. COE, *Commissioner.*

H. O. CHUTE, CHEMICAL ENGINEER,
New York, June 26, 1935.

WILLIAM I. SIROVICH,
Chairman, House Committee on Patents,
Washington, D. C.

DEAR SIR: Please accept thanks for hearings on patent pooling sent as we requested on June 20. We think this bill quite necessary. We note that the "may" in recording agreements is now a "must."

Section 3 might be changed as follows: "Each agreement referred to in section shall contain names", etc., and "previously recorded agreements shall be amended by a supplementary statement containing", etc.

Section 6 might be improved by the following: "If complaints * * * are filed with the Federal Trade Commission or the Commission" add also "the Commissioner of Patents shall send the Federal Trade Commission an abstract of all such agreements with names of patentees, assignees of; and numbers of patents held by each."

On page 21 you say: "The Federal Trade Commission could investigate the pooling", and Mr. Langham said: "They have that right now." While we believe they should, we think both the courts, Congress, and the people feel

Digitized by Google

that there is a special sacred right of patents above all other property and beyond what the Constitution gives. We have never heard of the Federal Trade Commission issuing a "cease-and-desist" order, based on a monopoly formed by patent pooling, nor can we recall any court action taken against such by any Federal court. We therefore suggest that perhaps another paragraph be added recognizing the "exclusive right" to the invention given by the Constitution, but asserting that any "patent-pooling" agreements will have no more rights than that of other property affected by the antitrust laws.

We hope you will find that there is merit in these suggestions.

Yours truly,

H. O. CHUTE.

JUNE 27, 1935.

Mr. H. O. CHUTE,
New York, N. Y.

DEAR SIR: In answer to your letter of June 26, relating to hearings on "patent pooling", the suggestions contained therein will be brought to the attention of the Committee on Patents at its next meeting on this subject.

Very truly yours,

EDWIN FAIRFAX NAULTY, *Secretary.*

AUGUST 3, 1929.

Memorandum for The Assistant Secretary of War.
Subject: Construction of paragraphs (k) and (t), section 10, act of July 2, 1926.

1. You have referred to me, informally, two memoranda, dated July 10, 1929, and addressed to you, in which the Chief of the Air Corps presents his views concerning the construction of paragraphs (k) and (t), section 10, of the act of July 2, 1926 (44 Stat. 787, 788), with reference to quantity procurement of Air Corps matériel in view of section 3709, Revised Statutes.

2. From an opinion, dated May 17, 1929 (JAG 163), in which this office considered the construction of paragraph (k), section 10, of the act of July 2, 1926, the Chief of the Air Corps, in one of the two memoranda in reference, after quoting—

"The quantity procurement, however, must be as the result of advertising pursuant to Revised Statute 3709"—

expresses the opinion that that conclusion is not consistent with the language of the act, and then continues, in paragraph 5:

"According to the view of this office, if this provision of the law does not mean that quantity procurement subsequent to and as a result of the experimental procurement cannot be made without advertising at the discretion of the Secretary, then it is mere surplusage and means nothing at all, for the law already authorizes such procurement after competitive bidding in Revised Statute 3709, as well as in paragraphs (a) to (e) of this act. The inclusion of the words 'without regard to the provisions of paragraphs (a) to (e)', in the opinion of this office, is subject alone to the construction that Congress intended to confer upon the Secretary the right, in his discretion, to purchase in quantity with or without competition if, as a result of experimental purchase, new or suitable designs considered to be the best kind for the Army or the Navy, as the case may be, are developed."

3. Paragraph (k), section 10, of the act of July 2, 1926 (44 Stat. 787), reads as follows:

"The Secretary of War or the Secretary of the Navy may at his discretion purchase abroad or in the United States, with or without competition, by contract, or otherwise, such designs, aircraft, aircraft parts, or aeronautical accessories as may be necessary in his judgment for experimental purposes in the development of aircraft or aircraft parts or aeronautical accessories of the best kind for the Army or the Navy, as the case may be, and if, as a result of such procurement, new and suitable designs considered to be the best kind for the Army or the Navy are developed, he may enter into contract, subject to the requirements of paragraph (j) of this section, for the procurement in quantity of such aircraft, aircraft parts, or aeronautical accessories without regard to the provisions of paragraphs (a) to (e), inclusive, hereof."

4. I find myself unable to concur in the reasoning outlined by the Chief of the Air Corps in his paragraph 5 quoted above. The provision, which he

Digitized by Google

suggests, is merely surplusage if it does not mean that quantity procurement after experimental procurement may be made without advertising, provides for quantity procurement subject to the requirements of paragraph (j) (as to citizenship) without regard to the methods of procurement presented by paragraphs (a) to (e), inclusive (i. e., competition among designers of equipment, followed by announcement of winners, and procurement from winners at prices fixed by agreement with them, or purchase of design, followed by construction of the equipment by the United States or by others for the United States). So construed, the provision has a purpose entirely apart from the matter of advertising in connection with quantity procurement.

5. Section 3709, Revised Statutes, stands as a distinct legislative enactment, and paragraph (k) must be construed in connection with that section, which provides that all purchases and contracts for supplies or services, excepting personal services, shall be made after advertising when the public exigencies do not require immediate delivery of the articles or performance of the services. Compliance with that section is mandatory, unless some other provision of law specifically provides to the contrary. Such a provision is found in the first portion of paragraph (k) authorizing procurement for experimental purposes "with or without competition." Such a provision is not found in the latter portion of paragraph (k) authorizing quantity procurement following experimental procurement. If it had been the intent of Congress that such quantity procurement should be made without reference to the mandatory provision of section 3709, Revised Statutes, as to advertising, the words "with or without competition" would similarly have been there inserted.

6. I am constrained to adhere to the opinion, expressed in the opinion addressed to you under date of May 17, 1929, that quantity procurement authorized in the later portion of paragraph (k), section 10, of the act of July 2, 1926 (44 Stat. 787), must be made after advertising pursuant to section 3709, Revised Statutes.

7. In paragraph 4 of the other of the two memoranda in reference, the Chief of the Air Corps, referring to the opinion of this office previously mentioned (J. A. G. 163, May 17, 1929), says:

"In the opinion of the Judge Advocate General, above referred to, approving the general method of establishing an approved list under procurement policies, the Judge Advocate General held that even though the known trade or sources of supply had been previously circularized as to service-test requirements when bids are invited 'the time of opening of bids should be set sufficiently far away so as to afford an opportunity for manufacturers to attempt to comply with the necessary requirements should they so desire.'"

8. The foregoing quotation from the opinion of this office, dated May 17, 1929, is incomplete in that it does not make clear that the matter quoted pertains, not to the procurement policy submitted by the Chief of Air Corps but to the hypothetical case stated by the Chief of Air Corps following his statement of the general policy proposed. The entire paragraph, from which the quotation was taken, reads as follows:

"In the hypothetical submitted case in basic memorandum it appears that the only contemplated circularization or advertisement is the giving of notice of the policy as a preliminary to securing samples for the service test. It is the opinion of this office that such a circularization could not be considered as an advertisement and request for bids. In the event that but one manufacturer submitted a satisfactory sample and it is decided to purchase a quantity of the articles, then notification should be sent to all known manufacturers that the department is in the market for the desired article in specified quantities, that no bids will be considered except from such manufacturers as have complied with the requirements set forth in the announced policy, and that opportunity is hereby afforded for those who desire to bid to submit samples and meet the other requirements of the policy. The time of opening of bids should be set sufficiently far away so as to afford an opportunity for manufacturers to attempt to comply with the necessary requirements should they so desire. Should there then be but one bid received from a manufacturer whose compliance with the requirements has placed him on the approved list, then, in the opinion of this office, it would be legal to award the contract to him, in the discretion of the Secretary of War."

Upon the general policy, it had been previously stated in that opinion:

"The notification that bids will be considered only from those whose names appear on the approval list is merely a restatement of the requirement necessary to secure a place on said list; and since they themselves are reasonable,

Digitized by Google

such a direction is reasonable. The authority to invite proposals implies an authority to prescribe reasonable terms and conditions. To announce under this authority that no bid will be considered which does not comply with certain direction is a proper exercise of such authority (13 Op. Atty. Gen. 510). It is the opinion of this office, therefore, that there is no legal objection to the submitted procurement policy."

It follows from the above that the necessity for setting the time for opening bids sufficiently far away to permit the submission and test of samples exists only when but one manufacturer has secured approval of a sample submitted in accordance with the policy. When two or more manufacturers have submitted and secured approval of a sample of a particular article, the requirements of section 3709, Revised Statutes, will have been satisfied if the circular proposal requesting bids affords the usual time for submission of bids without affording further time for presentation and test of new samples.

It is understood, of course, the circularization, or advertising, to the industry, or trade, inviting the submission of samples for test, will be comprehensive, so as to reach substantially the entire industry, or trade, and will be supplemented from time to time, at proper intervals, in order that new units may be advised of the opportunity to submit samples for laboratory and service tests.

9. In paragraph 6 of the memorandum last referred to, the Chief of the Air Corps suggests a form to be used by the Secretary of War in approving the award:

"The award in this case was made under the provisions of paragraph (t) of section 10 of the act of Congress approved July 2, 1926 (44 Stat 788), the contractor being the lowest bidder who has submitted an article that has satisfactorily passed the specified performance requirement of the Government and is the lowest responsible bidder that can, as far as is known, satisfactorily perform the work or services required to the best advantage of the Government."

That form is identical with the form of certificate to be signed by the contracting officer, proposed by the Chief of Air Corps in his memorandum of May 6, 1929, which was the subject of the previous opinion of this office dated May 17, 1929 (JAG 163). In that opinion this office made the following comment upon the form suggested:

"It is assumed that this certificate is not suggested in lieu of any of the requirements of R. S. 3744 and 3745, 41 U. S. C. A. 16 and 17, but is in addition thereto. It is suggested that the certificate take the following form instead of the proposed form:

" 'The award of the contract in this case was made under the provisions of subparagraph (t), section 10 (44 Stat. 788), approved July 2, 1926; 10 U. S C. A. 310 (t) the contractor in this case being the lowest responsible bidder that can satisfactorily perform the work or the services required to the best advantage of the Government.' "

The modified form thus suggested conforms to the statute and is, in my judgment, to be preferred over the form originally proposed. In order, however, to correct the inadvertent departure from the usual form of citation of a statute it is suggested that the form be made to read as follows:

The award of the contract in this case was made under the provisions of paragraph (t), section 10, act of July 2, 1926 (44 Stat. 788, 10 U. S. C. A. 310 (t)), the contractor in this case being the lowest responsible bidder that can satisfactorily perform the work or the service required to the best advantage of the Government.

E. A. KREGER,
Major General,
The Judge Advocate General.

MAY 17, 1929.

Memorandum for The Assistant Secretary of War.

Subject: Memorandum from Chief of Air Corps, dated May 6, 1929, re Construction of paragraph (t) of section 10 of Air Corps Act, and enclosing proposed policy in connection with purchase of goggles.

1. The Chief of the Air Corps, in basic memorandum to the Secretary of War submits questions as to a proposed procurement policy for aeronautical supplies as well as requesting opinions on the proper procedure to be followed in case such policy be approved. As an enclosure to the memorandum there is submitted a copy of the proposed policy relative to the procurement of aviators' goggles as well as a copy of a letter from the Comptroller General

Digitized by Google

(A 26201, Apr. 4, 1929), in which the Comptroller expresses the opinion that in quantity purchases the requirements of section 3709, Revised Statutes, as to advertising should be strictly observed and that in such advertising the needs of the United States, as ascertained by tests, be set forth in specifications that stipulate only the essential features necessary to meet the actual requirements so that there may be opportunity for full competition. The Comptroller further states that if the Government's requirements in the matter of goggles cannot be otherwise covered by specifications describing the needs, the requests for bids could specify the particular make or equal.

2. The proposed procurement policy briefly stated appears to be substantially as follows:

An announcement to all known responsible manufacturers of the particular part desired stating in effect that bids will only be received from such manufacturers as have submitted samples which have been subjected to actual service tests and been found satisfactory; that any manufacturer may submit samples to the Matériel Division to be subjected to experimental tests in accordance with existing performance specifications; that if as a result of the experimental tests, the sample appears to meet the Air Corps' requirements, then the Matériel Division may purchase for actual service test a quantity not to exceed (in the case of goggles) 10 pairs which will then be tested under actual service conditions; that manufacturers whose samples successfully pass this service test will be placed on the approved list for production procurement provided they satisfy the Matériel Division as to their manufacturing and financial capacity and technical skill; that quantity procurement will then be made from the manufacturers on such approved list, and bids from other concerns will be rejected.

3. It is assumed that the Chief of the Air Corps has in mind the procurement of aircraft parts and aeronautical accessories which do not fall within the provisions of subparagraphs (a) to (e), both inclusive, section 10 (44 Stat. 780) approved July 2, 1926, since the basic memorandum states that the contemplated policy is proposed to be enunciated under authority of subparagraphs (k) and (t) of section 10.

4. As to the procurement, without advertising, of samples for service testing there can be no legal objection in view of the express authority granted the Secretary of War in subparagraph (k) of section 10.

5. The quantity procurement, however, must be as the result of advertising pursuant to R. S. 3709. The Comptroller General expresses the opinion that such advertisements must be based on specifications which would not require purchases from a particular manufacturer; specifications that stipulate only the essential features necessary to meet the actual requirements so that there may be full opportunity for full competition. Or if such cannot be done, that the specifications in describing the needs of the Government specify a particular make or equal.

The Air Corps apparently believes such procedure impracticable and proposes instead to hold actual tests of samples, place the successful contestants on an approved list and draw specifications which, in effect, refused consideration of bids from others than the manufacturers on such proposed list.

Subparagraph (t) of section 10 authorizes the Secretary to award contract for aircraft, aircraft parts, or aeronautical accessories—

"* * * to the bidder that said Secretary shall find to be the lowest responsible bidder that can satisfactorily perform the work or the service required to the best advantage of the Government; and the decision of the Secretary of the department concerned as to the award of such contract, * * * shall not be reviewable, otherwise than as may be therein provided for, by any officer or tribunal of the United States except the President and the Federal courts."

It is apparent from the above that the Congress intended to place on the Secretary the sole responsibility for selecting the bidders who could satisfactorily perform the work or the service required to the best advantage of the Government, and that the only limitation placed on his power is that if there be more than one who can satisfactorily perform the work and who can perform it of equal advantage to the Government, then that the contract be entered into with the lowest responsible one of such two or more bidders.

It is equally apparent that the secretary personally cannot conduct the necessary investigation. The issuance by him of general regulations which will govern his subordinates is the proper exercise of his authority. It remains, therefore, to consider whether the proposed regulations or policy is a reasonable

Digitized by Google

exercise of the discretion vested in the Secretary and whether it will result in determining who are the responsible ones who can satisfactorily perform the work or service required and the relative degree of advantage to the Government. If the regulations will do this, then the bids themselves will determine who is the lowest and the intent of Congress will be effectuated.

The actual testing of the parts was contemplated by the Congress (subpar. (k), sec. 10), and therefore is a proper requirement in this policy. The requirement that manufacturers show satisfactorily their manufacturing and financial capacity and technical skill is a necessary element for the Secretary's consideration and is therefore a reasonable requirement of the policy. No time limits are set for submission of samples, therefore the approved list contemplated is not final but is subject to change as manufacturers comply with the prerequisite condition. Since the preparation of the list is predicated merely on said compliance with reasonable requirements, the list itself is merely an announcement that those whose names are contained thereon have met the basic requirements and is a reasonable administrative method of announcing such fact to procurement officers.

The notification that bids will be considered only from those whose names appear on the approved list is merely a restatement of the requirement necessary to secure a place on said list, and since they themselves are reasonable, such a direction is reasonable. The authority to invite proposals implies an authority to prescribe reasonable terms and conditions. To announce under this authority that no bid will be considered which does not comply with certain direction is a proper exercise of such authority. (13 Opin. Atty. Gen., 510.) It is the opinion of this office, therefore, that there is no legal objection to the submitted procurement policy.

6. The basic memorandum further asks whether—

"In the event this proposed policy is approved by you, and all known responsible manufacturers of goggles are advised of the same but only one manufacturer complies by submitting the required sample, your opinion is requested as to whether or not, under the provisions of the above-mentioned paragraph of the Air Corps Act, the circularizing of the known trade with the announcement of the policy referred to would be sufficient advertisement in compliance with the law so as to place the contract with the only manufacturer who complied with the provisions of the policy without further advertisement."

The answer to this involves a consideration of R. S. 3709. That provision was written into law for the protection of the Government (259 U. S. 75) in line with the wise public policy insuring to the Government the advantage of competition in making contracts for its supplies (22 Opin., Atty. Gen. 1). There is no express method of advertising described therein. The manner of advertising is left by the law to the discretion of the department advertising (15 Opin., Atty. Gen. 226) and he is justified in advertising to those who are able to do the work or furnish the supplies which he needs in his department. In such a matter he may exercise his own discretion as to that which shall be for the best interest of the public, and will carry out the policy of the statute by thus limiting his advertisements, when he shall deem it expedient to do so. (Id.)

In the hypothetical submitted case in basic memorandum it appears that the only contemplated circularization or advertisement is the giving of notice of the policy as a preliminary to securing samples for the service test. It is the opinion of this office that such a circularization could not be considered as an advertisement and request for bids. In the event that but one manufacturer submitted a satisfactory sample and it is decided to purchase a quantity of the article, then notification should be sent to all known manufacturers that the department is in the market for the desired article in specified quantities, that no bids will be considered except from such manufacturers as have complied with the requirements set forth in the announced policy, and that opportunity is hereby afforded for those who desire to bid to submit samples and meet the other requirements of the policy. The time of opening of bids should be set sufficiently far away so as to afford an opportunity for manufacturers to attempt to comply with the necessary requirements should they so desire. Should there then be but one bid received from a manufacturer whose compliance with the requirements has placed him on the approved list then, in the opinion of this office, it would be legal to award the contract to him, in the discretion of the Secretary of War.

Digitized by Google

7. In paragraph 5 of basic memorandum there is submitted a suggested certificate to be signed by the contracting officer awarding the contract reading as follows:

"The award in this case was made under the provisions of paragraph (t) of section 10 of the act of Congress approved July 3, 1926 (44 Stat. 788), the contractor being the only manufacturer in a position to satisfactorily perform the contract in that he is the only manufacturer who has submitted an article that passed the specified performance requirements of the Government and is the only dealer able to furnish satisfactory supplies that, as far as is known, have no counterpart in the commercial world."

It is assumed that this certificate is not suggested in lieu of any of the requirements of R. S. 3744 and 3745, 41 U. S. C. A. 16 and 17, but is in addition thereto. It is suggested that the certificate take the following form instead of the proposed form:

"The award of the contract in this case was made under the provisions of subparagraph (t), section 10, 44 Stat. 788, approved July 2, 1926; 10 U. S. C. A. 310 (t) the contractor in this case being the lowest responsible bidder that can satisfactorily perform the work or the services required to the best advantage of the Government."

For the Judge Advocate General:

HUGH C. SMITH,
Lieutenant Colonel, J. A. G. D.,
Chief, Civil Affairs Section No. 1.

UNITED STATES STEEL CORPORATION,
New York, December 9, 1935.

FAIRFAX NAULTY, Esq.,
Care of Congressman William I. Sirovich,
24 Fifth Avenue and Ninth Street, New York, N. Y.

DEAR SIR: In response to your request by telephone several weeks ago we have written a brief treatise on the alloy steels, along the lines you suggested. The article was not prepared and sent to you immediately after our discussion of the subject, as we understood that you intended to write us more in detail about your wants, and we were awaiting the receipt of your communication. A telephone call from Mr. Martin a few days ago indicated that there might be some misunderstanding about this, so we are sending you at once what we think covers the points you had in mind.

After these many years, allow me to assure you that it was a delightful surprise to come into touch with you again.

Yours very truly,

R. E. ZIMMERMAN, *Vice President.*

ALLOY STEEL

The progressive importance of the alloy steels is recognized by those who are interested in the products of the steel industry, either as producers or consumers. Twenty-five years ago the production of alloy steels in the United States amounted to 500,000–600,000 gross tons, or approximately 2 percent of the total, while at the present time, based on the figures for 1934, alloy steels account for roughly 6 percent of the total. Last year there were produced in this country more than 1,600,000 gross tons of alloy steel, and it is estimated that the figure for 1935 will be close to 2,000,000 gross tons. This will not equal, in tonnage, the high point reached in 1929, when 3,957,000 tons of alloy steel out of a total of 56,443,000 set a record ratio for the material, but it will represent a proportion which compares favorably with the percentage for that year.

In thinking generally of the alloy steels, those who are not well acquainted with the subject are prone to consider them a wholly different species of material, not closely related to the better known carbon or so-called ordinary steels. There is thus some danger of securing a distorted impression, and one must realize that except for a few special cases, such as the stainless steels and some of the magnetic and heat-resistant alloys, most of the alloy steels

Digitized by Google

contain more than 90-percent iron. Various, but relatively small, percentages of alloying elements are added to molten carbon steel to form the commercial alloy steels in use today; this is because small proportions of such elements exert the necessary effects in a specific way.

There are almost innumerable grades of alloy steel on the market today, although 15 or 20 classes will account for the major portion of the tonnage. Sometimes only one special alloying element is added to the carbon steel composition, as, for example, in the well-known 3.5 percent nickel steel; or there may be two, three, or more elements, such as chromium and molybdenum, or chromium, nickel, and vanadium. Most steels these days are tailor-made for particular requirements; thus a composition best adapted for armour plate would not be most suitable for trench hats, and spring steel would not be good for parts of truck bodies. Notwithstanding the many elements and combinations from which to choose in making alloy steel, there are certain guiding principles, based upon metallurgical research, which serve to lead the steel maker into the right field, so that the final choice for a particular requirement may be made from possibly six rather than a hundred compositions.

Alloy steels are produced mainly by two methods—the open hearth and the electric furnace, the latter accounting for approximately 20 percent of the tonnage. Sometimes economic and sometimes metallurgical conditions dictate the choice of the process, but in certain instances the electric furnace must be used. For example, the highly alloyed stainless steels, containing usually more than 12 percent chromium, with or without nickel, are always made by the electric-furnace process. This is generally true, also, of the high-grade tool steels which are highly alloyed with such metals as chromium and tungsten.

Metallurgical research serves the field of alloy steels not only by searching out and deciding upon suitabe compositions or formulas, but also by devising proper methods of subsequent heat treatment, so that full advantage may be taken of the inherent qualities of the various grades. Different procedures may be necessary to accentuate different characteristics. For instance, in one case ductility may be the principal requirement, in another hardness is more important, in a third the resistance to shock or impact, and so on through the long list of specifications with which the steel maker is confronted.

The uses to which alloy steels are put are legion. One of the largest consumers is the automobile industry, because shafts, springs, connecting rods, valves, gears, axles, and other important parts are made of such materials. High-speed tool steels constitute another class of alloy steel used by practically all of the industries. In the manufacture of electrical equipment such as generators, motors, and transformers, silicon alloy steel is a prime necessity, and its quality profoundly influences the economy with which electric power may be used. Armour plate is a very special grade of heat-treated alloy steel. The same is true for turbine blades, propeller shafts, axles for electric locomotives, parts of airplanes, tractor shoes, harrow disks, tubes for superheaters and petroleum stills, and steam piping for modern naval vessels. Workable alloy steels of high strength and resistance to corrosion are now available for the construction of lightweight freight cars, and are being utilized for such purposes in the interest of ultimate economy. Parts of bridges are built of alloy structural steel. In the chemical and foodstuffs industries, the stainless steels are performing signal service, and in another direction the special heat-resistant steels are making new processes possible. All of the foregoing illustrate, but only in part, the extent to which industrial activities are aided by the application of alloy steel.

In view of the service rendered by these materials, it is evident that both producers and consumers are deeply interested in them. New processes and products are made possible by their availability, and they support in a multitude of ways the services of their cheaper relatives, the carbon steels.

Developments in the field of alloy steels are usually based upon systematic technical research, and may result from the efforts of either individuals or groups of individuals. It is almost impossible to dissociate most of the significant modern advances from the united efforts of the industries and their technologists, regardless of whether or not a composition or a process constitutes patentable invention.

R. E. ZIMMERMAN.

Digitized by Google

ALLOY OF METALS

QUESTIONS TO BE ASKED BY CHAIRMAN AND MEMBERS OF THE COMMITTEE ON PATENTS TO WITNESSES APPEARING BEFORE THE SPECIAL HEARING

1 (By the chairman). I am informed that the earliest use of alloys was by the ancient Greeks of the time of Homer, and that bronze was the metal in which, with copper as a base, the Greeks, by the addition of other meals, produced a new metal more suitable for arms and armor than copper in its natural state. With this as a start, other alloys were used as metals, and during the succeeding centuries followed still later by coating of metals for appearance sake, by electroplating.

In the last few decades, the amalgamation of various metals used as alloys with basic metals, notably with iron, has progressed to such a state that the present might be called the age of alloys.

2. Will you be good enough to give us a brief summary of the alloys used in combination with basic metals to improve the utility of a given metal. You might start with iron and steel. Then copper, tin, zinc, silver, gold, and other metals, with particular emphasis on such metals which are alloyed, used in the industrial arts and in household ware.

3. (NOTE.—After witness has finished his answer to number 2, ask him if the control of the metal used as alloy through ownership of its source of production, or control of the patent for process enables the owner of the source of production, or the owner of the process patent, to set up a monopoly extralegal from that granted by the control of source of supply, or control of basic patent.)

Will you give us such information as you may have concerning aluminum and duralumin? The committee would like to know particularly what elements are used to (*a*) reduce the degradation of aluminum by exposure to salt air or salt water (*b*) harden aluminum by use of any alloy, or (*c*) other metals commercially used for changing the nature of basic aluminum.

4. What proportion of the total output of basic aluminum is outside of the United States of America? How much bauxite is produced in the United States?

5. Does the American Aluminum Co. have a virtual monopoly of plate and ingot aluminum, and if so, how is this monopoly sustained, since whatever patents Hall may have have developed or acquired have now expired.

(NOTE.—Depending upon the answers of the witness, questions may be asked according to his testimony.)

6. What can you tell us about alloys used with copper? And do you know of any patents granted for the process of such alloys that give control to individuals or organizations of the resultant alloyed product?

7. What can you tell us about tin used as an alloy or plating?

8. What can you tell us about zinc used as an alloy or plating?

9. Besides its use for plating other metals and for flat and hollow domestic ware, is silver used as an alloy with any other metal. Please explain just what is German silver.

10. What proportion of control of the output of any alloyed metal is obtained (*a*) by control of source of supply; (*b*) by secret formula; (*c*) by process patents.

11. Please name and describe the new metals which have been developed through the use of alloys to form metals used in the industries which are not found in the state of nature?

LIBRARY OF CONGRESS,
Washington, December 2, 1935.

Hon. W. D. MCFARLANE. M. C.,
Fifth Avenue Hotel, New York City.

DEAR MR. MCFARLANE: We enclose herewith the requested study of "Patent Pools" which we promised on Saturday to send today.

Very truly yours,

FRED. W. ASHLEY,
Chief Assistant Librarian
(*For the Librarian*).

PATENT POOLS

Conflict of patent rights and the desire to avoid litigation has led to the formation of patent pools in a number of large industries. These pools take

Digitized by Google

a variety of forms; the simplest type is an agreement between two or more companies to permit the use of all patents held by any of them. Such a combination was formed by the Singer Sewing Machine Co., Howe and others in 1856, and continued until the expiration of the patents in 1877. The International Harvester Co., formed in 1902, was a combination of five manufacturing companies.[1]

The Standard Oil Co. of Indiana, the Galena Signal Oil Co. of Texas, and the Standard Oil Co. of New Jersey each developed methods of cracking gasoline independently and were involved in litigation when they came to an agreement whereby each company recognized the validity of the patents held by the other, and granted the other irrevocable and nonexclusive license to use its patents in its plants or those of subsidiary companies.[2]

The purchase of a competitor has offered an effective means of acquiring patent rights and of eliminating competition. This was the plan employed by the National Cash Register Co., which was able by this and other means to eliminate 153 of its 158 competitors in a period of 15 years. The predominance of the Singer Sewing Machine Co. was owing to the purchase of a competing company.[3]

Companies may form a merger in order to acquire rights to patents held by others. The Republic Iron & Steel Co. merged with the Steel & Tubes Corporation in order to get an electric welding process held by the latter. The National Rubber Machinery Co. is a merger of five companies formed for the purpose of giving the corporation rights to patents held by one company.[4]

It is a common practice for a company holding patents to lease the patents to other manufacturing companies on a royalty basis. The terms of such licenses often include an agreement not to bring suit for infringement of patents or for loss of profits owing to such alleged infringements during the term of the license. The manufacture of chromium ware is conducted under license from the owner of the patent who is not, himself, a manufacturer. The American Rolling Mill Co. has licensed many companies to make metal sheets by its patented mechanical process. The Onyx Hosiery Co. licensed about 50 companies to use its patent for the pointex heel. Glass manufacturing and many of the decorative arts are carried on under the license system.[5] Lieutenant Colonel McMullen, judge advocate, United States Army, stated on February 20, 1928, before the Senate Commitee on Patents that the United States Government is licensed for the use of a thousand radio patents.[6]

Another form of license directly related to patent pools is the licensing of patented machines. The United Shoe Machinery Co. did not sell its machines to shoe manufacturers but leased them on such terms as to maintain a virtual monopoly in the manufacture of shoe machinery. Under the terms of the lease the manufacturer was required to lease all the numerous machines used in the manufacture of shoes from the United Shoe Machinery Co. While this was not an absolute condition of the lease, manufacturers who did lease all their machines were given so much more favorable terms that it amounted to a monopoly, and an injunction against the company was obtained in the United States Supreme Court in 1922.[7]

Motion-picture equipment is leased by the Electrical Research Products Corporation, a subsidiary of the American Telephone & Telegraph Co. The contract of lease binds the theater operator not to use the equipment of any other manufacturer during the terms of the lease, which is for 10 years. The company holds title to the equipment while the operator pays the taxes and assumes liability for any injury to workmen employed in installing or operating the equipment.[8]

Suit for injunction was brought by the United States against the International Business Machine Corporation and others on March 26, 1932. The

---

[1] M. W. Watkins, The Change in Trust Policy, Harv. L. R. vol. 35, p. 930; House Furnishings Industry, Report of the Federal Trade Commission (1924), vol. III, p. 155.

[2] 283 U. S. 163, 168 (1931); the text of the agreements was printed in 33 F. (2d) 626 and ff.

[3] Van Hise, Concentration and Control, p. 190; House Furnishings Industry, vol. III, p. 155.

[4] J. A. Murphy, Merchandising Through Mergers, pp. 12, 22.

[5] Industrial Combinations and Trusts, edited by W. S. Stevens, p. 237; Murphy, pp. 143–145.

[6] Forfeiture of Patent Rights on Conviction Under Laws Prohibiting Monopoly, Hearings, Senate Committee on Patents, 70th Cong., 1st sess., p. 85.

[7] Trust Legislation, Hearings, House Committee on the Judiciary, 63d Cong., 2d sess., pp. 1034–1038, 1751–1753, 258 U. S. 451.

[8] Suits for Infringement of Patents, Hearings, Senate Committee on Patents, 71st Cong., 2d sess., pp. 35–38.

Digitized by Google

companies involved in the suit are charged with leasing machines at prices agreed upon and of requiring the lessees not to use any tabulating cards not purchased from the company leasing the machine.[9]

Another type of patent pool is formed through trade associations. One of the earliest of these was the Selden Patent Association, which was succeeded by the National Automobile Chamber of Commerce in 1914. The patent pool covers all patent rights to automobiles but not designs or accessories. No royalties are paid except when they are due a company not a member of the association. The patent pool has not given any manufacturer an advantage over the others. Each company turned into the pool about as many patents as it received.[10]

The Manufacturers' Aircraft Association was formed on the advice of the War and Navy Departments to administer patents covering airplane manufacture. The industry was in such confusion that the Government was unable to supply its needs for war without such an arrangement. Attorney General T. W. Gregory, in a letter of October 6, 1917, informed the Secretary of War that the Aircraft Association and the license agreements under which it operated were not in contravention of the antitrust laws. Without the license agreement it was almost impossible for any company to manufacture an airplane without infringing some patent.[11]

The Vacuum Cleaner Manufacturers' Association was organized in 1919 by manufacturers licensed under the Kenney patent. When this basic patent expired in 1924 the members of the association decided to pool their other patents. The plan was never carried out.[12]

The most complex form of patent pool is the holding company whose function is the holding and leasing of patents. The Iowa Washing Machine Co., formed in 1907, continued to license manufacturers until its basic patents expired in 1921. The National Household Devices Co. was organized by 25 manufacturers of washing machines, as a holding company to lease patents and defend the company from infringement suits. In 1921 this company came into conflict with a similar company, the Maytag Co. The suit ended in a compromise by which all the patents of both companies were pooled.[13]

The Radio Corporation of America was organized in 1919 under a Delaware charter to acquire patents and patent rights by purchase in cash, property, shares, or obligations of the corporation and to act as a selling company for products made under the patents held by it. The formation of this company was an incident in the development of radio communication in this country. The General Electric Co. was about to sell to the Marconi Co. of America, a subsidiary of an English company, one of its basic patents which would have made the British the leaders in radio communication. The Navy Department raised objections to the sale of this patent outside of the United States. The General Electric Co. offered to refuse to sell to the Marconi Co. if the Navy Department would sanction the formation of an American company to buy the Marconi interests in America. Secretary Daniels withheld his consent on the ground that he favored Government ownership and control of radio communication; but the Radio Corporation of America has repeatedly stated that the company was organized with the approval of the Navy Department.[14]

On May 13, 1930, the United States filed a petition in the district court of Delaware charging the Radio Corporation of America with forming a combination in restraint of trade. A consent decree was entered November 21, 1932, by which the agreements between the companies having contracts with the Radio Corporation of America were modified to the satisfaction of the Government.[15]

In defense of patent pools, the argument most often advanced is that under conditions of modern industry with rapid developments and frequent improvements it is impossible to conduct manufacturing without infringing some patent. Moreover, one company may develop one patent but need rights to

[9] Annual Report of the Attorney General, 1934, p. 22.
[10] Murphy, Merchandising Through Mergers, pp. 145–147.
[11] Operations of the United States Air Services, H. Rept. 1653, 68th Cong., 2d sess.; Opinions of the Attorney General, vol. 31, p. 166.
[12] House Furnishings Industry, Report of the Federal Trade Commission, vol. III, p. 4.
[13] Ibid., pp. 28–30.
[14] Forfeiture of Patent Rights, Hearings, Senate Committee on Patents, 70th Cong., 1st sess., p. 6; Radio Industry, Report of the Federal Trade Commission, pp. 3–29; see especially the letter of A. G. Davis, Hearings, Senate Committee on Patents, 70th Cong., 1st sess., p. 152.
[15] Annual Report of the Attorney General, 1934, p. 28.

Digitized by Google

use patents held by other companies to perfect the invention and put the commodity on the market. Maj. E. H. Armstrong, radio inventor and adviser to the Radio Corporation of America, in his testimony before the Federal Trade Commission stated that it would have been absolutely impossible to manufacture any kind of workable apparatus without the licenses owned by competing companies. Commander E. H. Loftin, who had made a special study of cross-license agreements for the purpose of disclosing their effect upon radio activities of the United States Government, also testified that without access to the patents of rival companies radio apparatus could not have been developed by any one company. One patent by itself may be worthless but in combination with other patents it may be of great value. The necessity of combining patents to meet a war emergency have already been pointed out in the aircraft industry.[16]

Patent pools offer many opportunities for abuse. The alleged protection of patent rights may be made a cover for other practices not related to patents. Contracts for license to use patents often contain provisions not directly related to patents. Price-fixing arrangements and conditions of sales are frequently included in such license agreements. A patent monopoly often exists after the patents have expired. This was true of the International Harvester Co. The Singer Sewing Machine Co. continued its virtual monopoly in the manufacture of sewing machines after its patents had expired. Agreements for the division of territory were included in the Standard Oil Co. contracts and in the General Electric Co.'s foreign contracts though they have since been modified. Patent contracts have been used to cover unpatented articles. Threats for suits for infringement of patents are brought for purpose of intimidation of competitors who cannot afford the cost of defending themselves although they may be certain that their title to their patents is clear. Smaller companies have been forced to take out licenses and pay royalties rather than face the cost of suit. When threats against a company fail, there may be resort to threats against the company's customers. A company may prefer to take out a license rather than lose a valuable customer.[17]

There is considerable difference of opinion as to the effect of patent pools on the price of patented commodities to the consumer. On the one hand it is contended that the high cost of royalties makes sales prices high; on the other it is contended that without patent agreements the cost of constant litigation would eventually be borne by the consumer in higher prices of commodities. Royalties may be regarded by the manufacturer as an insurance against suits, and with this security he can lower his prices and improve his plant. It was found that the airplane manufacturers were selling aircraft at a margin of profit intended to take care of any future infringement suits. The security offered by the pooling of airplane patents permitted the manufacturers to lower their prices. Royalties required by the Aircraft Association were actually lower than those demanded by the Wright-Martin Corporation alone..[18]

Companies operating under American Rolling Mill Co. licenses reduced the price of rolled metal from $6 to $10 a ton. Eleven vacuum-cleaner manufacturers made an average profit of 36.2 percent in 1920, a fact which is attributed to patent monopoly. It was charged that the American Telephone & Telegraph Co. had levied a tribute of upward of $25,000,000 on the theaters for equipment and $50,000,000 for service and inspection, above the cost if they had been able to get their equipment from independent companies.[19]

The organization of a patent pool does not always imply a lessening of competition. Manufacturers who feel that competition is inevitable will adopt a liberal license policy in order to enjoy the royalties. The license system enables the small manufacturer to compete with the large firms because he is privileged to use the best and latest inventions, whereas if he were dependent upon his own patents or those he is able to buy he would be restricted by the amount of capital available for the development of new patents.[20]

---

[16] Radio Industry, Report of the Federal Trade Commission, pp. 24–28; D. L. Podell, and B. S. Kirsh, Patent Pools and the Antitrust Laws, Am. B. A. J. August 1927.
[17] House Furnishings Industry, vol. III, pp. 31–37; Hearings, Senate Committee on Patents, 70th Cong., 1st sess., pp. 15, 28–29; 71st Cong., 2d sess., pp. 31–33; S. Rept. 698, 68d Cong., 2d sess.
[18] Opinions of the Attorney General, vol. 31, p. 167.
[19] Laidler, Concentration of Control in American Industry, p. 299; Business Week, Jan. 10, 1931, p. 22; H. Rept. 1653, 68th Cong., 2d sess. Hearings, Senate Committee on Patents, 71st Cong., 2d sess., p. 34.
[20] Murphy, Merchandising Through Mergers, pp. 142, 150.

Digitized by Google

The General Electric Co. and the Westinghouse Co. were able to eliminate competition in the manufacture of watt-hour meters as long as their patents were valid and there has been no effective competition in that field since the patents expired.[31]

When the patent pool is held by an association of manufacturers, competition can be eliminated by not admitting new members to the association. The Vacuum Cleaner Manufacturers' Association did not admit new members and the only way of acquiring a license under the association patents was to buy out the entire business of a member of the association.[32]

It has been said that the Radio Corporation of America buys up new patents which it does not develop, but which are valuable only as a means of maintaining a monopoly.[33]

The formation of a patent pool in the airplane industry opened the way to free competition by all manufacturers, who had equal use of all patents held by the association on equal terms.[34]

DECEMBER 14, 1935.

HARRY L. HOPKINS,
Works Progress Administrator, Washington, D. C.

DEAR MR. HOPKINS: Your recent interpretation of the Works Progress Administration in terms of increased national wealth prompts my reopening with you an effort at relief organization made by me several years ago.

In December 1933, I wrote the President urging consideration of a relief program for inventors comparable to the one established for artists. I submitted—

1. That inventors as a group represent a considerable percentage of our population.
2. That they are a representative cross section of our population and our occupational activities.
3. That the type of man and mind engaged in this exacting and often discouraging work is of economic value and worth sustaining.
4. That the economic loss of arrested invention may be incalculably great and that while idleness in a depression appears to increase the number of patents, it does bring inconceivable obstacles into the path of serious research and invention.
5. That penury attents the inventor in the same degree that it does the artist, although it is not publicly dramatized.
6. That aside from subsistance, the costs of research, experiment, model building, and patent application far exceed the costs of paint and canvas.
7. That compensation for their labors, i. e., returns from their patents are obstructed by economic pressure, particularly the cost of legal protection.
8. That invention is the fountain of tomorrow's national wealth (your theme). It is invention that releases the potentialities of raw materials, creates new products for the expanding appetite of our consumers, and provides new and productive labor for our people in all the steps required to bring a product from the mine to the sales counter.

My purpose, as you see, is at some variance with the recent recommendation by the Science Advisory Board, which proposed limiting patents with a working tax. This apparently ingenious view of Messrs. Compton, Kettering, etc., would curb inventive effort and put a premium on "soldiering" progress as practiced by big business.

It would be in keeping with the expressed views of the present Government for its agencies to encourage and foster every creative thought that might bring with it new enrichment in the planning of town or house, in transmitting message or experience to the senses, that would increase health and comfort, leisure, and cultural pursuits.

Obviously, for an inventor program under Works Progress Administration there would have to be an administration with its geographic subdivisions and competent administrative boards made up of engineers, heads of technical colleges, and public figures of unquestioned integrity—

1. To provide a hearing for applicants.
2. To select plausable projects.
3. To determine capacity and diligence of applicants for developing the projected inventions.

---

[31] S. Doc. 46, 70th Cong., 1st ses., p. 121.
[32] House Furnishings Industry, vol. III, pp. 7–9.
[33] Federal Trade Commission Report, Radio Industry, p. 24.
[34] National Advisory Committee for Aeronautics, Annual Report, 1917, p. 18.

Digitized by Google

4. To determine and assign subsistence means and period to give patent council access to experimental shops, etc.
5. To serve as a central clearing house through which patents would be brought to the attention of potential users in established industry.

I submit, if we believe as Lewis Mumford says, "The age of invention is the age of man", then support and encouragement of the inventor and his labors at this time would contribute some of history's brightest pages in the twentieth century.

Very truly yours,

NATHAN GEORGE HORWITT.

WORKS PROGRESS ADMINISTRATION,
Washington, D. C., December 17, 1935.

MR. NATHAN GEORGE HORWITT,
745 Fifth Avenue, New York.

DEAR MR. HORWITT: Thank you very much for the ideas submitted in your letter of December 14 to Mr. Hopkins.

To receive the fullest consideration for them, I should say they should be submitted to the appropriate congressional committee.

Yours very sincerely,

JACOB BAKER, *Assistant Administrator.*

DEPARTMENT OF COMMERCE,
UNITED STATES PATENT OFFICE,
Washington, December 27, 1935.

MR. NATHAN GEORGE HORWITT,
745 Fifth Avenue, New York City.

DEAR MR. HORWITT: It is suggested, by way of response to your inquiry of December 22, 1935, that you consult Hon. William I. Sirovich, chairman of the Patents Committee of the House of Representatives. Dr. Sirovich's committee has recently conducted important hearings in New York with the purpose of investigating alleged pooling of patents, etc. A number of witnesses were summoned or invited to testify.

Dr. Sirovich is the highest authority on the work of his committee and undoubtedly would be glad to receive from you any facts or recommendations likely to be of assistance to the investigation. He lives at the Fifth Avenue Hotel in New York. It is believed that he can be reached in New York this week. He had not yet returned to his hotel in Washington when called there today.

Very cordially,

GRATTAN KERANS,
Administrative Assistant to the Commissioner.

(This letter leading to my phone call.)

QUESTIONNAIRE TO BE SENT TO CURTISS-WRIGHT CORPORATION, R. C. A. BUILDING, ROCKEFELLER CENTER, NEW YORK, N. Y. IN RE: H. R. 4523

1. Give date and place of incorporation.
2. Furnish list of companies entering into the Curtiss-Wirght combine.
3. Furnish copy of organization plan submitted to the stockholders of the various companies desired as members of the combine.
4. Names and addresses of the organization group.
5. Furnish business affiliations of the individuals forming the organization group.
6. What was the paid-in capital as of the date of organization? (Not the paid-in capital of the individual companies being merged.)
7. What banks were represented in the organization group?
8. What financial companies other than banks were represented in the organization group?
9. Furnish copy of public statement issued at the formal incorporation of the Curtiss-Wright Corporation in 1929.

Digitized by Google

10. Is the Curtiss-Wright Corporation essentially a holding company or is it a merger of the companies entering into the group?

11. Was the statement published in the Wall Street Journal of August 13, 1929, and attributed to the officers of the company, correct in stating that companies entering into the Curtiss-Wright Corporation would not be pooled but each would retain its own financial set-up?

12. What assets, if any, have been transferred from the individual companies to the Curtiss-Wright Corporation?

13. Furnish names and addresses of stockholders of the Curtiss-Wright Corporation, owning 5,000 or more shares of stock of the corporation.

14. What part, if any, did the Curtiss Aeroplane & Motor Co. have in the formation of the Manufacturers Aircraft Association?

15. To what extent has the Curtiss-Wright Corporation benefited from the $200 per plane royalty required to be paid into the Manufacturers Aircraft Association?

16. Of what subsidiary companies of the Curtiss-Wright Corporation is F. H. Russell, president of the Manufacturers Aircraft Association—an officer or director?

17. Has the Curtiss-Wright or its subsidiaries opposed the purchase and pooling of airplane patents by the Federal Government?

18. What patents, if any, have been secured from individual inventors by the Curtiss-Wright Corporation or subsidiary companies since 1929?

19. Furnish a list of patents belonging to patentees not connected in any way with the Manufacturers Aircraft Association which are being used regularly by the Curtiss-Wright subsidiary companies without the payment of royalties, for the period 1929–35.

20. What amounts, if any, have been paid by the Curtiss-Wright Corporation or its subsidiaries since 1929?

21. What amounts have been paid to the Curtiss-Wright Corporation by the Manufacturers Aircraft Association since 1929?

22. Furnish a list of important inventions or developments, if any, made by the Curtiss-Wright Corporation or its subsidiaries during the past 5 years.

23. Does the Curtiss-Wright Corporation procure patent rights from independent inventors or does it use any patents or devices desired, and trust to the Manufacturers Aircraft Association to defend it from infringement suits?

24. What amounts, if any, have been paid to independent inventors or patentees by the Curtiss-Wright Corporation or its subsidiary companies since 1929?

25. Does the Curtiss-Wright Corporation enter into negotiations or submit bids to Government agencies on airplanes and engines, or are such transactions carried on entirely by the subsidiary companies?

26. To what extent are the operation policies of the subsidiary companies dictated by the Curtiss-Wright Corporation.

27. What percentage of Government contracts are secured by the Curtiss-Wright Corporation, by means of:

(*a*) Competitive bids.

(*b*) Negotiated contracts without competition.

28. Does the Curtiss-Wright Corporation or its subsidiaries arrange with independent inventors for the use of their patents on a royalty basis or purchase such patents outright?

29. On Government contracts does the Curtiss-Wright Corporation or its subsidiaries agree to stand between the Government and any claims for infringement on patents of independent inventors?

30. Has the officers and directors of the subsidiary companies of the Curtiss-Wright Corporation any actual authority in determining the busiuess and operating policies of their respective companies?

31. Are any of the officers or directors of the Curtiss-Wright Corporation or its subsidiaries, officers or directors of the Manufacturers Aircraft Association?

32. Has the Curtiss-Wright Corporation or its subsidiaries and predecessors received the $4,000,000 agreed to be paid to the Curtiss-Aeroplane & Motor Co., and the Wright-Martin Aircraft Corporation, by the Manufacturers Aircraft Association?

33. What is the attitude of the Curtiss-Wright Corporation toward the question of the purchase and pooling of airplane patents by the Government for the general benefit of the public?

34. Would not such an arrangement tend to stimulate the progress of developments in aircraft and aircraft engines?

Digitized by Google

35. Does not the Curtiss-Wright Corporation, and the United Aircraft & Transport Corporation exercise a virtual monopoly of the airplane-engine business in this country?

36. What officers and directors, if any, are former officers of the Army and Navy?

37. Furnish copies of annual reports to stockholders for the period 1929–35, inclusive.

38. Furnish copies of prospectuses prepared and used for the sale of securities of the Curtiss-Wright Corporation since August 9, 1929.

39. Does the Curtiss-Wright Corporation or its subsidiaries have contracts or agreements with foreign countries whereby the airplane patents and developments made by virtue of Government funds, are open to such countries?

40. Does the Curtiss-Wright Corporation operate as a holding company or as an investment trust?

41. If the subsidiary companies forming the Curtiss-Wright Corporation handle their own operations and deal with their finances, what function has the Curtiss-Wright Corporation other than that of an investment trust?

42. Furnish a satement showing present officers and directors of the Curtiss-Wright Corporation and subsidiary companies, and state their business and financial connection.

HARTOL PRODUCTS CORPORATION,
New York, N. Y., March 26, 1935.

Hon. WILLIAM I. SIROVICH,
Chairman, Committee on Patents, House of Representatives,
Washington, D. C.

(Attention Mr. Edwin Fairfax Naulty, clerk.)

SIR: As president of one of the largest, if not the largest, independent oil-marketing companies of its type in the United States, I should like to outline below briefly a situation which, while of direct interest to this company, is more particularly a matter of such paramount public interest as to require, in my opinion, the careful, thorough, and complete consideration by the Committee on Patents of the House of Representatives, of which you are chairman.

The Ethyl Gasoline Corporation, commonly understood to be owned one-half by the Standard Oil Co. of New Jersey and one-half by the General Motors Corporation through a patent monopoly, exercises absolute control of tetraethyl lead, a product used to control and regulate antiknock value of motor fuels for internal-combustion motors.

I believe such an investigation as I have in mind will disclose that:

(1) Ninety-five percent or more of all the so-called premium motor fuels consumed in the United States contain tetraethyl lead.

(2) That the General Motors Corporation in conjunction with the Standard Oil Co. of New Jersey have for some years progressively changed internal-combustion motor design to require motor fuels of progressively higher antiknock or octane rating, thereby requiring the public to purchase tetraethyl lead compounds in progressively increasing amounts.

(3) That the same group of interests simultaneously dominating the control of certain petroleum-refining patents through the device of the commonly referred to cracking patents pools in the exercise of control of these patents along with control of ethyl franchises discriminate against independent oil refiners and marketers to the unfair advantage of themselves.

(4) That the unreasonable restraint of trade and substantial lessening of free and open competition resulting therefrom:

(*a*) Imposes an inequitable and unfair burden upon the independent units in the industry.

(*b*) Exacts enormous tribute from the public for premium prices ranging from 1 to 4 cents per gallon of motor fuel as purchased by the public directly or by the Federal, State, and other political subdivisions.

(*c*) Eliminates the independent refiner and marketer as bidders on all public contracts for the so-called premium gasolines.

(*d*) Places the successful and efficient operation of aircraft, tanks, and other forms of transport in the interests of national defense in the hands of the Ethyl Gasoline Corporation and its affiliates.

(*e*) Represents interest inimical to the welfare of the United States through possible agreements with foreign governments and foreign interests.

Digitized by Google

(5) That this so-called premium gasoline probably constitutes 80 percent of all gasoline now currently consumed in the United States.

For these and other reasons, I believe it the duty of your committee to hold public hearings on this subject, and I am confident that if you agree and will publicly announce a definite time for such hearings sufficiently in advance of the hearings, say at least 10 days, to permit witnesses from California and Texas and other distant parts of the country to be heard from, sufficient factual data will be developed not only which will astound the country with its very nature but will provide sufficient material for the consideration of your committee and the Congress as to point the way for new and constructive legislation of most decided benefit to the American people.

I have authorized our Washington representative, Mr. John H. Nelson, 721 Southern Building, Washington, D. C., to supply you or obtain for you such further information as may be pertinent to this request for the indicated public hearing.

Respectfully yours,

FRANK C. HART, *President.*

EXCELSIOR SPRINGS, MO., *April 4, 1935.*

Hon. WM. I. SIROVICH,
Congressman, Chairman, Patent Committee.

Commend you your resolution investigate Ethyl Gasoline Corporation; urge you solicit Department of Justice assistance.

DICKEY REFINING CO., *Wichita, Kans.*
SUNRAY OIL CO., *Tulsa, Okla.*
CUSHING REFINING & GASOLINE CO., *Cushing, Okla.*
SHAMROCK OIL & GAS CO., *Amarillo, Tex.*

KILGORE, TEX., *April 5, 1935.*

WILLIAM I. SIROVICH,
Chairman of Committee of Patents, House of Representatives.

With reference to your investigation into the activities of the Ethyl Gasoline Corporation, for your information we have endeavored to obtain a license for the use of ethyl lead compound. The only reply we get from the Ethyl Gasoline Corporation is that they are sold up. We have since found that this is their reply to every refiner that is not fortunate enough to be included in the major group of refiners or as a member of the so-called "patent club." Their activities are, in our opinion, clearly in restraint of trade. They have further so misinformed the public as to the qualities that tetra ethyl lead imparts to gasoline, and even though he can manufacture a product without lead that will be equal in an automobile, we cannot sell in competition with lead since the test that they have developed, namely the Octane number, is misleading in that the Octane number is measured at 900 revolutions per minute of the motor instead of 2,200 revolutions per minute, which is the average turnover of an automobile motor and at which speed the leaded gasoline drops off as compared to a straight-cracked petroleum product.

SOUTHPORT PETROLEUM CO.

UNITED STATES SENATE,
COMMITTEE ON AGRICULTURE AND FORESTRY,
February 7, 1935.

Hon. WM. I. SIROVICH,
Chairman, Committee on Patents,
House of Representatives, Washington, D. C.

DEAR CONGRESSMAN: I enclose herewith a letter from one of my close friends in Kansas, Mr. Charles G. Yankey, lawyer of Wichita, Kans., making certain suggestions with reference to amendments to one of your bills.

I would appreciate it very much if you would give consideration to Mr. Yankey's suggestions and let me know what would be your reaction relative to the amendments proposed by him.

Thanking you for this courtesy, I am

Sincerely yours,

GEO. MCGILL.

Digitized by Google

FEBRUARY 13, 1935.

Senator GEORGE MCGILL,
Washington, D. C.

DEAR SENATOR MCGILL: This will serve to acknowledge receipt of your letter of recent date inclosing communication from Charles G. Yankey, of Wichita, Kans. I note with very keen interest the suggestions set forth in Mr. Yankey's letter and shall avail myself of his information.

With every good and kind wish to you, I beg to remain,

Very sincerely yours,

W. I. SIROVICH.

LAW OFFICES OF YANKEY, OSBORNE & SEARS,
Wichita, Kans., February 4, 1935.

Hon. GEORGE MCGILL,
United States Senate Building,
Washington, D. C.

DEAR SENATOR: I have been advised that the Hon. William I. Sirovich, chairman of the Committee on Patents in the House, has introduced a bill requiring the recording of patent-pool agreements and contracts. I have seen a copy of the bill, and its general purpose is good, though it seems to me that some severer penalty should be attached to it for failure to record the pooling agreements.

It seems to me that the penalties ought to be in the nature of some provision affecting infringement suits of the patents involved or even cancelation of the patents while not recorded in accordance with the requirements of the act. I rather assume that the bill was filed with the idea of introducing the subject matter into Congress so that it could be amended and made effective.

The idea to be accomplished, and which to my mind is a very worthy idea, is that through these pooling arrangements the companies in the pooling arrangements can maintain combinations and trusts, and there is no way to get at this situation, because the arrangements are so secret that you cannot know or find out the true facts. The recording of these instruments will bring to light all of these combinations and will be particularly effective if the right to bring infringement suits was barred upon failure to record these pooling arrangements.

I am also suggesting, at least as a matter worthy of consideration, that, in patent-infringement cases where the patents are owned by pooling combinations, it would be a good, valid defense against infringement that the patents were owned or controlled by combinations in restraint of trade and were maintained for the purpose of creating monopolies.

I am particularly interested in this matter, because, as I told you in the talk that I had with you about the patent situation, particularly in the gasoline-cracking industry, this situation has become a mere racket, and the time has come for some legislation which will straighten up the present racket going on.

I am writing more particularly to call your attention to this and to invite your interest in the general situation. The bill as proposed, in my opinion, does not go far enough. I believe your energetic support of some measure of this kind will meet with hearty approval of your constituents.

I am going to write to Jack Houston along these same lines.

With very kind regards, I am,

Yours truly,

CHAS. G. YANKEY.

CONGRESS OF THE UNITED STATES,
HOUSE OF REPRESENTATIVES,
Washington, D. C., February 8, 1935.

Hon. WILLIAM I. SIROVICH,
House of Representatives, Washington, D. C.

DEAR COLLEAGUE: I am enclosing herewith for your information copy of the letter I received from Mr. Charles G. Yankey, Wichita, Kans., a part of my congressional district, which is self-explanatory.

Digitized by Google

This is the matter about which I spoke to you this morning. I have written Mr. Yankey that I had referred his letter to you for attention when a hearing is held on the bill mentioned in his letter.

Will await your reply in this matter.

Very sincerely yours,

JOHN M. HOUSTON.

LAW OFFICES OF YANKEY, OSBORNE & SEARS,
Wichita, Kans., February 4, 1935.

Hon. JACK HOUSTON,
Member of Congress, House of Representatives Office Building,
Washington, D. C.

DEAR MR. HOUSTON: There has been introduced in the House, which has been referred to the Committee on Patents, a proposed bill entitled: "Providing for the recording of patent-pooling agreements and contracts with the Commissioner of Patents", by Hon. William I. Sirovich, Chairman of the Committee on Patents. This bill is of special interest to the oil business and to the refineries. Its purpose is to bring out from under cover the many patent-pooling agreements by which some of the larger interests are trying to make it tough on the smaller companies.

The bill, in my opinion, is not far-reaching enough and not severe enough in its penalties. As it is now written, it only provides for money penalties for failure to comply with the bill.

The primary object to be reached is to expose combinations and monopolies in restraint of trade, so as to subject them to prosecution and also to give the injured party an opportunity to ascertain these contracts so that private suits for damages can be brought.

I am not writing particularly to make suggestions in regard to the bill but more particularly to enlist your interest and your favorable attitude toward the general purpose sought to be accomplished. I intend to write a letter to the Honorable William I. Sirovich, making some suggestions as to what the bill might contain, but in writing you and in enlisting your support, I believe your activity in this respect would meet with the hearty approval of all of your district interested in the oil business.

The pooling of patents, more particularly those relating to processes of cracking gasoline, have become an instrument by which a regular racket is being perpetrated. The larger companies are interested in these pooling arrangements, and through their united effort it becomes virtually impossible for the smaller companies to defend against alleged infringement, and some legislation with respect to this matter is becoming a very pressing necessity.

I have written Senator McGill enlisting his support. In writing you, as I am, I am not only expressing my own ideas but the ideas of a substantial number of the smaller companies interested in the oil business. With kind regards, I am

Yours truly,

CHAS. G. YANKEY.

FEBRUARY 13, 1935.

Hon. JOHN M. HOUSTON,
House of Representatives, Washington, D. C.

MY DEAR COLLEAGUE: This will serve to acknowledge receipt of your letter of recent date, enclosing a communication from Charles G. Yankey, Wichita, Kans., relative to H. R. 4523.

The Patent Committee will resume hearings on this bill Thursday morning, February 14, and if Mr. Yankey can arrange to appear before the committee, we would be very glad to hear what he has to say. These hearings will doubtless be continued next week. In the event Mr. Yankey cannot appear in person his suggestions shall be given appropriate consideration.

With every good and kind wish to you, I beg to remain,

Very sincerely yours,

W. I. SIROVICH.

Digitized by Google

GREENLAWN, LONG ISLAND, N. Y.,
February 16, 1935.

Hon. WILLIAM I. SIROVICH,
United States Congress, Washington, D. C.

DEAR SIR: Learning from the press about your interest in airships, I take the liberty of submitting to you for your consideration, and also for the committee headed by you, a blue print and a photograph of a model of the long-range autonomous airship, on the project of which I am working for quite a number of years.

It is my contention that by merely changing the shape of airship's envelope it would be possible to add greatly to its lifting force, which will permit the construction of ships that would be no more like a floating cobweb, readily destroyed by the ordinary wind.

The additional lift in this case would appear merely as a function of speed or motion of the ship through the air, or its byproduct, which in itself would not require any great increase in the power required.

In other words it would mean a more rational use of this engine power, and, with it, generally speaking, of the entire airship, which at present has an almost ridiculously low pay load, as compared with its size and cost, in addition to having an entirely insufficient factor of safety.

Besides this it also has a hundred other improvements in the construction of the ship and its operation, among which is a principle of vacuum or suction anchorage, which is another valuable feature, peculiar to this form of the airship's envelope, which will permit almost entirely to dispense with the ground crew and any other special landing and mooring facilities, the airship having a waterproof outer rigid covering, will become much like an ordinary sea vessel.

Believing that this, my project, has wonderful possibilities, I am submitting it to you, as its development may mean much to the country and its defense, and it might help the Congress in selecting and pursuing the right course in its future policy toward rigid airships.

Very respectfully,

NICHOLAS D. BELL.

(Photographs accompanying letter are on file with committee.)

FEBRUARY 14, 1935.

Congressman SIROVICH,
House Office Building, Washington, D. C.

HONORABLE SIR: Having noticed an item in the newspapers that you were interested in the patent features in connection with the construction of the *Macon*, I am herewith enclosing a copy of a decision of the United States Court of Customs and Patent Appeals, being patent appeal no. 3095, patent calendar no. 84, serial no. 57,586, *Hall* v. *Stahl*. Hall is the American inventor and president of the Hall Engineering & Aircraft Construction Co. Stahl is the German inventor whose claims are owned by the Goodyear-Zeppelin Corporation.

As you will note, the decision sustains Hall's claims to priority rights in the patents involved, which cover thermostatic control of the gas in dirigibles. I have marked in red pencil, some of the most important clauses, both in the majority and minority opinions. You will also note that the German patent claims cover only when the gas bag is empty and full, while the Hall claims cover and record the pressure at all times, and even the dissenting opinion admits that the Hall's device is "admittedly more substantial and probably more accurate."

The probabilities are that the Goodyear-Zeppelin Corporation used the patents and devices which they claimed to own, i. e., the Stahl devices. At least, we are led to believe that this was done in the construction of the *Akron* and *Macon*. Why was this when there are admittedly more substantial and more accurate devices obtainable?

Digitized by Google

I am informed that in the argument before the court in the case above referred to, the attorneys for the Goodyear Co. argued that their company should be granted priority as they were a going concern and should be permit ed to use these Hall devices. That could easily be arranged for and should have been required in the specifications. During the building of the *Akron*, bo h the Goodyear-Zeppelin Corporation and the Navy Department were notified that the Hall Engineering & Aircraft Construction Co. held such paten s, among others. I also enclose herewith a partial list of patents held by said company.

Hoping that this may be of some assistance to you, I am,

Yours very truly,

HENRY J. MERDINK,
Attorney for Hall Engineering & Aircraft Construction Co.

Patents of Hall Engineering & Aircraft Construction Co., 407 Pacific National Building, Los Angeles

Number	Issued	Title
1420313	June 20, 1922	Aircraft propellers (cone)
1449098		
1449099	Mar. 20, 1923	Aircraft (vertical propellers)
1449100		
1470163	Oct. 9, 1923	Aircraft propellers (cone)
1471656	Oct. 23, 1923	Aircraft (vertical propellers and gas cell)
16164	Nov. 11, 1924	Aircraft (mothercraft) reissued Sept. 15, 1925
1547912	July 28, 1925	Aircraft (mothercraft)
1628961	July 31, 1928	Pressure, temperature, and volume indicating and controlling means for aircraft
1653849	Dec. 27, 1927	Thermal circulation systems for aircraft
1653902	do	Aircraft (adjustable gas cell)
1653903	do	Aircraft wings
1653904	do	Thermal circulation systems for aircraft
1659098	Feb. 14, 1928	Aircraft propelling mechanism
1667002	Apr. 24, 1928	Aircraft (adjustable lift by gas cell)
1676549	July 10, 1928	Aircraft (adjustable wings)
1681637	Aug. 21, 1928	Aircraft landing and housing devices
1682961	Sept. 4, 1928	Pressure, temperature, and volume indicating and controlling means for aircraft
1686084	Oct. 2, 1928	Aircraft (heating means)
1686130	do	Aircraft (cylindrical containers)
1687203	Oct. 9, 1928	Aircraft (adjustable propellers)
1687204	do	Gas storage systems for aircraft
1720041	July 9, 1929	Safety parachute devices for aircraft
1740068	Dec. 17, 1929	Aircraft propelling mechanism
1777063	Sept. 30, 1930	Storage and conveying mechanism for aircraft
1788430	Jan. 13, 1931	Aircraft propelling mechanisms
1792738	Feb. 17, 1931	Aircraft (detachable heavier-than-air craft)
1795334	Mar. 10, 1931	Aircraft (multiple control)
1795335	do	Dirigible constructions
1797502	Mar. 24, 1931	Aircraft (adjustable gas cell)
1834614	Dec. 1, 1931	Air cells for aircraft
1868975	July 26, 1932	Propeller drive mechanism
1868976	do	Do.

United States Court of Customs and Patent Appeals. Charles S. Hall, appellant, v. *Karl Stahl, appellee.* October term, 1932, Patent Appeal No. 3095, Patent Cal. No. 84, Serial No. 57586

GRAHAM, Presiding Judge: An interference proceeding was instituted and declared by the United States Patent Office on December 1, 1928, between the patent of the appellant, Charles S. Hall, no. 1682961, of September 4, 1928, granted on an application filed March 6, 1926, and the application of the appellee, Karl Stahl, filed June 28, 1920. The subject matter at issue is improvements in mechanism for recording the pressure and volume of gas cells in lighter-than-air aircraft, of the type ordinarily known as rigid or semirigid. There are two counts in the interference, which are as follows:

"1. An aircraft having a gas-holding compartment therein, automatic pressure responsive means associated with said compartment, a station remote from said means and electrically operated means at said station connected with said first-mentioned means for indicating the pressure in said compartment.

"2. An aircraft having a gas-holding compartment therein, said compartment, including a movable portion, a member automatically responsive to movement of said portion, a station remote from said member and electrically operated

Digitized by Google

means at said station connected with said member for indicating the changes in volume of said compartment."

These correspond with claims 16 and 17 of the Hall patent, and are copied therefrom by the appellee.

The appellee claims the benefit of the so-called Nolan Act of March 3, 1921, 41 Stat. 1313, by virtue of a patent granted to him in Germany on August 8, 1918, and published there on March 28, 1922, covering the same subject matter. If he is given this date, his disclosure antedates that of Hall by a considerable period.

After the declaration of the interference, Stahl moved to dissolve, claiming a statutory bar because of his German patent aforesaid, and moved for judgment. Hall also moved to dissolve on several grounds, to wit: On unpatentability of the Stahl disclosure, inoperativeness, and because the counts of the interference to not read upon the Stahl disclosure.

The law examiner denied both motions. An order to show cause was thereupon entered, and the party, Hall, abiding by his motion, a decision awarding priority to Stahl was rendered by the examiner of interferences, which, on appeal to the Board of Appeals, was affirmed as to count 1 and reversed as to count 2. A request for reconsideration was filed by Stahl, and, upon reconsideration, the Board of Appeals changed its decision and awarded priority to Stahl on both counts. In this decision the board held that both counts of the interference read upon the Stahl disclosure. Hall has brought the matter here, and urges, in this court, that the Board of Appeals was in error in holding that the counts of the interference read upon the Stahl disclosure. This seems to be the only question involved.

Hall's disclosure shows an outside frame, with an interior rigid gas container attached to said outside frame. The bottom of this gas container is vertically movable, and is so arranged, with flexible gas-proof fabric connections, that, as the volume of gas in the gas container varies, the bottom portion will rise and fall accordingly. As the volume decreases, the bottom will rise; as it increases it will be lowered, and these successive changes in volume are indicated by means of electrical connections on an indicator in the pilot's car, so that, at all times, the pilot is able to observe the exact condition of the volume of gas in his gas container.

There is also arranged within the gas container a pressure actuated diaphragm, connected with which is an operating rod. By means of this operating rod, electrical contacts are made, and the changes in pressure within the gas container are shown on an indicator in the pilot's car. The pressure diaphragm is so arranged that any change in the pressure of the gas in the container is recorded automatically. By this means, the pilot is constantly advised of the pressure within his gas container.

There is no doubt or uncertainty of the meaning of these counts, as applied to Hall's disclosure. Hall provides a means whereby the pilot may, at all times, be advised of the state of pressure and volume of his gas.

Stahl's application, and the showing made by his drawings and specifications, are, to a considerable degree, ambiguous. The foreign patent upon which he relies cannot be aided by presumption or implication, but can only be given weight according to the matters which are therein actually disclosed. *In re Gillam*, 17 C. C. P. A. (Patents) 877, 37 F. (2d) 959; *In re Dann*, 18 C. C. P. A. (Patents) 1031, 47 F. (2d) 356.

Stahl shows the round rigid frame of an airship, within which is shown a flexible bag or gas container. Whether the gas bag is attached to the rigid frame or not, does not appear. It also is now shown whether the gas container is elastic or not. Stahl's drawings are as follows:

Stahl provides a method of recording volume by means of a wire dependent from the point a2 of his gas container. This wire passes over a series of pulleys to an indicator in the pilot's car, where it is supposed to register the volume of gas in the gas container. Stahl's pressure recording device is a plate which, by pressure thereon, operates certain electrical contacts, and by which a bell, or alarm, is sounded in the pilot's car. Neither the specification nor drawings are explicit as to the location of this pressure recording plate. It seems probable, from figure 1 and from appellee's specification, that this plate is located in the bottom of the rigid frame of the airship between the frame and the gas container. Stahl admits, by his statements in connection with his amendment of July 19, 1931, the following:

Digitized by Google

"* * * Although this movement is transferred unto the plate of the indicating device by pressure, there is no registration of variations in pressure, but merely of variation of form, the gas bag on coming to bear unto the plate causing a contact to be closed, thus indicating the moment where the gas bag is 'full.'"

It is also manifest, from his specification, that Stahl does not pretend to give the various degrees of pressure within his gas container from time to time, but only provides such apparatus as will indicate when the bag is full and bears against the pressure plate. He states, in his specification, that "the transmission by means of the plate takes place only in the case of a completely charged cell, when it permits a careful supervision of its condition."

He also states that his device will record "the excess pressure", and this seems to be the entire object of his pressure-indicating means.

In this respect, as has been noted, whether the device will or will not record excess pressure is entirely conjectural, as the airship moves and inclines from side to side, and it is quite apparent that such pressure on the plate will vary according to the weight of the gas container which rests upon it.

As to the volume-registering device, it is quite apparent, from Stahl's specification, that he does not expect this device to register all changes of volume in his gas container, but only "certain variations of form." This device also apparently is intended to advise the pilot or operator when the bag is full of gas, because it is stated: "In its deepest position, which corresponds to the taut condition of the cell the weight E closes a switch *n* of an electric circuit, thereby operating an alarm."

Here, again, the operation of this device must be conjectural. Whether the bag or gas container, when deflated, will cause the tip a2 to be lowered, and thus lower the indicating device, is uncertain, and depends, to a considerable degree, upon the fixation of the gas bag in the rigid frame. Even the tribunals of the Patent Office were somewhat at a loss to appreciate just what effect would be caused by a filling or deflation of this gas container, so far as the recording is concerned. This condition also must certainly be influenced by the oscillations of the gas container, and of its fabric, as the aircraft moves through the air.

The most that can be said for the Stahl disclosure, as it appears to the court, is that he has provided means by which the pilot or operator may be warned of certain conditions at what may be deemed the most important time, viz, of full pressure and complete inflation or deflation of the gas container.

As we view it, the counts of the interference, while given their broadest possible construction, if ambiguous, must be read in the light of Hall's patent. Stahl contends that the counts, when reasonably read, are satisfied by a disclosure which shows that the pressure and volume of the gas containers are shown at certain critical or essential periods. On the other hand, Hall contends that the counts ought to be so read as to require a construction that such pressure and volume recording means show the pressure and volume at all times.

After carefully considering the disclosures involved, we are of the opinion that the appellant's contentions on this subject should be upheld. Count 1, it will be observed, calls for "automatic pressure responsive means", connected with the gas container for indicating "the pressure" in the compartment. It will be observed the count states *the* pressure, and not merely *pressure*. This language, to our minds, means a device for recording the pressure at all times. We are unable to conclude that this language is satisfied by a structure which at one possible time, which may or may not occur, according to conditions, records pressure. Especially is this true in view of the disclosure in Hall's patent, where all variations in pressure are recorded.

Count 2 also recites that the gas compartment includes a "movable portion" and a member automatically responsive to the movement of this portion. This language might be satisfied by the gas bag of Stahl, the lower end of which will move upward or downward, or from side to side, according to conditions. However, the succeeding language of the count recites that this automatic means will indicate "the changes in volume of said compartment." Here, again, we find the language *the changes*, and not *a change*.

We cannot escape the conclusion that this language intends a device which will indicate, not along the instant when the bag becomes full and taut, but other changes, and manifestly such changes as occur from time to time in the inflation or deflation of the gas container. This is essential knowledge for

Digitized by Google

the operator to possess. It is stated in Stahl's specification: "For this reason, it is of great importance for the pilot to be *constantly* informed with regard to the changing condition of the gas-cells." (Italics ours.)

Being of opinion that the counts of the interference to not read upon Stahl's disclosure, the decision of the Board of Appeals must be, and it is hereby, reversed.

Reversed.

United States Court of Customs and Patent Appeals. *Charles S. Hall, appellant, v. Karl Stahl, appellee.* October term, 1932, Patent Appeal No. 3095, Patent Calendar No. 84, Serial No. 57,586

BLAND, J., Dissenting.

This interference involves the mode of operation of a highly technical indicating device used on aircraft and balloons. It is not a subject matter with which there is much familiarity except by those skilled in the art. The opinion of the majority reverses the concurring decisions of the tribunals below upon highly technical questions passed upon by such tribunals.

The structures of the two contending parties, while they accomplish substantially the same result (which is called for in the counts) do it by entirely different methods. No doubt appellant has been allowed, or is entitled to the allowance of, a number of claims directed to his specific structure. In the two counts involved he has broadly asked for more than he is entitled to because, in my judgment, the broad subject matter of the counts is sufficiently disclosed in the application of the first inventor.

The majority opinion states that the Stahl application is ambiguous. It may be ambiguous or it may totally fail to disclose certain features not concerned with the involved counts, some of which features have been suggested in the opinion of the majority. Concerning the Stahl disclosure the majority opinion states:

"It is also manifest, from his specification, that Stahl does not pretend to give the various degrees of pressure within his gas container from time to time, but only provides such apparatus as will indicate when the bag is full and bears against the pressure plate. He states, in his specification, that 'The transmission by means of the plate takes place only in the case of a completely charged cell, when it permits a careful supervision of its condition.'

* * * * * * *

"This device also apparently is intended to advise the pilot or operator when the bag is full of gas, because it is stated: 'In its deepest position, which corresponds to the taut condition of the cell, the weight E closes a switch *n* of an electric circuit, thereby operating an alarm.'

"Here, again, the operation of this device must be conjectural. *Whether the bag or gas container, when deflated, will cause the tip a2 to be lowered, and thus lower the indicating device, is uncertain, and depends, to a considerable degree upon the fixation of the gas bag in the rigid frame.* Even the tribunals of the Patent Office were somewhat at a loss to appreciate just what effect would be caused by a filling or deflation of this gas container, so far as the recording is concerned. This condition also must certainly be influenced by the oscillations of the gas container, and of its fabric, as the aircraft moves through the air." (Italics mine.)

It is stated by the applicant Stahl in substance that the lower part of the bag to which the wire is attached will move up and down depending on the degree of inflation of depression of the gas bag. The Patent Office tribunals concurred in this view, but the majority opinion is to the effect that this is "conjectural." The device of Hall, although admittedly *more substantial* and *probably more accurate* in its reaction to the *pressure* in the gas bag, nevertheless moves up and down in proportion to such pressure.

Again, the following is found in the majority opinion:

"* * * Stahl contends that the counts, when reasonably read, are satisfied by a disclosure which shows that the pressure and volume of the gas containers are shown at certain critical or essential periods. On the other hand, Hall contends that the counts ought to be so read as to require a construction that such pressure and volume recording means show the pressure and volume at all times.

"After carefully considering the disclosures involved, we are of the opinion that the appellant's contentions on this subject should be upheld, Count 1, it will be observed, calls for "automatic pressure responsive means", connected

Digitized by Google

with the gas container for indicating "the pressure" in the compartment. It will be observed the count states *the* pressure, and not merely *pressure*. This language, to our minds, means a device for recording the pressure at all times. We are unable to conclude that this language is satisfied by a structure which at one possible time, which may or may not occur, according to conditions, records pressure. Especially is this true in view of the disclosure in Hall's patent, where all variations in pressure are recorded." (Italics quoted.)

In my view the above quoted part of the majority opinion involves error. The counts do not call for a means which will indicate a pressure *at all times*, although I am not satisfied that it will not do so. To say the least, it cannot be denied that there are times, during the inflation and deflation of a gas bag, that the Stahl device will indicate the condition of the bag by sounding an alarm or otherwise, as is shown in the application. It seems obvious that at such times it will indicate the pressure or lack of pressure occasioned by such inflation or deflation, and that the volume of the compartment occupied by the gas will thereby be indicated.

To invent a device which at any critical time during such process could cause an alarm bell to right, and thus indicate the gas pressure or the volume of the compartment taken up by the gas, would be a useful invention and would satisfy the counts at issue.

With due respect for the views of the majority, I know of no decision, either by the Patent Office or by any court, which gives the importance to the word "the" that is given to it by the majority. In effect, the majority holds that the statement in the count "indicating the pressure" is equivalent to a statement such as "indicting all of the pressure all of the time." This conclusion, I think, the majority is not warranted in making.

If the Stahl application does not disclose the subject matter of the counts involved, it would be difficult to state what patentable subject matter it does disclose. The effect, therefore, of the decision of the majority is to hold that appellee's application and German patent would be invalid. In this holding, I do not wish to participate.

Hatfield, J., concurs with the dissenting opinion.

SINGMASTER & BREYER,
METALLURGISTS AND CHEMICAL ENGINEERS,
420 Lexington Avenue, New York, April 19, 1935.

Hon. WM. I. SIROVICH,
United States House of Representatives,
Washington, D. C.

DEAR MR. SIROVICH: Thanks for your letter of the 17th, and the accompaning record of the hearings that have been held on H. R. 4523. My interest in this matter is disclosed in the attached tear-out from the American Paint Journal, which should interest you.

The 1,500 or more medium- and small-sized paint companies in the United States generally applaud the position, on this matter, taken by Beck, Koller, and set forth in the attached copy of their house organ, "By Gum."

Yours very truly,

FRANK G. BREYER.

BREYER COMMENTS ON PENDING ALKYD RESIN LITIGATION

EDITOR, AMERICAN PAINT JOURNAL:

A patent suit of great interest to all paint, varnish, and lacquer manufacturers is scheduled to be tried in Brooklyn next month before the Federal Court for the Eastern District of New York. The General Electric Co. is suing the Paramet Chemical Co. for infringement of the Kienle Patent No. 1,893,873.

The Kienle patent is one of a group of patents which have been pooled by General Electric, du Pont, American Cyanamid, and Ellis Foster. The pooled patents are the basis for a patent-license plan covering modified alkyd resins, which is similar in many respects to the licensing agreement which du Pont has established under the Duco patents for low viscosity nitrocellulose lacquers.

Mr. Charles Neave, assisted by Mr. Maxwell Barus, of Fish, Richardson & Neave, who tried the *Duco case* for du Pont, will handle this case for General Electric. Mr. George F. Scull and Mr. Newton A. Burgess, of Gifford, Scull & Burgess, will represent Paramet. Mr. William M. Grosvenor, assisted by

Digitized by Google

Mr. Glenn Pickard, are General Electric's technical experts. Mr. Charles L. Mantell has been retained for this purpose by Paramet.

The Kienle patent is only one of a number of patents in this field, the commercial development of which has been the result of contributions by many people. Besides determining the validity or invalidity of the Kienle patent, the trial and decision in this suit will most likely determine the scope of the patent, that is, whether it is sufficiently broad and sufficiently basic to control present-day manufacture and sale of alkyd resins and paints, varnishes, and lacquers, made with alkyd resins.

Coming so soon after the settlement of the *Duco case*, the outcome of the alkyd resin litigation will have an important effect in determining the further development of the paint industry. If the Kienle patent is sustained or a settlement favorable to the patent is effected, another important group of paint products may be controlled by patents, and those paint manufacturers who in the past have been satisfied to let others develop their raw materials while they concentrated their own attention on formulating and selling will find their activities further restricted. The natural result may well be the consolidation of smaller companies into groups large enough to develop their own new raw materials and to bargain on an equal basis with other large, combined raw-material and paint-manufacturing competitors.

Those interested in patent law will also watch this case closely, since it is likely to throw further light upon the relative importance of technical and legal points as compared with commercial development and success in patent litigation. This was the principal point involved in the *Duco case*, which was settled without a decision from the Supreme Court.

The case may also develop a considerable political importance since, as pointed out, its decision will have a powerful influence in determining whether the paint industry will remain, as at present, largely decentralized and composed of a great number of moderate- to small-sized, independent companies, or whether it will be concentrated in a few large groups. The tendency toward concentration of business into large units is causing some concern and has been the subject of considerable discussion in public print. The Federal Trade Commission has already asked Congress for power to stop the concentration of American business in the hands of large corporations.

FRANK G. BREYER.
SINGMASTER & BREYER.

NEW YORK, *January 9, 1935.*

PATENTS

Are they serving, as was intended, as protectors of individual development? Or have they degenerated to a mere method by which the strong are lawfully enabled to inflict hardships on the weak?

Does patent litigation, often a case of the large against the small or many against one, represent the modern attitude of the broad and fair-minded business executive? Does it express his feeling toward his fellow man? Or is it the culmination of a cleverly conceived plot * * * the brainchild of a legal mind * * * mentioned with malice aforethought, agitated through selfishness, and executed primarily for private financial gain?

We wonder.

It so happens that quite an imposing list of patents are registered under the Beck-Koller name, but this institution is inclined to look upon its registrations only as certificates of achievement and protectors of its customers—never as weapons with which to attack—or stumbling blocks to be placed in the path of progress.

BECK, KOLLER & CO., INC.

MILWAUKEE, WIS., *March 22, 1935.*

THE SHENANDOAH, AKRON, AND MACON DISASTERS

MILWAUKEE JOURNAL,
Milwaukee, Wis.

DEAR SIR: Since you published my letter suggesting that the hydrochloric acid of salt sea air might have damaged the aluminum alloy structure of the

Digitized by Google

Macon, causing the fatigue mentioned by Lieutenant Bolster; I received reply from Department of Aeronautics of the Navy Department, stating that careful tests of the metal had been conducted in the design and construction of the dirigibles, and citing that the *Graf Zeppelin* and *Los Angeles* had stood up for a considerable time as evidence that the metal was safe. These two dirigibles were both of German production, and in the China Weekly Review of February 23, last, a Japanese naval commander, who made the transpacific trip in the *Graf*, was quoted as being sorry for the United States of America in the loss of the *Macon*, stating that Germany was more careful in the construction of their dirigibles, evidently, than the United States of America, and that the *Graf* had made 50 trips between Germany and South America, and that Japan is preparing to import German dirigibles to commence commercial aviation. Brig. Gen. William Mitchell, testifying before the House Patents Committee (on the very same day that the Japanese naval commander made his statement, Feb. 14), strongly supported the argument for dirigibles, saying that "with a fleet of 50 Zeppelins properly manned and equipped, we could go straight to any Asiatic power and destroy it."

I have noticed in a recent news reel that the *Los Angeles* has been taken out of its hangar for a long voyage to nowhere. It is to be subjected to the elements to determine its resistance to weathering. I suggest it should be moored close to the sea to get the effect of the salt air.

There is one thing to be said for dirigible construction, it requires so much aluminum that the purchase has a beneficial effect on the aluminum market.

It is my inexpert opinion that, if those aeronautical experts connected with the construction and operation of heavier-than-air ships, felt free to voice their opinion of the fighting efficiency of the dirigibles, they would state that—

1. Dirigibles are only effective for surprise attacks at night, and the German attacks on London during the World War did not cause much harm except to the morale of the folks at home.

2. They are so slow compared to planes, and offer such large targets that they are helpless against modern plane attacks; even a war ship might plug one with its largest rifles.

3. The loss of men and equipment, including aeronautical experts, and the huge monetary loss due to the destruction of a dirigible by one vital hit would constitute great damage to the morale of the owners.

4. While able to travel great distances, the delicacy of its buoyancy adjustment is such that the dropping of several bombs sends the dirigible upward. It must release valuable gas to maintain its effective range.

A very illuminating article in the Atlantic for March, entitled "Breath of Life", by Stewart, explains the physical mechanism by which a fish maintains its depth in water. If the fish starts to go up, the tendency to rise is increased, and if it starts down, the tendency to descend is increased. It is the same with a dirigible.

In regard to the *Graf ueppelin*, I think that Dr. Eckener would be more appropriately named "Luckner." I wonder if Lloyd's offers reasonable rates of insurance on the lives of its passengers. That ship was nearly lost in the Rhone Valley of France, and again in a storm as it approached our Atlantic seaboard from South America; and I saw motion pictures of the transit of the Atlantic when Eckener Jr., was obliged, at the risk of his life, to attend to repairs to one of its elevating fins on the outside of its envelope, an ocean freight steamer appearing nearby in that gale.

If Japan wishes to buy 50 Zeppelins, as awkward as a white elephant, and playthings of the elements during a tantrum, and Japan has those periodical typhoons in season, I say let her go to it. We have our "balloon busters", as the World War displayed.

Three times, in connection with dirigibles, our pride has gone before a fall. Aeronautical experts of several nations have been killed in order to exploit Zeppelin's hobby.

The coming universal weapon of peace and war is the amphibious airplane, which will soon span the Pacific regularly. Let our enthusiasm be controlled by the weight of sad experience.

Very truly yours,

T. E. Brewster,
1019 East Lyon Street, Milwaukee, Wis.

I saw Knabenshue at Milwaukee State Fair guiding his first dirigible by walking forward and back on bamboo "cat-walk" years ago.

Digitized by Google

122 FOURTH STREET, SE.,
Washington, D. C., April 4, 1935.

DR. CHARLES G. ABBOT,
Secretary, Smithsonian Institution, Washington, D. C.

DEAR DR. ABBOT: I note a press comment (News) of yesterday which states that a phamplet has been prepared by the Smithsonian Institution which will be placed on the files and in which "students will be able to read the complete history of the early development of aeronautics, with due credit to the Wrights."

I am writing to urge you not to allow any publication to issue which adds to the long list of misleading documents regarding the actual facts of early aviation pioneering in the United States.

The American public, I believe, will not take kindly, when they learn the truth, to the many official and semiofficial publications which favor one or two pioneers through stressing their achievements while neglecting or ignoring their contemporaries' contributions. The completion of past histories has savored strongly of propaganda for certain aviation companies interested in selling stock to the American public.

Naturally your own high sense of honor and justice will lead you to eschew any such propaganda, but the methods and persuasion of the Air Trust proponents are very insidious and, unless we are on our guard, we may contribute to the delay of a real fact-finding effort which should now be made to correct the current mistatements respecting aviation history.

I shall always advocate due recognition for the Wright brothers, and will welcome any corrective statement which, while true to history, will tend to obtain for the Smithsonian Institution the original Wright plane. I believe I was one of those to aid the Wrights materially in the early days when, in 1910, I paid them (by recollection) about $12,000 for their participation in the Harvard-Boston aero meet; never shall I be numbered among their detractors, but I want also to see fair recognition come to Herring, Janin, and Fauber, heroes whose names have not been exploited for private gain as the Air Trust has exploited the name of the Wright brothers and, in doing so, deceived and defrauded the American public more fully than the famous Teapot Dome scandal ever threatened to swindle our people.

Enclosed please find (separate cover) copy of recent hearings on the Air Trust subject, and I ask you before issuing any statemnt as to who made the first actual heavier-than-air flights in the United States to allow me to present the facts of Herring's October 1898 flights. Also, will you join me in asking Congress for a special commission to hear and set out a true and authoritative report on this important matter?

Yours very truly,

JAMES V. MARTIN.

(Copy to Dr. William I. Sirovich, chairman, Patent Committee of the House of Representatives.)

APRIL 12, 1935.

Representative SIROVICH,
Washington, D. C.:

Because of your interest in the patent situation, I am submitting the suggestion that a Federal research institute be created, to educate and maintain "likely" inventors. The institution would own the patents secured by its workers.

Two possible advantages would be (1) the education of brilliant young men who can perform scientific work, and (2) the additional control over corporations.

WILLIAM S. KLEIN,
528 Eighth Avenue North, Seattle, Wash.

[Post-Intelligencer, Seattle, Wash., Apr. 12, 1935]

MOVE TO PROBE "PATENT POOLS" HELD ILL-TIMED—DEMAND FOR ARBITRARY CHANGE DECLARED REPRESSIVE; MORE ECONOMIC ACTIVITY URGED

(By M. S. Rukeyser)

NEW YORK, April 11.—America's preeminent need is more economic activity, more employment, more business volume.

Digitized by Google

In that direction lies the remedy for impaired family living standards and for chronic Federal budgetary deficits.

Yet well-meaning politicians and reformers continue to search their brains for arbitrary changes which will repress, rather than expand, business.

At this stage of recuperation, it would be socially desirable to postpone further operations on the body economic.

Even surgical treatment, which may be eminently desirable in itself, can be harmful if given in connection with too many other simultaneous remedies.

When the doctor fails to show restraint and patience in timing, the result is frequently that, though the operation has been successful, the patient dies.

In the spirit of complying with the popular demand for change, a movement has been started to investigate "patent pools" and Representative Sirovich has introduced a bill in Congress providing for the "recording of patent-pool agreements and contracts."

A newly formed organization, the American Economic Foundation, has been launched to give the public "the facts regarding present-day abuses of patent monopolies in restraint of trade" and "to assist and inform public opinion in remedying these abuses, and thus to secure for the American people the economic benefits of science and invention in history."

Doubtless the movement is well intentioned and high-minded, and over the long pull may be advantageous.

But at this juncture it is ill-timed, for, if successful, it would impose fresh barriers on enterprise and would intensify the forces making for hesitation rather than venturesomeness.

It seems to me that it is another expression of the rampant economic Puritanism which thrives on the illusion that business itself is a gigantic racket.

Only the astigmatic would argue that the handling of patents by business, large and small, had been free of abuses, but, if there are still monopolistic patent agreements, which result in unfair practices, there are means of correcting them under the existing antitrust statutes.

It would be a libel on organized business to assume that in the past the American people, with their superior living standards, had not received the "benefits of science and invention in industry."

Imperfect as business operations have been, they have nevertheless resulted in unprecedented productivity, and, in normal times, in an unparalleled diffusion of wealth.

LUBLUM STEEL CO.,
Watervliet, N. Y., February 27, 1935.

Mr. J. A. B. MCELVENEY,
Secretary to Hon. Parker Corning,
Washington, D. C.

DEAR MR. MCELVENEY: Thank you for your letter of February 25 addressed to Mr. Batcheller.

I appreciate very much your getting in touch with Doctor Sirovich about bill H. R. 4523.

The main thing about this bill that we are concerned with is section 2 which provides that copies of agreements can be furnished to anyone at 10 cents per hundred words. This is a feature which would be exceedingly bad as it would provide information to our competitors and others who have no right to the information.

I am attaching herewith a copy of the bill for your convenience.

Yours very truly,

COOLIDGE SHERMAN,
Assistant General Sales Manager.

GEORGE BAEKELAND,
New York, February 26, 1935.

Hon. WILLIAM I. SIROVICH,
United States House of Representatives,
Washington, D. C.

DEAR SIR: Referring to H. R. 4523 relating to registering patent agreements, the bill appears to serve no useful purpose and will create such great confusion as to be practically unworkable.

There may be no valid objection to recording patent agreements and contracts with the Commissioner of Patents, but to attempt to do this in the

Digitized by Google

manner outlined in the proposed bill is a thing which will cause an enormous amount of work and expense on the part of everybody concerned, since it relates to every conceivable kind of license or agreement affecting patents. Nor is it at all clear who in the complicated chain of licenses is to be responsible for keeping the record up to date. Grants of licenses and sublicenses in industry are so numerous and the contracts which convey rights under groups of patents or under patents which may be held in some particular field are so varied, that it seems to me that whoever drew the bill must be largely ignorant of the complexities of modern industry.

Take, for example, the matter of employees' patent contracts, which would seem to fall within the terms of the bill. These cannot specify in advance inventions yet unmade and yet after an initial filing it would appear that they must all be kept currently up to date by subsequent filings.

Very truly yours,

GEORGE BAEKELAND,
Scarsdale, N. Y.

COLGATE-PALMOLIVE-PEET CO.,
105 Hudson Street, Jersey City, N. J., February 14, 1935.

COMMITTEE ON PATENTS,
House of Representatives, Washington, D. C.

(Attention chairman of committee.)

DEAR SIRS: Our attention has been called to H. R. 4523 introduced by Mr. Sirovich and entitled "A bill providing for the recording of patent pooling agreements and contracts with the Commissioner of Patents."

We wish to protest vigorously against this bill. It proposes to throw out a dragnet for all agreements by which rights in a plurality of patented inventions are rendered subject to common ownership, etc., for no other apparent purpose than to enable anybody who chooses to go over the filed copies of such agreements to find out whether among the untold thousands which will have to be filed there are any which might be against the public interest. To put industry to the enormous expense and trouble which would be involved, and to require the disclosure of thousands of confidential business agreements which are perfectly lawful, is an utterly unwarranted method of obtaining the end sought. When we speak of expense we are not merely referring to the filing fees, though that may be no small item, but to the expense in time and money involved in assembling, copying, and certifying the papers required to be filed, and in supplying the supplemental statements which would probably, in most cases, have to accompany them.

Yours very truly,

COLGATE-PALMOLIVE-PEET CO.,
By MASON TROWBRIDGE,
General Counsel.

---

43 SHEFFIELD AVENUE, PAWTUCKET, R. I., *April 1, 1935.*

DR. WILLIAM I. SIROVICH,
Chairman, Committee on Patents,
House of Representatives Annex Building, Washington, D. C.

DEAR MR. SIROVICH: I take great pleasure in writing you relating to the Air Trust scandal.

I fully believe that a new investigation should be opened up and brought to a conclusion, not so much to punish the men behind it all, but to right the wrong that still exists and which is unfair to open competition and which has and still is costing the citizens of the United States millions in money and hundreds of lives. The air-trust proved during the World War that our air service was very inefficient, due principally to the fact that they absolutely refused to build machines that were capable of war service.

I also feel that men like Mr. Martin and General Mitchell, also others, have been crucified when they could have rendered valuable service to their country, but the Air Trust did not want men of that type, who would block their way. Lives did not concern those devils who wanted to control the aircraft industry for their greed for gold, and to hell with the people as long as they gained this gold and power, and lo! behold the man that would step in their way,

Digitized by Google

but I am one man who is not afraid of telling the truth concerning the most damnable affair that still exists in our country today.

I do hope you will open a new investigation and fight it to finish before it is too late, because if this wrong is not righted soon it will bring chaos and catastrophe to our Nation in the near future.

The writer held an executive position with the Standard Aircraft Corporation for 5 years and 1 year in an executive capacity with the United States Army marine base at Hoboken, N. J., and in those positions I made a close study of the whole aircraft industry. I knew at the beginning, when we entered the World War, what was wrong with aircraft production and why we could not get production going, but my hands were tied, and when I continued to battle they tried to send me over in the trenches. Why? Because I was doing my duty as an American citizen to get production going and get real ships for the boys instead of those coffins they demanded us to build, when they knew they were useless for war service.

D'Annunzio, of the Italian Air Service, came over here with his personal and 50 expert airplane mechanics to show us how to build the Caproni bomber, a machine very efficient for war service; but, did they want that machine? No! They delayed him in every possible way till he became so disgusted with the whole affair that he told the officials at Washington, "I did not come over here to spend your money." I think he is in New York at the present time.

The Standard Aircraft Corporation was owned and operated by the Japanese and 20 planes were shipped to Japan marked household furniture; they also had access to all airplane plans and also learned how an aircraft plant should be conducted.

If the new investigation should materialize, specific stress should be brought out—why was production delayed and why were men that knew and could produce airplanes muzzled? I do know this, that if the men that I came in contact with during the war were in charge and full power to act, they could not have made such a miscarriage as the air trust made, and I say these facts should be known by the people of this country.

I stand ready to aid you in any way I may be of service, as a witness against the air trust.

I am a poor man, the same as the rest that try to tell the truth, and there should be an appropriation made to pay the expenses of the men that would testify and bring results and who are not afraid to testify for their country.

You have my heartiest wishes for the success of such an undertaking. I am.

Very truly yours,

WILLIAM J. DORMAN.

ANTITRUST LAWS WITH AMENDMENTS, 1890–1923

1. SHERMAN ACT—2. CLAYTON ACT—3. FEDERAL TRADE COMMISSION ACT—4. EXPORT TRADE ACT—5. BANKING CORPORATIONS AUTHORIZED TO DO FOREIGN BANKING BUSINESS

Compiled by Elmer A. Lewis, Superintendent Document Room, House of Representatives

[PUBLIC—No. 190]

AN ACT To protect trade and commerce against unlawful restraints and monopolies

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SEC. 1. Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is hereby declared to be illegal. Every person who shall make any such contract or engage in any such combination or conspiracy, shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by fine not exceeding five thousand dollars, or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the court.

SEC. 2. Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be

Digitized by Google

punished by fine not exceeding five thousand dollars, or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the court.

SEC. 3. Every contract, combination in form of trust or otherwise, or conspiracy, in restraint of trade or commerce in any Territory of the United States or of the District of Columbia, or in restraint of trade or commerce between any such Territory and another, or between any such Territory or Territories and any State or States or the District of Columbia, or with foreign nations, or between the District of Columbia and any State or States or foreign nations, is hereby declared illegal. Every person who shall make any such contract or engage in any such combination or conspiracy, shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by fine not exceeding five thousand dollars, or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the court.

SEC. 4. The several circuit courts of the United States are hereby invested with jurisdiction to prevent and restrain violations of this act; and it shall be the duty of the several district attorneys of the United States, in their respective districts, under the direction of the Attorney General, to institute proceedings in equity to prevent and restrain such violations. Such proceedings may be by way of petition setting forth the case and praying that such violation shall be enjoined or otherwise prohibited. When the parties complained of shall have been duly notified of such petition the court shall proceed, as soon as may be, to the hearing and determination of the case; and pending such petition and before final decree, the court may at any time make such temporary restraining order or prohibition as shall be deemed just in the premises.

SEC. 5. Whenever it shall appear to the court before which any proceeding under section four of this act may be pending, that the ends of justice require that other parties should be brought before the court, the court may cause them to be summoned, whether they reside in the district in which the court is held or not; and subpœnas to that end may be served in any district by the marshal thereof.

SEC. 6. Any property owned under any contract or by any combination, or pursuant to any conspiracy (and being the subject thereof) mentioned in section one of this act, and being in the course of transportation from one State to another, or to a foreign country, shall be forfeited to the United States, and may be seized and condemned by like proceedings as those provided by law for the forfeiture, seizure, and condemnation of property imported into the United States contrary to law.

SEC. 7. Any person who shall be injured in his business or property by any other person or corporation by reason of anything forbidden or declared to be unlawful by this act, may sue therefor in any circuit court of the United States in the district in which the defendant resides or is found, without respect to the amount in controversy, and shall recover threefold the damages by him sustained, and the costs of suit, including a reasonable attorney's fee.

SEC. 8. That the word "person," or "persons," wherever used in this act shall be deemed to include corporations and associations existing under or authorized by the laws of either the United States, the laws of any of the Territories, the laws of any State, or the laws of any foreign country.

Approved, July 2, 1890.

[PUBLIC LAW No. 227—53D CONGRESS]

(Extract from)

SEC. 73. That every combination, conspiracy, trust, agreement, or contract is hereby declared to be contrary to public policy, illegal, and void, when the same is made by or between two or more persons or corporations either of whom is engaged in importing any article from any foreign country into the United States, and when such combination, conspiracy, trust, agreement, or contract is intended to operate in restraint of lawful trade, or free competition in lawful trade or commerce, or to increase the market price in any part of the United States of any article or articles imported or intended to be imported into the United States, or of any manufacture into which such imported article enters or is intended to enter. Every person who is or shall hereafter be engaged in the importation of goods or any commodity from any foreign country in violation of this section of this Act, or who shall combine or conspire with

Digitized by Google

another to violate the same, is guilty of a misdemeanor, and, on conviction thereof in any court of the United States, such person shall be fined in a sum not less than one hundred dollars and not exceeding five thousand dollars, and shall be further punished by imprisonment, in the discretion of the court, for a term not less than three months nor exceeding twelve months.

SEC. 74. That the several circuit courts of the United States are hereby invested with jurisdiction to prevent and restrain violations of section seventy-three of this Act; and it shall be the duty of the several district attorneys of the United States, in their respective districts, under the direction of the Attorney General, to institute proceedings in equity to prevent and restrain such violations. Such proceedings may be by way of petitions setting forth the case and praying that such violations shall be enjoined or otherwise prohibited. When the parties complained of shall have been duly notified of such petition the court shall proceed, as soon as may be, to the hearing and determination of the case; and pending such petition and before final decree, the court may at any time make such temporary restraining order or prohibition as shall be deemed just in the premises.

SEC. 75. That whenever it shall appear to the court before which any proceeding under the seventy-fourth section of this Act may be pending, that the ends of justice require that other parties should be brought before the court, the court may cause them to be summoned, whether they reside in the district in which the court is held or not; and subpœnas to that end may be served in any district by the marshal thereof.

SEC. 76. That any property owned under any contract or by any combination, or pursuant to any conspiracy (and being the subject thereof) mentioned in section seventy-three of this Act, and being in the course of transportation from one State to another, or to or from a Territory, or the District of Columbia, shall be forfeited to the United States, and may be seized and condemned by like proceedings as those provided by law for the forfeiture, seizure, and condemnation of property imported into the United States contrary to law.

SEC. 77. That any person who shall be injured in his business or property by any other person or corporation by reason of anything forbidden or declared to be unlawful by this Act may sue therefor in any circuit court of the United States in the district in which the defendant resides or is found, without respect to the amount in controversy, and shall recover threefold the damages by him sustained, and the costs of suit, including a reasonable attorney's fee.

Received by the President, August 15, 1894.

[NOTE BY THE DEPARTMENT OF STATE.—The foregoing act having been presented to the President of the United States for his approval, and not having been returned by him to the house of Congress in which it originated within the time prescribed by the Constitution of the United States, has become a law without his approval.]

[PUBLIC LAW NO. 11—55TH CONGRESS]

(Extract from)

And provided further, That nothing in this Act shall be construed to repeal or in any manner affect the sections numbered seventy-three, seventy-four, seventy-five, seventy-six, and seventy-seven of an Act entitled "An Act to reduce taxation, to provide revenue for the Government, and for other purposes," which became a law on the twenty-eighth [1] day of August, eighteen hundred and ninety-four.

Approved, July 24, 1897.

[PUBLIC—NO. 82]

AN ACT TO expedite the hearing and determination of suits in equity pending or hereafter brought under the Act of July second, eighteen hundred and ninety, entitled "An Act to protect trade and commerce against unlawful restraints and monopolies," "An Act to regulate commerce," approved February fourth, eighteen hundred and eighty-seven, or any other Acts having a like purpose that may be hereafter enacted

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That in any suit in equity pending or hereafter brought in any circuit court of the United States under the Act

[1] Date is incorrect. It should read August 27, 1894. See Supp. Rev. Stat., vol. 2, p. 334.

Digitized by Google

entitled "An Act to protect trade and commerce against unlawful restraints and monopolies," approved July second, eighteen hundred and ninety, "An Act to regulate commerce", approved February fourth, eighteen hundred and eighty-seven, or any other Acts having a like purpose that hereafter may be enacted, wherein the United States is complainant, the Attorney General may file with the clerk of such court a certificate that, in his opinion, the case is of general public importance, a copy of which shall be immediately furnished by such clerk to each of the circuit judges of the circuit in which the case is pending. Thereupon such case shall be given precedence over others and in every way expedited, and be assigned for hearing at the earliest practicable day, before not less than three of the circuit judges of said circuit, if there be three or more; and if there be not more than two circuit judges, then before them and such district judge as they may select. In the event the judges sitting in such case shall be divided in opinion, the case shall be certified to the Supreme Court for review in like manner as if taken there by appeal as hereinafter provided.

SEC. 2. That in every suit in equity pending or hereafter brought in any circuit court of the United States under any of said Acts, wherein the United States is complainant, including cases submitted but not yet decided, an appeal from the final decree of the circuit court will lie only to the Supreme Court and must be taken within sixty days from the entry thereof: *Provided*, That in any case where an appeal may have been taken from the final decree of a circuit court to the circuit court of appeals before this Act takes effect, the case shall proceed to a final decree therein, and an appeal may be taken from such decree to the Supreme Court in the manner now provided by law.

Approved, February 11, 1903.

[PUBLIC LAW No. 87—57TH CONGRESS]

(Extract from)

SEC. 6. That there shall be in the Department of Commerce and Labor a bureau to be called the Bureau of Corporations, and a Commissioner of Corporations, who shall be the head of said bureau, to be appointed by the President, who shall receive a salary of five thousand dollars per annum. There shall also be in said bureau a deputy commissioner, who shall receive a salary of three thousand five hundred dollars per annum, and who shall, in the absence of the Commissioner, act as and perform the duties of the Commissioner of Corporations, and who shall perform such other duties as may be assigned to him by the Secretary of Commerce and Labor or by the said Commissioner. There shall also be in the said bureau a chief clerk and such special agents, clerks, and other employees as may be authorized by law.

The said Commissioner shall have power and authority to make, under the direction and control of the Secretary of Commerce and Labor, diligent investigation into the organization, conduct, and management of the business of any corporation, joint stock company, or corporate combination engaged in the commerce among the several States and with foreign nations, excepting common carriers subject to "An act to regulate Commerce," approved February fourth, eighteen hundred and eighty-seven, and to gather such information and data as will enable the President of the United States to make recommendations to Congress for legislation for the regulation of such commerce, and to report such data to the President from time to time as he shall require; and the information so obtained or as much thereof as the President may direct shall be made public.

In order to accomplish the purposes declared in the foregoing part of this section, the said Commissioner shall have and exercise the same power and authority in respect to corporations, joint stock companies, and combinations subject to the provisions hereof, as is conferred on the Interstate Commerce Commission in said "Act to regulate commerce" and the amendments thereto in respect to common carriers so far as the same may be applicable, including the right to subpœna and compel the attendance and testimony of witnesses and the production of documentary evidence and to administer oaths. All the requirements, obligations, liabilities, and immunities imposed or conferred by said "Act to regulate commerce" and by "An Act in relation to testimony before the Interstate Commerce Commission," and so forth, approved February eleventh, eighteen hundred and ninety-three, supplemental to said "Act to

Digitized by Google

regulate commerce," shall also apply to all persons who may be subpœnaed to testify as witnesses or to produce documentary evidence in pursuance of the authority conferred by this section.

It shall also be the province and duty of said bureau, under the direction of the Secretary of Commerce and Labor, to gather, compile, publish, and supply useful information concerning corporations doing business within the limits of the United States as shall engage in interstate commerce or in commerce between the United States and any foreign country, including corporations engaged in insurance, and to attend to such other duties as may be hereafter provided by law.

Approved, February 14, 1903.

[PUBLIC RESOLUTION—No. 8]

JOINT RESOLUTION Instructing the Interstate Commerce Commission to make examinations into the subject of railroad discriminations and monopolies in coal and oil, and report on the same from time to time

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the Interstate Commerce Commission be, and is hereby, authorized and instructed immediately to inquire, investigate, and report to Congress, or to the President when Congress is not in session, from time to time as the investigation proceeds—

First. Whether any common carriers by railroad, subject to the interstate-commerce Act, or either of them, own or have any interest in, by means of stock ownership in other corporations or otherwise, any of the coal or oil which they, or either of them, directly or through other companies which they control or in which they have an interest, carry over their or any of their lines as common carriers, or in any manner own, control, or have any interest in coal lands or properties or oil land or properties.

Second. Whether the officers of any of the carrier companies aforesaid, or any of them, or any person or persons charged with the duty of distributing cars or furnishing facilities to shippers are interested, either directly or indirectly, by means of stock ownership or otherwise in corporations or companies owning, operating, leasing, or otherwise interested in any coal mines, coal properties, or coal traffic, oil, oil properties, or oil traffic over the railroads with which they or any of them are connected or by which they or any of them are employed.

Third. Whether there is any contract, combination in the form of trust, or otherwise, or conspiracy in restraint of trade or commerce among the several States, in which any common carrier engaged in the transportation of coal or oil is interested, or to which it is a party; and whether any such common carrier monopolizes, or attempts to monopolize, or combines or conspires with any other carrier, company or companies, person or persons to monopolize any part of the trade or commerce in coal or oil, or traffic therein among the several States or with foreign nations, and whether or not, and if so, to what extent, such carriers, or any of them, limit or control, directly or indirectly, the output of coal mines or the price of coal and oil fields or the price of oil.

Fourth. If the Interstate Commerce Commission shall find that the facts or any of them set forth in the three paragraphs above do exist, then that it be further required to report as to the effect of such relationship, ownership, or interest in coal or coal properties and coal traffic, or oil, oil properties, or oil traffic aforesaid, or such contracts or combinations in form of trust or otherwise, or conspiracy or such monopoly or attempt to monopolize or combine or conspire as aforesaid, upon such person or persons as may be engaged independently of any other persons in mining coal or producing oil and shipping the same, or other products, who may desire to so engage, or upon the general public as consumers of such coal or oil.

Fifth. That said Commission be also required to investigate and report the system of car supply and distribution in effect upon the several railway lines engaged in the transportation of coal or oil as aforesaid, and whether said systems are fair and equitable, and whether the same are carried out fairly and properly; and whether said carriers, or any of them, discriminate against

Digitized by Google

shippers or parties wishing to become shippers over their several lines, either in the matter of distribution of cars or in furnishing facilities or instrumentalities connected with receiving, forwarding, or carrying coal or oil as aforesaid.

Sixth. That said Commission be also required to report as to what remedy it can suggest to cure the evils above set forth, if they exist.

Seventh. That said Commission be also required to report any facts or conclusions which it may think pertinent to the general inquiry above set forth.

Eighth. That said Commission be required to make this investigation at its earliest possible convenience and to furnish the information above required from time to time and as soon as it can be done consistent with the performance of its public duty.

Approved, March 7, 1906.

[PUBLIC LAW No. 105—59TH CONGRESS]

(Extract from)

To enable the Interstate Commerce Commission to give effect to the provisions of the Act to regulate commerce and all Acts and amendments supplementary thereto, including the joint resolution "instructing the Interstate Commerce Commission to make examinations into the subject of railroad discriminations and monopolies in coal and oil, and report on the same from time to time," approved March seventh, nineteen hundred and six, the sum of forty-five thousand dollars is hereby transferred to said Commission, and made available for the remainder of the fiscal year nineteen hundred and six, from the balance of the appropriation of five hundred thousand dollars for the enforcement of "An Act to regulate commerce" and all Acts amendatory thereof or supplemental thereto, and other Acts mentioned in said appropriation, made in the legislative, executive, and judicial appropriation Act for the fiscal year nineteen hundred and four, and reappropriated for the fiscal year nineteen hundred and six by the sundry civil appropriation Act, under the Department of Justice: *Provided*, That the total amount that may be expended in the employment of counsel by the Interstate Commerce Commission shall not exceed the sum of forty-five thousand dollars during the fiscal year nineteen hundred and six.

Approved, April 16, 1906.

[PUBLIC—No. 389]

AN ACT Defining the right of immunity of witnesses under the Act entitled "An Act in relation to testimony before the Interstate Commerce Commission," and so forth, approved February eleventh, eighteen hundred and ninety-three, and an Act entitled "An Act to establish the Department of Commerce and Labor," approved February fourteenth, nineteen hundred and three, and an Act entitled "An Act to further regulate commerce with foreign nations and among the States," approved February nineteenth, nineteen hundred and three, and an Act entitled "An Act making appropriations for the legislative, executive, and judicial expenses of the Government for the fiscal year ending June thirtieth, nineteen hundred and four, and for other purposes," approved February twenty-fifth, nineteen hundred and three

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That under the immunity provisions in the Act entitled "An Act in relation to testimony before the Interstate Commerce Commission," and so forth, approved February eleventh, eighteen hundred and ninety-three, in section six of the Act entitled "An Act to establish the Department of Commerce and Labor," approved February fourteenth, nineteen hundred and three, and in the Act entitled "An Act to further regulate commerce with foreign nations and among the States," approved February nineteen, nineteen hundred and three, and in the Act entitled "An Act making appropriations for the legislative, executive, and judicial expenses of the Government for the fiscal year ending June thirtieth, nineteen hundred and four, and for other purposes," approved February twenty-fifth, nineteen hundred and three, immunity shall extend only to a natural person who, in obedience to a subpœna, gives testimony under oath or produces evidence, documentary or otherwise, under oath.

Approved, June 30, 1906.

Digitized by Google

[PUBLIC—No. 310]

(H. R. 26233)

AN ACT To amend an Act entitled "An Act to expedite the hearing and determination of suits in equity pending or hereafter brought under the Act of July second, eighteen hundred and ninety, entitled 'An Act to protect trade and commerce against unlawful restraints and monopolies,' 'An Act to regulate commerce,' approved February fourth, eighteen hundred and eighty-seven, or any other Acts having a like purpose that may be hereafter enacted," approved February eleventh, nineteen hundred and three

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section one of the Act entitled "An Act to expedite the hearing and determination of suits in equity pending or hereafter brought under the Act of July second, eighteen hundred and ninety, entitled 'An Act to protect trade and commerce against unlawful restraints and monopolies,' 'An Act to regulate commerce,' approved February fourth, eighteen hundred and eighty-seven, or any other Acts having a like purpose that may be hereafter enacted," approved February eleventh, nineteen hundred and three, be, and the same is hereby, amended so as to read as follows:

"That in any suit in equity pending or hereafter brought in any circuit court of the United States under the Act entitled 'An Act to protect trade and commerce against unlawful restraints and monopolies,' approved July second, eighteen hundred and ninety, 'An Act to regulate commerce,' approved February fourth, eighteen hundred and eighty-seven, or any other Acts having a like purpose that hereafter may be enacted, wherein the United States is complainant, the Attorney General may file with the clerk of such court a certificate that, in his opinion, the case is of general public importance, a copy of which shall be immediately furnished by such clerk to each of the circuit judges of the circuit in which the case is pending. Thereupon such case shall be given precedence over others and in every way expedited, and be assigned for hearing at the earliest practicable day, before not less than three of the circuit judges of said court, if there be three or more; and if there be not more than two circuit judges, then before them and such district judge as they may select; or, in case the full court shall not at any time be made up by reason of the necessary absence or disqualification of one or more of the said circuit judges, the justice of the Supreme Court assigned to that circuit or the other circuit judge or judges may designate a district judge or judges within the circuit who shall be competent to sit in said court at the hearing of said suit. In the event the judges sitting in such case shall be equally divided in opinion as to the decision or disposition of said cause, or in the event that a majority of said judges shall be unable to agree upon the judgment, order, or decree finally disposing of said case in said court which should be entered in said cause, then they shall immediately certify that fact to the Chief Justice of the United States, who shall at once designate and appoint some circuit judge to sit with said judges and to assist in determining said cause. Such order of the Chief Justice shall be immediately transmitted to the clerk of the circuit court in which said cause is pending, and shall be entered upon the minutes of said court. Thereupon said cause shall at once be set down for reargument and the parties thereto notified in writing by the clerk of said court of the action of the court and the date fixed for the reargument thereof. The provisions of this section shall apply to all causes and proceedings in all courts now pending, or which may hereafter be brought.

[PUBLIC—No. 475—61ST CONGRESS]

(Extract from)

Twenty-third. Of all suits and proceedings arising under any law to protect trade and commerce against restraints and monopolies.

Approved, March 3, 1911.

[PUBLIC—No. 479—61ST CONGRESS]

(Extract from)

ARMOR AND ARMAMENT: Toward the armor and armament for vessels authorized, ten million five hundred and thirty-two thousand nine hundred and twenty-eight dollars: *Provided*, That no part of this appropriation shall be expended

Digitized by Google

for armor for vessels except upon contracts for such armor when awarded by the Secretary of the Navy to the lowest responsible bidders, having in view the best results and most expeditious delivery: *Provided further*, That no part of this appropriation shall be expended for the purchase of armor or armament from any persons, firms or corporations, that have entered into any combination, agreement, conspiracy or understanding, the effect, object or purpose of which is to deprive the Government of fair, open and unrestricted competition in letting contracts for the furnishing of any of said armor or armament.

Approved, March 4, 1911.

[PUBLIC LAW No. 290—62D CONGRESS]

(Extract from)

That no part of any sum herein appropriated shall be expended for the purchase of structural steel, ship plates, armor, armament, or machinery from any persons, firms, or corporations who have combined or conspired to monopolize the interstate or foreign commerce or trade of the United States, or the commerce or trade between the States and any Territory or the District of Columbia, in any of the articles aforesaid, and no purchase of structural steel, ship plates, or machinery shall be made at a price in excess of a reasonable profit above the actual cost of manufacture. But this limitation shall in no case apply to any existing contract.

Approved, August 22, 1912.

[PUBLIC LAW No. 302—62D CONGRESS]

(Extract from)

Enforcement of antitrust laws: For the enforcement of antitrust laws, including not exceeding $10,000 for salaries of necessary employees at the seat of government, $200,000.

Approved, August 24, 1912.

[PUBLIC LAW No. 302—62D CONGRESS]

(Extract from)

That no part of any appropriation made under this Act for the following purposes, namely, conduct of customs cases; defending suits and claims against the United States; detection and prosecution of crime; defenses in Indian depredation claims; enforcement of antitrust laws; suits to set aside conveyances of allotted lands, Five Civilized Tribes; enforcement of acts to regulate commerce; for payment of assistants to the Attorney General and to United States district attorneys employed by the Attorney General to aid in special cases; and for payment of such miscellaneous expenditures as may be authorized by the Attorney General for the United States courts and their officers; shall be used for the payment of any salary, fee, compensation, or allowance in any form whatever to any person who holds any other office, place, position, or appointment under the United States Government, or any department thereof, or to anyone hereafter appointed, designated, or employed, who within one year next preceding the date of his appointment, designation, or employment has held any other office, place, position, or appointment under the United States Government or any department thereof: *Provided*, That this inhibition shall not apply except in cases where the persons appointed, designated, employed, or paid shall have previously rendered service in connection with the same subject matter: *And provided further*, That nothing in the foregoing provision shall prevent or authorize a person who holds an office, place, position, or appointment under the United States Government, or any department thereof, from being detailed to other work falling under the appropriations for the purpose hereinbefore named, and from being paid out of said appropriations, the amount of all the payments not to exceed the amount of compensation which said person would have received from his regular office, place, position, or appointment, together with his expenses incident to the temporary detail.

Approved, August 24, 1912.

Digitized by Google

[PUBLIC LAW No. 337—62D CONGRESS]

(Extract from)

No vessel permitted to engage in the coastwise or foreign trade of the United States shall be permitted to enter or pass through said canal if such ship is owned, chartered, operated, or controlled by any person or company which is doing business in violation of the provisions of the Act of Congress approved July second, eighteen hundred and ninety, entitled "An Act to protect trade and commerce against unlawful restraints and monopolies," of the provisions of sections seventy-three to seventy-seven, both inclusive, of an Act approved August twenty-seventh, eighteen hundred and ninety-four, entitled "An Act to reduce taxation, to provide revenue for the Government, and for other purposes," or the provisions of any other Act of Congress amending or supplementing the said Act of July second, eighteen hundred and ninety, commonly known as the Sherman Anti-trust Act, and amendments thereto, or said sections of the Act of August twenty-seventh, eighteen hundred and ninety-four. The question of fact may be determined by the judgment of any court of the United States of competent jurisdiction in any cause pending before it to which the owners or operators of such ship are parties. Suit may be brought by any shipper or by the Attorney General of the United States.

Approved, August 24, 1912.

[PUBLIC—No. 370]

(H. R. 25002)

AN ACT To amend section seventy-three and section seventy-six of the Act of August twenty-seventh, eighteen hundred and ninety-four, entitled "An Act to reduce taxation, to provide revenue for the Government, and for other purposes"

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section seventy-three and section seventy-six of the Act of August twenty-seventh, eighteen hundred and ninety-four, entitled "An Act to reduce taxation, to provide revenue for the Government, and for other purposes," be, and the same are hereby, amended to read as follows:

"SEC. 73. That every combination, conspiracy, trust, agreement, or contract is hereby declared to be contrary to public policy, illegal, and void when the same is made by or between two or more persons or corporations either of whom, as agent or principal, is engaged in importing any article from any foreign country into the United States, and when such combination, conspiracy, trust, agreement, or contract is intended to operate in restraint of lawful trade or commerce, or to increase the market price in any part of the United States of any article or articles imported or intended to be imported into the United States, or of any manufacture into which such imported article enters or is intended to enter. Every person who is or shall hereafter be engaged in the importation of goods or any commodity from any foreign country in violation of this section of this Act, or who shall combine or conspire with another to violate the same, is guilty of a misdemeanor, and on conviction thereof in any court of the United States such person shall be fined in a sum not less than one hundred dollars and not exceeding five thousand dollars, and shall be further punished by imprisonment, in the discretion of the court, for a term not less than three months nor exceeding twelve months."

"SEC. 76. That any property owned under any contract or by any combination, or pursuant to any conspiracy, and being the subject thereof, mentioned in section seventy-three of this Act, imported into and being within the United States or being in the course of transportation from one State to another, or to or from a Territory or the District of Columbia, shall be forfeited to the United States, and may be seized and condemned by like proceedings as those provided by law for the forfeiture, seizure, and condemnation of property imported into the United States contrary to law."

Approved, February 12, 1913.

Digitized by Google

[PUBLIC No. 416]

(S. 8000)

AN ACT Providing for publicity in taking evidence under Act of July second, eighteen hundred and ninety

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That in the taking of depositions of witnesses for use in any suit in equity brought by the United States under the Act entitled "An Act to protect trade and commerce against unlawful restraints and monopolies," approved July second, eighteen hundred and ninety, and in the hearings before any examiner or special master appointed to take testimony therein, the proceedings shall be open to the public as freely as are trials in open court; and no order excluding the public from attendance on any such proceedings shall be valid or enforceable.

Approved, March 3, 1913.

[PUBLIC LAW No. 433—62D CONGRESS]

(Extract from)

That no part of any sum herein appropriated shall be expended for the purchase of structural steel, ship plates, armor, armament, or machinery from any persons, firms, or corporations who have combined or conspired to monopolize the interstate or foreign commerce or trade of the United States, or the commerce or trade between the States and any Territory or the District of Columbia, in any of the articles aforesaid, and no purchase of structural steel, ship plates, or machinery shall be made at a price in excess of a reasonable profit above the actual cost of manufacture. But this limitation shall in no case apply to any existing contract.

Approved, March 4, 1913.

[PUBLIC LAW No. 3—63D CONGRESS]

(Extract from)

Enforcement of antitrust laws: For the enforcement of antitrust laws, including not exceeding $10,000 for salaries of necessary employees at the seat of government, $300,000: *Provided, however*, That no part of this money shall be spent in the prosecution of any organization or individual for entering into any combination or agreement having in view the increasing of wages, shortening of hours or bettering the conditions of labor, or for any act done in furtherance thereof, not in itself unlawful: *Provided further*, That no part of this appropriation shall be expended for the prosecution of producers of farm products and associations of farmers who cooperate and organize in an effort to and for the purpose to obtain and maintain a fair and reasonable price for their products.

Approved, June 23, 1913.

[PUBLIC LAW No. 121—63D CONGRESS]

(Extract from)

That no part of any sum herein appropriated shall be expended for the purchase of structural steel, ship plates, armor, armament, or machinery from any persons, firms, or corporations who have combined or conspired to monopolize the interstate or foreign commerce or trade of the United States, or the commerce or trade between the States and any Territory or the District of Columbia, in any of the articles aforesaid, and no purchase of structural steel,

Digitized by Google

ship plates, or machinery shall be made at a price in excess of a reasonable profit above the actual cost of manufacture. But this limitation shall in no case apply to any existing contract.

Approved, June 30, 1914.

[PUBLIC LAW No. 161—63D CONGRESS]

(Extract from)

Enforcement of antitrust laws: For the enforcement of antitrust laws, including not exceeding $15,000 for salaries of necessary employees at the seat of government, $300,000: *Provided, however*, That no part of this money shall be spent in the prosecution of any organization or individual for entering into any combination or agreement having in view the increasig of wages, shortening of hours or bettering the conditions of labor, or for any act done in furtherance thereof, not in itself unlawful: *Provided further*, That no part of this appropriation shall be expended for the prosecution of producers of farm products and associations of farmers who cooperate and organize in an effort to and for the purpose to obtain and maintain a fair and reasonable price for their products.

Approved, August 1, 1914.

[PUBLIC—No. 203—63D CONGRESS]

(H. R. 15613)

AN ACT To create a Federal Trade Commission, to define its powers and duties, and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That a commission is hereby created and established, to be known as the Federal Trade Commission (hereinafter referred to as the commission), which shall be composed of five commissioners, who shall be appointed by the President, by and with the advice and consent of the Senate. Not more than three of the commissioners shall be members of the same political party. The first commissioners appointed shall continue in office for terms of three, four, five, six, and seven years, respectively, from the date of the taking effect of this Act, the term of each to be designated by the President but their successors shall be appointed for terms of seven years, except that any person chosen to fill a vacancy shall be appointed only for the unexpired term of the commissioner whom he shall succeed. The commission shall choose a chairman from its membership. No commissioner shall engage in any other business, vocation, or employment. Any commissioner may be removed by the President for inefficiency, neglect of duty or malfeasance in office. A vacancy in the commission shall not impair the right of the remaining commissioners to exercise all the powers of the commission.

The commission shall have an official seal, which shall be judicially noticed.

SEC. 2. That each commissioner shall receive a salary of $10,000 a year, payable in the same manner as the salaries of the judges of the courts of the United States. The commission shall appoint a secretary, who shall receive a salary of $5,000 a year, payable in like manner, and it shall have authority to employ and fix the compensation of such attorneys, special experts, examiners, clerks, and other employees as it may from time to time find necessary for the proper performance of its duties and as may be from time to time appropriated for by Congress.

With the exception of the secretary a clerk to each commissioner, the attorneys and such special experts and examiners as the commission may from time to time find necessary for the conduct of its work, all employees of the commission shall be a part of the classified civil service, and shall enter the service under such rules and regulations as may be prescribed by the commission and by the Civil Service Commission.

All of the expenses of the commission, including all necessary expenses for transportation incurred by the commissioners or by their employees under their orders, in making any investigation, or upon official business in any other places

Digitized by Google

than in the city of Washington, shall be allowed and paid on the presentation of itemized vouchers therefor approved by the commission.

Until otherwise provided, by law, the commission may rent suitable offices for its use.

The Auditor for the State and Other Departments shall receive and examine all accounts of expenditures of the commission.

SEC. 3. That upon the organization of the commission and election of its chairman, the Bureau of Corporations and the offices of Commissioner and Deputy Commissioner of Corporations shall cease to exist; and all pending investigations and proceedings of the Bureau of Corporations shall be continued by the commission.

All clerks and employees of the said bureau shall be transferred to and become clerks and employees of the commission at their present grades and salaries. All records, papers, and property of the said bureau shall become records, papers, and property of the commission, and all unexpended funds and appropriations for the use and maintenance of the said bureau, including any allotment already made to it by the Secretary of Commerce from the contingent appropriation for the Department of Commerce for the fiscal year nineteen hundred and fifteen, or from the departmental printing fund for the fiscal year nineteen hundred and fifteen, shall become funds and appropriations available to be expended by the commission in the exercise of the powers, authority, and duties conferred on it by this Act.

The principal office of the commission shall be in the city of Washington, but it may meet and exercise all its powers at any other place. The commission may, by one or more of its members, or by such examiners as it may designate, prosecute any inquiry necessary to its duties in any part of the United States.

SEC. 4. That the words defined in this section shall have the following meaning when found in this Act, to wit:

"Commerce" means commerce among the several States or with foreign nations, or in any Territory of the United States or in the District of Columbia, or between any such Territory and another, or between any such Territory and any State or foreign nation, or between the District of Columbia and any State or Territory or foreign nation.

"Corporation" means any company or association incorporated or unincorporated, which is organized to carry on business for profit and has shares of capital or capital stock, and any company or association, incorporated or unincorporated, without shares or capital stock, except partnerships, which is organized to carry on business for its own profit or that of its members.

"Documentary evidence" means all documents, papers, and correspondence in existence at and after the passage of this Act.

"Acts to regulate commerce" means the Act entitled "An Act to regulate commerce," approved February fourteenth, eighteen hundred and eighty-seven, and all Acts amendatory thereof and supplementary thereto.

"Antitrust acts" means the Act entitled "An Act to protect trade and commerce against unlawful restraints and monopolies," approved July second, eighteen hundred and ninety; also the sections seventy-three to seventy-seven, inclusive, of an Act entitled "An Act to reduce taxation to provide revenue for the Government, and for other purposes," approved August twenty-seventh, eighteen hundred and ninety-four; and also the Act entitled "An Act to amend sections seventy-three and seventy-six of the Act of August twenty-seventh, eighteen hundred and ninety-four, entitled 'An Act to reduce taxation, to provide revenue for the Government, and for other purposes,'" approved February twelfth, nineteen hundred and thirteen.

SEC. 5. That unfair methods of competition in commerce are hereby declared unlawful.

The commission is hereby empowered and directed to prevent persons, partnerships, or corporations, except banks, and common carriers subject to the Acts to regulate commerce, from using unfair methods of competition in commerce.

Whenever the commission shall have reason to believe that any such person, partnership, or corporation has been or is using any unfair methods of competition in commerce, and if it shall appear to the commission that a proceeding by it in respect thereof would be to the interest of the public, it shall issue and serve upon such person, partnership, or corporation a complaint stating its charges in that respect, and containing a notice of a hearing upon a day and at a place therein fixed at least thirty days after the service of said com-

Digitized by Google

plaint. The person, partnership, or corporation so complained of shall have the right to appear at the place and time so fixed and show cause why an order should not be entered by the commission requiring such person, partnership, or corporation to cease and desist from the violation of the law so charged in said complaint. Any person, partnership, or corporation may make application, and upon good cause shown may be allowed by the commission, to intervene and appear in said proceeding by counsel or in person. The testimony in any such proceeding shall be reduced to writing and filed in the office of the commission. If upon such hearing the commission shall be of the opinion that the method of competition in question is prohibited by this Act, it shall make a report in writing in which it shall state its findings as to the facts, and shall issue and cause to be served on such person, partnership, or corporation an order requiring such person, partnership, or corporation to cease and desist from using such method of competition. Until a transcript of the record in such hearing shall have been filed in a circuit court of appeals of the United States, as hereinafter provided, the commission may at any time, upon such notice and in such manner as it shall deem proper, modify or set aside, in whole or in part, any report or any order made or issued by it under this section.

If such person, partnership, or corporation fails or neglects to obey such order of the commission while the same is in effect, the commission may apply to the circuit court of appeals of the United States, within any circuit where the method of competition in question was used or where such person, partnership, or corporation resides or carries on business, for the enforcement of its order, and shall certify and file with its application a transcript of the entire record in the proceeding, including all the testimony taken and the report and order of the commission. Upon such filing of the application and transcript the court shall cause notice thereof to be served upon such person, partnership, or corporation and thereupon shall have jurisdiction of the proceeding and of the question determined therein, and shall have power to make and enter upon the pleadings, testimony, and proceedings set forth in such transcript a decree affirming, modifying, or setting aside the order of the commission. The findings of the commission as to the facts, if supported by testimony, shall be conclusive. If either party shall apply to the court for leave to adduce additional evidence, and shall show to the satisfaction of the court that such additional evidence is material and that there were reasonable grounds for the failure to adduce such evidence in the proceeding before the commission, the court may order such additional evidence to be taken before the commission and to be adduced upon the hearing in such manner and upon such terms and conditions as to the court may seem proper. The commission may modify its findings as to the facts, or make new findings, by reason of the additional evidence so taken, and it shall file such modified or new findings, which, if supported by testimony, shall be conclusive, and its recommendation, if any, for the modification or setting aside of its original order, with the return of such additional evidence. The judgment and decree of the court shall be final, except that the same shall be subject to review by the Supreme Court upon certiorari as provided in section two hundred and forty of the Judicial Code.

Any party required by such order of the commission to cease and desist from using such method of competition may obtain a review of such order in said circuit court of appeals by filing in the court a written petition praying that the order of the commission be set aside. A copy of such petition shall be forthwith served upon the commission, and thereupon the commission forthwith shall certify and file in the court a transcript of the record as hereinbefore provided. Upon the filing of the transcript the court shall have the same jurisdiction to affirm, set aside, or modify the order of the commission as in the case of an application by the commission for the enforcement of its order, and the findings of the commission as to the facts, if supported by testimony, shall in like manner be conclusive.

The jurisdiction of the circuit court of appeals of the United States to enforce, set aside, or modify orders of the commission shall be exclusive.

Such proceedings in the circuit court of appeals shall be given precedence over other cases pending therein, and shall be in every way expedited. No order of the commission or judgment of the court to enforce the same shall in any wise relieve or absolve any person, partnership, or corporation from any liability under the antitrust acts.

Complaints, orders, and other processes of the commission under this section may be served by anyone duly authorized by the commission, either (a)

Digitized by Google

by delivering a copy thereof to the person to be served, or to a member of the partnership to be served, or to the president, secretary, or other executive officers or a director of the corporation to be served; or (b) by leaving a copy thereof at the principal office or place of business of such person, partnership, or corporation; or (c) by registering and mailing a copy thereof addressed to such person, partnership, or corporation at his or its principal office or place of business. The verified return by the person so serving said complaint, order, or other process setting forth the manner of said service shall be proof of the same, and the return post-office receipt for said complaint, order, or other process registered and mailed as aforesaid shall be proof of the service of the same.

SEC. 6. That the commission shall also have power—

(a) To gather and compile information concerning, and to investigate from time to time the organization, business, conduct, practices, and management of any corporation engaged in commerce, excepting banks and common carriers subject to the Act to regulate commerce, and its relation to other corporations and to individuals, associations, and partnerships.

(b) To require, by general or special orders, corporations engaged in commerce, excepting banks, and common carriers subject to the Act to regulate commerce, or any class of them, or any of them, respectively, to file with the commission in such form as the commission may prescribe annual or special, or both annual and special, reports or answers in writing to specific questions, furnishing to the commission such information as it may require as to the organization, business, conduct, practices, management, and relation to other corporations, partnerships, and individuals of the respective corporations filing such reports or answers in writing. Such reports and answers shall be made under oath, or otherwise, as the commission may prescribe, and shall be filed with the commission within such reasonable period as the commission may prescribe, unless additional time be granted in any case by the commission.

(c) Whenever a final decree has been entered against any defendant corporation in any suit brought by the United States to prevent and restrain any violation of the antitrust Acts, to make investigations, upon its own initiative, of the manner in which the decree has been or is being carried out, and upon the application of the Attorney General it shall be its duty to make such investigation. It shall transmit to the Attorney General a report embodying its findings and recommendations as a result of any such investigation and the report shall be made public in the discretion of the commission.

(d) Upon the direction of the President or either House of Congress to investigate and report the facts relating to any alleged violations of the antitrust Acts by any corporation.

(e) Upon the application of the Attorney General to investigate and make recommendations for the readjustment of the business of any corporation alleged to be violating the antitrust Acts in order that the corporation may thereafter maintain its organization, management, and conduct of business in accordance with law.

(f) To make public from time to time such portions of the information obtained by it hereunder, except trade secrets and names of customers, as it shall deem expedient in the public interest; and to make annual and special reports to the Congress and to submit therewith recommendations for additional legislation; and to provide for the publication of its reports and decisions in such form and manner as may be best adapted for public information and use.

(g) From time to time to classify corporations and to make rules and regulations for the purpose of carrying out the provisions of this Act.

(h) To investigate, from time to time, trade conditions in and with foreign countries where associations, combinations, or practices of manufacturers, merchants, or traders, or other conditions, may affect the foreign trade of the United States, and to report to Congress thereon, with such recommendations as it deems advisable.

SEC. 7. That in any suit in equity brought by or under the direction of the Attorney General as provided in the antitrust Acts, the court may, upon the conclusion of the testimony therein, if it shall be then of opinion that the complainant is entitled to relief, refer said suit to the commission, as a master in chancery, to ascertain and report an appropriate form of decree therein. The commission shall proceed upon such notice to the parties and under such rules of procedure as the court may prescribe, and upon the coming in of such report such exceptions may be filed and such proceedings had in relation thereto as upon the report of a master in other equity causes, but the court may

Digitized by Google

adopt or reject such report, in whole or in part, and enter such decree as the nature of the case may in its judgment require.

SEC. 8. That the several departments and bureaus of the Government when directed by the President shall furnish the commission, upon its request, all records, papers, and information in their possession relating to any corporation subject to any of the provisions of this Act, and shall detail from time to time such officials and employees to the commission as he may direct.

SEC. 9. That for the purposes of this Act the commission, or its duly authorized agent or agents, shall at all reasonable times have access to, for the purpose of examination, and the right to copy any documentary evidence of any corporation being investigated or proceeded against; and the commission shall have power to require by subpœna the attendance and testimony of witnesses and the production of all such documentary evidence relating to any matter under investigation. Any member of the commission may sign subpœnas, and members and examiners of the commission may administer oaths and affirmations, examine witnesses, and receive evidence.

Such attendance of witnesses, and the production of such documentary evidence, may be required from any place in the United States, at any designated place of hearing. And in case of disobedience to a subpœna the commission may invoke the aid of any court of the United States in requiring the attendance and testimony of witnesses and the production of documentary evidence.

Any of the district courts of the United States within the jurisdiction of which such inquiry is carried on may, in case of contumacy or refusal to obey a subpœna issued to any corporation or other person, issue an order requiring such corporation or other person to appear before the commission, or to produce documentary evidence if so ordered, or to give evidence touching the matter in question; and any failure to obey such order of the court may be punished by such court as a contempt thereof.

Upon the application of the Attorney General of the United States, at the request of the commission, the district courts of the United States shall have jurisdiction to issue writs of mandamus commanding any person or corporation to comply with the provisions of this Act or any order of the commission made in pursuance thereof.

The commission may order testimony to be taken by deposition in any proceeding or investigation pending under this Act at any stage of such proceeding or investigation. Such depositions may be taken before any person designated by the commission and having power to administer oaths. Such testimony shall be reduced to writing by the person taking the deposition, or under his direction, and shall then be subscribed by the deponent. Any person may be compelled to appear and depose and to produce documentary evidence in the same manner as witnesses may be compelled to appear and testify and produce documentary evidence before the commission as hereinbefore provided.

Witnesses summoned before the commission shall be paid the same fees and mileage that are paid witnesses in the courts of the United States, and witnesses whose depositions are taken and the persons taking the same shall severally be entitled to the same fees as are paid for like services in the courts of the United States.

No person shall be excused from attending and testifying or from producing documentary evidence before the commission or in obedience to the subpœna of the commission on the ground or for the reason that the testimony or evidence, documentary or otherwise, required of him may tend to criminate him or subject him to a penalty or forfeiture. But no natural person shall be prosecuted or subjected to any penalty or forfeiture for or on account of any transaction, matter, or thing concerning which he may testify, or produce evidence, documentary or otherwise, before the commission in obedience to a subpœna issued by it: *Provided*, That no natural person so testifying shall be exempt from prosecution and punishment for perjury committed in so testifying.

SEC. 10. That any person who shall neglect or refuse to attend and testify, or to answer any lawful inquiry, or to produce documentary evidence, if in his power to do so, in obedience to the subpœna or lawful requirement of the commission, shall be guilty of an offense and upon conviction thereof by a court of competent jurisdiction shall be punished by a fine of not less than $1,000 nor more than $5,000, or by imprisonment for not more than one year, or by both such fine and imprisonment.

Any person who shall willfully make, or cause to be made, any false entry or statement of fact in any report required to be made under this Act, or

Digitized by Google

who shall willfully make, or cause to be made, any false entry in any account, record, or memorandum kept by any corporation subject to this Act, or who shall willfully neglect or fail to make, or to cause to be made, full, true, and correct entries in such accounts, records, or memoranda of all facts and transactions apertaining to the business of such corporation, or who shall willfully remove out of the jurisdiction of the United States, or willfully mutilate, alter, or by any other means falsify any documentary evidence of such corporation, or who shall willfully refuse to submit to the commission or to any of its authorized agents, for the purpose of inspection and taking copies, any documentary evidence of such corporation in his possession or within his control, shall be deemed guilty of an offense against the United States, and shall be subject, upon conviction in any court of the United States of competent jurisdiction, to a fine of not less than $1,000 nor more than $5,000, or to imprisonment for a term of not more than three years, or to both such fine and imprisonment.

If any corporation required by this Act to file any annual or special report shall fail so to do within the time fixed by the commission for filing the same, and such failure shall continue for thirty days after notice of such default, the corporation shall forfeit to the United States the sum of $100 for each and every day of the continuance of such failure, which forfeiture shall be payable into the Treasury of the United States, and shall be recoverable in a civil suit in the name of the United States brought in the district where the corporation has its principal office or in any district in which it shall do business. It shall be the duty of the various district attorneys, under the direction of the Attorney General of the United States, to prosecute for the recovery of forfeitures. The costs and expenses of such prosecution shall be paid out of the appropriation for the expenses of the courts of the United States.

Any officer or employee of the commission who shall make public any information obtained by the commission without its authority, unless directed by a court, shall be deemed guilty of a misdeameanor, and, upon conviction thereof, shall be punished by a fine not exceeding $5,000, or by imprisonment not exceeding one year, or by fine and imprisonment, in the discretion of the court.

SEC. 11. Nothing contained in this Act shall be construed to prevent or interfere with the enforcement of the provisions of the antitrust Acts or the Acts to regulate commerce, nor shall anything contained in the Act be construed to alter, modify, or repeal the said antitrust Acts or the Acts to regulate commerce or any part or parts thereof.

Approved, September 26, 1914.

[PUBLIC—No. 212—63D CONGRESS]

(H. R. 15657)

AN ACT To supplement existing laws against unlawful restraints and monopolies, and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That "antitrust laws," as used herein, includes the Act entitled "An Act to protect trade and commerce against unlawful restraints and monopolies," approved July second, eighteen hundred and ninety; sections seventy-three to seventy-seven, inclusive, of an Act entitled "An Act to reduce taxation, to provide revenue for the Government, and for other purposes," of August twenty-seventh, eighteen hundred and ninety-four; an Act entitled "An Act to amend sections seventy-three and seventy-six of the Act of August twenty-seventh, eighteen hundred and ninety-four, entitled 'An Act to reduce taxation, to provide revenue for the Government, and for other purposes,'" approved February twelfth, nineteen hundred and thirteen; and also this Act.

"Commerce," as used herein, means trade or commerce among the several States and with foreign nations, or between the District of Columbia or any Territory of the United States and any State, Territory, or foreign nation, or between any insular possessions or other places under the jurisdiction of the United States, or between any such possession or place and any State

Digitized by Google

or Territory of the United States or the District of Columbia or any foreign nation, or within the District of Columbia or any Territory or any insular possession or other place under the jurisdiction of the United States: *Provided*, That nothing in this Act contained shall apply to the Philippine Islands.

The word "person" or "persons" wherever used in this Act shall be deemed to include corporations and associations existing under or authorized by the laws of either the United States, the laws of any of the Territories, the laws of any State, or the laws of any foreign country.

SEC. 2. That it shall be unlawful for any person engaged in commerce, in the course of such commerce, either directly or indirectly, to discriminate in price between different purchasers of commodities, which commodities are sold for use, consumption, or resale within the United States or any Territory thereof or the District of Columbia or any insular possession or other place under the jurisdiction of the United States, where the effect of such discrimination may be to substantially lessen competition or tend to create a monopoly in any line of commerce: *Provided*, That nothing herein contained shall prevent discrimination in price between purchasers of commodities on account of differences in the grade, quality, or quantity of the commodity sold, or that makes only due allowance for differences in the cost of selling or transportation, or discrimination in price in the same or different communities made in good faith to meet competiton: *And provded further*, That nothing herein contained shall prevent persons engaged in selling goods, wares, or merchandise in commerce from selecting their own customers in bona fide transactions and not in restraint of trade.

SEC. 3. That it shall be unlawful for any person engaged in commerce, in the course of such commerce, to lease or make a sale or contract for sale of goods, wares, merchandise, machinery, supplies or other commodities, whether patented or unpatented, for use, consumption, or resale within the United States or any Territory thereof or the District of Columbia or any insular possession or other place under the jurisdiction of the United States, or fix a price charged therefor, or discount from, or rebate upon, such price, on the condition, agreement, or understanding that the lessee or purchaser thereof shall not use or deal in the goods, wares, merchandise, machinery, supplies, or other commodity of a competitor or competitors of the lessor or seller, where the effect of such lease, sale, or contract for sale or such condition, agreement, or understanding may be to substantially lessen competition or tend to create a monopoly in any line of commerce.

SEC. 4. That any person who shall be injured in his business or property by reason of anything forbidden in the antitrust laws may sue therefor in any district court of the United States in the district in which the defendant resides or is found or has an agent, without respect to the amount in controversy, and shall recover threefold the damages by him sustained, and the cost of suit, including a reasonable attorney's fee.

SEC. 5. That a final judgment or decree hereafter rendered in any criminal prosecution or in any suit or proceeding in equity brought by or on behalf of the United States under the antitrust laws to the effect that a defendant has violated said laws shall be prima facie evidence against such defendant in any suit or proceeding brought by any other party against such defendant under said laws as to all matters respecting which said judgment or decree would be an estoppel as between the parties thereto: *Provided*, This section shall not apply to consent judgments or decrees entered before any testimony has been taken: *Provided further*, This section shall not apply to consent judgments or decrees rendered in criminal proceedings or suits in equity, now pending, in which the taking of testimony has been commenced but has not been concluded, provided such judgments or decrees are rendered before any further testimony is taken.

Whenever any suit or proceeding in equity or criminal prosecution is instituted by the United States to prevent, restrain, or punish violations of any of the antitrust laws, the running of the statute of limitations in respect of each and every private right of action arising under said laws and based in whole or in part on any matter complained of in said suit or proceeding shall be suspended during the pendency thereof.

SEC. 6. That the labor of a human being is not a commodity or article of commerce. Nothing contained in the antitrust laws shall be construed to forbid the existence and operation of labor, agricultural, or horticultural organizations, instituted for the purposes of mutual help, and not having capital stock or conducted for profit, or to forbid or restrain individual members of

Digitized by Google

such organizations from lawfully carrying out the legitimate objects thereof; nor shall such organizations, or the members thereof, be held or construed to be illegal combinations or conspiracies in restraint of trade, under the antitrust laws.

SEC. 7. That no corporation engaged in commerce shall acquire, directly or indirectly, the whole or any part of the stock or other share capital of another corporation engaged also in commerce, where the effect of such acquisition may be to substantially lessen competition between the corporation whose stock is so acquired and the corporation making the acquisition, or to restrain such commerce in any section or community, or tend to create a monopoly of any line of commerce.

No corporation shall acquire, directly or indirectly, the whole or any part of the stock or other share capital of two or more corporations engaged in commerce where the effect of such acquisition, or the use of such stock by the voting or granting of proxies or otherwise, may be to substantially lessen competition between such corporations, or any of them, whose stock or other share capital is so acquired, or to restrain such commerce in any section or community, or tend to create a monopoly of any line of commerce.

This section shall not apply to corporations purchasing such stock solely for investment and not using the same by voting or otherwise to bring about, or in attempting to bring about, the substantial lessening of competition. Nor shall anything contained in this section prevent a corporation engaged in commerce from causing the formation of subsidiary corporations for the actual carrying on of their immediate lawful business, or the natural and legitimate branches or extensions thereof, or from owning and holding all or a part of the stock of such subsidiary corporations, when the effect of such formation is not to substantially lessen competition.

Nor shall anything herein contained be construed to prohibit any common carrier subject to the laws to regulate commerce from aiding in the construction of branches or short lines so located as to become feeders to the main line of the company so aiding in such construction or from acquiring or owning all or any part of the stock of such branch lines, nor to prevent any such common carrier from acquiring and owning all or any part of the stock of a branch or short line constructed by an independent company where there is no substantial competition between the company owning the branch line so constructed and the company owning the main line acquiring the property or an interest therein, nor to prevent such common carrier from extending any of its lines through the medium of the acquisition of stock or otherwise of any other such common carrier where there is no substantial competition between the company extending its lines and the company whose stock, property, or an interest therein is so acquired.

Nothing contained in this section shall be held to affect or impair any right heretofore legally acquired: *Provided*, That nothing in this section shall be held or construed to authorize or make lawful anything heretofore prohibited or made illegal by the antitrust laws, nor to exempt any person from the penal provisions thereof or the civil remedies therein provided.

SEC. 8. That from and after two years from the date of the approval of this Act no person shall at the same time be a director or other officer or employee of more than one bank, banking association or trust company, organized or operating under the laws of the United States, either of which has deposits, capital, surplus, and undivided profits aggregating more than $5,000,000; and no private banker or person who is a director in any bank or trust company, organized and operating under the laws of a State, having deposits, capital, surplus, and undivided profits aggregating more than $5,000,000, shall be eligible to be a director in any bank or banking association organized or operating under the laws of the United States. The eligibility of a director, officer, or employee under the foregoing provisions shall be determined by the average amount of deposits, capital, surplus, and undivided profits as shown in the official statements of such bank, banking association, or trust company filed as provided by law during the fiscal year next preceding the date set for the annual election of directors, and when a director, officer, or employee has been elected or selected in accordance with the provisions of this Act it shall be lawful for him to continue as such for one year thereafter under said election or employment.

No bank, banking association or trust company, organized or operating under the laws of the United States, in any city or incorporated town or village of more than two hundred thousand inhabitants, as shown by the last preceding

Digitized by Google

decennial census of the United States, shall have as a director or other officer or employee any private banker or any director or other officer or employee of any other bank, banking association or trust company located in the same place: *Provided*, That nothing in this section shall apply to mutual savings banks not having a capital stock represented by shares: *Provided further*, That a director or other officer or employee of such bank, banking association, or trust company may be a director or other officer or employee of not more than one other bank or trust company organized under the laws of the United States or any State where the entire capital stock of one is owned by stockholders in the other: *And provided further*, That nothing contained in this section shall forbid a director of class A of a Federal reserve bank, as defined in the Federal Reserve Act, from being an officer or director or both an officer and director in one member bank.

That from and after two years from the date of the approval of this Act no person at the same time shall be a director in any two or more corporations, any one of which has capital, surplus, and undivided profits aggregating more than $1,000,000, engaged in whole or in part in commerce, other than banks, banking associations, trust companies and common carriers subject to the Act to regulate commerce, approved February fourth, eighteen hundred and eighty-seven, if such corporations are or shall have been theretofore, by virtue of their business and location of operation, competitors, so that the elimination of competition by agreement between them would constitute a violation of any of the provisions of any of the antitrust laws. The eligibility of a director under the foregoing provision shall be determined by the aggregate amount of capital, surplus, and undivided profits, exclusive of dividends declared but not paid to stockholders, at the end of the fiscal year of said corporation next preceding the election of directors, and when a director has been elected in accordance with the provisions of this Act it shall be lawful for him to continue as such for one year thereafter.

When any person elected or chosen as a director or officer or selected as an employee of any bank or other corporation subject to the provisions of this Act is eligible at the time of his election or selection to act for such bank or other corporation in such capacity his eligibility to act in such capacity shall not be affected and he shall not become or be deemed amenable to any of the provisions hereof by reason of any change in the affairs of such bank or other corporation from whatsoever cause, whether specifically excepted by any of the provisions hereof or not, until the expiration of one year from the date of his election or employment.

SEC. 9. Every president, director, officer or manager of any firm, association or corporation engaged in commerce as a common carrier, who embezzles, steals, abstracts or willfully misapplies, or willfully permits to be misapplied, any of the moneys, funds, credits, securities, property or assets of such firm, association or corporation, arising or accruing from, or used in, such commerce, in whole or in part, or willfully or knowingly converts the same to his own use or to the use of another, shall be deemed guilty of a felony and upon conviction shall be fined not less than $500 or confined in the penitentiary not less than one year nor more than ten years, or both, in the discretion of the court.

Prosecutions hereunder may be in the district court of the United States for the district wherein the offense may have been committed.

That nothing in this section shall be held to take away or impair the jurisdiction of the courts of the several States under the laws thereof; and a judgment of conviction or acquittal on the merits under the laws of any State shall be a bar to any prosecution hereunder for the same act or acts.

SEC. 10. That after two years from the approval of this Act no common carrier engaged in commerce shall have any dealings in securities, supplies or other articles of commerce, or shall make or have any contracts for construction or maintenance of any kind, to the amount of more than $50,000, in the aggregate, in any one year, with another corporation, firm, partnership or association when the said common carrier shall have upon its board of directors or as its president, manager or as its purchasing or selling officer, or agent in the particular transaction, any person who is at the same time a director, manager, or purchasing or selling officer of, or who has any substantial interest in, such other corporation, firm, partnership or association, unless and except such purchases shall be made from, or such dealings shall be with, the bidder whose bid is the most favorable to such common carrier, to be ascertained by competitive bidding under regulations to be prescribed by rule or otherwise by the Interstate Commerce Commission. No bid shall be received unless the name and address

Digitized by Google

of the bidder or the names and addresses of the officers, directors, and general managers thereof, if the bidder be a corporation, or of the members, if it be a partnership or firm, be given with the bid.

Any person who shall, directly or indirectly, do or attempt to do anything to prevent anyone from bidding or shall do any act to prevent free and fair competition among the bidders or those desiring to bid shall be punished as prescribed in this section in the case of an officer or director.

Every such common carrier having any such transactions or making any such purchases shall within thirty days after making the same file with the Interstate Commerce Commission a full and detailed statement of the transaction showing the manner of the competitive bidding, who were the bidders, and the names and addresses of the directors and officers of the corporations and the members of the firm or partnership bidding; and whenever the said commission shall, after investigation or hearing, have reason to believe that the law has been violated in and about the said purchases or transactions it shall transmit all papers and documents and its own views or findings regarding the transaction to the Attorney General.

If any common carrier shall violate this section it shall be fined not exceeding $25,000; and every such director, agent, manager or officer thereof who shall have knowingly voted for or directed the act constituting such violation or who shall have aided or abetted in such violation shall be deemed guilty of a misdemeanor and shall be fined not exceeding $5,000, or confined in jail not exceeding one year, or both, in the discretion of the court.

SEC. 11. That authority to enforce compliance with sections two, three, seven and eight of this Act by the persons respectively subject thereto is hereby vested: in the Interstate Commerce Commission where applicable to common carriers, in the Federal Reserve Board where applicable to banks, banking associations and trust companies, and in the Federal Trade Commission where applicable to all other character of commerce, to be exercised as follows:

Whenever the commission or board vested with jurisdiction thereof shall have reason to believe that any person is violating or has violated any of the provisions of sections two, three, seven and eight of this Act, it shall issue and serve upon such person a complaint stating its charges in that respect, and containing a notice of a hearing upon a day and at a place therein fixed at least thirty days after the service of said complaint. The person so complained of shall have the right to appear at the place and time so fixed and show cause why an order should not be entered by the commission or board requiring such person to cease and desist from the violation of the law so charged in said complaint. Any person may make application, and upon good cause shown may be allowed by the commission or board, to intervene and appear in said proceeding by counsel or in person. The testimony in any such proceeding shall be reduced to writing and filed in the office of the commission or board. If upon such hearing the commission or board, as the case may be, shall be of the opinion that any of the provisions of said sections have been or are being violated, it shall make a report i nwriting in which it shall state its findings as to the facts, and shall issue and cause to be served on such person an order requiring such person to cease and desist from such violations, and divest itself of the stock held or rid itself of the directors chosen contrary to the provisions of sections seven and eight of this Act, if any there be, in the manner and within the time fixed by said order. Until a transcript of the record in such hearing shall have been filed in a circuit court of appeals of the United States, as hereinafter provided, the commission or board may at any time, upon such notice and in such manner as it shall deem proper, modify or set aside, in whole or in part, any report or any order made or issued by it under this section.

If such person fails or neglects to obey such order of the commission or board while the same is in effect, the commission or board may apply to the circuit court of appeals of the United States, within any circuit where the violation, complained of was or is being committed or where such person resides or carries on business, for the enforcement of its order, and shall certify and file with its application a transcript of the entire record in the proceeding, including all the testimony taken and the report and order of the commission or board. Upon such filing of the application and transcript the court shall cause notice thereof to be served upon such person and thereupon shall have jurisdiction of the proceeding and of the question determined therein, and shall have power to make and enter upon the pleadings, testimony, and proceedings set forth in such transcript a decree affirming, modifying, or setting

Digitized by Google

aside the order of the commission or board. The findings of the commission or board as to the facts, if supported by testimony, shall be conclusive. If either party shall apply to the court for leave to adduce additional evidence, and shall show to the satisfaction of the court that such additional evidence is material and that there were reasonable grounds for the failure to adduce such evidence in the proceeding before the commission or board, the court may order such additional evidence to be taken before the commission or board and to be adduced upon the hearings in such manner and upon such terms and conditions as to the court may seem proper. The commission or board may modify its findings as to the facts, or make new findings, by reason of the additional evidence so taken, and it shall file such modified or new findings, which, if supported by testimony, shall be conclusive, and its recommendation, if any, for the modification or setting aside of its original order, with the return of such additional evidence. The judgment and decree of the court shall be final, except that the same shall be subject to review by the Supreme Court upon certiorari as provided in section two hundred and forty of the Judicial Code.

Any party required by such order of the commission or board to cease and desist from a violation charged may obtain a review of such order in said circuit court of appeals by filing in the court a written petition praying that the order of the commission or board be set aside. A copy of such petition shall be forthwith served upon the commission or board, and thereupon the commission or board forthwith shall certify and file in the court a transcript of the record as hereinbefore provided. Upon the filing of the transcript the court shall have the same jurisdiction to affirm, set aside, or modify the order of the commission or board as in the case of an application by the commission or board for the enforcement of its order, and the findings of the commission or board as to the facts, if supported by testimony, shall in like manner be conclusive.

The jurisdiction of the circuit court of appeals of the United States to enforce, set aside, or modify orders of the commission or board shall be exclusive.

Such proceedings in the circuit court of appeals shall be given precedence over other cases pending therein, and shall be in every way expedited. No order of the commission or board or the judgment of the court to enforce the same shall in any wise relieve or absolve any person from any liability under the antitrust Acts.

Complaints, orders, and other processes of the commission or board under this section may be served by anyone duly authorized by the commission or board, either (a) by delivering a copy thereof to the person to be served, or to a member of the partnership to be served, or to the president, secretary, or other executive officer or a director of the corporation to be served; or (b) by leaving a copy thereof at the principal office or place of business of such person; or (c) by registering and mailing a copy thereof addressed to such person at his principal office or place of business. The vertified return by the person so serving said complaint, order, or other process setting forth the manner of said service shall be proof of the same, and the return post-office receipt for said complaint, order, or other process registered and mailed as aforesaid shall be proof of the service of the same.

SEC. 12. That any suit, action, or proceeding under the antitrust laws against a corporation may be brought not only in the judicial district whereof it is an inhabitant, but also in any district wherein it may be found or transacts business; and all process in such cases may be served in the district of which it is an inhabitant, or wherever it may be found.

SEC. 13. That in any suit, action, or proceeding brought by or on behalf of the United States subpœnas for witnesses who are required to attend a court of the United States in any judicial district in any case, civil or criminal, arising under the antitrust laws may run into any other district: *Provided*, That in civil cases no writ of subpœna shall issue for witnesses living out of the district in which the court is held at a greater distance than one hundred miles from the place of holding the same without the permission of the trial court being first had upon proper application and cause shown.

SEC. 14. That whenever a corporation shall violate any of the penal provisions of the antitrust laws, such violation shall be deemed to be also that of the individual directors, officers, or agents of such corporation who shall have authorized, ordered, or done any of the acts constituting in whole or in part such violation, and such violation shall be deemed a misdemeanor, and upon

Digitized by Google

conviction therefor of any such director, officer, or agent he shall be punished by a fine of not exceeding $5,000 or by imprisonment for not exceeding one year, or by both, in the discretion of the court.

SEC. 15. That the several district courts of the United States are hereby invested with jurisdiction to prevent and restrain violations of this Act, and it shall be the duty of the several district attorneys of the United States, in their respective districts, under the direction of the Attorney General, to institute proceedings in equity to prevent and restrain such violations. Such proceedings may be by way of petition setting forth the case and praying that such violation shall be enjoined or otherwise prohibited. When the parties complained of shall have been duly notified of such petition, the court shall proceed, as soon as may be, to the hearing and determination of the case; and pending such petition, and before final decree, the court may at any time make temporary restraining order or prohibition as shall be deemed just in the premises. Whenever it shall appear to the court before which any such proceeding may be pending that the ends of justice require that other parties should be brought before the court, the court may cause them to be summoned whether they reside in the district in which the court is held or not, and subpœnas to that end may be served in any district by the marshal thereof.

SEC. 16. That any person, firm, corporation, or association shall be entitled to sue for and have injunctive relief, in any court of the United States having jurisdiction over the parties, against threatened loss or damage by a violation of the antitrust laws, including sections two, three, seven and eight of this Act, when and under the same conditions and principles as injunctive relief against threatened conduct that will cause loss or damage is granted by courts of equity, under the rules governing such proceedings, and upon the execution of proper bond against damages for an injunction improvidently granted and a showing that the danger of irreparable loss or damage is immediate, a preliminary injunction may issue: *Provided*, That nothing herein contained shall be construed to entitle any person, firm, corporation, or association, except the United States, to bring suit in equity for injunctive relief against any common carrier subject to the provisions of the Act to regulate commerce, approved February fourth, eighteen hundred and eighty-seven, in respect of any matter subject to the regulation, supervision, or other jurisdiction of the Interstate Commerce Commission.

SEC. 17. That no preliminary injunction shall be issued without notice to the opposite party.

No temporary restraining order shall be granted without notice to the opposite party unless it shall clearly appear from specific facts shown by affidavit or by the verified bill that immediate and irreparable injury, loss, or damage will result to the applicant before notice can be served and a hearing had thereon. Every such temporary restraining order shall be indorsed with the date and hour of issuance, shall be forthwith filed in the clerk's office and entered of record, shall define the injury and state why it is irreparable and why the order was granted without notice, and shall by its terms expire within such time after entry, not to exceed ten days, as the court or judge may fix, unless within the time so fixed the order is extended for a like period for good cause shown, and the reasons for such extension shall be entered of record. In case a temporary restraining order shall be granted without notice in the contingency specified, the matter of the issuance of a preliminary injunction shall be set down for a hearing at the earliest possible time and shall take precedence of all matters except older matters of the same character; and when the same comes up for hearing the party obtaining the temporary restraining order shall proceed with the application for a preliminary injunction, and if he does not do so the court shall dissolve the temporary restraining order. Upon two days' notice to the party obtaining such temporary restraining order the opposite party may appear and move the dissolution or modification of the order, and in that event the court or judge shall proceed to hear and determine the motion as expeditiously as the ends of justice may require.

Section two hundred and sixty-three of an Act entitled "An Act to codify, revise, and amend the laws relating to the judiciary," approved March third, nineteen hundred and eleven, is hereby repealed.

Nothing in this section contained shall be deemed to alter, repeal, or amend section two hundred and sixty-six of an Act entitled "An Act to codify, revise, and amend the laws relating to the judiciary," approved March third, nineteen hundred and eleven.

SEC. 18. That, except as otherwise provided in section 16 of this Act, no restraining order or interlocutory order of injunction shall issue, except upon

Digitized by Google

giving of security by the applicant in such sum as the court or judge may deem proper, conditioned upon the payment of such costs and damages as may be incurred or suffered by any party who may be found to have been wrongfully enjoined or restrained thereby.

SEC. 19. That every order of injunction or restraining order shall set forth the reasons for the issuance of the same, shall be specific in terms, and shall describe in reasonable detail, and not by reference to the bill of complaint or other document, the act or acts sought to be restrained, and shall be binding only upon the parties to the suit, their officers, agents, servants, employees, and attorneys, or those in active concert or participating with them, and who shall, by personal service or otherwise, have received actual notice of the same.

SEC. 20. That no restraining order or injunction shall be granted by any court of the United States, or a judge or the judges thereof, in any case between an employer and employees, or between employers and employees, or between employees, or between persons employed and persons seeking employment, involving, or growing out of, a dispute concerning terms or conditions of employment, unless necessary to prevent irreparable injury to property, or to a property right, of the party making the application, for which injury there is no adequate remedy at law, and such property or property right must be described with particularly in the application, which must be in writing and sworn to by the applicant or by his agent or attorney.

And no such restraining order or injunction shall prohibit any person or persons, whether singly or in concert, from terminating any relation of employment, or from ceasing to perform any work or labor, or from recommending, advising, or persuading others by peaceful means so to do; or from attending at any place where any such person or persons may lawfully be, for the purpose of peacefully obtaining or communicating information, or from peacefully persuading any person to work or to abstain from working; or from ceasing to patronize or to employ any party to such dispute, or from recommending, advising, or persuading others by peaceful and lawful means so to do; or from paying or giving to, or withholding from, any person engaged in such dispute, any strike benefits or other moneys or things of value; or from peaceably assembling in a lawful manner, and for lawful purposes; or from doing any act or thing which might lawfully be done in the absence of such dispute by any party thereto; nor shall any of the acts specified in this paragraph be considered or held to be violations of any law of the United States.

SEC. 21. That any person who shall willfully disobey any lawful writ, process, order, rule, decree, or command of any district court of the United States or any court of the District of Columbia by doing any act or thing therein, or thereby forbidden to be done by him, if the act or thing so done by him be of such character as to constitute also a criminal offense under any statute of the United States or under the laws of any State in which the act was committed, shall be proceeded against for his said contempt as hereinafter provided.

SEC. 22. That whenever it shall be made to appear to any district court or judge thereof, or to any judge therein sitting, by the return of a proper officer on lawful process, or upon the affidavit of some credible person, or by information filed by any district attorney, that there is reasonable ground to believe that any person has been guilty of such contempt, the court or judge thereof, or any judge therein sitting, may issue a rule requiring the said person so charged to show cause upon a day certain why he should not be punished therefor, which rule, together with a copy of the affidavit or information, shall be served upon the person charged, with sufficient promptness to enable him to prepare for and make return to the order at the time fixed therein. If upon or by such return, in the judgment of the court, the alleged contempt be not sufficiently purged, a trial shall be directed at a time and place fixed by the court: *Provided, however,* That if the accused, being a natural person, fail or refuse to make return to the rule to show cause, an attachment may issue against his person to compel an answer, and in case of his continued failure or refusal, or if for any reason it be impracticable to dispose of the matter on the return day, he may be required to give reasonable bail for his attendance at the trial and his submission to the final judgment of the court. Where the accused is a body corporate, an attachment for the sequestration of its property may be issued upon like refusal or failure to answer.

Digitized by Google

In all cases within the purview of this Act such trial may be by the court, or, upon demand of the accused, by a jury; in which latter event the court may impanel a jury from the jurors then in attendance, or the court or the judge thereof in chambers may cause a sufficient number of jurors to be selected and summoned, as provided by law, to attend at the time and place of trial, at which time a jury shall be selected and impaneled as upon a trial for misdemeanor; and such trial shall conform, as near as may be, to the practice in criminal cases prosecuted by indictment or upon information.

If the accused be found guilty, judgment shall be entered accordingly, prescribing the punishment, either by fine or imprisonment, or both, in the discretion of the court. Such fine shall be paid to the United States or to the complainant or other party injured by the act constituting the contempt, or may, where more than one is so damaged, be divided or apportioned among them as the court may direct, but in no case shall the fine be paid to the United States exceed, in case the accused is a natural person, the sum of $1,000, nor shall such imprisonment exceed the term of six months: *Provided*, That in any case the court or a judge thereof may, for good cause shown, by affidavit or proof taken in open court or before such judge and filed with the papers in the case, dispense with the rule to show cause, and may issue an attachment for the arrest of the person charged with contempt; in which event such person, when arrested, shall be brought before such court or a judge thereof without unnecessary delay and shall be admitted to bail in a reasonable penalty for his appearance to answer to the charge or for trial for the contempt; and thereafter the proceedings shall be the same as provided herein in case the rule had issued in the first instance.

SEC. 23. That the evidence taken upon the trial of any persons so accused may be preserved by bill of exceptions, and any judgment of conviction may be reviewed upon writ of error in all respects as now provided by law in criminal cases, and may be affirmed, reversed, or modified as justice may require. Upon the granting of such writ of error, execution of judgment shall be stayed, and the accused, if thereby sentenced to imprisonment, shall be admitted to bail in such reasonable sum as may be required by the court, or by any justice, or any judge of any district court of the United States or any court of the District of Columbia.

SEC. 24. That nothing herein contained shall be construed to relate to contempts committed in the presence of the court, or so near thereto as to obstruct the administration of justice, nor to contempts committed in disobedience of any lawful writ, process, order, rule, decree, or command entered in any suit or action brought or prosecuted in the name of, or on behalf of, the United States, but the same, and all other cases of contempt not specifically embraced within section twenty-one of this Act, may be punished in conformity to the usages at law and in equity now prevailing.

SEC. 25. That no proceeding for contempt shall be instituted against any person unless begun within one year from the date of the act complained of; nor shall any such proceeding be a bar to any criminal prosecution for the same act or acts; but nothing herein contained shall affect any proceedings in contempt pending at the time of the passage of this Act.

SEC. 26. If any clause, sentence, paragraph, or part of this Act shall, for any reason, be adjudged by any court of competent jurisdiction to be invalid, such judgment shall not affect, impair, or invalidate the remainder thereof, but shall be confined in its operation to the clause, sentence, paragraph, or part thereof directly involved in the controversy in which such judgment shall have been rendered.

Approved, October 15, 1914.

[PUBLIC LAW No. 263—63D CONGRESS]

(Extract from)

Enforcement of antitrust laws: For the enforcement of antitrust laws, including not exceeding $15,000 for salaries of necessary employees at the seat of government, $300,000: *Provided, however*, That on[1] part of this money shall be spent in the prosecution of any organization or individual for entering into

[1] The word "on" should read "no."

Digitized by Google

any combination or agreement having in view the increasing of wages, shortening of hours or bettering the conditions of labor, or for any act done in furtherance thereof, not in itself unlawful: *Provided further*, That no part of this appropriation shall be expended for the prosecution of producers of farm products and associations of farmers who cooperate and organize in an effort to and for the purpose to obtain and maintain a fair and reasonable price for their products.

Approved, March 3, 1915.

[PUBLIC LAW NO. 271—63D CONGRESS]

(Extract from)

That no part of any sum herein, appropriated shall be expended for the purchase of structural steel, ship plates, armor, armament, or machinery from any persons, firms, or corporations who have combined or conspired to monopolize the interstate or foreign commerce or trade of the United States, or the commerce or trade between the States and any Territory or the District of Columbia, in any of the articles aforesaid, and no purchase of structural steel, ship plates, or machinery shall be made at a price in excess of a reasonable profit above the actual cost of manufacture. But this limitation shall in no case apply to any existing contract.

Approved, March 3, 1915.

[PUBLIC—NO. 75—64TH CONGRESS]

(S. 4432)

AN ACT To amend section eight of an Act entitled "An Act to supplement existing laws against unlawful restraints and monopolies, and for other purposes," approved October fifteenth, nineteen hundred and fourteen

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section eight of an Act entitled "An Act to supplement existing laws against unlawful restraint and monopolies, and for other purposes," approved October fifteenth, nineteen hundred and fourteen, be, and the same is hereby, amended by striking out the period at the end of the second clause of said section, inserting in lieu thereof a colon, and adding to said clause the following:

"*And provided further*, That nothing in this Act shall prohibit any officer, director, or employee of any member bank or class A director of a Federal reserve bank, who shall first procure the consent of the Federal Reserve Board, which board is hereby authorized, at its discretion, to grant, withhold, or revoke such consent, from being an officer, director, or employee of not more than two other banks, banking associations, or trust companies, whether organized under the laws of the United States or any State, if such other bank, banking association, or trust company is not in substantial competition with such member bank.

"The consent of the Federal Reserve Board may be procured before the person applying therefor has been elected as a class A director of a Federal reserve bank or as a director of any member bank."

Approved, May 15, 1916.

[PUBLIC LAW—NO. 132—64TH CONGRESS]

(Extract from)

Enforcement of antitrust laws: For the enforcement of antitrust laws, including not exceeding $15,000 for salaries of necessary employees at the seat of government, $250,000: *Provided, however*, That no part of this money shall be spent in the prosecution of any organization or individual for entering into any combination or agreement having in view the increasing of wages, shortening of hours, or bettering the conditions of labor, or for any act done in furtherance thereof, not in itself unlawful: *Provided further*, That no part

Digitized by Google

of this appropriation shall be expended for the prosecution of producers of farm products and associations of farmers who cooperate and organize in an effort to and for the purpose to obtain and maintain a fair and reasonable price for their products.

Approved, July 1, 1916.

[PUBLIC LAW—No. 241—64TH CONGRESS]

(Extract from)

That no part of any sum herein appropriated shall be expended for the purchase of structural steel, ship plates, armor, armament, or machinery from any persons, firms, or corporations who are parties to any existing combination or conspiracy to monopolize the interstate or foreign commerce or trade of the United States, or the commerce or trade between the States and any Territory or the District of Columbia, in any of the articles aforesaid, and no purchase of structural steel, ship plates, or machinery shall be made at a price in excess of a reasonable profit above the actual cost of manufacture. But this limitation shall in no case apply to any existing contract.

Approved, August 29, 1916.

[PUBLIC RESOLUTION—No. 33—64TH CONGRESS]

(S. J. Res. 129)

JOINT RESOLUTION Extending until April fifteenth, nineteen hundred and seventeen, the effective date of section ten of the Act entitled "An Act to supplement existing laws against unlawful restraints and monopolies, and for other purposes," approved October fifteenth, nineteen hundred and fourteen

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the effective date on and after which the provisions of section ten of the Act entitled "An Act to supplement existing laws against unlawful restraints and monopolies, and for other purposes," approved October fifteenth, nineteen hundred and fourteen, shall become and be effective is hereby deferred and extended to April fifteenth, nineteen hundred and seventeen.

Approved, August 31, 1916.

[PUBLIC LAW 270—64TH CONGRESS]

(Extract from)

Any director or other officer, agent, or employee of any member bank may, with the approval of the Federal Reserve Board, be a director or other officer, agent, or employee of any such bank or corporation above mentioned in the capital stock of which such member bank shall have invested as hereinbefore provided, without being subject to the provisions of section eight of the Act approved October fifteenth, nineteen hundred and fourteen, entitled "An Act to supplement existing laws against unlawful restraints and monopolies, and for other purposes."

Approved, September 7, 1916.

[PUBLIC LAW No. 391—64TH CONGRESS]

(Extract from)

That no part of any sum herein appropriated shall be expended for the purchase of structural steel, ship plates, armor, armament, or machinery from any persons, firms, or corporations who are parties to any existing combination or conspiracy to monopolize the interstate or foreign commerce or trade of the United States, or the commerce or trade between the States and any Territory

Digitized by Google

or the District of Columbia, in any of the articles aforesaid, and no purchase of structural steel, ship plates, or machinery shall be made at a price in excess of a reasonable profit above the actual cost of manufacture. But this limitation shall in no case apply to any existing contract.

Approved, March 4, 1917.

[PUBLIC RESOLUTION—No. 55—64TH CONGRESS]

(S. J. Res. 206)

JOINT RESOLUTION Extending until January eighth, nineteen hundred and eighteen, the effective date of section ten of the Act entitled "An Act to supplement existing laws against unlawful restraints and monopolies, and for other purposes," approved October fifteenth, nineteen hundred and fourteen

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the effective date on and after which the provisions of section ten of the Act entitled "An Act to supplement existing laws against unlawful restraints and monopolies, and for other purposes," approved October fifteenth, nineteen hundred and fourteen, shall become and be effective is hereby deferred and extended to January eighth, nineteen hundred and eighteen.

Approved, March 4, 1917.

[PUBLIC LAW No. 21—65TH CONGRESS]

(Extract from)

For all expenses necessary to carry out the order of the President of the United States to investigate within the scope of its powers and to report the facts relating to any alleged violations of the antitrust Acts by any corporation in the production, ownership, manufacture, storage, and distribution of foodstuffs and the porducts or by-products arising from or in connection with their preparation and manufacture, $250,000.

Approved, June 12, 1917.

[PUBLIC LAW No. 21—65TH CONGRESS]

(Extract from)

Enforcement of antitrust laws: For the enforcement of antitrust laws, including not exceeding $15,000 for salaries of necessary employees at the seat of government, $200,000: *Provided, however*, That no part of this money shall be spent in the prosecution of any organization or individual for entering into any combination or agreement having in view the increasing of wages, shortening of hours or bettering the conditions of labor, or for any act done in furtherance thereof, not in itself unlawful: *Provided further*, That no part of this appropriation shall be expended for the prosecution of producers of farm products and associations of farmers who cooperate and organize in an effort to and for the purpose to obtain and maintain a fair and reasonable price for their products.

Approved, June 12, 1917.

[PUBLIC RESOLUTION—No. 20—65TH CONGRESS]

(S. J. Res. 106)

JOINT RESOLUTION Extending until January first, nineteen hundred and nineteen, the effective date of section ten of the Act entitled "An Act to supplement existing laws against unlawful restraints and monopolies, and for other purposes," approved October fifteenth, nineteen hundred and fourteen

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the effective date on and after which the

Digitized by Google

provisions of section ten of the Act entitled "An Act to supplement existing laws against unlawful restraints and monopolies, and for other purposes," approved October fifteenth, nineteen hundred and fourteen, shall become and be effective is hereby deferred and extended to January first, nineteen hundred and nineteen: *Provided*, That said section shall become effective on January eighth, nineteen hundred and eighteen, as to any corporations hereafter organized.

Approved, January 12, 1918.

[PUBLIC LAW No. 107—65TH CONGRESS]

(Extract from)

SEC. 13. That all pending cases in the courts of the United States affecting railroads or other transportation systems brought under the Act to regulate commerce, approved February fourth, eighteen hundred and eighty-seven as amended and supplemented including the commodities clause so called or under the Act to protect trade and commerce against unlawful restraints and monopolies, approved July second, eighteen hundred and ninety, and amendments thereto, shall proceed to final determination as soon as may be, as if the United States had not assumed control of transportation systems; but in any such case the court having jurisdiction may, upon the application of the United States, stay execution of final judgment or decree until such time as it shall deem proper.

Approved, March 21, 1918.

[PUBLIC—No. 126—65TH CONGRESS]

[H. R. 2316]

AN ACT To promote export trade, and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the words "export trade" wherever used in this Act mean solely trade or commerce in goods, wares, or merchandise exported, or in the course of being exported from the United States or any Territory thereof to any foreign nation; but the words "export trade" shall not be deemed to include the production, manufacture, or selling for consumption or for resale, within the United States or any Territory thereof, of such goods, wares, or merchandise, or any act in the course of such production, manufacture, or selling for consumption or for resale.

That the words "trade within the United States" wherever used in this Act mean trade or commerce among the several States or in any Territory of the United States, or in the District of Columbia, or between any such Territory and another, or between any such Territory or Territories and any State or States or the District of Columbia, or between the District of Columbia and any State or States.

That the word "association" wherever used in this Act means any corporation or combination, by contract or otherwise, of two or more persons, partnerships, or corporations.

SEC. 2. That nothing contained in the Act entitled "An Act to protect trade and commerce against unlawful restraints and monopolies," approved July second, eighteen hundred and ninety, shall be construed as declaring to be illegal an association entered into for the sole purpose of engaging in export trade and actually engaged solely in such export trade, or an agreement made or act done in the course of export trade by such association, provided such association, agreement, or act is not in restraint of trade within the United States, and is not in restraint of the export trade of any domestic competitor of such association: *And provided further*, That such association does not, either in the United States or elsewhere, enter into any agreement, understanding, or conspiracy, or do any act which artificially or intentionally enhances or depresses prices within the United States of commodities of the class exported by such association, or which substantially lessens competition within the United States or otherwise restrains trade therein.

Digitized by Google

SEC. 3. That nothing contained in section seven of the Act entitled "An Act to supplement existing laws against unlawful restraints and monopolies, and for other purposes," approved October fifteenth, nineteen hundred and fourteen, shall be construed to forbid the acquisition or ownership by any corporation of the whole or any part of the stock or other capital of any corporation organized solely for the purpose of engaging in export trade, and actually engaged solely in such export trade, unless the effect of such acquisition or ownership may be to restrain trade or substantially lessen competition within the United States.

SEC. 4. That the prohibition against "unfair methods of competition" and the remedies provided for enforcing said prohibition contained in the Act entitled "An Act to create a Federal Trade Commission, to define its powers and duties, and for other purposes," approved September twenty-sixth, nineteen hundred and fourteen, shall be construed as extending to unfair methods of competition used in export trade against competitors engaged in export trade, even though the acts constituting such unfair methods are done without the territorial jurisdiction of the United States.

SEC. 5. That every association now engaged solely in export trade, within sixty days after the passage of this Act, and every association entered into hereafter which engages solely in export trade, within thirty days after its creation, shall file with the Federal Trade Commission a verified written statement setting forth the location of its offices or places of business and the names and addresses of all its officers and of all its stockholders or members, and if a corporation, a copy of its certificate or articles of incorporation and by-laws, and if unincorporated, a copy of its articles or contract of association, and on the first day of January of each year thereafter it shall make a like statement of the location of its offices or places of business and the names and addresses of all its officers and of all its stockholders or members and of all amendments to and changes in its articles or certificate of incorporation or in its articles or contract of association. It shall also furnish to the commission such information as the commission may require as to its organization, business, conduct, practices, management, and relation to other associations, corporations, partnerships, and individuals. Any association which shall fail so to do shall not have the benefit of the provisions of section two and section three of this Act, and it shall also forfeit to the United States the sum of $100 for each and every day of the continuance of such failure, which forfeiture shall be payable into the Treasury of the United States, and shall be recoverable in a civil suit in the name of the United States brought in the district where the association has its principal office, or in any district in which it shall do business. It shall be the duty of the various district attorneys, under the direction of the Attorney General of the United States, to prosecute for the recovery of the forfeiture. The costs and expenses of such prosecution shall be paid out of the appropriation for the expenses of the courts of the United States.

Whenever the Federal Trade Commission shall have reason to believe that an association or any agreement made or act done by such association is in restraint of trade within the United States or in restraint of the export trade of any domestic competitor of such association, or that an association either in the United States or elsewhere has entered into any agreement, understanding, or conspiracy, or done any act which artificially or intentionally enhances or depresses prices within the United States of commodities of the class exported by such association, or which substantially lessens competition within the United States or otherwise restrains trade therein, it shall summon such association, its officers, and agents to appear before it, and thereafter conduct an investigation into the alleged violations of law. Upon investigation, if it shall conclude that the law has been violated, it may make to such association recommendations for the readjustment of its business, in order that it may thereafter maintain its organization and management and conduct its business in accordance with law. If such association fails to comply with the recommendations of the Federal Trade Commission, said commission shall refer its findings and recommendations to the Attorney General of the United States for such action thereon as he may deem proper.

For the purpose of enforcing these provisions the Federal Trade Commission shall have all the powers, so far as applicable, given it in "An Act to create a Federal Trade Commission, to define its powers and duties, and for other purposes."

Approved, April 10, 1918.

Digitized by Google

[PUBLIC—No. 181—65TH CONGRESS]

(Extract from)

Enforcement of antitrust laws: For the enforcement of antitrust laws, including not exceeding $15,000 for salaries of necessary employees at the seat of government, $100,000: *Provided, however,* That no part of this money shall be spent in the prosecution of any organization or individual for entering into any combination or agreement having in view the increasing of wages, shortening of hours or bettering the conditions of labor, or for any act done in furtherance thereof, not in itself unlawful: *Provided further,* That no part of this appropriation shall be expended for the prosecution of producers of farm products and associations of farmers who cooperate and organize in an effort to and for the purpose to obtain and maintain a fair and reasonable price for their products.

Approved, July 1, 1918.

[PUBLIC—No. 21—66TH CONGRESS]

(Extract from)

Enforcement of antitrust laws: For the enforcement of antitrust laws, including not exceeding $15,000 for salaries of necessary employees at the seat of government, $100,000: *Provided, however,* That no part of this money shall be spent in the prosecution of any organization or individual for entering into any combination or agreement having in view the increasing of wages, shortening of hours or bettering the conditions of labor, or for any act done in furtherance thereof, not in itself unlawful: *Provided further,* That no part of this appropriation shall be expended for the prosecution of producers of farm products and associations of farmers who cooperate and organize in an effort to and for the purpose to obtain and maintain a fair and reasonable price for their products.

Approved, July 19, 1919.

[PUBLIC—No. 73—66TH CONGRESS]

(Extract from)

Enforcement of antitrust laws: For the enforcement of antitrust laws, $200,000: *Provided, however,* That no part of this money shall be spent in the prosecution of any organization other than an organization of public officers or any individual other than a public officer for entering into any combination or agreement having in view the increasing of wages, shortening of hours, or bettering the conditions of labor, or for any act done in furtherance thereof, not in itself unlawful: *Provided further,* That no part of this appropriation shall be expended for the prosecution of producers of farm products and associations of farmers who cooperate and organize in an effort to and for the purpose to obtain and maintain a fair and reasonable price for their products.

Approved, November 4, 1919.

[PUBLIC—No. 106—66TH CONGRESS]

[S. 2472]

AN ACT To amend the Act approved December 23, 1913, known as the Federal Reserve Act.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Act approved December 23, 1913, known as the Federal Reserve Act, as amended be further amended by adding a new section as follows:

Digitized by Google

"BANKING CORPORATIONS AUTHORIZED TO DO FOREIGN BANKING BUSINESS

"SEC. 25 (a). Corporations to be organized for the purpose of engaging in international or foreign banking or other international or foreign financial operations, or in banking or other financial operations in a dependency or insular possession of the United States, either directly or through the agency, ownership, or control of local institutions in foreign countries, or in such dependencies or insular possessions as provided by this section, and to act when required by the Secretary of the Treasury as fiscal agents of the United States, may be formed by any number of natural persons, not less in any case than five.

"Such persons shall enter into articles of association which shall specify in general terms the objects for which the association is formed and may contain any other provisions not inconsistent with law which the association may see fit to adopt for the regulation of its business and the conduct of its affairs.

"Such articles of association shall be signed by all of the persons intending to participate in the organization of the corporation and, thereafter, shall be forwarded to the Federal Reserve Board and shall be filed and preserved in its office. The persons signing the said articles of association shall, under their hands, make an organization certificate which shall specifically state:

"First. The name assumed by such corporation, which shall be subject to the approval of the Federal Reserve Board.

"Second. The place or places where its operations are to be carried on.

"Third. The place in the United States where its home office is to be located.

"Fourth. The amount of its capital stock and the number of shares into which the same shall be divided.

"Fifth. The names and places of business or residence of the persons executing the certificate and the number of shares to which each has subscribed.

"Sixth. The fact that the certificate is made to enable the persons subscribing the same, and all other persons, firms, companies, and corporations, who or which may thereafter subscribe to or purchase shares of the capital stock of such corporation, to avail themselves of the advantages of this section.

"The persons signing the organization certificate shall duly acknowledge the execution thereof before a judge of some court of record or notary public, who shall certify thereto under the seal of such court or notary, and thereafter the certificate shall be forwarded to the Federal Reserve Board to be filed and preserved in its office. Upon duly making and filing articles of association and an organization certificate, and after the Federal Reserve Board has approved the same and issued a permit to begin business, the association shall become and be a body corporate, and as such and in the name designated therein shall have power to adopt and use a corporate seal, which may be changed at the pleasure of its board of directors; to have succession for a period of twenty years unless sooner dissolved by the act of the shareholders owning two-thirds of the stock or by an Act of Congress or unless its franchises become forfeited by some violation of law; to make contracts; to sue and be sued, complain, and defend in any court of law or equity; to elect or appoint directors, all of whom shall be citizens of the United States; and, by its board of directors, to appoint such officers and employees as may be deemed proper, define their authority and duties, require bonds of them, and fix the penalty thereof, dismiss such officers or employees, or any thereof, at pleasure and appoint others to fill their places; to prescribe, by its board of directors, by-laws not inconsistent with law or with the regulations of the Federal Reserve Board regulating the manner in which its stock shall be transferred, its directors elected or appointed, its officers and employees appointed, its property transferred, and the privileges granted to it by law exercised and enjoyed.

"Each corporation so organized shall have power, under such rules and regulations as the Federal Reserve Board may prescribe:

"(a) To purchase, sell, discount, and negotiate, with or without its indorsement or guaranty, notes, drafts, checks, bills of exchange, acceptances, including bankers' acceptances, cable transfers, and other evidences of indebtedness; to purchase and sell, with or without its indorsement or guaranty, securities, including the obligations of the United States or of any State thereof but not including shares of stock in any corporation except as herein provided; to accept bills or drafts drawn upon it subject to such limitations and restrictions as the Federal Reserve Board may impose; to issue letters of credit; to purchase and sell coin, bullion, and exchange; to borrow and to lend money; to issue debentures, bonds, and promissory notes under such general

Digitized by Google

conditions as to security and such limitations as the Federal Reserve Board may prescribe, but in no event having liabilities outstanding thereon at any one time exceeding ten times its capital stock and surplus; to receive deposits outside of the United States and to receive only such deposits within the United States as may be incidental to or for the purpose of carrying out transactions in foreign countries or dependencies or insular possessions of the United States; and generally to exercise such powers as are incidental to the powers conferred by this Act or as may be usual, in the determination of the Federal Reserve Board, in connection with the transaction of the business of banking or other financial operations in the countries, colonies, dependencies, or possessions in which it shall transact business and not inconsistent with the powers specifically granted herein. Nothing contained in this section shall be construed to prohibit the Federal Reserve Board, under its power to prescribe rules and regulations, from limiting the aggregate amount of liabilities of any or all classes incurred by the corporation and outstanding at any one time. Whenever a corporation organized under this section receives deposits in the United States authorized by this section it shall carry reserves in such amounts as the Federal Reserve Board may prescribe, but in no event less than 10 per centum of its deposits.

"(b) To establish and maintain for the transaction of its business branches or agencies in foreign countries, their dependencies or colonies, and in the dependencies or insular possessions of the United States, at such places as may be approved by the Federal Reserve Board and under such rules and regulations as it may prescribe, including countries or dependencies not specified in the original organization certificate.

"(c) With the consent of the Federal Reserve Board to purchase and hold stock or other certificates of ownership in any other corporation organized under the provisions of this section, or under the laws of any foreign country or a colony or dependency thereof, or under the laws of any State, dependency, or insular possession of the United States but not engaged in the general business of buying or selling goods, wares, merchandise or commodities in the United States, and not transacting any business in the United States except such as in the judgment of the Federal Reserve Board may be incidental to its international or foreign business: *Provided, however,* That, except with the approval of the Federal Reserve Board, no corporation organized hereunder shall invest in any one corporation an amount in excess of 10 per centum of its own capital and surplus, except in a corporation engaged in the business of banking, when 15 per centum of its capital and surplus may be so invested: *Provided further,* That no corporation organized hereunder shall purchase, own, or hold stock or certificates of ownership in any other corporation organized hereunder or under the laws of any State which is in substantial competition therewith, or which holds stock or certificates of ownership in corporations which are in substantial competition with the purchasing corporation.

"Nothing contained herein shall prevent corporations organized hereunder from purchasing and holding stock in any corporation where such purchase shall be necessary to prevent a loss upon a debt previously contracted in good faith; and stock so purchased or acquired in corporations organized under this section shall within six months from such purchase be sold or disposed of at public or private sale unless the time to so dispose of same is extended by the Federal Reserve Board.

"No corporation organized under this section shall carry on any part of its business in the United States except such as, in the judgment of the Federal Reserve Board, shall be incidental to its international or foreign business: *And provided further,* That except such as is incidental and preliminary to its organization no such corporation shall exercise any of the powers conferred by this section until it has been duly authorized by the Federal Reserve Board to commence business as a corporation organized under the provisions of this section.

"No corporation organized under this section shall engage in commerce or trade in commodities except as specifically provided in this section, nor shall it either directly or indirectly control or fix or attempt to control or fix the price of any such commodities. The charter of any corporation violating this provision shall be subject to forfeiture in the manner hereinafter provided in this section. It shall be unlawful for any director, officer, agent, or employee of any such corporation to use or to conspire to use the credit, the funds, or the power of the corporation to fix or control the price of any such commodities, and any such person violating this provision shall be liable to a fine of not

Digitized by Google

less than $1,000 and not exceeding $5,000 or imprisonment not less than one year and not exceeding five years, or both, in the discretion of the court.

"No corporation shall be organized under the provisions of this section with a capital stock of less than $2,000,000, one-quarter of which must be paid in before the corporation may be authorized to begin business, and the remainder of the capital stock of such corporation shall be paid in installments of at least 10 per centum on the whole amount to which the corporation shall be limited as frequently as one installment at the end of each succeeding two months from the time of the commencement of its business operations until the whole of the capital stock shall be paid in. The capital stock of any such corporation may be increased at any time, with the approval of the Federal Reserve Board, by a vote of two-thirds of its shareholders or by unanimous consent in writing of the shareholders without a meeting and without a formal vote, but any such increase of capital shall be fully paid in within ninety days after such approval; and may be reduced in like manner, provided that in no event shall it be less than $2,000,000. No corporation, except as herein provided, shall during the time it shall continue its operations, withdraw or permit to be withdrawn, either in the form of dividends or otherwise, any portion of its capital. Any national banking association may invest in the stock of any corporation organized under the provisions of this section, but the aggregate amount of stock held in all corporations engaged in business of the kind described in this section and in section 25 of the Federal Reserve Act as amended shall not exceed 10 per centum of the subscribing bank's capital and surplus.

"A majority of the shares of the capital stock of any such corporation shall at all times be held and owned by citizens of the United States, by corporations the controlling interest in which is owned by citizens of the United States, chartered under the laws of the United States or of a State of the United States, or by firms or companies, the controlling interest in which is owned by citizens of the United States. The provisions of section 8 of the act approved October 15, 1914, entitled 'An act to supplement existing laws against unlawful restraints and monopolies, and for other purposes,' as amended by the acts of May 15, 1916, and September 7, 1916, shall be construed to apply to the directors, other officers, agents, or employees of corporations organized under the provisions of this section: *Provided, however,* That nothing herein contained shall (1) prohibit any director or other officer, agent or employee of any member bank, who has procured the approval of the Federal Reserve Board from serving at the same time as a director or other office, agent or employee of any corporation organized under the provisions of this section in whose capital stock such member bank shall have invested; or (2) prohibit any director or other officer, agent, or employee of any corporation organized under the provisions of this section, who has procured the approval of the Federal Reserve Board, from serving at the same time as a director or other officer, agent or employee of any other corporation in whose capital stock such first-mentioned corporation shall have invested under the provisions of this section.

"No member of the Federal Reserve Board shall be an officer or director of any corporation organized under the provisions of this section, or of any corporation engaged in similar business organized under the laws of any State, nor hold stock in any such corporation, and before entering upon his duties as a member of the Federal Reserve Board he shall certify under oath to the Secretary of the Treasury that he has complied with this requirement.

"Shareholders in any corporation organized under the provisions of this section shall be liable for the amount of their unpaid stock subscriptions. No such corporation shall become a member of any Federal reserve bank.

"Should any corporation organized hereunder violate or fail to comply with any of the provisions of this section, all of its rights, privileges, and franchises derived herefrom may thereby be forfeited. Before any such corporation shall be declared dissolved, or its rights, privileges, and franchises forfeited, any noncompliance with, or violation of such laws shall, however, be determined and adjudged by a court of the United States of competent jurisdiction, in a suit brought for that purpose in the district or territory in which the home office of such corporation is located, which suit shall be brought by the United States at the instance of the Federal Reserve Board or the Attorney General. Upon adjudication of such noncompliance or violation, each director and officer who participated in, or assented to, illegal act or acts, shall be liable in his personal or individual capacity for all damages which the said corporation

Digitized by Google

shall have sustained in consequence thereof. No dissolution shall take away or impair any remedy against the corporation, its stockholders, or officers for any liability or penalty previously incurred.

"Any such corporation may go into voluntary liquidation and be closed by a vote of its shareholders owning two-thirds of its stock.

"Whenever the Federal Reserve Board shall become satisfied of the insolvency of any such corporation, it may appoint a receiver who shall take possession of all of the property and assets of the corporation and exercise the same rights, privileges, powers, and authority with respect thereto as are now exercised by receivers of national banks appointed by the Comptroller of the Currency of the United States: *Provided, however*, That the assets of the corporation subject to the laws of other countries or jurisdictions shall be dealt with in accordance with the terms of such laws.

"Every corporation organized under the provisions of this section shall hold a meeting of its stockholders annually upon a date fixed in its by-laws, such meeting to be held at its home office in the United States. Every such corporation shall keep at its home office books containing the names of all stockholders thereof, and the names and addresses of the members of its board of directors, together with copies of all reports made by it to the Federal Reserve Board. Every such corporation shall make reports to the Federal Reserve Board at such times and in such form as it may require; and shall be subject to examination once a year and at such other times as may be deemed necessary by the Federal Reserve Board by examiners appointed by the Federal Reserve Board, the cost of such examinations, including the compensation of the examiners, to be fixed by the Federal Reserve Board and to be paid by the corporation examined.

"The directors of any corporation organized under the provisions of this section may, semiannually, declare a dividend of so much of the net profits of the corporation as they shall judge expedient; but each corporation shall, before the declaration of a dividend, carry one-tenth of its net profits of the preceding half year to its surplus fund until the same shall amount to 20 per centum of its capital stock.

"Any corporation organized under the provisions of this section shall be subject to tax by the State within which its home office is located in the same manner and to the same extent as other corporations organized under the laws of that State which are transacting a similar character of business. The shares of stock in such corporation shall also be subject to tax as the personal property of the owners or holders thereof in the same manner and to the same extent as the shares of stock in similar State corporations.

"Any corporation organized under the provisions of this section may at any time within the two years next previous to the date of the expiration of its corporate existence, by a vote of the shareholders owning two-thirds of its stock, apply to the Federal Reserve Board for its approval to extend the period of its corporate existence for a term of not more than twenty years, and upon certified approval of the Federal Reserve Board such corporation shall have its corporate existence for such extended period unless sooner dissolved by the act of the shareholders owning two-thirds of its stock, or by an Act of Congress or unless its franchise becomes forfeited by some violation of law.

"Any bank or banking institution, principally engaged in foreign business, incorporated by special law of any State or of the United States or organized under the general laws of any State or of the United States and having an unimpaired capital sufficient to entitle it to become a corporation under the provisions of this section may, by the vote of the shareholders owning not less than two-thirds of the capital stock of such bank or banking association, with the approval of the Federal Reserve Board, be converted into a Federal corporation of the kind authorized by this section with any name approved by the Federal Reserve Board: *Provided, however*, That said conversion shall not be in contravention of the State law. In such case the articles of association and organization certificate may be executed by a majority of the directors of the bank or banking institution, and the certificate shall declare that the owners of at least two-thirds of the capital stock have authorized the directors to make such certificate and to change or convert the bank or banking institution into a Federal corporation. A majority of the directors, after executing the articles of association and the organization certificate, shall have power to execute all other papers and to do whatever may be required to make its organization perfect and complete as a Federal corporation. The shares of any such corporation may continue to be for the same amount each as they were before the conversion, and the directors may continue to be directors of

Digitized by Google

the corporation until others are elected or appointed in accordance with the provisions of this section. When the Federal Reserve Board has given to such corporation a certificate that the provisions of this section have been complied with, such corporation and all its stockholders, officers, and employees, shall have the same powers and privileges, and shall be subject to the same duties, liabilities, and regulations, in all respects, as shall have been prescribed by this section for corporations originally organized hereunder.

"Every officer, director, clerk, employee, or agent of any corporation organized under this section who embezzles, abstracts, or willfully misapplies any of the moneys, funds, credits, securities, evidences of indebtedness or assets of any character of such corporation; or who, without authority from the directors, issues or puts forth any certificate of deposit, draws any order or bill of exchange, makes any acceptance, assigns any note, bond, debenture, draft, bill of exchange, mortgage, judgment, or decree; or who makes any false entry in any book, report, or statement of such corporation with intent, in either case, to injure or defraud such corporation or any other company, body politic or corporate, or any individual person, or to deceive any officer of such corporation, the Federal Reserve Board, or any agent or examiner appointed to examine the affairs of any such corporation; and every receiver of any such corporation and every clerk or employee of such receiver who shall embezzle, abstract, or willfully misapply or wrongfully convert to his own use any moneys, funds, credits, or assets of any character which may come into his possession or under his control in the execution of his trust or the performance of the duties of his employment; and every such receiver or clerk or employee of such receiver who shall, with intent to injure or defraud any person, body politic or corporate, or to deceive or mislead the Federal Reserve Board, or any agent or examiner appointed to examine the affairs of such receiver, shall make any false entry in any book, report, or record of any matter connected with the duties of such receiver; and every person who with like intent aids or abets any officer, director, clerk, employee, or agent of any corporation organized under this section, or receiver or clerk or employee of such receiver as aforesaid in any violation of this section, shall upon conviction thereof be imprisoned for not less than two years nor more than ten years, and may also be fined not more than $5,000, in the discretion of the court.

"Whoever being connected in any capacity with any corporation organized under this section represents in any way that the United States is liable for the payment of any bond or other obligation, or the interest thereon, issued or incurred by any corporation organized hereunder, or that the United States incurs any liability in respect of any act or omission of the corporation, shall be punished by a fine of not more than $10,000 and by imprisonment for not more than five years."

Approved, December 24, 1919.

[PUBLIC—No. 146—66TH CONGRESS]

(Extract from)

GENERAL PROVISIONS APPLICABLE TO COAL, PHOSPHATE, SODIUM, OIL, OIL SHALE, AND GAS LEASES.

SEC. 26. That the Secretary of the Interior shall reserve and may exercise the authority to cancel any prospecting permit upon failure by the permittee to exercise due diligence in the prosecution of the prospecting work in accordance with the terms and conditions stated in the permit, and shall insert in every such permit issued under the provisions of this Act appropriate provisions for its cancellation by him.

SEC. 27. That no person, association, or corporation, except as herein provided, shall take or hold more than one coal, phosphate, or sodium lease during the life of such lease in any one State; no person, association, or corporation shall take or hold, at one time, more than three oil or gas leases granted hereunder in any one State, and not more than one lease within the geologic structure of the same producing oil or gas field; no corporation shall hold any interest as a stockholder of another corporation in more than such number of leases; and no person or corporation shall take or hold any interest or interests as a member of an association or associations or as a stockholder of a corporation

Digitized by Google

or corporations holding a lease under the provisions hereof, which, together with the area embraced in any direct holding of a lease under this Act, or which, together with any other interest or interests as a member of an association or associations or as a stockholder of a corporation or corporations holding a lease under the provisions hereof, for any kind of mineral leased hereunder, exceeds in the aggregate an amount equivalent to the maximum number of acres of the respective kinds of minerals allowed to any one lessee under this Act. Any interests held in violation of this Act shall be forfeited to the United States by appropriate proceedings instituted by the Attorney General for that purpose in the United States district court for the district in which the property, or some part thereof, is located, except that any ownership or interest forbidden in this Act which may be acquired by descent, will, judgment, or decree may be held for two years and not longer after its acquisition: *Provided*, That nothing herein contained shall be construed to limit sections 18, 18a, 19, and 22 or to prevent any number of lessees under the provisions of this Act from combining their several interests so far as may be necessary for the purposes of constructing and carrying on the business of a refinery, or of establishing and constructing as a common carrier a pipe line or lines of railroads to be operated and used by them jointly in the transpo tation of oil from their several wells, or from the wells of other lessees under this Act, or the transportation of coal: *Provided further*, That any combination for such purpose or purposes shall be subject to the approval of the Secretary of the Interior on application to him for permission to form the same: *And provided further*, That if any of the lands or deposits leased under the provisions of this Act shall be subleased, trusteed, possessed, or controlled by any device permanently, temporarily, directly, indirectly, tacitly, or in any manner whatsoever, so that they form part of, or are in anywise controlled by any combination in the form of an unlawful trust, with consent of lessee, or form the subject of any contract or conspiracy in restraint of trade in the mining or selling of coal, phosphate, oil, oil shale, gas, or sodium entered into by the lessee, or any agreement or understanding, written, verbal, or otherwise to which such lessee shall be a party, of which his or its output is to be or become the subject, to control the price or prices thereof or of any holding of such lands by any individual, partnership, association, corporation, or control, in excess of the amounts of lands provided in this Act, the lease thereof shall be forfeited by appropriate proceedings.

Approved, February 25, 1920.

[PUBLIC LAW No. 152—66TH CONGRESS]

(Extract from)

"(8) The carriers affected by any order made under the foregoing provisions of this section and any corporation organized to effect a consolidation approved and authorized in such order shall be, and they are hereby, relieved from the operation of the 'antitrust laws,' as designated in section 1 of the Act entitled 'An Act to supplement existing laws against unlawful restraints and monopolies, and for other purposes,' approved October 15, 1914, and of all other restraints or prohibitions by law, State or Federal, in so far as may be necessary to enable them to do anything authorized or required by any order made under and pursuant to the foregoing provisions of this section."

Approved, February 28, 1920.

[PUBLIC LAW No. 152—66TH CONGRESS]

(Extract from)

SEC. 501. The effective date on and after which the provisions of section 10 of the Act entitled "An Act to supplement existing laws against unlawful restraints and monopolies, and for other purposes," approved October 15, 1914, shall become and be effective is hereby deferred and extended to January 1, 1921: *Provided*, That such extension shall not apply in the case of any corporation organized after January 12, 1918.

Approved, February 28, 1920.

Digitized by Google

[PUBLIC LAW No. 197—66TH CONGRESS]

(Extract from)

(3) All aliens who have been or may hereafter be convicted of any offense against section 13 of the said Penal Code committed during the period of August 1, 1914, to April 6, 1917, or of a conspiracy occurring within said period to commit an offense under said section 13, or of any offense committed during said period against the Act entitled "An Act to protect trade and commerce against unlawful restraints and monopolies," approved July 2, 1890, in aid of a belligerent in the European war.

SEC. 2. That in every case in which any such alien is ordered expelled or excluded from the United States under the provisions of this Act the decision of the Secretary of Labor shall be final.

SEC. 3. That in addition to the aliens who are by law now excluded from admission into the United States all persons who shall be expelled under any of the provisions of this Act shall also be excluded from readmission.

Approved, May 10, 1920.

[PUBLIC—No. 225—66TH CONGRESS]

(H. R. 13138)

AN ACT To amend section 8 of an Act entitled "An Act to supplement existing laws against unlawful restraints and monopolies, and for other purposes," approved October 15, 1914, as amended May 15, 1916

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section 8 of an Act entitled "An Act to supplement existing laws against unlawful restraints and monopolies, and for other purposes," approved October 15, 1914, as amended by the Act of May 15, 1916, be further amended by inserting in the proviso at the end of the second clause of said section after the word "prohibit" the words "any private banker or," so that the proviso as amended shall read:

"*And provided further*, That nothing in this Act shall prohibit any private banker or any officer, director, or employee of any member bank or class A director of a Federal reserve bank, who shall first procure the consent of the Federal Reserve Board, which board is hereby authorized, at its discretion, to grant, withhold, or revoke such consent, from being an officer, director, or employee of not more than two other banks, banking associations, or trust companies, whether organized under the laws of the United States or any State, if such other bank, banking association, or trust company is not in substantial competition with such banker or member bank.

"The consent of the Federal Reserve Board may be procured before the person applying therefor has been elected as a class A director of a Federal reserve bank or as a director of any member bank."

Approved, May 26, 1920.

[PUBLIC—No. 246—66TH CONGRESS]

(Extract from)

Enforcement of antitrust laws: For the enforcement of antitrust laws, including not exceeding $10,000 for clerical services and not exceeding $40,000 for compensation of attorneys at the seat of government, $100,000, together with the unexpended balance of the appropriation for this purpose for the fiscal year 1920: *Provided, however*, That no part of this money shall be spent in the prosecution of any organization or individual for entering into any combination or agreement having in view the increasing of wages, shortening of hours or bettering the conditions of labor, or for any act done in furtherance thereof, not in itself unlawful: *Provided further*, That no part of this appropriation shall be expended for the prosecution of producers of farm products and associations of farmers who cooperate and organize in an effort to and for the purpose to obtain and maintain a fair and reasonable price for their products.

Approved, June 5, 1920.

Digitized by Google

[PUBLIC LAW NO. 261—66TH CONGRESS]

(Extract from)

(b) Nothing contained in the "antitrust laws" as designated in section 1 of the Act entitled "An Act to supplement existing laws against unlawful restraints and monopolies, and for other purposes", approved October 15, 1914, shall be construed as declaring illegal an association entered into by marine insurance companies for the following purposes: To transact a marine insurance and reinsurance business in the United States and in foreign countries and to reinsure or otherwise apportion among its membership the risks undertaken by such association or any of the component members.

Approved, June 5, 1920.

[PUBLIC LAW NO. 389—66TH CONGRESS]

(Extract from)

Enforcement of antitrust laws: For the enforcement of antitrust laws, including not exceeding $10,000 for clerical services and not exceeding $40,000 for compensation of attorneys at the seat of government, $100,000, together with the unexpended balance of the appropriation for this purpose for the fiscal year 1921: *Provided, however*, That no part of this money shall be spent in the prosecution of any organization or individual for entering into any combination or agreement having in view the increasing of wages, shortening of hours or bettering the conditions of labor, or for any act done in furtherance thereof, not in itself unlawful: *Provided further*, That no part of this appropriation shall be expended for the prosecution of producers of farm products and associations of farmers who cooperate and organize in an effort to and for the purpose to obtain and maintain a fair and reasonable price for their products.

Approved, March 4, 1921.

[PUBLIC LAW NO. 229—67TH CONGRESS]

(Extract from)

Enforcement of antitrust laws: For the enforcement of antitrust laws, including not exceeding $10,000 for clerical services and not exceeding $40,000 for compensation of attorneys at the seat of government, $225,000: *Provided, however*, That no part of this money shall be spent in the prosecution of any organization or individual for entering into any combination or agreement having in view the increasing of wages, shortening of hours, or bettering the conditions of labor, or for any act done in furtherance thereof, not in itself unlawful: *Provided further*, That no part of this appropriation shall be expended for the prosecution of producers of farm products and associations of farmers who cooperate and organize in an effort to and for the purpose to obtain and maintain a fair and reasonable price for their products.

Approved, June 1, 1922.

[PUBLIC LAW NO. 377—67TH CONGRESS]

(Extract from)

Enforcement of antitrust laws: For the enforcement of antitrust laws, including not exceeding $10,000 for clerical services and not exceeding $40,000 for compensation of attorneys at the seat of government, $200,000: *Provided, however*, That no part of this money shall be spent in the prosecution of any organization or individual for entering into any combination or agreement having in view the increasing of wages, shortening of hours, or bettering the conditions of labor, or for any act done in furtherance thereof, not in itself

Digitized by Google

unlawful: *Provided further*, That no part of this appropriation shall be expended for the prosecution of producers of farm products and associations of farmers who cooperate and organize in an effort to and for the purpose to obtain and maintain a fair and reasonable price for their products.

Approved, January 3, 1923.

AMERICAN TELEPHONE & TELEGRAPH CO.,
195 Broadway, New York, November 29, 1935.

Dr. WILLIAM I. SIROVICH,
Chairman, Committee on Patents, House of Representatives,
24 Fifth Avenue, New York, N. Y.

DEAR DR. SIROVICH: I am sending you herewith copy of the statement which you requested of me in your letter of the 19th instant.

Yours very truly,

G. E. FOLK, *General Patent Attorney.*

The COMMITTEE ON PATENTS,
House of Representatives, Washington, D. C.

GENTLEMEN: Your committee has invited me to prepare a brief statement presenting my views on the subject of patent pools and cross-licensing agreements and including my opinion on H. R. 4523. I might well plead lack of information or experience so far as patent pools are concerned, but I shall give my views for what they are worth.

In considering the subject of so-called patent pools, and cross-license agreements it is important first, to observe that the very purpose of the patent laws and of the constitutional provision under which they have been enacted is the creation of a monopoly for a limited time in the new thing as a reward to the inventor for bringing it into existence. The reward is admirably suited to the purpose; because if the invention is of large value, the 17-year monopoly is of corresponding large value; and if the invention is of small value, the 17-year monopoly is correspondingly of small value. In any case, the rights of the patentee extend only to the new thing created and do not deprive the public of anything which it had enjoyed before the invention was made. Judging this system of rewards by its results upon the industrial development of this country, it seems safe to say that it is highly effective and beneficial, and that this sort of monopoly is not adverse to the public interest, but on the contrary is, in the language of the Constitution, well adapted "to promote the progress of science and the useful arts."

Second, it is important to observe that though the patent purports to grant to the patentee "the exclusive right to make, use, and vend" the invention or discovery, the thing actually granted by the patent is not in fact the right to make, use, and vend the invention—that right is a common-law right—but is merely the right to exclude others from so doing. As the Supreme Court puts it in the early case of *Bloomer* v. *McQuewan* (14 How. 539–549), and reiterates in numerous cases:

"The franchise which the patent grants consists altogether in the right to exclude everyone from making, using, or vending the thing patented without the permission of the patentee. This is all he obtains by the patent."

Since by far the larger number of patents are merely for improvements on previous devices covered by unexpired patents, it is obvious that we have in the nature of the case a situation where no one of the patentees is in a position to produce and sell a thing of the most improved form without a license under the patent of someone else; that is, the person holding the improvement or specific patent cannot make, use, and sell his invention, because of the fact that he is excluded by the earlier basic or generic patent covering the device; and the person holding the basic patent cannot make, use, and sell the improved and commercially desirable form of the invention, because of the fact that he is excluded by the improvement patents of one or more other patentees. Obviously the interest of the patentees, as well as the best interest of the public in general, requires that the various patentees shall be free to enter into arrangements by which their inventions may be utilized to the best advantage of the patentees and the public. That the framers of the patent law understood this is clear from the fact that from early times provision was made for the assignment of patent rights. Section 4898 of the Revised Statutes (U. S. C., title 35, sec. 47) provides that:

Digitized by Google

"Every patent or any interest therein shall be assignable in law by an instrument in writing, and the patentee or his assigns or legal representatives may in like manner grant and convey an exclusive right under his patent to the whole or any specified part of the United States."

Under this beneficient provision of the law the situation I have just referred to, where no one is free to make and sell to the public some desirable commercial product, is taken care of; for one or more of the patentees can assign his rights to one or more of the others in a way which will permit them to make and sell to the public the best embodiment of the invention. Nonexclusive licenses under all of the needed patents granted to one or more individuals may also serve this same purpose. A nonexclusive license is in effect merely a right not to be sued under the patent. The granting of such a right or license is an obvious corollary of the patent grant itself and perhaps of the law permitting assignments, to which I have just referred.

The expression "patent pool" has been used in a variety of senses and often very loosely. If we suppose a condition where there are a considerable number of patents—basic patents and improvement patents relating to an industry—and if a number of individuals or companies who hold such patents get together and group their patents under a common control for their mutual benefit, and especially if they agree not to license anyone else to make, use, or sell the product in question, we have a situation which might perhaps properly be called a "patent pool." On the other hand, if we have a situation, such as I mentioned earlier, where basic patents and improvement patents are preventing the making and selling of desirable devices to the public, and the holders of these patents merely extend to each other nonexclusive licenses under their several patents, without making any agreement not to license others, so that it results that any one of those concerned may make and sell to the public the devices in question, it seems to me altogether a misnomer to refer to the arrangement as a patent pool. It is an arrangement quite distinct in character from the patent pool just referred to. But whatever it is called, it is, it seems to me, distinctly in the interest of the public as well as the patentees.

No real reason is seen for drawing a distinction, so far as the public is concerned, between a unilateral patent agreement such as an assignment or license on the one hand, and a cross-license agreement which is sometimes condemned as a "pool." In each case diversely controlled patent rights may be combined or transferred from one party to another. The mere fact that they are so combined by pools or cross-license agreements of such nature as to give rights to two or more parties, does not make it iniquitous, or against the public interest, any more than would be the combination of the patent rights in a single party brought about by assignments.

In short, patent pools and cross-license agreements are not bugbears to be frowned down on as such. They have their proper place and are capable of being of real value not only to the parties in interest but to the public in general. It would be unjust to condemn them indiscriminately. I do not mean to be understood as condoning or attempting to justify any arrangement, whether by assignment, license, cross-license, or otherwise, the purpose or effect of which is injuriously to lessen competition in commerce or to create a monopoly other than that which rightly arises from the grant of a patent. Throughout any consideration of patent pools and patent agreements, it should, however, be borne in mind that a patent is a lawful monopoly, and designedly a monopoly. To lose sight of this fundamental concept is likely to cause wandering on unsound ground.

I recognize, of course, the fact that a monopoly arising out of a patent may be quite a different thing from a monopoly arising out of an agreement relating to patents. Laws, other than patent laws, deal with the latter. The Supreme Court commented on this distinction in the Motion Pictures Patent Case (243 U. S. 502, 514) in the following language:

"The defect in this thinking springs from failure to distinguish between the rights which are given to the inventor by the patent laws * * * and the rights which he may create for himself by private contract, which, however, are subject to the rules of general, as distinguished from those of the patent law."

The existing Federal antitrust laws apply to a monopoly of patent monopolies as well as to any other monopoly. They are generally believed to be adequate to prevent any combination against the public interest. The Federal

Digitized by Google

Trade Commission is charged with the duty of investigating unfair methods of competition in commerce. It is empowered to issue an order to cease and desist from violation of the law, if such violation is found to be existent. The Federal Trade Commission may apply to the Federal courts for the enforcement of its orders. Furthermore, prosecution for violation of the anti-trust laws can be made in the Federal courts under the direction of the Attorney General. In addition, a party injured by such violation of the law has his own remedy by action for injunctive relief as well as an action for damages treble the amount actually sustained.

In the hearings thus far had by this committee it seems to be the consensus of opinion that the present laws are adequate and the methods of enforcement are likewise adequate. The sole thing needed seems to be some provision for throwing the light of publicity upon patent combinations, so that the parties charged with the enforcement of the law and the parties injured by its violation can more readily discover the violation. An attempt in that direction is House bill 4523, the purpose of which I endorse, that is to make a violation of the law readily ascertainable by requiring that all agreements effecting the transfer of rights under patents shall be recorded in the Patent Office.

Section 4898 of the Revised Statutes provides that:

"Every patent or an interest therein shall be assignable in law by an instrument in writing."

That act further provides that:

"An assignment, grant, or conveyance shall be void as against any subsequent purchaser or mortgagee for a valuable consideration, without notice unless it is recorded in the Patent Office within three months from the date thereof or prior to such subsequent purchase or mortgage."

An assignment of a patent conveys the entire title to that patent, or an undivided part of that title. It is a document of this nature that must be recorded to prevent the possibility of its becoming void. Such is not the requirement with respect to other patent agreements, for example, with respect to mere licenses. While section 4898 does not compel the recording of an assignment, grant, or conveyance, it does make such instrument void as against a bona fide purchaser for value without notice unless the instrument is recorded within the time specified. The object, of course, is to prevent fraud, and it seems equally desirable to prevent fraud in the case of other instruments which might affect the value of patent rights acquired by an innocent purchaser. As it is now, the patent owner can grant licenses which it is not necessary to record and which will be valid against a subsequent purchaser even though he had no notice of such license. The bill in question, H. R. 4523, in addition to furthering the main objects thereof, would partly remedy this situation.

The objects sought to be obtained by the bill therefore seem desirable. There are, however, some objectionable features in it as now drafted to which attention is called, though no doubt your committee is already aware of them.

Section 1 of H. R. 4523: This section provides for the recording of "every agreement by which rights in a plurality of patented inventions, rendered subject to common ownership, control or enjoyment", are involved. The language is too narrow in that the recording is required only in cases where a "plurality of patented inventions" is involved. It would seem, as above stated, that every document afecting an interest or a right under a patent should be recorded, if for no other reason than a deterrent to fraud. The language, on the other hand, is too broad in that it is capable of an interpretation requiring the recording of many documents that it would be useless or undesirable to record, as for example employee contracts, or supplementary agreements merely setting forth the real monetary consideration or license fee consideration.

Section 1 is further open to the objection that it does not specify by whom the recording shall be made. Perhaps the party receiving the grant should be the one having the duty to record; and in the case of a cross-license, where each party receives a grant, provision should be such that one recording of the agreement will suffice, though both parties may be held liable in case neither records the agreement.

It is to be noted that this section makes it mandatory to record, among other agreements, an assignment. Attention is called to the fact that section 4898, above referred to, also makes provision for the recording of an assignment, and provides quite a different penalty for the failure to record from that given in section 5 of H. R. 4523.

Digitized by Google

Section 2 specifies the Patent Office fees for recording. The fees specified are, as far as they go, identical with those now prescribed in section 4934, Revised Statutes, for the identical subject matter. Said section 4943 makes provisions for fees:

"For recording every assignment ,agreement, power of attorney, or other paper."

The language quoted is identical with that of section 2 of 4523. This section is therefore already the law and it is unnecessary to reenact it.

Said section 4934 specifies additional fees as follows:

"For each additional patent or application included or involved in one writing, where more than one is so included or involved, 50 cents additional."

This last mentioned requirement as to fees would also apply to the additional instruments required to be recorded under H. R. 4523, and should be taken into consideration in connection with section 3, which will now be discussed.

Section 3 requires that, "each agreement" shall contain a list of the patents to which such agreement relates or shall be accompanied by a supplemental statement containing such information. This, if literally complied with, would require a company which grants licenses under all of its unenumerated patents to record in each instance a complete list of such patents. The company of which I am an employee (American Telephone & Telegraph Co.) owns or controls approximately 9,000 patents and has granted approximately 200 licenses, most of which are under all of its patents, for the reason that the licensee, in securing his grant, naturally wishes to be protected against any of the company's present or future patents that might apply to the apparatus which he desires to manufacture. That company has also granted licenses under all of its patents to approximately 700 broadcasting stations. It seems that a single recording in the Patent Office of the list of such patents would suffice. Unless that be done, the very expense of recording the document would be a real deterrent to the granting of a license, whoever may have to pay the recording fee. Under the Patent Office fees above specified of 50 cents for each patent, each recording would require approximately $4,500 in recording fees. Of course this section should be rephrased so as to remove the objection referred to. Undoubtedly the practice of having agreements cover all patents of the grantor is quite general, and not peculiar to the American Telephone & Telegraph Co.

Section 4. Most licensees acquire by the license agreement rights under future patents of the grantor. Here, again, such addition of patents to the agreement already recorded would require, under the provisions of this section 4, the recording each 3 months with respects to each of the various agreements. A provision by which a single list of patents involved in a plurality of agreements is brought up to date every 3 months would suffice and would be practicable, whereas the section as now drafted would be unduly onerous and impracticable.

Section 5 provides a pecuniary penalty for failure to record a patent agreement, irrespective of its character. Section 4898 Revised Statutes, as above noted, provides quite a different penalty for the failure to record a particular kind of patent agreement, namely "an asignment, grant or conveyance." Thus, with respect to the latter, two forms of penalties would apply; whereas to the other types of patent agreements, only the penalties provided for in section 5 would apply.

There are undoubtedly thousands of persons who, during the life of existing patents, that is, the last 17 years, have acquired some kind of right under as many as two or three patents. The bill, apparently, is not aimed at such agreements and at such small holders of patent rights. Nevertheless, such persons, who would probably never know of this requirement, would by reason of it, be rendered subject to a penalty for failure to record.

Instead of having two penalties for failure to record "an assignment, grant or conveyance" and a single penalty for failure to record every other form of patent agreement, perhaps it would be preferable to provide that the penalty now applicable to assignments should be applicable to all patent agreements, and that, in addition to that penalty, the court may adjudge a civil penalty as provided in section 5. This would make the penalty for failure to record the same with respect to all patent agreements and would leave it to the discretion of the court as to whether or not a pecuniary penalty should be imposed.

Digitized by Google

Section 6 specifies four contingencies under which the Commissioner of Patents is required to file a certified copy of such agreement or agreements with the Federal Trade Commission. The second contingency is "if any of the agreements herein specified are against the public interest or the public welfare." The bill does not specify, as to this second contingency, who is to determine whether the agreements are against the public interest or the public welfare. The third contingency is: "If in the judgment of the Commissioner of Patents such agreements are against the public interest or the public welfare." Considering the thousands of instruments now on record and the many more thousands required to be recorded under the provisions of this bill, this section will apparently place upon the Commissioner of Patents a new type of duty with which he should not be burdened. It would seem that this entire section 6 might be omitted in view of the fact that the Federal Trade Commission, or the Attorney General, would have access to the Patent Office records, or copies thereof, for such consideration as they might wish to give to such agreements.

From the foregoing it would seem that the apparent objects attempted to be accomplished by the bill are desirable, but that there are numerous features thereof which should be carefully scrutinized and the objectionable features removed.

It would seem that more laws are not needed with respect to patent agreements. Enforcement of existing laws will suffice. It would seem that your committee will have done all that is needed by getting a bill enacted along the general lines of 4523 H. R., which will facilitate the endeavors of those charged with the enforcement of existing laws.

Yours very truly,

GEORGE E. FOLK.

J. I. CASE CO.,
Racine, Wis., January 10, 1936.

COMMITTEE ON PATENTS, HOUSE OF REPRESENTATIVES,
New York City.

(Attention of Mr. William I. Sirovich, chairman.)

GENTLEMEN: We have your letter of November 9 relative to cross-licensing and patent-pooling agreements. The company does not have any patent-pooling or cross-licensing agreements, therefore we take it that it is unnecessary to answer your questions in detail.

Yours very truly,

J. I. CASE CO.,
THEO. JOHNSON, *Secretary.*

PROPOSAL TO ESTABLISH AS A FEDERAL INDEPENDENT OFFICE IN WASHINGTON, D. C. A BUREAU OF INDUSTRIAL RESEARCH AND INVENTION FOR THE MUTUAL BENEFIT OF INVENTORS, PRODUCERS, AND THE GENERAL PUBLIC

From the four elements interested, that is, inventors, manufacturers of products, sellers of such products, and the general public, there have been growing demands for some sort of an official clearing house to meet present industrial conditions which are not cared for by present national institutions in such manner as to meet the conditions developed under technological advance and their application in the so-called machine age.

A privately endowed institution, the Mellon Institute of Research, established in Pittsburgh, Pa., has been quite successful in meeting certain conditions of the problem giving to manufacturers improved operation through new invention, while at the same time finding a market for the inventor's development. The purpose of this organization is set forth as follows: "The Mellon Institute is primarily an industrial station but the nature of its investigation procedure enables broad training to young scientists in research methods and in special subjects of technology. The institute recognizes the need of fundamental scientific research as a background and source of stimulus for industrial research."

The idea set forth is not new. Prior to 1617 Francis Bacon of England planned a palace of invention, a great temple of science where the pursuit of natural knowledge and its principals was to be organized on principles of

Digitized by Google

the highest efficiency. In 1906 Dr. Robert Kennedy Duncan, inspired by the thought of putting the proposal of Francis Bacon to practical test, interested Andrew W. Mellon and Richard B. Mellon, of Pittsburgh, in the establishment of "a palace of invention, a great temple of science", proposed by Bacon. In that year cooperation had begun in Europe and was just started in the United States between science and technology intended to function for the mutual advancement of both technology and science. Dr. Duncan's idea was to assist the manufacturers who desired to break away from traditional methods of production and to make more scientific that production already started on the road from tradition of science to practice.

By the systematic study of manufacturing problems under suitable conditions and by training young men for technical service, the Mellon Institute proposed a practical, partial solution of the general problem under the auspices of the University of Pittsburgh.

Eighty-five percent of the problems accepted for study, 1911–35, have been solved satisfactorily, and many chemists and chemical engineers have been trained in research methods and then placed in useful industrial positions.

Notable investigations have been carried out by the Mellon Institute on subjects in the following fields: Bread, byproduct coking, carbon dioxide, cellulose, citrus products, composition flooring, corrosion, dental products, edible gelatin, electrical precipitation, enameled ware, fertilizers, fiber containers, fish products, flotation of ores, food and beverage flavors, fuels, galvanizing, garment cleaning, glass, glue, heat insulation, hydrometallurgy of copper, inks, insecticides, laundering, magnesia products, matches, natural gas, nickel, olefine gases, organic synthesis, petroleum, protected metals, refractories, roofing materials, rubber compounding, smoke abatement, sodium silicate, stove enamels, sulfur, synthetic resins, vitamins, vitrified tile, wood chemicals, wrought iron, and zinc.

In addition to the work done by the Mellon Institute there has grown up a new profession in the United States for which there is yet no definitely accepted name, but it is generally referred to under the term "patent policy" under which are engaged a number of technical experts, some of whom are patent attorneys with practical experience, some of whom are practical inventors with patent law experience from the inventor's point of view. These individuals are the Mellon Institute and this individual method did splendid work but it does not quite meet the demands of present scientific technological production of manufacturers.

By an act of Congress approved March 3, 1901, a National Bureau of Standards was established in Washington, D. C. The functions of the bureau are exercised for the Federal Government, for State governments and, subject to reasonable fees, the general public. Its research and testing facilities are used to discover and evaluate standards of materials and to solve, if possible, basic technical problems and to establish improved bases for scientific experiment and designed for the improvement and great efficiency of technical control of industrial processes. The subjects handled by the National Bureau of Standards, include electricity, heat and power, optics, chemistry, mechanics and sound, fibrous material, metallurgy, clay and silicate products, weights and measures, simplified practice, trade standards, standardization of Government specifications for manufacturing articles.

The United States Patent Office recently absorbed into the Department of Commerce has behind it the history of the development of invention beginning with the first patent signed by President Washington and continued, uninterruptedly and expansively, to the present day to the issuing of 2 million patents for inventions. Out of this 2 million inventions a certain percentage embraces discoveries in the mechanical arts which radically changed the methods of production of old devices and brought into practice many new elements of mechanical manufacture and production by process of combination.

If the facilities of the National Bureau of Standards and those of the United States Patent Office were combined in some satisfactory manner so that the material elements of inventions, mechanical, process, method, or combination could be given practical tests and if, for the purpose of a clearing house for such inventions, a Bureau of Inventions could be established, many inventors of moment, with whom I have talked, think this new bureau would serve excellently in bringing out inventions that although patent are really latent.

The idea would have to be worked out in definite detail but I feel that it is the germ of an excellent method.

EDWIN FAIRFAX NAULTY.

Digitized by Google

AMERICAN TELEPHONE & TELEGRAPH CO.,
195 Broadway, New York, September 17, 1935.

Mr. O. A. WELSH, Jr.,
Investigator for the Committee on Patents of the House of Representatives,
Fifth Avenue Hotel, New York, N. Y.

DEAR SIR: This is to acknowledge receipt of your letters dated September 12, 1935, and September 13, 1935.

At our conference of September 11 I handed you a printed copy of "Substitute License Agreement B2 Between General Electric Co. and American Telephone & Telegraph Co. and Agreements Relating Thereto, Dated July 1, 1932." This printed copy includes the basic agreement between the American Telephone & Telegraph Co. and the Radio Corporation of America called for by paragraph 1 of your letter of September 12, 1935.

At your conference with Mr. Rose on September 12, he handed you a "Chronological List of Patents Owned and Controlled by the American Telephone & Telegraph Co. and its associate companies." This list includes all of the Bell System patents called for by paragraph 1 (*a*). As we do not have available any complete list of the patents owned by the Radio Corporation of America, we do not know precisely what patents of that corporation are covered by the basic agreement. You can doubtless obtain a list of the patents owned by the Radio Corporation of America, the General Electric Co., the Westinghouse Electric Manufacturing Co., etc., by applying to the owners of the patents. Such lists, together with the list of our patents which we have given you, will give you the information requested under paragraph 1 (*a*) of the letter of September 12, 1935.

With reference to paragraph 2 of your letter of September 12, there is no agreement between the American Telephone & Telepraph Co. and the Bell Laboratories, Inc. Consequently, there is no inventory of patents under this agreement as called for by paragraph 2 (*a*) nor any correspondence, memoranda, data, and records of accounts concerning this agreement as called by paragraph 2 (*b*) or any list of licensees as called for by paragraph 2 (*c*).

At our conference of September 11, I handed you a copy of the agreement between the American Bell Telephone Co. and the Western Electric Co. of Illinois, dated February 6, 1882, together with a copy of a modifying agreement of April 8, 1908, entered into between the American Bell Telephone Co. and the Western Electric Co. of Illinois. The copy of the 1882 agreement shows the changes made by the 1908 agreement in red ink. As the American Telephone & Telegraph Co. has succeeded to the rights of the American Bell Telephone Co. and the Western Electric Co., Inc., has succeeded to the rights of the Western Electric Co. of Illinois, the copies of the above agreements satisfy the requirements of paragraph 3 of your letter of September 12, 1935.

With regard to paragraph 3 (*a*), the list of patents handed you by Mr. Rose, as above referred to, includes all of the patents under the modified 1882 agreement.

With regard to paragraph 4 of the letter of September 12, 1935, we have already informed you orally that there is no basic agreement between the American Telephone & Telegraph Co. and the Electrical Research Products, Inc. We understand that under this paragraph you now want the agreement between the Western Electric Co., Inc., and the Electrical Research Products, Inc. With this understanding I have turned this matter over to Mr. E. J. Moriarty, general attorney of the Western Electric Co., Inc., who will communicate with you with reference to furnishing a copy of this agreement and the correspondence, memoranda, data, and records of accounts called for by paragraph 4 (*b*) as well as the list of licenses called for by paragraph 4 (*c*). As to the inventory of patents called for by paragraph 4 (*b*), the list of patents above referred to, which was handed to you by Mr. Rose, includes all of the patents under the agreement between the Western Electric Co. and Electrical Research Products, Inc.

With regard to the correspondence, memoranda, data, and records of accounts called for by paragraphs 1 (*b*) and 3 (*b*) in the letter of September 12, 1935, since copies of these documents are all to be found within the files of the Western Electric Co., Inc., or the Electrical Research Products, Inc., I have turned this matter over to Mr. Moriarty, who will advise you in due time as to furnishing the information requested.

As to the list of licensees called for by paragraphs 1 (*c*) and 3 (*c*), Mr. Moriarty is preparing these lists and will send them to you as soon as they

Digitized by Google

have been prepared. I understand that the work on the preparation of these lists is well under way.

Coming now to your letter of September 13, 1935, I am sending you herewith a photostat copy of a compilation entitled "Adjudicated Patents Owned or Controlled by the American Telephone & Telegraph Co." and also a photostat copy of a compilation entitled "Patents Owned or Controlled by the American Telephone & Telegraph Co. Which Are in the Process of Adjudication." These photostats are copies of documents already in our files which give you all of the information which we now have concerning suits for patent infringements filed by the American Telephone & Telegraph Co. as plaintiff or co-plaintiff since January 1, 1925. Insofar as the information called for does not appear in these documents, it is because we do not have the information at hand. As you will note, the information given in these documents is given with respect to individual patents sued upon and not with respect to individual suits. We are giving you the information in this form because it is immediately available. To compile this information under separate suits would involve certainly some considerable time and labor. Every suit to which we have been a party complainant will be covered under some one or another of the patents as listed in these photostats.

As to the notices of patent infringement sent out by the American Telephone & Telegraph Co., or in its name since January 1, 1925, I am sending you typewritten copies of the following letters:

G. E. Folk, general patent attorney, to General Radio Co., Cambridge, Mass., July 30, 1928.

G. E. Folk, General patent attorney, to Lemert Engineering Corporation, Wilmington, Calif., November 21, 1928.

G. E. Folk, general patent attorney, to Northern Electric Co., 908 Weston Avenue, Seattle, Wash, April 16, 1929.

G. E. Folk, general patent attorney, to Heintz and Kaufman, 219-223 Natoma Street, San Francisco, Calif., April 16, 1929.

G. E. Folk, general patent attorney, to General Industries, 63 Gorham Street, West Somerville, Mass., May 27, 1929.

G. E. Folk, general patent attorney, to Theodore H. Beard, supervising engineer, Dictaphone Corporation, Bridgeport, Conn., May 25, 1931.

G. E. Folk, general patent attorney, to Communication Equipment & Engineering Co., 2626 West Washington Boulevard, Chicago, Ill., May 13, 1932.

G. E. Folk, general patent attorney, to Brownlefone Co., 18 Napier Street, Oakland, Calif., April 5, 1933.

G. E. Folk, general patent attorney, to Radio Engineering Laboratories, Inc., 100 Wilbur Avenue, Long Island City, N. Y., May 18, 1933.

G. E. Folk, general patent attorney, to Leich Electric Co., Genoa, Ill., March 27, 1934.

G. E. Folk, general patent attorney, to Kellogg Switchboard & Supply Co., 1066 West Adams Street, Chicago, Ill., March 27, 1934.

G. E. Folk, general patent attorney, to C. C. Cole, 20 North Thorton Street, Orlando, Fla., October 8, 1934.

G. E. Folk, general patent attorney, to Van C. Norwood, 10 NW. Second Street, Evansville, Ind., November 7, 1934.

G. E. Folk, general patent attorney, to J. W. Miller Co., 5917 South Main Street, Los Angeles, Calif., November 12, 1934.

G. E. Folk, general patent attorney, to Lear Developments, Inc., 125 West Seventeenth Street, New York, N. Y., June 17, 1935.

G. E. Folk, general patent attorney, to Southern Electric & Transmission Co., 3513 Cleveland Street, Dallas, Tex., June 18, 1935.

G. E. Folk, general patent attorney, to Communication Equipment & Engineering Co., 2626 West Washington Boulevard, Chicago, Ill., June 19, 1935.

G. E. Folk, general patent attorney, to Kellogg Switchboard & Supply Co., 1066 West Adams Street, Chicago, Ill., June 19, 1935.

G. E. Folk, general patent attorney, to R. A. Clark, Jr., president, the Communication Equipment & Engineering Co., 2626 West Washington Boulevard, Chicago, Ill., July 12, 1935.

So far as I am aware, the above list comprises all of the notices of patent infringement sent out by the American Telephone & Telegraph Co. or in its name since January 1, 1925.

Very truly yours,

G. E. FOLK, *General Patent Attorney.*

Digitized by Google

3519 T
Contract No.____

This agreement made in triplicate at New York, New York, this _____ day of _____, 193__, by Electrical Research Products, Inc., a Delaware corporation of No. 250 West 57th Street, New York, New York (hereinafter called "Products"), and _____ a _____ corporation of No. _____ Street/Avenue, City of _____, State of _____, (hereinafter called the "Exhibitor"), the operator of the _____ Theatre at No. _____ Street/Avenue, City of _____, State of _____, (hereinafter called the "Theatre"):

Witnesseth, That in consideration of the covenants and conditions herein set forth, the parties agree as follows:

1. *Lease of Equipment and Grant of License.*—Products hereby leases to the Exhibitor and the Exhibitor hereby hires from Products a Western Electric Sound Reproducing Equipment (hereinafter called the "Equipment") and Products hereby grants to the Exhibitor, subject to the terms, conditions, and limitations herein contained, a non-exclusive, non-assignable license to use the Equipment in the Theatre, solely for the electrical reproduction of sound in connection with or incidental to the exhibition of motion pictures and to employ to the extent necessarily involved in such use of said Equipment, the methods and systems of Products covered by all United States patents and applications for United States patents relating to said Equipment or to such use thereof, in respect of which Products now has, or during the term of this agreement may acquire, the right to grant such license. The Exhibitor shall operate the Equipment in manner approved by Products from time to time and shall not, without Products' approval, or otherwise than under its supervision, change or modify any electrical circuits or parts or any mechanical parts of the Equipment, or break any seal which may be placed thereon. The Equipment, or any parts thereof, which may have been previously used shall be put in efficient operating condition by Products prior to or at the time of installation. The Equipment to be furnished hereunder is: _____

_____

2. *Charges.*—(*a*) On the first Saturday of the term hereof as fixed by the provisions of Section 12 and on each Saturday thereafter during the term, except as otherwise provided in Section 12, the Exhibitor will pay Products the total of the following amounts:—

(1) The sum of _____ ($_____) Dollars.
for the lease and license to use the Equipment granted under Section 1.

(2) The sum of _____ ($_____) Dollars.
for the services to be rendered by Products pursuant to the provisions of paragraph (*a*), Section 7 and the schedule referred to therein.

(3) The sum of _____ ($_____) Dollars.
in consideration of Products' obligation to furnish repair and replacement parts in accordance with the provisions of paragraph (*b*), Section 7 and the schedule referred to therein.

The total amount to be paid weekly is _____ ($_____) Dollars.

(*b*) In addition to the charges referred to in paragraph (*a*) of this section, the Exhibitor shall pay all transportation and handling charges on all equipment and parts therefor which may be furnished hereunder and shall arrange for any trucking and handling necessary to effect delivery of said equipment and parts to the Theatre.

3. *Abatement of Charges.*—(*a*) If during the term hereof the Exhibitor, not then being in default, shall close the Theatre temporarily for a continuous period of not less than one (1) week and shall have given Products not less than one (1) week's prior written notice thereof, Products shall abate the charges payable under paragraph (*a*), Section 2 for each full calendar week of the continuous period that the Theatre is thus inoperative, but such abatement shall not be effective for more than thirteen (13) weeks during any twelve (12) month period. The exhibitor shall give Products at least one (1) week's written notice of intention to resume the operation of the Theatre. In the event of any abatement of charges as referred to above, upon resumption of operation of the Theatre, the Exhibitor will pay Products a reconnection charge of Ten ($10.00) Dollars.

(*b*) Products, at its option, may seal the Equipment during any period for which the Exhibitor shall request any abatement of charges. If after such

Digitized by Google

sealing the Equipment shall be unsealed without authority from Products, the Theatre shall be deemed to have been in operation at all times for the purpose of determining charges payable hereunder. Notices referred to in this section shall be mailed to Products' office at New York, New York, Chicago, Illinois, or Los Angeles, California, whichever office is nearest the Exhibitor.

4. *Shipment of Equipment.*—The Equipment will be furnished f. o. b. Products' warehouse at Chicago, Illinois, or from such other point as Products may designate. If shipment shall be made from a point other than Chicago, Illinois, Products will assume any transportation charges in excess of those which would have applied had shipment been made to the Exhibitor from Chicago, Illinois. The Equipment will be shipped on or about _____, 193__. Products shall not be responsible for any inconvenience or damage resulting from failure to ship the Equipment on or before the aforementioned date.

5. *Facilities for Installation.*—Prior to the installation of the Equipment, the Exhibitor shall make available a suitable source of electric power supply, with outlets conveniently located for the Equipment, shall provide supports for horns, a screen satisfactory to Products as to its acoustic properties, suitable space properly ventilated for the installation of storage batteries and charging equipment or other power equipment and shall make such other alterations and modifications in and to the Theatre, including furnishing of drapes for acoustic purposes, as may be necessary for the proper installation and operation of the Equipment.

6. *Installation of Equipment.*—(*a*) The Exhibitor shall install the Equipment at its own expense in such manner as to comply with all laws, rules, ordinances and regulations pertaining to electrical installations of this character. The installation shall be made in accordance with instructions furnished by Products and under Products' supervision. All preliminary and installation work done and material furnished by the Exhibitor and its agents or servants shall be subject to approval by Products and the Equipment shall not be used for a public performance until the installation thereof shall have been approved by Products. Approval of installation work or material shall in no event subject Products to responsibility or liability of any kind or nature. Except as herein otherwise specifically provided the Exhibitor shall provide and pay for all material and services required in preparation for and in connection with the installation of the Equipment.

(*b*) Products shall provide a service inspector and if deemed necessary by Products a projectionist, to inspect the preliminary work done by the Exhibitor and to supervise the installation of the Equipment. Notice from the Exhibitor that the Equipment has been received and that the Theatre will be ready for installation of the Equipment on a definite date shall be delivered to Products not less than three (3) days prior to said date, and Products shall make every reasonable effort to have its service inspector at the Theatre on said date. Products will furnish the services of the service inspector and of the projectionist, if required, for a continuous period not to exceed three (3) days' services of one (1) man, without additional cost to the Exhibitor. If the preliminary work to be done by the Exhibitor is not ready for inspection, or said work is not sufficiently advanced to permit the installation of the Equipment upon the date that the service inspector shall arrive at the Theatre, or in the event that supervisory services shall be required for a period in excess of the period hereinabove referred to, or otherwise than for a continuous period, the Exhibitor shall pay to Products its standard charge of Thirty-five ($35.00) Dollars per man per day or fraction thereof, for any time in excess of the period during which the supervisory services are to be furnished without additional charge, including time consumed in transit, together with any additional expense which Products may have incurred by reason of said services being required otherwise than for a continuous period. During the period that Products' service inspector shall supervise the installation of the Equipment, Products will instruct the motion-picture operators of the Exhibitor in the manner and method of operating the Equipment.

7. *Inspection of Equipment and Furnishing of Parts.*—(*a*) Products shall inspect and service the Equipment in accordance with the provisions of Schedule _____ attached hereto. All of the terms and conditions of said schedule are made a part hereof.

(*b*) Provided that a charge shall have been inserted in subparagraph (3), paragraph (*a*), Section 2, Products shall furnish repair and replacement parts

Digitized by Google

for the Equipment in accordance with the provisions of Schedule R–R attached hereto, and in that event all of the terms and conditions of said schedule are made a part hereof.

8. *Title.*—Products shall retain title to all equipment, repair and replacement parts, tools, drawings, and printed or written data applicable thereto. All such equipment and accessories shall at all times be and remain personal property notwithstanding the manner or method of its attachment to any real property.

9. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all personal property and license taxes which may be charged or levied in connection with or which may apply to any equipment furnished hereunder, and the Exhibitor shall reimburse Products for any such taxes which Products may be required to pay.

10. *Default.*—At the option of Products this agreement and the rights of the Exhibitor hereunder shall terminate in the event of failure of the Exhibitor to make the total weekly payments specified in paragraph (*a*), Section 2 hereof, or failure to pay taxes in accordance with Section 9 hereof, as said charges and taxes shall become due, or upon the insolvency of the Exhibitor, or upon the filing by or against the Exhibitor of any petition in bankruptcy or for reorganization under the Bankruptcy Act or any amendment thereto, or upon the making of an assignment of any of the Exhibitor's assets for the benefit of creditors, or upon any application for the appointment of a receiver of the property and assets of the Exhibitor, or upon the commencement of any action, suit, or proceeding against the Exhibitor in respect of the title to, or right to possession of the Theatre, or upon the Exhibitor ceasing to operate the Theatre (except as provided in Section 3), or upon removal of the Equipment from the Theatre unless prior to such removal the Exhibitor shall have made arrangements satisfactory to Products for the care and custody of the Equipment, or upon the issue or levy of any attachment or the filing of, or attempt to assert or enforce, any lien which might in any manner affect Products' title to, or right to possession of, any apparatus or equipment furnished hereunder. The Exhibitor shall be deemed in default at any time that payments hereunder shall be in arrears for a period of two (2) weeks or more.

11. *Surrender of equipment.*—Upon any termination of this agreement the Exhibitor shall surrender to Products, in good order and condition, reasonable wear and tear only excepted, the Equipment together with all repair and replacement parts, tools and other accessories therefor which shall have been furnished by Products.

12. *Term.*—(*a*) This agreement shall be effective for an original term of three (3) years and a period equivalent to any period or periods of abatement of charges hereunder which may have occurred during said years, commencing on the day upon which the Equipment is first used for a public performance, or the day which Products shall certify to the Exhibitor that the Equipment is available for public performance, whichever date to be the earlier; provided however, that the term hereof and the payments to Products hereunder shall commence not later than thirty (30) days after the date of shipment of the Equipment.

(*b*) At the time specified in subparagraphs (1), (2) and (3) respectively of this paragraph, the Exhibitor may exercise the options referred to in paragraph (*c*) of this section if there shall have been paid to Products all charges then due hereunder and all charges due and to become due for any additional equipment supplied by Products for use in the Theatre and the specific sum set forth in subparagraphs (1) or (2) respectively in anticipation and discharge of the then unmatured payments specified in subparagraph (1), paragraph (*a*), Section 2. The said options shall be available:

(1) When fifty-two (52) payments shall have been made of the amounts specified in paragraph (*a*) Section 2, together with the sum of ---------- ($--------) Dollars; or

(2) When one hundred and four (104) payments shall have been made of the amounts specified in paragraph (*a*), Section 2, together with the sum of ---------- ($--------) Dollars; or

(3) When one hundred and fifty-six (156) payments shall have been made of the amounts specified in paragraph (*a*), Section 2.

(*c*) Upon complying with the conditions set forth in paragraph (*b*), the Exhibitor shall have the option to:—

(1) Terminate its obligation to make further payments under subparagraph (3), paragraph (*a*), Section 2, in which event Products' obligation to furnish

Digitized by Google

repair and replacement parts under paragraph (*b*), Section 7 shall also terminate; or,

(2) Terminate its obligation to make further payments under both subparagraphs (2) and (3), paragraph (*a*), Section 2, in which event Products' obligation to inspect and service the Equipment and to supply repair and replacement parts under paragraphs (*a*) and (*b*), Section 7 shall also terminate.

(*d*) The Exhibitor may also exercise either of the options referred to in subparagraphs (1) and (2) of paragraph (*c*) at the expiration of any subsequent term; provided that all charges hereunder and all charges due and to become due for any additional equipment shall have been paid on the date of termination. The phrase "subsequent term" shall mean any period of one (1) year subsequent to the original term (or subsequent to the prior termination of the obligations of paragraph (*b*) or of paragraphs (*a*) and (*b*), Section 7, as provided in paragraph (*c*)), plus a period equivalent to the period or periods of abatement of charges which may have occurred during said year. Products may also terminate the provisions of paragraph (*b*), Section 7, or the provisions of paragraphs (*a*) and (*b*), Section 7, and the payments related thereto at the expiration of the original term or at the expiration of any subsequent term. If either party shall desire to terminate the provisions of paragraph (*b*), Section 7, or the provisions of paragraphs (*a*) and (*b*), Section 7, as aforesaid, the other party shall be given written notice of such intention not less than sixty (60) days prior to the date of such termination. Notwithstanding the service of a notice by the Exhibitor as above provided, the exercise of any option above referred to shall be ineffective if the Exhibitor shall have failed to make payments to Products as above referred to, or shall otherwise be in default hereunder upon the stated date of termination. The provisions of Section 7 and the payments for services to be rendered thereunder shall continue in effect during subsequent terms until terminated in the manner hereinabove set forth.

(*e*) The lease and license to use the Equipment granted in Section 1 hereof shall continue in effect for a period of fifteen (15) years, commencing upon the date of expiration of the original term, or upon the termination of the obligations of paragraph (*b*) or of paragraphs (*a*) and (*b*), Section 7, as provided in paragraphs (*c*) or (*d*) of this section. During the said fifteen (15) year period, the Exhibitor shall not be obligated to make payment of that portion of the total weekly charges referred to in subparagraph (1), paragraph (*a*), Section 2, but in lieu thereof will pay for the lease and license to use the Equipment during said period the sum of One ($1.00) Dollar per annum in advance.

13. *Special Provisions.*—If this lease shall continue in force after the obligations of the parties under paragraph (*a*) of Section 7 have been terminated pursuant to Section 12:

(*a*) The Exhibitor shall hold and operate the Equipment during the remainder of the term hereof subject to the provisions of Sections 1, 8, 9, 10, 11, and 13, and of paragraphs (*e*) of Section 12 and (*d*) and (*e*) of Section 14 and Products shall have no obligation or responsibility except to permit use of the Equipment subject to the provisions of said sections.

(*b*) The Exhibitor shall carry such insurance covering the Equipment as it shall deem requisite.

(*c*) Products shall not be liable to defend or indemnify the Exhibitor on account of any infringement or claim of infringement of any patent relating to the Equipment or the use thereof. In the event, however, that any action or suit shall be brought against the Exhibitor alleging infringement of any patent by reason of the use of said Equipment by the Exhibitor, the Exhibitor shall immediately notify Products thereof (with written confirmation) and Products at its option shall have the right to take over and conduct at its own expense the defense of such action or suit.

14. *General Provisions.*—(*a*) None of the provisions of this agreement shall be construed as prohibiting the Exhibitor from taking any reasonable action to protect or repair the Equipment in the event of an accident or breakdown. The Exhibitor, at its own expense, shall obtain all necessary permits and do all other acts and things required by all laws, ordinances, and regulations relating to the maintenance, operation, and use of the Equipment, or any part thereof, and comply with any fire insurance underwriters' requirements relating thereto. Upon proper identification, the Exhibitor shall provide access for Products' representatives at all reasonable hours for all purposes referred to herein which may require such access. If in connection with any operation conducted by

Digitized by Google

Products hereunder, it shall be necessary for any of the Exhibitor's employees to be in attendance at the Theatre, any charges for the services of such employees shall be borne by the Exhibitor.

(*b*) Nothing herein contained shall be construed as a guaranty by Products of uninterrupted functioning of the Equipment. Products shall not be responsible for any interruption in the operation of the Theatre or any equipment therein, or for any injury, loss, or damage to persons or property in the Theatre (except for injury to Products' employees) arising from any cause whatsoever, for any damages resulting from delay or failure to deliver parts hereunder, or for any consequential damages whatsoever.

(*c*) Products shall provide facilities and personnel for performing the services herein referred to under normal operating conditions. Products shall not be liable for failure to perform said services if the Exhibitor shall fail to make the Theatre and theatre personnel available or when such failure to perform is due to other conditions beyond the control of Products, whether or not similar to the foregoing.

(*d*) This agreement shall not be assigned by the Exhibitor without Products' written consent. Subject to such restriction upon assignment by the Exhibitor, it shall be binding upon the parties and their respective successors, assigns, and legal representatives.

(*e*) The entire understanding of the parties with respect to the subject matter of this agreement is expressed herein, and the construction and performance thereof shall be governed by the laws of the State of New York.

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers or agents in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,

By _____
Vice-President; Treasurer; Authorized Agent.

Products' witness signs here:

_____.

_____
Exhibitor.

By _____

Exhibitor's witness signs here:

_____.

WAIVER

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named and of the payment by Electrical Research Products, Inc., of the sum of One ($1.00) Dollar, receipt of which is hereby acknowledged, the undersigned parties having an interest in the Theatre referred to in said agreement as owner or lessor thereof, hereby consent(s) to the installation of said Equipment and waive(s) any and all rights or claims thereto of whatsoever kind of nature which I/we have or may hereafter acquire as landlord(s) of said Theatre, which might or could in any manner interfere with any rights of Electrical Research Products, Inc., in or to said Equipment.

Dated this _____ day of _____, 193__.

_____,
Owner of Theatre.

_____,
Lessor of Theatre (other than Owner).

Attach proper schedule or schedules before this agreement is signed by the Exhibitor.

3518 T

Contract No. _____

This agreement made in triplicate at New York, New York, this _____ day of _____, 193__, by ELECTRICAL RESEARCH PRODUCTS INC., a Delaware corporation of No. 250 West 57th Street, New York, New York

Digitized by Google

(hereinafter called "Products"), and _____ a _____ corporation of No. _____ Street/Avenue, City of _____, State of _____, (hereinafter called the "Exhibitor"), the operator of the _____ Theatre at No. _____ Street/Avenue, City of _____, State of _____, (hereinafter called the "Theatre"):

Witnesseth, that in consideration of the covenants and conditions herein set forth, the parties agree as follows:

1. *Lease of equipment and grant of license.*—Products hereby leases to the Exhibitor and the Exhibitor hereby hires from Products a Western Electric Sound Reproducing Equipment (hereinafter called the "Equipment") and Products hereby grants to the Exhibitor, subject to the terms, conditions, and limitations herein contained, a non-exclusive, non-assignable license to use the Equipment in the Theatre, solely for the electrical reproduction of sound in connection with or incidental to the exhibition of motion pictures and to employ to the extent necessarily involved in such use of said Equipment, the methods and systems of Products covered by all United States patents and applications for United States patents relating to said Equipment or to such use thereof, in respect of which Products now has, or during the term of this agreement may acquire, the right to grant such license. The Exhibitor shall operate the Equipment in manner approved by Products from time to time and shall not, without Products' approval, or otherwise than under its supervision, change or modify any electrical circuits or parts or any mechanical parts of the Equipment, or break any seal which may be placed thereon. The Equipment, or any parts thereof, which may have been previously used shall be put in efficient operating condition by Products prior to or at the time of installation. The Equipment to be furnished hereunder is: _____

2. *Charges.*—(*a*) On the first Saturday of the term hereof as fixed by the provisions of Section 12 and on each Saturday thereafter during the term, except as otherwise provided in Section 12, the Exhibitor will pay Products the total of the following amounts:—

(1) The sum of _____ ($_____) Dollars for the lease and license to use the Equipment granted under Section 1.

(2) The sum of _____ ($_____) Dollars for the services to be rendered by Products pursuant to the provisions of paragraph (*a*), Section 7 and the schedule referred to therein.

(3) The sum of _____ ($_____) Dollars in consideration of Products' obligation to furnish repair and replacement parts in accordance with the provisions of paragraph (*b*), Section 7 and the schedule referred to therein.

The total amount to be paid weekly is _____ ($_____) Dollars.

(*b*) In addition to the charges referred to in paragraph (*a*) of this section, the Exhibitor shall pay all transportation and handling charges on all equipment and parts therefor which may be furnished hereunder and shall arrange for any trucking and handling necessary to effect delivery of said equipment and parts to the Theatre.

3. *Abatement of Charges.*—(*a*) If during the term hereof the Exhibitor, not then being in default, shall close the Theatre temporarily for a continuous period of not less than one (1) week and shall have given Products not less than one (1) week's prior written notice thereof, Products shall abate the charges payable under paragraph (*a*), Section 2 for each full calendar week of the continuous period that the Theatre is thus inoperative, but such abatement shall not be effective for more than thirteen (13) weeks during any twelve (12) month period. The Exhibitor shall give Products at least one (1) week's written notice of intention to resume the operation of the Theatre. In the event of any abatement of charges as referred to above, upon resumption of operation of the Theatre, the Exhibitor will pay Products a reconnection charge of Ten ($10.00) Dollars.

(*b*) Products, at its option, may seal the Equipment during any period for which the Exhibitor shall request any abatement of charges. If after such sealing the Equipment shall be unsealed without authority from Products the Theatre shall be deemed to have been in operation at all times for the purpose of determining charges payable hereunder. Notices referred to in this section shall be mailed to Products' office at New York, New York, Chicago, Illinois, or Los Angeles, California, whichever office is nearest the Exhibitor.

Digitized by Google

4. *Shipment of Equipment.*—The Equipment will be furnished f. o. b. Products' warehouse at Chicago, Illinois, or from such other point as Products may designate. If shipment shall be made from a point other than Chicago, Illinois, Products will assume any transportation charges in excess of those which would have applied had shipment been made to the Exhibitor from Chicago, Illinois. The Equipment will be shipped on or about _____, 193__. Products shall not be responsible for any inconvenience or damage resulting from failure to ship the Equipment on or before the aforementioned date.

5. *Facilities for Installation.*—Prior to the installation of the Equipment, the Exhibitor shall make available a suitable source of electric power supply, with outlets conveniently located for the Equipment, shall provide supports for horns, a screen satisfactory to Products as to its acoustic properties, suitable space properly ventilated for the installation of storage batteries and charging equipment or other power equipment and shall make such other alterations and modifications in and to the Theatre, including furnishing of drapes for acoustic purposes, as may be necessary for the proper installation and operation of the Equipment.

6. *Installation of Equipment.*—(*a*) The Exhibitor shall install the Equipment at its own expense in such manner as to comply with all laws, rules, ordinances, and regulations pertaining to electrical installations of this character. The installation shall be made in accordance with instructions furnished by Products and under Products' supervision. All preliminary and installation work done and material furnished by the Exhibitor and its agents or servants shall be subject to approval by Products and the Equipment shall not be used for a public performance until the installation thereof shall have been approved by Products. Approval of installation work or material shall in no event subject Products to responsibility or liability of any kind or nature. Except as herein otherwise specifically provided the Exhibitor shall provide and pay for all material and services required in preparation for and in connection with the installation of the Equipment.

(*b*) Products shall provide a service inspector and if deemed necessary by Products a projectionist, to inspect the preliminary work done by the Exhibitor and to supervise the installation of the Equipment. Notice from the Exhibitor that the Equipment has been received and that the Theatre will be ready for installation of the Equipment on a definite date shall be delivered to Products not less than three (3) days prior to said date and Products shall make every reasonable effort to have its service inspector at the Theatre on said date. Products will furnish the services of the service inspector and of the projectionist, if required, for a continuous period not to exceed three (3) days' services of one (1) man, without additional cost to the Exhibitor. If the preliminary work to be done by the Exhibitor is not ready for inspection, or said work is not sufficiently advanced to permit the installation of the Equipment upon the date that the service inspector shall arrive at the Theatre, or in the event that supervisory services shall be required for a period in excess of the period hereinabove referred to, or otherwise than for a continuous period, the Exhibitor shall pay to Products its standard charge of Thirty-five ($35.00) Dollars per man per day or fraction thereof, for any time in excess of the period during which the supervisory services are to be furnished without additional charge, including time consumed in transit, together with any additional expense which Products may have incurred by reason of said services being required otherwise than for a continuous period. During the period that Products' service inspector shall supervise the installation of the Equipment, Products will instruct the motion picture operators of the Exhibitor in the manner and method of operating the Equipment.

7. *Inspection of Equipment and Furnishing of Parts.*—(*a*) Products shall inspect and service the Equipment in accordance with the provisions of Schedule _____ attached hereto. All of the terms and conditions of said schedule are made a part hereof.

(*b*) Provided that a charge shall have been inserted in subparagraph (3), paragraph (a), Section 2, Products shall furnish repair and replacement parts for the Equipment in accordance with the provisions of Schedule R R attached hereto, and in that event all of the terms and conditions of said schedule are made a part hereof.

8. *Title.*—Products shall retain title to all equipment, repair and replacement parts, tools, drawings, and printed or written data applicable thereto.

Digitized by Google

All such equipment and accessories shall at all times be and remain personal property notwithstanding the manner or method of its attachment to any real property.

9. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all personal property and license taxes which may be charged or levied in connection with or which may apply to any equipment furnished hereunder, and the Exhibitor shall reimburse Products for any such taxes which Products may be required to pay.

10. *Default.*—At the option of Products this agreement and the rights of the Exhibitor hereunder shall terminate in the event of failure of the Exhibitor to make the total weekly payments specified in paragraph (*a*), Section 2 hereof, or failure to pay taxes in accordance with Section 9 hereof, as said charges and taxes shall become due, or upon the insolvency of the Exhibitor, or upon the filing by or against the Exhibitor of any petition in bankruptcy or for reorganization under the Bankruptcy Act or any amendment thereto, or upon the making of an assignment of any of the Exhibitor's assets for the benefit of creditors, or upon any application for the appointment of a receiver of the property and assets of the Exhibitor, or upon the commencement of any action, suit, or proceeding against the Exhibitor in respect of the title to, or right to possession of the Theatre, or upon the Exhibitor ceasing to operate the Theatre (except as provided in Section 3), or upon removal of the Equipment from the Theatre unless prior to such removal the Exhibitor shall have made arrangements satisfactory to Products for the care and custody of the Equipment, or upon the issue or levy of any attachment or the filing of, or attempt to assert or enforce, any lien which might in any manner affect Products' title to or right to possession of, any apparatus or equipment furnished hereunder. The Exhibitor shall be deemed in default at any time that payments hereunder shall be in arrears for a period of two (2) weeks or more.

11. *Surrender of equipment.*—Upon any termination of this agreement the Exhibitor shall surrender to Products, in good order and condition, reasonable wear and tear only excepted, the Equipment together with all repair and replacement parts, tools and other accessories therefor which shall have been furnished by Products.

12. *Term.*—(*a*) This agreement shall be effective for an original term of two (2) years and a period equivalent to any period or periods of abatement of charges hereunder which may have occurred during said years, commencing on the day upon which the Equipment is first used for a public performance, or the day which Products shall certify to the Exhibitor that the Equipment is available for public performance, whichever date be the earlier; provided however, that the term hereof and the payments to Products hereunder shall commence not later than thirty (30) days after the date of shipment of the Equipment.

(*b*) At the time specified in subparagraphs (1) and (2) respectively of this paragraph, the Exhibitor may exercise the options referred to in paragraph (*c*) of this section if there shall have been paid to Products all charges then due hereunder and all charges due and to become due for any additional equipment supplied by Products for use in the Theatre and the specific sum set forth in subparagraph (1) in anticipation and discharge of the then unmatured payments specified in subparagraph (1), paragraph (*a*), Section 2. The said options shall be available:

(1) When fifty-two (52) payments shall have been made of the amounts specified in paragraph (*a*), Section 2, together with the sum of_____ ($_____) Dollars; or

(2) When one hundred and four (104) payments shall have been made of the amounts specified in paragraph (*a*), Section 2.

(*c*) Upon complying with the conditions set forth in paragraph (*b*), the Exhibitor shall have the option to:—

(1) Terminate its obligation to make further payments under subparagraph (3), paragraph (*a*), Section 2, in which event Products' obligation to furnish repair and replacement parts under paragraph (*b*), Section 7, shall also terminate; or,

(2) Terminate its obligation to make further payments under both subparagraphs (2) and (3), paragraph (*a*), Section 2, in which event Products' obligation to inspect and service the Equipment and to supply repair and replacement parts under paragraphs (*a*) and (*b*), Section 7, shall also terminate.

(*d*) The Exhibitor may also exercise either of the options referred to in subparagraphs (1) and (2) of paragraph (*c*) at the expiration of any subse-

Digitized by Google

quent term; provided that all charges hereunder and all charges due and to become due for any additional equipment shall have been paid on the date of termination. The phrase "subsequent term" shall mean any period of one (1) year subsequent to the original term (or subsequent to the prior termination of the obligations of paragraph (*b*) or of paragraphs (*a*) and (*b*), Section 7, as provided in paragraph (*c*)), plus a period equivalent to the period or periods of abatement of charges which may have occurred during said year. Products may also terminate the provisions of paragraph (*b*), Section 7, or the provisions of paragraphs (*a*) and (*b*), Section 7, and the payments related thereto at the expiration of the original term or at the expiration of any subsequent term. If either party shall desire to terminate the provisions of paragraph (*b*), Section 7, or the provisions of paragraphs (*a*) and (*b*), Section 7, as aforesaid, the other party shall be given written notice of such intention not less than sixty (60) days prior to the date of such termination. Notwithstanding the service of a notice by the Exhibitor as above provided, the exercise of any option above referred to shall be ineffective if the Exhibitor shall have failed to make payments to Products as above referred to, or shall otherwise be in default hereunder upon the stated date of termination. The provisions of Section 7 and the payments for services to be rendered thereunder shall continue in effect during subsequent terms until terminated in the manner hereinabove set forth.

(*e*) The lease and license to use the Equipment granted in Section 1 hereof shall continue in effect for a period of fifteen (15) years, commencing upon the date of expiration of the original term, or upon the termination of the obligations of paragraph (*b*) or of paragraphs (*a*) and (*b*), Section 7, as provided in paragraphs (*c*) or (*d*) of this section. During the said fifteen (15) year period the Exhibitor shall not be obligated to make payment of that portion of the total weekly charges referred to in subparagraph (1), paragraph (*a*), Section 2, but in lieu thereof will pay for the lease and license to use the Equipment during said period the sum of One ($1.00) Dollar per annum in advance.

13. *Special Provisions.*—If this lease shall continue in force after the obligations of the parties under paragraph (*a*) of Section 7 have been terminated pursuant to Section 12:

(*a*) The Exhibitor shall hold and operate the Equipment during the remainder of the term hereof subject to the provisions of Sections 1, 8, 9, 10, 11, and 13, and of paragraphs (*e*) of Section 12 and (*d*) and (*e*) of Section 14 and Products shall have no obligation or responsibility except to permit use of the Equipment subject to the provisions of said sections.

(*b*) The Exhibitor shall carry such insurance covering the Equipment as it shall deem requisite.

(*c*) Products shall not be liable to defend or indemnify the Exhibitor on account of any infringement or claim of infringement of any patent relating to the Equipment or the use thereof. In the event, however, that any action or suit shall be brought against the Exhibitor alleging infringement of any patent by reason of the use of said Equipment by the Exhibitor, the Exhibitor shall immediately notify Products thereof (with written confirmation) and Products at its option shall have the right to take over and conduct at its own expense the defense of such action or suit.

14. *General Provisions.*—(*a*) None of the provisions of this agreement shall be construed as prohibiting the Exhibitor from taking any reasonable action to protect or repair the Equipment in the event of an accident or breakdown. The Exhibitor, at its own expense, shall obtain all necessary permits and do all other acts and things required by all laws, ordinances and regulations relating to the maintenance, operation, and use of the Equipment, or any part thereof, and comply with any fire insurance underwriters' requirements relating thereto. Upon proper identification, the Exhibitor shall provide access for Products' representatives at all reasonable hours for all purposes referred to herein which may require such access. If in connection with any operation conducted by Products hereunder, it shall be necessary for any of the Exhibitor's employees to be in attendance at the Theatre, any charges for the services of such employees shall be borne by the Exhibitor.

(*b*) Nothing herein contained shall be construed as a guaranty by Products of uninterrupted functioning of the Equipment. Products shall not be responsible for any interruption in the operation of the Theatre or any equipment therein, or for any injury, loss or damage to persons or property in the Theatre

Digitized by Google

(except for injury to Products' employees) arising from any cause whatsoever, for any damages resulting from delay or failure to deliver parts hereunder, or for any consequential damages whatsoever.

(c) Products shall provide facilities and personnel for performing the services herein referred to under normal operating conditions. Products shall not be liable for failure to perform said services if the Exhibitor shall fail to make the Theatre and theatre personnel available, or when such failure to perform is due to other conditions beyond the control of Products, whether or not similar to the foregoing.

(d) This agreement shall not be assigned by the Exhibitor without Products' written consent. Subject to such restriction upon assignment by the Exhibitor, it shall be binding upon the parties and their respective successors, assigns and legal representatives.

(e) The entire understanding of the parties with respect to the subject matter of this agreement is expressed herein and the construction and performance thereof shall be governed by the laws of the State of New York.

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers or agents in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,
By_____
Vice-President, Treasurer, Authorized Agent.

(Products' witness signs here:)

_____

_____
Exhibitor.
By_____

(Exhibitor's witness sign here:)

_____

WAIVER

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named and of the payment by Electrical Research Products, Inc., of the sum of One ($1.00) Dollar, receipt of which is hereby acknowledged, the undersigned parties having an interest in the Theatre referred to in said agreement as owner or lessor thereof, hereby consent(s) to the installation of said Equipment and waive(s) any and all rights or claims thereto of whatsoever kind or nature which I/we have or may hereafter acquire as landlord(s) of said Theatre, which might or could in any manner interfere with any rights of Electrical Research Products, Inc., in or to said Equipment.

Dated this_____day of_____, 193__.

_____
Owner of Theater.

_____
Lessor of Theatre (other than Owner).

Attach proper schedule or schedules before this agreement is signed by the Exhibitor.

3517 T

Contract No. _____

This agreement made in triplicate at New York, New York, this _____ day of _____, 193__, by Electrical Research Products, Inc., a Delaware corporation of No. 250 West 57th Street, New York, New York (hereinafter called "Products"), and _____ a _____ corporation of No. _____ Street/Avenue, City of _____, State of _____ (hereinafter called the "Exhibitor"), the operator of the _____ Theatre at No. _____ Avenue/Street, City of _____, State of _____ (hereinafter called the "Theatre"):

Witnesseth, that in consideration of the covenants and conditions herein set forth, the parties agree as follows:

1. *Lease of Equipment and Grant of License.*—Products hereby leases to the Exhibitor and the Exhibitor hereby hires from Products a Western Electric

Digitized by Google

Sound Reproducing Equipment (hereinafter called the "Equipment"), and Products hereby grants to the Exhibitor, subject to the terms, conditions, and limitations herein contained, a non-exclusive, non-assignable license to use the Equipment in the Theatre, solely for the electrical reproduction of sound in connection with or incidental to the exhibition of motion pictures and to employ to the extent necessarily involved in such use of said Equipment, the methods and systems of Products covered by all United States patents and applications for United States patents relating to said Equipment or to such use thereof, in respect of which Products now has, or during the term of this agreement may acquire, the right to grant such license. The Exhibitor shall operate the Equipment in manner approved by Products from time to time, and shall not, without Products' approval, or otherwise than under its supervision, change or modify any electrical circuits or parts or any mechanical parts of the Equipment, or break any seal which may be placed thereon. The Equipment, or any parts thereof, which may have been previously used shall be put in efficient operating condition by Products prior to or at the time of installation. The Equipment to be furnished hereunder is:

---

2. *Charges.*—(*a*) On the first Saturday of the term hereof as fixed by the provisions of Section 12, and on each Saturday thereafter during the term, except as otherwise provided in Section 12, the Exhibitor will pay Products the total of the following amounts:—

(1) The sum of _____ ($_____) Dollars for the lease and license to use the Equipment granted under Section 1.

(2) The sum of _____ ($_____) Dollars for the services to be rendered by Products pursuant to the provisions of paragraph (*a*), Section 7, and the schedule referred to therein.

(3) The sum of _____ ($_____) Dollars in consideration of Products' obligation to furnish repair and replacement parts in accordance with the provisions of paragraph (*b*), Section 7, and the schedule referred to therein.

The total amount to be paid weekly is _____ ($_____) Dollars.

(*b*) In addition to the charges referred to in paragraph (*a*) of this section, the Exhibitor shall pay all transportation and handling charges on all equipment and parts therefor which may be furnished hereunder, and shall arrange for any trucking and handling necessary to effect delivery of said equipment and parts to the Theatre.

3. *Abatement of Charges.*—(*a*) If, during the term hereof, the Exhibitor, not then being in default, shall close the Theatre temporarily for a continuous period of not less than one (1) week and shall have given Products not less than one (1) week's prior written notice thereof, Products shall abate the charges payable under paragraph (*a*), Section 2 for each full calendar week of the continuous period than the Theatre is thus inoperative, but such abatement shall not be effective for more than thirteen (13) weeks during any twelve (12) month period. The Exhibitor shall give Products at least one (1) week's written notice of intention to resume the operation of the Theatre. In the event of any abatement of charges as referred to above, upon resumption of operation of the Theatre, the Exhibitor will pay Products a reconnection charge of Ten ($10.00) Dollars.

(*b*) Products, at its option, may seal the Equipment during any period for which the Exhibitor shall request any abatement of charges. If after such sealing the Equipment shall be unsealed without authority from Products, the Theatre shall be deemed to have been in operation at all times for the purpose of determining charges payable hereunder. Notices referred to in this section shall be mailed to Products' office at New York, New York, Chicago, Illinois, or Los Angeles, California, whichever office is nearest the Exhibitor.

4. *Shipment of Equipment.*—The Equipment will be furnished f. o. b. Products' warehouse at Chicago, Illinois, or from such other point as Products may designate. If shipment shall be made from a point other than Chicago, Illinois, Products will assume any transportation charges in excess of those which would have applied had shipment been made to the Exhibitor from Chicago, Illinois. The Equipment will be shipped on or about _____, 193__. Products

Digitized by Google

shall not be responsible for any inconvenience or damage resulting from failure to ship the Equipment on or before the aforementioned date.

5. *Facilities for Installation.*—Prior to the installation of the Equipment, the Exhibitor shall make available a suitable source of electric power supply, with outlets conveniently located for the Equipment, shall provide supports for horns, a screen satisfactory to Products as to its acoustic properties, suitable space properly ventilated for the installation of storage batteries and charging equipment or other power equipment, and shall make such other alterations and modifications in and to the Theatre, including furnishing of drapes for acoustic purposes, as may be necessary for the proper installation and operation of the Equipment.

6. *Installation of Equipment.*—(*a*) The Exhibitor shall install the Equipment at its own expense in such manner as to comply with all laws, rules, ordinances, and regulations pertaining to electrical installations of this character. The installation shall be made in accordance with instructions furnished by Products and under Products' supervision. All preliminary and installation work done and material furnished by the Exhibitor and its agents or servants shall be subject to approval by Products, and Equipment shall not be used for a public performance until the installation thereof shall have been approved by Products. Approval of installation work or material shall in no event subject Products to responsibility or liability of any kind or nature. Except as herein otherwise specifically provided the Exhibitor shall provide and pay for all material and services required in preparation for and in connection with the installation of the Equipment.

(*b*) Products shall provide a service inspector, and if deemed necessary by Products, a projectionist, to inspect the preliminary work done by the Exhibitor and to supervise the installation of the Equipment. Notice from the Exhibitor that the Equipment has been received and that the Theatre will be ready for installation of the Equipment on a definite date, shall be delivered to Products not less than three (3) days prior to said date, and Products shall make every reasonable effort to have its service inspector at the Theatre on said date. Products will furnish the services of the service inspector and of the projectionist, if required, for a continuous period not to exceed three (3) days' services of one (1) man, without additional cost to the Exhibitor. If the preliminary work to be done by the Exhibitor is not ready for inspection, or said work is not sufficiently advanced to permit the installation of the Equipment upon the date that the service inspector shall arrive at the Theatre, or in the event that supervisory services shall be required for a period in excess of the period hereinabove referred to, or otherwise than for a continuous period, the Exhibitor shall pay to Products its standard charge of Thirty-five ($35.00) Dollars per man per day or fraction thereof, for any time in excess of the period during which the supervisory services are to be furnished without additional charge, including time consumed in transit, together with any additional expense which Products may have incurred by reason of said services being required otherwise than for a continuous period. During the period that Products' service inspector shall supervise the installation of the Equipment, Products will instruct the motion picture operators of the Exhibitor in the manner and method of operating the Equipment.

7. *Inspection of Equipment and Furnishing of Parts.*—(*a*) Products shall inspect and service the Equipment in accordance with the provisions of Schedule _____ attached hereto. All of the terms and conditions of said schedule are made a part hereof.

(*b*) Provided that a charge shall have been inserted in subparagraph (3), paragraph (*a*), Section 2, Products shall furnish repair and replacement parts for the Equipment in accordance with the provisions of Schedule R R attached hereto, and in that event all of the terms and conditions of said schedule are made a part hereof.

8. *Title.*—Products shall retain title to all equipment, repair and replacement parts, tools, drawings, and printed or written data applicable thereto. All such equipment and accessories shall at all times be and remain personal property notwithstanding the manner or method of its attachment to any real property.

9. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all personal property and license taxes which may be charged or levied in connection with or which may apply to any equipment furnished hereunder, and the

Digitized by Google

Exhibitor shall reimburse Products for any such taxes which Products may be required to pay.

10. *Default.*—At the option of Products this agreement and the rights of the Exhibitor hereunder shall terminate in the event of failure of the Exhibitor to make the total weekly payments specified in paragraph (*a*), Section 2, hereof, or failure to pay taxes in accordance with Section 9 hereof, as said charges and taxes shall become due, or upon the insolvency of the Exhibitor, or upon the filing by or against the Exhibitor of any petition in bankruptcy or for reorganization under the Bankruptcy Act or any amendment thereto, or upon the making of an assignment of any of the Exhibitor's assets for the benefit of creditors, or upon any application for the appointment of a receiver of the property and assets of the Exhibitor, or upon the commencement of any action, suit, or proceeding against the Exhibitor in respect of the title to, or right to possession of the Theatre, or upon the Exhibitor ceasing to operate the Theatre (except as provided in Section 3), or upon removal of the Equipment from the Theatre unless prior to such removal the Exhibitor shall have made arrangements satisfactory to Products for the care and custody of the Equipment, or upon the issue or levy of any attachment or the filing of, or attempt to assert or enforce, any lien which might in any manner affect Products' title to, or right to possession of, any apparatus or equipment furnished hereunder. The Exhibitor shall be deemed in default at any time that payments hereunder shall be in arrears for a period of two (2) weeks or more.

11. *Surrender of Equipment.*—Upon any termination of this agreement the Exhibitor shall surrender to Products, in good order and condition, reasonable wear and tear only excepted, the Equipment, together with all repair and replacement parts, tools, and other accessories therefor which shall have been furnished by Products.

12. *Terms.*—(a) This agreement shall be effective for an original term of one (1) year and a period equivalent to any period or periods of abatement of charges hereunder which may have occurred during said year, commencing on the day upon which the Equipment is first used for a public performance, or the day which Products shall certify to the Exhibitor that the Equipment is available for public performance, whichever date be the earlier; provided, however, that the term hereof and the payments to Products hereunder shall commence not later than thirty (30) days after the date of shipment of the Equipment.

(*b*) If total weekly charges set forth in paragraph (*a*), Section 2, shall have been paid for fifty-two (52) weeks, and if all other charges hereunder and all charges due or to become due for any additional equipment supplied by Products for use in the Theatre, shall have been paid to Products, the Exhibitors may, at the expiration of the original term;

(1) Terminate its obligation to make further payments under subparagraph (3), paragraph (*a*), Section 2, in which event Products' obligation to furnish repair and replacement parts under paragraph (*b*), Section 7, shall also terminate; or

(2) Terminate its obligation to make further payments under both subparagraphs (2) and (3), paragraph (*a*), Section 2, in which event Products' obligation to inspect and service the Equipment and to supply repair and replacement parts under paragraphs (*a*) and (*b*), Section 7, shall also terminate.

The Exhibitor may also exercise either of the rights of termination referred to in paragraph (1) or (2) above at the expiration of any subsequent term; provided, that all charges hereunder and all payments for additional equipment shall have been paid on the date of termination. The phrase "subsequent term" shall mean any period of one (1) year subsequent to the original term plus a period equivalent to the period or periods of abatement of charges which may have occurred during said year. Products may also terminate the provisions of paragraph (*b*), Section 7, or the provisions of paragraphs (*a*) and (*b*), Section 7 and the payments related thereto at the expiration of the original term or at the expiration of any subsequent term. If either party shall desire to terminate the provisions of paragraph (*b*), Section 7, or the provisions of paragraphs (*a*) and (*b*), Section 7, as aforesaid, the other party shall be given written notice of such intention not less than sixty (60) days prior to the date of such termination. Notwithstanding the service of a notice by the Exhibitor as above provided, the exercise of any right of termination above referred to shall be ineffective if the Exhibitor shall have failed to make the

Digitized by Google

payments to Products as above referred to, or shall otherwise be in default hereunder upon the stated date of termination. The provisions of Section 7 and the payments for services to be rendered thereunder shall continue in effect during subsequent terms until terminated in the manner hereinabove set forth.

(*c*) The lease and license to use the Equipment granted in Section 1 hereof shall continue in effect for a period of fifteen (15) years, commencing upon the date of expiration of the original term. During the said fifteen (15) year period the Exhibitor shall not be obligated to make payment of that portion of the total weekly charges referred to in subparagraph (1), paragraph (*a*), Section 2, but in lieu thereof will pay for the lease and license to use the Equipment during said period the sum of One ($1.00 Dollar per annum in advance.

13. *Special Provisions.*—If this lease shall continue in force after the obligations of the parties under paragraph (*a*) of Section 7 have been terminated pursuant to Section 12:

(*a*) The Exhibitor shall hold and operate the Equipment during the remainder of the term hereof subject to the provisions of Sections 1, 8, 9, 10, 11, and 13, and of paragraphs (*c*) of Section 12 and (*d*) and (*e*) of Section 14 and Products shall have no obligation or responsibility except to permit use of the Equipment subject to the provisions of said sections.

(*b*) The Exhibitor shall carry such insurance covering the Equipment as it shall deem requisite.

(*c*) Products shall not be liable to defend or indemnify the Exhibitor on account of any infringement or claim of infringement of any patent relating to the Equipment or the use thereof. In the event, however, that any action or suit shall be brought against the Exhibitor, alleging infringement of any patent by reason of the use of said Equipment by the Exhibitor, the Exhibitor shall immediately notify Products thereof (with written confirmation) and Products at its option shall have the right to take over and conduct, at its own expense, the defense of such action or suit.

14. *General Provisions.*—(*a*) None of the provisions of this agreement shall be construed as prohibiting the Exhibitor from taking any reasonable action to protect or repair the Equipment in the event of an accident or breakdown. The Exhibitor, at its own expense, shall obtain all necessary permits and do all other acts and things required by all laws, ordinances, and regulations relating to the maintenance, operation, and use of the Equipment, or any part thereof, and comply with any fire insurance underwriters' requirements relating thereto. Upon proper identification, the Exhibitor shall provide access for Products' representatives at all reasonable hours for all purposes referred to herein which may require such access. If in connection with any operation conducted by Products hereunder, it shall be necessary for any of the Exhibitor's employees to be in attendance at the Theatre, any charges for the services of such employees shall be borne by the Exhibitor.

(*b*) Nothing herein contained shall be construed as a guaranty by Products of uninterrupted functioning of the Equipment. Products shall not be responsible for any interruption in the operation of the Theatre or any equipment therein, or for any injury, loss, or damage to persons or property in the Theatre (except for injury to Products' employees) arising from any cause whatsoever, for any damages resulting from delay or failure to deliver parts hereunder, or for any consequential damages whatsoever.

(*c*) Products shall provide facilities and personnel for performing the services herein referred to under normal operating conditions. Products shall not be liable for failure to perform said services if the Exhibitor shall fail to make the Theatre and theatre personnel available or when such failure to perform is due to other conditions beyond the control of Products, whether or not similar to the foregoing.

(*d*) This agreement shall not be assigned by the Exhibitor without Products' written consent. Subject to such restriction upon assignment by the Exhibitor, it shall be binding upon the parties and their respective successors, assigns, and legal representatives.

(*e*) The entire understanding of the parties with respect to the subject matter of this agreement is expressed herein and the construction and performance thereof shall be governed by the laws of the State of New York.

Digitized by Google

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers or agents in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,

By _____
Vice-President, Treasurer, Authorized Agent.

Products' witness signs here:

_____

_____
Exhibitor.

By _____

Exhibitor's witness signs here:

_____

WAIVER

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named and of the payment by Electrical Research Products, Inc., of the sum of One ($1.00) Dollar, receipt of which is hereby acknowledged, the undersigned parties having an interest in the Theatre referred to in said agreement as owner or lessor thereof, hereby consent(s) to the installation of said Equipment and waive(s) any and all rights or claims thereto of whatsoever kind or nature which I/we have or may hereafter acquire as landlord(s) of said Theatre, which might or could in any manner interfere with any rights of Electrical Research Products, Inc., in or to said Equipment.

Dated this _____ day of _____, 193__.

_____
Owner of Theatre.

_____
Lessor of Theatre (other than Owner).

Attach proper schedule or schedules before this agreement is signed by the Exhibitor.

Contract No._____

This agreement, made in triplicate at New York, New York, this_____day of_____193__, by Electrical Research Products, Inc., a Delaware corporation of No. 250 West 57th Street, New York, New York (hereinafter called "Products"), and_____, a _____ corporation, of No._____Street/Avenue, City of_____, State of_____ (hereinafter called the "Exhibitor"), the operator of the_____Theatre at No._____Street/Avenue, City of_____, State of _____ (hereinafter called the "Theatre");

WITNESSETH

Whereas, under a certain agreement dated_____, 19__, between Products and the Exhibitor, or an assignor of the Exhibitor (hereinafter referred to as the "Original Agreement"), Products furnished for use in the Theatre a Western Electric Sound Reproducing Equipment which is now installed in the Theatre and is owned by Products; and

Whereas, the Exhibitor desires to terminate the Original Agreement and all Agreements supplemental thereto relating to the use in the Theatre of said sound reproducing equipment or additional equipment or parts which may have

Digitized by Google

been furnished to the Exhibitor by Products prior to the date referred to in Section 1 hereof (all of said equipment, additional equipment and parts being hereinafter collectively referred to as the "Equipment") and to enter into a new agreement with respect to the Equipment upon the terms and conditions hereinafter set forth;

Now therefore, in consideration of the premises and of the covenants and conditions herein set forth, the parties agree as follows:

1. The Original Agreement and all agreements supplemental thereto heretofore entered into between the parties with respect to the Equipment, shall terminate in all respects on_____, 193__. On or before said date the Exhibitor will pay to Products all sums accruing to Products under said agreements to and including said date. The Exhibitor hereby releases and discharges Products may be required to pay, but nothing herein contained shall be deemed respect to any existing or future infringement or claim of infringement of any patent relating to said equipment or the use thereof under said agreements.

2. Subject to the provisions of Section 1 hereof, Products hereby leases to the Exhibitor and the Exhibitor hereby hires from Products the Equipment for a term of fifteen (15) years commencing on the date of termination of the Original Agreement and agreements supplemental thereto, as referred to in Section 1 hereof. Products hereby grants to the Exhibitor, subject to the terms, conditions, and limitations herein contained, a non-exclusive license to use the Equipment in the Theatre solely for the electrical reproduction of sound in connection with or incidental to the exhibition of motion pictures and to employ to the extent necessarily involved in such use of said Equipment, the methods and systems of Products covered by all United States patents relating to said Equipment or to such use thereof, in respect of which Products now has the right to grant such license. The Equipment shall be held and operated by the Exhibitor without responsibility of any character on the part of Products for the functioning of or damage to the Equipment, or damage to the Theatre or its contents, or to persons, growing out of the possession or use of the Equipment, and the Exhibitor shall hold Products harmless from all such risks. The Exhibitor shall carry such insurance covering the Equipment as it shall deem requisite. Products shall not be liable to defend or indemnify the Exhibitor on account of any infringement or claim of infringement of any patent relating to the Equipment, or the use thereof. In the event, however, that any action or suit shall be brought against the Exhibitor alleging infringement of any patent by reason of the use of said Equipment by the Exhibitor, the Exhibitor shall immediately notify Products thereof (with written confirmation) and Products at its option shall have the right to take over and conduct at its own expense the defense of such action or suit.

3. The Exhibitor shall pay to Products as rental for the Equipment on the first day of each year of the term hereof, the sum of One ($1.00) Dollar, shall bear and discharge promptly any and all personal property and license taxes which may be charged or levied in connection with, or which may apply to the Equipment, and shall reimburse Products promptly for any such taxes which Products may be required to pay, but nothing herein contained shall be deemed to prevent the Exhibitor from contesting, or litigating, any such taxes to the extent deemed desirable, before paying the same.

4. Products shall retain full title to the Equipment, and upon any termination of this agreement (which may be terminated by Products in the event of failure of the Exhibitor to pay the charges and taxes referred to in Section 3 hereof, or upon the insolvency, or bankruptcy of the Exhibitor), the Exhibitor shall surrender the Equipment to Products in good order and condition, reasonable wear and tear only excepted, together with all repair and replacement parts (other than exhausted consumable parts such as vacuum tubes, photo-electric cells and exciting lamps), and all tools and other accessories which shall have been furnished by Products.

5. This agreement shall be binding upon the parties and their respective successors, assigns, and legal representatives, but may not be assigned either voluntarily or involuntarily by the Exhibitor without the written consent of Products. The entire understanding of the parties with respect to the subject matter of this agreement is expressed herein and the construction and performance thereof shall be governed by the laws of the State of New York.

Digitized by Google

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers, or agents, in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,

By _____
Vice-President, Treasurer, Authorized Agent.

Products' witness signs here:

_____

_____
Exhibitor.

Exhibitor's witness sign here:

_____

_____

This agreement made in triplicate at New York, New York, this _____ day of _____, 193__, by Electrical Research Products, Inc., a Delaware corporation, of No. 250 West 57th Street, New York, New York (hereinafter called "Products"), and _____, a _____ _____ corporation, of No. _____ Street/Avenue, City of _____, State of _____ (hereinafter called the "Exhibitor"), the operator of the _____ Theatre, at No._____ _____ Street/Avenue, City of _____, State of _____ _____ (hereinafter called the "Theatre");

Witnesseth, That in consideration of the covenants and conditions herein set forth, the parties agree as follows:

1. *Lease of Equipment and Grant of License.*—Products hereby leases to the Exhibitor and the Exhibitor hereby hires from Products a Western Electric Sound Reproducing Equipment (hereinafter called the "Equipment"), and Products hereby grants to the Exhibitor, subject to the terms, conditions, and limitations herein contained, a non-exclusive, non-assignable license to use the Equipment in the Theatre, solely for the electrical reproduction of sound in connection with or incidental to the exhibition of motion pictures and to employ to the extent necessarily involved in such use of said Equipment, the methods and systems of Products covered by all United States patents and applications for United States patents relating to said Equipment or to such use thereof, in respect of which Products now has, or during the term of this agreement may acquire, the right to grant such license. The Exhibitor shall operate the Equipment in manner approved by Products from time to time and shall not, without Products approval, or otherwise than under its supervision, change or modify any electrical circuits or parts or any mechanical parts of the Equipment, or break any seal which may be placed thereon. The Equipment, or any parts thereof, which may have been previously used shall be put in efficient operating condition by Products prior to or at the time of installation. The Equipment to be furnished hereunder is:

---

2. *Charges.*—(a) The Exhibitor will pay Products the following sums:

(1) _____ ($_____) Dollars upon submission of this agreement for acceptance;

(2) _____ ($_____) Dollars upon the date the Equipment is first used for a public performance, or the day which Products shall certify to the Exhibitor that the Equipment is available for public performance, whichever date be the earlier, or in any event not later than thirty (30) days after shipment of the Equipment; and

(3) The sum of One ($1.00) Dollar per year, payable in advance, commencing with the second year of the term hereof.

(b) In addition to the charges referred to in paragraph (a) of this section, the Exhibitor shall pay all transportation and handling charges on all equipment and parts therefor which may be furnished hereunder and shall arrange for any trucking and handling necessary to effect delivery of said equipment and parts to the Theatre.

3. *Shipment of Equipment.*—The Equipment will be furnished f. o. b. Products' warehouse at Chicago, Illinois, or from such other point as Products may designate. If shipment shall be made from a point other than Chicago, Illinois, Products will assume any transportation charges in excess of those which would

Digitized by Google

have applied had shipment been made to the Exhibitor from Chicago, Illinois. The Equipment will be shipped on or about _____, 193__. Products shall not be responsible for any inconvenience or damage resulting from failure to ship the Equipment on or before the aforementioned date.

4. *Facilities for Installation.*—Prior to the installation of the Equipment, the Exhibitor shall make available a suitable source of electric power supply, with outlets conveniently located for the Equipment, shall provide supports for horns, a screen satisfactory to Products as to its acoustic properties, suitable space properly ventilated for the installation of storage batteries and charging equipment or other power equipment, and shall make such other alterations and modifications in and to the Theatre, including furnishing of drapes for acoustic purposes, as may be necessary for the proper installation and operation of the Equipment.

5. *Installation of Equipment.*—(a) The Exhibitor shall install the Equipment at its own expense in such manner as to comply with all laws, rules, ordinances, and regulations pertaining to electrical installations of this character. The installation shall be made in accordance with instructions furnished by Products and under Products' supervision. All preliminary and installation work done and material furnished by the Exhibitor and its agents or servants shall be subject to approval by Products, and the Equipment shall not be used for a public performance until the installation thereof shall have been approved by Products. Approval of installation work or material shall in no event subject Products to responsibility or liability of any kind or nature. Except as herein otherwise specifically provided, the Exhibitor shall provide and pay for all material and services required in preparation for and in connection wth the installation of the Equipment.

(b) Products shall provide a service inspector, and if deemed necessary by Products, a projectionist, to inspect the preliminary work done by the Exhibitor and to supervise the installation of the Equipment. Notice from the Exhibitor that the Equipment has been received and that the Theatre will be ready for installation of the Equipment on a definite date shall be delivered to Products not less than three (3) days prior to said date, and Products shall make every reasonable effort to have its service inspector at the Theatre on said date. The services of the service inspector, and projectionist, if required, will be furnished without additional cost to the Exhibitor for a continuous period not to exceed three (3) days. If the premilinary work to be done by the Exhibitor is not ready for inspection, or said work is not sufficiently advanced to permit the installation of the Equipment upon the date that the service inspector shall arrive at the Theatre, or in the event that supervisory services shall be required for a period in excess of three (3) days, or otherwise than for a continuous period, the Exhibitor shall pay to Products its standard charge of Thirty-five ($35.00) Dollars per man per day or fraction thereof for any period in excess of three (3) days, including time consumed in transit, together with any additional expense which Products may have incurred by reason of said services being required otherwise than for a continuous period. At the time of installation Products shall instruct the motion picture operators of the Exhibitor in the manner and method of operating the Equipment for a period not to exceed three (3) days.

6. *Title.*—Products shall retain title to all equipment, repair and replacement parts, tools, drawings, and printed or written data applicable thereto. All such equipment and accessories shall at all times be and remain personal property notwithstanding the manner or method of its attachment to any real property.

7. *Patent Protection.*—Products, at its own expense, shall defend any and all actions and suits alleging infringement during the first year of the term hereof of any United States patent by reason of the use of the Equipment, as and for the purposes furnished, which may be brought against the Exhibitor during said first year or within one year after said first year, and will pay and satisfy all judgments or decrees for profits, damages, or costs which may be finally awarded against the Exhibitor in any such action or suit on account of such infringement by the court of last resort to which any such action or suit is taken, and if such use shall be prevented by an injunction in such suit, Products, at its option, may replace said equipment with suitable non-infringing equipment or modify it so that it will not infringe, or procure for the Exhibitor the right to continue to use the same, and if within thirty (30) days from the date any such injunction becomes effective, Products does not thus replace or modify the Equipment or procure for the Exhibitor the right to

Digitized by Google

continue to use the same, either party may upon thirty (30) days' written notice terminate this agreement, but such termination shall not relieve Products of its obligations hereunder with respect to infringements alleged to have occurred theretofore, or relieve the Exhibitor of any of its obligations which accrued prior to such termination; provided, however, that the obligations of Products referred to in this section, shall not apply to uses of the Equipment or any part or parts thereof in combination with other apparatus or parts not furnished by Products therefor, if the alleged infringement results directly or indirectly from such combination or use of apparatus or parts not furnished by Products, and that the liability of Products hereunder shall in no event exceed the aggregate amount paid to Products hereunder. If at the time of, or after the commencement of, any such action or suit, the Exhibitor is in default, or should default in its obligations to Products hereunder, or shall have assigned this agreement without the consent of Products, or removed the Equipment from its installed location in the Theatre without the written consent of Products, or if in respect of, or because of any such action or suit, or any threat thereof, the Exhibitor shall, without Products' written consent, make an independent settlement with the owner or owners of the patent or patents alleged to be infringed, Products shall not be subject to the obligations referred to in this section, but may, at its option, undertake or continue the defense of any such action or suit at its own expense. The Exhibitor shall give Products immediate notice (with written confirmation) of all claims of such infringement and of all such actions or suits and full opportunity and authority to assume the sole defense thereof, including appeals; shall not in any manner prejudice Products' defense of any such action or suit, and shall furnish Products, upon request, all information and assistance available to the Exhibitor for such defense, and in all other respects cooperate fully with Products in the defense of any such action or suit. The liability of Products to the Exhibitor for any infringement by reason of the use of the Equipment shall be limited to the agreements herein contained.

8. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all personal property and license taxes which may be charged or levied in connection with or which may apply to any equipment furnished hereunder, and the Exhibitor shall reimburse Products for any such taxes which Products may be requred to pay.

9. *Default.*—At the option of Products this agreement and the rights of the Exhibitor hereunder shall terminate in the event of failure of the Exhibitor to make payment of charges referred to in Section 2 hereof or failure to pay taxes in accordance with Section 8 hereof, as said charges and taxes shall become due, or upon the insolvency of the Exhibitor, or upon the filing by or against the Exhibitor of any petition in bankruptcy or for reorganization under the Bankruptcy Act or any amendment thereto, or upon the making of an assignment of any of the Exhibitor's assets for the benefit of creditors, or upon any application for the appointment of a receiver of the property and assets of the Exhbitor, or upon the commencement of any action, suit, or proceeding against the Exhibitor in respect of the title to, or right to possession of, the Theatre, or upon the Exhibitor ceasing to operate the Theatre, or upon removal of the Equipment from the Theatre unless prior to such removal the Exhibitor shall have made arrangements satisfactory to Products for the care and custody of the Equipment, or upon the issue or levy of any attachment or the filing of, or attempt or assert or enforce, any lien which might in any manner affect Products' title to, or right to possession of, any apparatus or equipment furnished hereunder.

10. *Surrender of Equipment.*—Upon any termination of this agreement the Exhibitor shall surrender to Products, in good order and condition, reasonable wear and tear only excepted, the Equipment together with all repair and replacement parts (other than exhausted consumable parts such as vacuum tubes, photoelectric cells, and exciting lamps), tools, and other accessories which shall have been furnished by products.

11. *Term.*—This agreement shall be effective for a term of fifteen (15) years from the date hereof.

12. *General Provisions.*—(a) The Exhibitor, at its own expense, shall obtain all necessary permits and do all other acts and things required by all laws, ordinances, and regulations relating to the maintenance, operation, and use of the Equipment or any part thereof, and comply with any fire insurance underwriters' requirements relating thereto. If in connection with any operation conducted by Products hereunder, it shall be necessary for any of the Exhibitor's

Digitized by Google

employees to be in attendance at the Theatre, any charges for the services of such employees shall be borne by the Exhibitor.

(b) Nothing herein contained shall be construed as a guaranty by Products of uninterrupted functioning of the Equipment. Products shall not be responsible for any interruption in the operation of the Theatre or any equipment therein, or for any injury, loss, or damage to persons or property in the Theatre (except for injury to Products' employees) arising from any cause whatsoever, for any damages resulting from delay or failure to deliver parts hereunder, or for any consequential damages whatsoever.

(c) Products shall provide facilities and personnel for performing the services herein referred to under normal operating conditions. Products shall not be liable for failure to perform said services if the Exhibitor shall fail to make the Theatre and theatre personnel available or when such failure to perform is due to other conditions beyond the control of Products, whether or not similar to the foregoing.

(d) This agreement shall not be assigned by the Exhibitor without Products' written consent. Subject to such restriction upon assignment by the Exhibitor, it shall be binding upon the parties and their respective successors, assigns, and legal representatives.

(e) The entire understanding of the parties with respect to the subject matter of this agreement is expressed herein and the construction and performance thereof shall be governed by the laws of the State of New York.

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers or agents in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.

By _____

Vice-President, Treasurer, Authorized Agent.

Products' witness signs here:

_____

_____

Exhibitor.

By _____

Exhibitor's witness signs here:

_____

WAIVER

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named and of the payment by ELECTRICAL RESEARCH PRODUCTS INC. of the sum of One ($1.00) Dollar, receipt of which is hereby acknowledged, the undersigned parties having an interest in the Theatre referred to in said agreement as owner or lessor, thereof, hereby consent(s) to the installation of said Equipment and waive(s) any and all rights or claims thereto of whatsoever kind or nature which I/we have or may hereafter acquire as landlord(s) of said Theatre, which might or could in any manner interfere with any rights of ELECTRICAL RESEARCH PRODUCTS INC. in or to said Equipment.

Dated this _____ day of _____, 193__

_____

Owner of Theatre.

_____

Lessor of Theatre (other than Owner).

This Agreement made in triplicate at New York, New York, this _____ day of _____, 193__, by Electrical Research Products, Inc., a Delaware corporation, of No. 250 West 57th Street, New York, New York (hereinafter called "Products"), and _____ a _____ corporation of No. _____ Street/Avenue, City of _____, State of _____ (hereinafter called the "Exhibitor"), the operator of the _____ Theatre at No. _____ Street/Avenue, City of _____, State of _____, (hereinafter called the "Theatre"):

Witnesseth, that in consideration of the covenants and conditions herein set forth, the parties agree as follows:

Digitized by Google

1. *Lease of Equipment.*—Products hereby leases to the Exhibitor and the Exhibitor hereby hires from Products a Western Electric Sound Reproducing Equipment (hereinafter called the "Equipment") and subject to the terms, conditions, and limitations herein contained, Products grants to the Exhibitor a non-exclusive, non-assignable license to use the Equipment in the Theatre solely for the electrical reproduction of sound in connection with or incidental to the exhibition of motion pictures, and to employ to the extent necessarily involved in such use of said Equipment, the methods and systems of Products covered by all United States patents and applications for United States patents relating to said Equipment or to such use thereof, in respect of which Products now has, or during the term of this agreement may acquire the right to grant such license. The Exhibitor shall operate the Equipment in manner approved by Products from time to time and shall not, without Products' approval, or otherwise than under its supervision, change or modify any electrical circuits or parts or any mechanical parts of the Equipment or break any seal which may be placed thereon. The Equipment or any parts thereof which may have been previously used shall be put in efficient operating condition by Products prior to or at the time of installation. The Equipment to be furnished hereunder is:

---

2. *Charges.*—(a) The Exhibitor will pay Products the sum of _____ ($_____) Dollars upon submission of this agreement for Products' acceptance. On the first Saturday of the term hereof, as fixed by the provisions of Section 15, and on each and every Saturday thereafter during said term, the Exhibitor will pay Products the sum of _____ ($_____) Dollars.

(b) In addition to the charges referred to in paragraph (a) of this section, the Exhibitor will pay all transportation and handling charges on all equipment and parts therefor (other than repair and replacement parts furnished in accordance with the provisions of Section 8) which may be furnished hereunder and will arrange for any trucking and handling necessary to effect delivery of said equipment and parts to the Theatre.

3. *Abatement of Charges.*—(a) If during the term hereof the Exhibitor, not then being in default, shall close the Theatre temporarily for a continuous period of not less than one (1) week and shall have given Products not less than one (1) week's prior written notice thereof, Products shall abate the charges payable hereunder for each full calendar week of the continuous period that the Theatre is thus inoperative, but such abatement shall not be effective for more than thirteen (13) weeks during any twelve (12) month period. The Exhibitor shall give Products at least one (1) week's written notice of intention to resume the operation of the Theatre. In the event of any abatement of charges as referred to above, upon resumption of operation of the Theatre, the Exhibitor will pay Products a reconnection charge of Ten ($10.00) Dollars.

(b) Products, at its option, may seal the Equipment during any period for which the Exhibitor shall request any abatement of charges. If after such sealing the Equipment shall be unsealed without authority from Products the Theatre shall be deemed to have been in operation at all times for the purpose of determining charges payable hereunder. Notices referred to in this section shall be mailed to Products' office at New York, New York, Chicago, Illinois, or Los Angeles, California, whichever office is nearest the Exhibitor.

4. *Shipment of Equipment.*—The Equipment will be furnished f. o. b. Products' warehouse at Chicago, Illinois, or from such other point as Products may designate. If shipment shall be made from a point other than Chicago, Illinois, Products will assume any transportation charges in excess of those which would have applied had shipment been made to the Exhibitor from Chicago, Illinois. The Equipment will be shipped on or about _____, 193__. Products shall not be responsible for any inconvenience or damage resulting from failure to ship the Equipment on or before the aforementioned date.

5. *Facilities for Installation.*—Prior to the installation of the Equipment, the Exhibitor shall make available a suitable source of electric power supply, with outlets conveniently located for the Equipment, shall provide supports for horns, a screen satisfactory to Products as to its acoustic properties, suitable space, properly ventilated, for the installation of storage batteries and charging equipment or other power equipment, and shall make such other alterations and modifications in and to the Theatre, including furnishing of drapes for acoustic purposes, as may be necessary for the proper installation and operation of the Equipment.

Digitized by Google

6. *Installation of Equipment.*—(a) The Exhibitor shall install the Equipment at its own expense in such manner as to comply with all laws, rules, ordinances, and regulations pertaining to electrical installations of this character. The installation shall be made in accordance with instructions furnished by Products and under Products' supervision. All preliminary and installation work done and material furnished by the Exhibitor and its agents or servants shall be subject to approval by Products, and the Equipment shall not be used for a public performance until the installation thereof shall have been approved by Products. Approval of installation work or material shall in no event subject Products to responsibility or liability of any kind or nature. Except as herein otherwise specifically provided the Exhibitor shall provide and pay for all material and services required in preparation for and in connection with the installation of the Equipment.

(b) Products shall provide a service inspector, and if deemed necessary by Products, a projectionist, to inspect the preliminary work done by the Exhibitor and to supervise the installation of the Equipment. Notice from the Exhibitor that the Equipment has been received and that the Theatre will be ready for installation of the Equipment on a definite date shall be delivered to Products not less than three (3) days prior to said date, and Products shall make every reasonable effort to have its service inspector at the Theatre on said date. Products will furnish the services of the service inspector and of the projectionist, if required, for a continuous period not to exceed three (3) days' services of one (1) man, without additional cost to the Exhibitor. If the preliminary work to be done by the Exhibitor is not ready for inspection, or said work is not sufficiently advanced to permit the installation of the Equipment upon the date that the service inspector shall arrive at the Theatre, or in the event that supervisory services shall be required for a period in excess of the period herein above referred to, or otherwise than for a continuous period, the Exhibitor shall pay to Products its standard charge of Thirty-five (35) Dollars per man per day or fraction thereof, for any time in excess of the period during which the supervisory services are to be furnished without additional charge, including time consumed in transit, together with any additional expense which Products may have incurred by reason of said services being required otherwise than for a continuous period. During the period that Products' service inspector shall supervise the installation of the Equipment, Products will instruct the motion picture operators of the Exhibitor in the manner and method of operating the Equipment.

7. *Inspection of Equipment.* (a) At the time of installation, Products will adjust the Equipment to obtain the best quality, in Products' opinion, of sound reproduction in the Theatre under average audience conditions. Products will then determine by a transmission test the normal limits of gain, frequency response, and maximum undistorted power output level of the Equipment so adjusted, and will furnish the Exhibitor a transmission test report setting forth these operating characteristics and stating the normal limits within which the Equipment should function. This transmission test report shall become the standard of performance of the Equipment in the Theatre. If alterations, modifications, or additions shall be made to the Equipment under Products' direction and in accordance with its specifications, Products will readjust the Equipment and furnish the Exhibitor with a revised transmission test report which shall then become the standard of performance of the Equipment in the Theatre.

(b) Products shall make _____ (_____) regular service calls during each fifty-two (52) weeks of the term hereof that the Theatre shall be in operation, for the purpose of inspecting and testing the electrical and mechanical components of the Equipment and its operation to assist the Exhibitor to keep the Equipment operating within the normal limits of performance as specified above.

(c) In addition to the regular service calls, upon request of the Exhibitor, or a representative of the Exhibitor, Products shall furnish emergency service for the Equipment, subject to the limitations of its normal facilities and personnel available for rendering the services referred to in this section. Upon receipt of a communication from the Exhibitor requesting emergency service required by any emergency arising with respect to the operation of the Equipment, Products will send a service inspector to examine the Equipment and advise respecting corrective action. Products' obligation to render emergency service without additional cost to the Exhibitor shall be limited to two (2) such emergency service calls during each fifty-two (52) weeks of the term

Digitized by Google

hereof that the Theatre shall be in operation. Upon request of the Exhibitor, Products will furnish additional emergency service at a charge of Five ($5.00) Dollars per man per hour or fraction thereof, including time consumed in transit, together with any expenses and transportation charges incurred in furnishing such services. The charges for such emergency services shall be payable upon rendition of billing therefor.

8. *Repair and Replacement Parts.*—(a) During the term of this agreement Products will furnish repair and replacement parts (including vacuum tubes, photoelectric cells, exciting lamps, and rectifier bulbs, but excluding storage batteries) for the sound heads, faders, amplifiers, loudspeakers, motors, control cabinets, and drives of the Equipment, as from time to time shall be required for the normal maintenance and operation of the Equipment, but Products shall not be obligated to furnish repair or replacement parts which may be required by reason of misuse, abuse, or negligence in the operation of the Equipment.

(b) All parts furnished hereunder (other than those regularly carried in the Theatre as spare parts) shall be installed by the Exhibitor under Products' supervision and in accordance with Products' directions. All used parts removed from the Equipment shall be delivered to Products by the Exhibitor, and Products shall not be required to replace any parts unless the Exhibitor so delivers the equivalent used parts. Products shall not be required to repair or replace any parts or equipment other than parts or equipment which it shall have furnished for use in the Theatre.

(c) Parts furnished by Products hereunder shall be used only as spare or replacement parts for the Equipment, and shall be deemed a part of said Equipment and subject to all of the terms and conditions of this agreement with the same effect as if said parts had been incorporated in the equipment as originally furnished hereunder.

(d) Products will pay all transportation charges on parts furnished hereunder and on the return of replaced parts to it at Chicago, Illinois, or such other location as Products may designate.

9. *Damage or Destruction of Equipment.*—If the Equipment while installed in the Theatre shall be damaged or destroyed by extraneous fire, or by earthquake, tornado, or other act of God, without fault or neglect on the part of the Exhibitor, and provided that at the time of the occurrence of such damage or destruction the Exhibitor shall not be in default in respect of the terms of this agreement, and shall continue to operate the Theatre, or shall resume the operation thereof at its original location during the term of this agreement, upon written request of the Exhibitor, Products at its own expense shall repair the Equipment or, at its option, furnish replacing Western Electric sound reproducing equipment equally suitable for the Theatre as was the equipment thus damaged or destroyed: provided, however, that if the Theatre shall be totally destroyed or if it shall be damaged and repairs shall not be completed and operation resumed within a period of six (6) months from the date of such damage, Products at its option may terminate this agreement by giving the Exhibitor ten (10) days' written notice, in which event the Exhibitor shall make payment of all charges hereunder to the date of such destruction. The Exhibitor, at its own expense, shall furnish all necessary facilities and labor and shall install all parts and replacing equipment furnished by Products in accordance with the provisions of this section. Such parts and replacing equipment shall be installed under Products' supervision and in the event that the supervisory services of Products' service inspector, or service inspector and projectionist, are required for a period in excess of three (3) days' services of one (1) man, the Exhibitor shall pay Products' charge for any services thus rendered at the rate of Thirty-five ($35.00) Dollars per man per day or fraction thereof, including time consumed in transit, together with any additional expenses which Products may incur by reason of said services being required otherwise than for a continuous period. In the event of damage or destruction of the Equipment as aforesaid, the weekly charges payable hereunder shall abate pro rata from the date of the damage or destruction until repair or replacing equipment shall have been furnished by Products. Upon any repair or replacing equipment being furnished by Products in accordance with the provisions of this section, the Exhibitor shall provide facilities for the installation of such equipment in the same manner as provided in Section 5 and all of the provisions of this agreement shall apply to such replacing equipment. Except as herein otherwise provided, the Equipment shall be held at the sole risk of the Exhibitor.

10. *Title.*—Products shall retain title to all equipment, repair and replace-

Digitized by Google

ment parts, tools, drawings, and printed or written data applicable thereto. All such equipment and accessories shall at all times be and remain personal property notwithstanding the manner or method of its attachment to any real property.

11. *Patent Protection.*—Products, at its own expense, shall defend any and all actions and suits alleging infringement during the term hereof, of any United States patent by reason of the use of the Equipment, as and for the purposes furnished, which may be brought against the Exhibitor during the term hereof, or within one year after the termination of this agreement and will pay and satisfy all judgments or decrees for profits, damages, or costs which may be finally awarded against the Exhibitor in any such action or suit on account of such infringement by the court of last resort to which any such action or suit is taken, and if such use shall be prevented by an injunction in such suit, Products at its option may replace said equipment with suitable non-infringing equipment or modify it so that it will not infringe, or procure for the Exhibitor the right to continue to use the same, and if within thirty (30) days from the date any such injunction becomes effective, Products does not thus replace or modify the Equipment or procure for the Exhibitor the right to continue to use the same, either party may upon thirty (30) days' written notice terminate this agreement, but such termination shall not relieve Products of its obligations hereunder with respect to infringements alleged to have occurred theretofore, or relieve the Exhibitor of any of its obligations which accrued prior to such termination; provided, however, that the obligations of Products referred to in this section shall not apply to uses of the Equipment or any part or parts thereof in combination with other apparatus or parts not furnished by Products therefor, if the alleged infringement results directly or indirectly from such combination or use of apparatus or parts not furnished by Products, and that the liability of Products hereunder shall in no event exceed the aggregate amount paid to Products hereunder. If at the time of, or after the commencement of, any such action or suit, the Exhibitor is in default, or should default in its obligations to Products hereunder, or shall have assigned this agreement without the consent of Products, or removed the Equipment from its installed location in the Theatre without the written consent of Products, or if In respect of, or because of any such action or suit, or any threat thereof, the Exhibitor shall without Products' written consent make an independent settlement with the owner or owners of the patent or patents alleged to be infringed, Products shall not be subject to the obligations referred to in this section, but may at its option undertake or continue the defense of any such action or suit at its own expense. The Exhibitor shall give Products immediate notice (with written confirmation) of all claims of such infringement and of all such actions or suits and full opportunity and authority to assume the sole defense thereof, including appeals; shall not in any manner prejudice Products' defense of any such action or suit and shall furnish Products, upon request, all information and assistance available to the Exhibitor for such defense and in all other respects cooperate fully with Products in the defense of any such action or suit. Products shall not be liable to defend or indemnify the Exhibitor on account of any infringement or claim of infringement of any patent relating to the said sound reproducing equipment or the use thereof, except as herein specifically provided.

12. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all personal property and license taxes which may be charged or levied in connection with or which may apply to any equipment furnished hereunder, and the Exhibitor shall reimburse Products for any such taxes which Products may be required to pay.

13. *Default.*—At the option of Products this agreement and the rights of the Exhibitor hereunder shall terminate in the event of failure of the Exhibitor to make payment of charges referred to in Section 2 hereof or failure to pay taxes in accordance with Section 12 hereof, as said charges and taxes shall become due, or upon the insolvency of the Exhibitor, or upon the filing by or against the Exhibitor of any petition in bankruptcy or for reorganization under the Bankruptcy Act or any amendment thereto, or upon the making of an assignment of any of the Exhibitor's assets for the benefit of creditors, or upon any application for the appointment of a receiver of the property and assets of the Exhibitor, or upon the commencement of any action, suit, or proceeding against the Exhibitor in respect of the title to or right to possession of the Theatre, or (except as provided in Section 3) upon the Exhibitor ceasing to operate the

Digitized by Google

Theatre, or upon the removal of the Equipment from the Theatre unless prior to such removal the Exhibitor shall have made arrangements satisfactory to Products for the care and custody of the Equipment, or upon the issue or levy of any attachment or the filing of, or attempt to assert or enforce, any lien which might in any manner affect Products' title to, or right to possession of, any apparatus or equipment furnished hereunder. The Exhibitor shall be deemed in default at any time that payments hereunder shall be in arrears for a period of two (2) weeks or more.

14. *Surrender of Equipment.*—Upon any termination of this agreement the Exhibitor shall surrender to Products, in good order and condition, reasonable wear and tear only excepted, the Equipment, together with all repair and replacement parts, tools, and other accessories therefor, which shall have been furnished by Products.

15. *Term.*—The original term of this agreement shall be one (1) year and a period equivalent to any period or periods of abatement of charges hereunder which may have occurred during said year, commencing on the day upon which the Equipment is first used for a public performance, or the day which Products shall certify to the Exhibitor that the Equipment is available for public performances, whichever date be the earlier; provided, however, that the term hereof and the payments to Products hereunder (other than the payment tendered upon submission of this agreement for execution by Products) shall commence not later than thirty (30) days after the date of shipment of the Equipment. The agreement shall continue in effect during subsequent terms until terminated as hereinafter set forth. The phrase "subsequent term" shall mean any period of one (1) year subsequent to the original term, plus a period equivalent to the period or periods of abatement of charges which may have occurred during said year. Either party may terminate this agreement at the end of the original term or at the end of any subsequent term by giving to the other not less than thirty (30) nor more than sixty (60) days' prior written notice of intention to terminate; provided, however, that if the Exhibitor shall be indebted to Products at the expiration of the original or a subsequent term of this agreement for any equipment or parts for equipment which the Exhibitor may have procured from Products for use in the Theatre, the Exhibitor shall not have the right to terminate this agreement on notice until any balance of such indebtedness shall have been paid.

16. *General Provisions.*—(*a*) None of the provisions of this agreement shall be construed as prohibiting the Exhibitor from taking any reasonable action to protect or repair the Equipment in the event of an accident or break-down. The Exhibitor shall notify Products immediately by registered mail of any unsatisfactory functioning of the Equipment and the absence of such notification shall be conclusive as to the Equipment functioning satisfactorily. The Exhibitor, at its own expense, shall obtain all necessary permits and do all other acts and things required by all laws, ordinances, and regulations relating to the maintenance, operation, and use of the Equipment, or any part thereof, and comply with any fire insurance underwriters' requirements relating thereto. Upon proper identification, the Exhibitor shall provide access for Products' representatives at all reasonable hours for all purposes referred to herein which may require such access. If in connection with any operation conducted by Products hereunder, it shall be necessary for any of the Exhibitor's employees to be in attendance at the Theatre, any charges for the services of such employees shall be borne by the Exhibitor.

(*b*) Nothing herein contained shall be construed as a guaranty by Products of uninterrupted functioning of the Equipment. Products shall not be responsible for any interruption in the operation of the Theatre or any equipment therein, or for any injury, loss, or damage to persons or property in the Theatre (except for injury to Products' employees) arising from any cause whatsoever, for any damages resulting from delay or failure to deliver parts hereunder, or for any consequential damages whatsoever.

(*c*) Products shall provide facilities and personnel for performing the services herein referred to under normal operating conditions. Products shall not be liable for failure to perform said services if the Exhibitor shall fail to make the Theatre and theatre personnel available or when such failure to perform is due to other conditions beyond the control of Products, whether or not similar to the foregoing.

(*d*) This agreement shall not be assigned by the Exhibitor without Products' written consent. Subject to such restriction upon assignment by the Exhibitor,

Digitized by Google

it shall be binding upon the parties and their respective successors, assigns, and legal representatives.

(*e*) The entire understanding of the parties with respect to the subject matter of this agreement is expressed herein and the construction and performance thereof shall be governed by the laws of the State of New York.

In witness whereof the parties hereto have caused these presents to be executed by their duly authorized officers or agents in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,
By _____,
Vice-President, Treasurer, Authorized Agent.
_____,
Exhibitor.
By _____.

Products' witness signs here:
_____

Exhibitor's witness signs here:
_____

WAIVER

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named and of the payment by Electrical Research Products, Inc., of the sum of One ($1.00) Dollar, receipt of which is hereby acknowledged, the undersigned parties having an interest in the Theatre referred to in said agreement as owner or lessor thereof, hereby consent(s) to the installation of said Equipment and waive(s) any and all rights or claims thereto of whatsoever kind or nature which I/we have or may hereafter acquire as landlord(s) of said Theatre, which might or could in any manner interfere with any rights of Electrical Research Products, Inc., in or to said Equipment.

Dated this _____ day of _____, 193__.

_____,
Owner of Theatre.
_____,
Lessor of Theatre (other than Owner).

3431 T—REV.
Contract No._____

This agreement, made in triplicate at New York, New York, this _____ day of _____, 193__, by Electrical Research Products, Inc., a Delaware corporation, of No. 250 West 57th Street, New York, New York (hereinafter called "Products"), and _____, a _____ _____ corporation, of No. _____ Street, City of _____ _____, State of _____ (hereinafter called the "Exhibitor"), the operator of the _____ Theatre at No. _____ Street, City of _____, State of _____ (hereinafter called the "Theatre");

WITNESSETH

Whereas under a certain agreement date _____, 19__, between Products and the Exhibitor, or an assignor of the Exhibitor (hereinafter referred to as the "Original Agreement"), Products furnished for use in the Theatre, a Western Electric Sound Reproducing Equipment, which is now installed in the Theatre and is owned by Products; and

Whereas the parties hereto desire to terminate the Original Agreement and all agreements supplemental thereto relating to the use of said Western Electric Sound Reproducing Equipment in the Theatre and to enter into a new agreement with respect thereto upon the terms and conditions hereinafter set forth;

Now, therefore, in consideration of the premises and of the covenants and conditions herein set forth, the parties agree as follows:

1. The Original Agreement and all agreements supplemental thereto heretofore entered into between the parties with respect to the aforementioned Western Electric Sound Reproducing Equipment, shall terminate in all respects

Digitized by Google

on _____, 193__; provided, however, that such termination shall not become effective unless all payments due and to become due to Products under said agreements to and including said date shall have been received by Products on or before said date. If said payments shall not have been received by Products by the aforementioned date, the Original Agreement and all agreements supplemental thereto shall continue in force and this agreement shall be void and of no effect.

2. Subject to the provisions of Section 1 hereof, Products hereby leases to the Exhibitor and the Exhibitor hereby hires from Products for a term of fifteen (15) years commencing on the date of termination of the Original Agreement and agreements supplemental thereto, as referred to in Section 1 hereof, the Sound Reproducing Equipment furnished by Products under the Original Agreement and any additional equipment which may have been furnished by Products to the Exhibitor prior to the date of commencement of the term hereof under agreements or additional orders supplemental to the Original Agreement (all of said equipment being hereinafter collectively referred to as the "Equipment"), which Equipment shall be held and operated by the Exhibitor without responsibiliay of any character on the part of Products for the functioning of or damage to the Equipment, or damage to the Theatre or its contents, or to persons, growing out of the possession or use of the Equipment, and the Exhibitor shall hold Products harmless from all such risks. Products hereby grants to the Exhibitor, subject to the terms, conditions, and limitations herein contained, a non-exclusive license to use the Equipment in the Theatre solely for the electrical reproduction of sound in connection with or incidental to the exhibition of motion pictures and to employ to the extent necessarily involved in such use of said Equipment, the methods and systems of Products covered by all United States patents relating to said Equipment or to such use thereof, in respect of which Products now has the right to grant such license.

3. The Exhibitor shall pay to Products as rental for the Equipment on the first day of each year of the term hereof, the sum of One ($1.00) Dollar, shall bear and discharge promptly any and all personal property and license taxes which may be charged or levied in connection with or which may apply to the Equipment, and shall reimburse Products promptly for any such taxes which Products may be required to pay, but nothing herein contained shall be deemed to prevent the Exhibitor from contesting or litigating any such taxes to the extent deemed desirable, before paying the same.

4. Subject to the conditions and limitations hereinafter set forth, Products, at its own expense, shall defend all actions and suits which may be brought against the Exhibitor with respect to patent infringement and subject likewise to the conditions and limitations set forth below, will pay and satisfy all judgments or decrees for profits, damages, or costs which may be finally awarded against the Exhibitor in any such action or suit by the court of last resort to which any such action or suit is taken:

(*a*) The obligation of Products as above referred to in this section shall apply only to infringement or alleged infringement of United States patents by reason of past or future use by the Exhibitor as and for the purposes furnished and in accordance with Products' instructions or recommendations, of the Equipment or any part or parts thereof furnished to the Exhibitor by Products prior to the date hereof for use in the Theatre.

(*b*) The said obligation of Products shall apply only to actions or suits which may be brought against the Exhibitor during the term hereof.

(*c*) Products shall have no obligation as aforesaid with respect to any infringement or alleged infringement arising out of uses of said Equipment or any part or parts thereof, in combination with other apparatus or parts not furnished by Products therefor, or arising out of changes in circuits used in or in connection with said Equipment or other changes therein or thereto, not made or specifically approved in writing by Products; if the alleged infringement results directly or indirectly from any combination or use of apparatus or parts not furnished by Products, or from any such changes in or to said Equipment, circuits, or parts.

(*d*) If use of the Equipment or parts in accordance with the provisions of paragraph (*a*) of this section shall be prevented by injunction in any action or suit alleging infringement, or if Products shall deem it advisable in order to avoid infringement or to minimize its liability hereunder, Products, at its option, shall have the right to replace said Equipment or any part thereof with

Digitized by Google

suitable non-infringing equipment or parts or to modify the same so that it will not infringe (and for those purposes Products shall have access to the Theatre at all reasonable times) or to secure for the Exhibitor the right to continue to use the same and, in the event of such use being prevented by any such injunction, if Products does not replace or modify the Equipment or parts, or procure for the Exhibitor the right to continue to use the Equipment or parts, within thirty (30) days from the date any such injunction becomes effective, either party may terminate this agreement upon thirty (30) days' written notice.

(*e*) Termination of this agreement on notice as referred to in the preceding paragraph (*d*) shall not relieve the Exhibitor of any of its obligations which accrued prior to the date of termination, nor relieve Products of its obligations hereunder with respect to infringements alleged to have occurred prior to said date.

(*f*) The Exhibitor shall give Products immediate notice of all claims of such infringement and of all such actions or suits (which advices shall be confirmed in writing); shall give Products full opportunity and authority to assume the sole defense thereof, including appeals; shall not in any manner prejudice Products' defense of any action or suit or Products' liability hereunder, or under any agreement with others relating to the use of sound reproducing equipment in theatres; shall furnish Products, upon request, with all information and assistance available to the Exhibitor for such defense, and in all other respects shall cooperate fully with Products in the defense of any such action or suit.

(*g*) If at the time of or after the commencement of any action or suit against the Exhibitor alleging infringement as aforesaid, the Exhibitor is in default or should default in its obligations to Products hereunder or under any other agreement with Products relating to the Equipment, or shall have assigned this agreement, except as herein provided, or removed the Equipment from its installed location in the Theatre without the written consent of Products, Products shall not be subject to the obligations to defend the Exhibitor or pay or satisfy judgments or decrees, but at its option, may undertake to continue the defense of any such action or suit at its own expense.

(*h*) The liability of Products to the Exhibitor with respect to patent infringement shall in no event exceed the aggregate amount paid to Products under the Original Agreement and under any agreement supplemental thereto entered into by the parties hereto prior to the date hereof.

The liability of Products to the Exhibitor with respect to patent infringement shall be limited to the agreements herein contained.

5. Products shall retain full title to the Equipment, and upon any termination of this agreement (which may be terminated by Products in the event of failure of the Exhibitor to pay the charges and taxes referred to in Section 3 hereof, or upon the insolvency or bankruptcy of the Exhibitor), the Exhibitor shall surrender the Equipment to Products in good order and condition, reasonable wear and tear only, excepted, together with all repair and replacement parts (other than exhausted consumable parts such as vacuum tubes, photo-electric cells, and exciting lamps) and all tools and other accessories which shall have been furnished by Products.

6. This agreement shall be binding upon the parties and their respective successors, assigns, and legal representatives, but may not be assigned either voluntarily or involuntarily by the Exhibitor without the written consent of Products. The entire understanding of the parties with respect to the subject matter of this agreement is expressed herein, and the construction and performance thereof shall be governed by the laws of the State of New York.

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers or agents in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,

By _____

Vice-President, Treasurer, Authorized Agent.

Products' witness signs here:

_____

_____

Exhibitor.

_____

Exhibitor's witness signs here:

_____

Revised 1-15-35.

Digitized by Google

3431 T

Contract No. ------

This agreement, made in triplicate at New York, New York, this ------ day of ---------- 193--, by Electrical Research Products, Inc., a Delaware corporation of No. 250 West 57th Street, New York, New York (hereinafter called "Products"), and----------, a ---------- corporation, of No. ---------- Street, City of ----------, State of ----------, (hereinafter called the "Exhibitor"), the operator of the ---------- Theatre at No. ---------- Street, City of ----------, State of ----------, (hereinafter called the "Theatre");

WITNESSETH:

Whereas, under a certain agreement dated ----------, 19--, between Products and the Exhibitor, or an assignor of the Exhibitor (hereinafter referred to as the "Original Agreement"), Products furnished for use in the Theatre a Western Electric Sound Reproducing Equipment which is now installed in the Theatre and is owned by Products; and

Whereas the parties hereto desire to terminate the Original Agreement and all agreements supplemental thereto relating to the use of said Western Electric Sound Reproducing Equipment in the Theatre and to enter into a new agreement with respect thereto upon the terms and conditions hereinafter set forth:

Now therefore, in consideration of the premises and of the covenants and conditions herein set forth, the parties agree as follows:

1. The Original Agreement and all agreements supplemental thereto heretofore entered into between the parties with respect to the aforementioned Western Electric Sound Reproducing Equipment, shall terminate in all respects on ----------, 193--; provided however, that such termination shall not become effective unless all payments due and to become due to Products under said agreements to and including said date shall have been received by Products on or before said date. If said payments shall not have been received by Products by the aforementioned date, the Original Agreement and all agreements supplemental thereto shall continue in force and this agreement shall be void and of no effect.

2. Subject to the provisions of Section 1 hereof, Products hereby leases to the Exhibitor and the Exhibitor hereby hires from Products for a term of fifteen (15) years commencing on the date of termination of the Original Agreement and agreements supplemental thereto, as referred to in Section 1 hereof, the Sound Reproducing Equipment furnished by Products under the Original Agreement and any additional equipment which may have been furnished by Products to the Exhibitor prior to the date of commencement of the term hereof under agreements or additional orders supplemental to the Original Agreement (all of said equipment being hereinafter collectively referred to as the "Equipment"), which Equipment shall be held and operated by the Exhibitor without responsibility of any character on the part of Products for the functioning of or damage to the Equipment, or damage to the Theatre or its contents, or to persons, growing out of the possession or use of the Equipment, and the Exhibitor shall hold Products harmless from all such risks. Products hereby grants to the Exhibitor, subject to the terms, conditions, and limitations herein contained, a non-exclusive license to use the Equipment in the Theatre solely for the electrical reproduction of sound in connection with or incidental to the exhibition of motion pictures and to employ to the extent necessarily involved in such use of said Equipment, the methods and systems of Products covered by all United States patents relating to said Equipment or to such use thereof, in respect of which Products now has the right to grant such license.

3. The Exhibitor shall pay to Products as rental for the Equipment on the first day of each year of the term hereof, the sum of One ($1.00) Dollar, shall bear and discharge promptly any and all personal property and license taxes which may be charged or levied in connection with or which may apply to the Equipment, and shall reimburse Products promptly for any such taxes which Products may be required to pay, but nothing herein contained shall be deemed to prevent the Exhibitor from contesting or litigating any such taxes to the extent deemed desirable, before paying the same.

4. Subject to the conditions and limitations hereinafter set forth, Products, at its own expense, shall defend all actions and suits which may be brought against the Exhibitor with respect to patent infringement and subject likewise to the conditions and limitations set forth below, will pay and satisfy all

Digitized by Google

judgments or decrees for profits, damages, or costs which may be finally awarded against the Exhibitor in any such action or suit by the court of last resort to which any such action or suit is taken:

(*a*) The obligation of Products as above referred to in this section shall apply only to infringement or alleged infringement of United States patents by reason of past or future use by the Exhibitor as and for the purposes furnished and in accordance with Products' instructions or recommendations, of the Equipment or any part or parts thereof furnished to the Exhibitor by Products prior to the date hereof for use in the Theatre;

(*b*) The said obligation of Products shall apply only to actions or suits which may be brought against the Exhibitor during the term hereof.

(*c*) Products shall have no obligation as aforesaid with respect to any infringement or alleged infringement arising out of uses of said Equipment or any part or parts thereof, in combination with other apparatus or parts not furnished by Products therefor, or rising out of changes in circuits used in or in connection with said Equipment or other changes therein or thereto, not made or specifically approved in writing by Products; if the alleged infringement results directly or indirectly from any combination or use of apparatus or parts not furnished by Products, or from any such changes in or to said Equipment, circuits, or parts.

(*d*) If use of the Equipment or parts in accordance with the provisions of paragraph (*a*) of this section shall be prevented by injunction in any action or suit alleging infringement, Products, at its option, may replace said Equipment or any part thereof with suitable non-infringing equipment or parts or modify the same so that it will not infringe or secure for the Exhibitor the right to continue to use the same and if Products does not replace or modify the Equipment or parts, or procure for the Exhibitor the right to continue to use the Equipment or parts, within thirty (30) days from the date any such injunction becomes effective, either party may terminate this agreement upon thirty (30) days' written notice.

(*e*) Termination of this agreement on notice as referred to in the preceding paragraph (*d*) shall not relieve the Exhibitor of any of its obligations which accrued prior to the date of termination, nor relieve Products of its obligations hereunder with respect to infringements alleged to have occurred prior to said date.

(*f*) The Exhibitor shall give Products immediate notice of all claims of such infringement and of all such actions or suits (which advices shall be confirmed in writing); shall give Products full opportunity and authority to assume the sole defense thereof, including appeals, shall not in any manner prejudice Products' defense of any action or suit or Products' liability hereunder, or under any agreement with others relating to the use of sound reproducing equipment in theatres; shall furnish Products, upon request, with all information and assistance available to the Exhibitor for such defense and in all other respects shall cooperate fully with Products in the defense of any such action or suit.

(*g*) If at the time of or after the commencement of any action or suit against the Exhibitor alleging infringement as aforesaid, the Exhibitor is in default or should default in its obligations to Products hereunder or under any other agreement with Products relating to the Equipment, or shall have assigned this agreement, except as herein provided, or removed the Equipment from its installed location in the Theatre without the written consent of Products, Products shall not be subject to the obligations to defend the Exhibitor or pay or satisfy judgments or decrees, but at its option, may undertake to continue the defense of any such action or suit at its own expense;

(*h*) The liability of Products to the Exhibitor with respect to patent infringement shall in no event exceed the aggregate amount paid to Products under the Original Agreement and under any agreement suplemental thereto entered into by the parties hereto prior to the date hereof.

The liability of Products to the Exhibitor with respect to patent infringement shall be limited to the agreements herein contained.

5. Products shall retain full title to the Equipment, and upon any termination of this agreement (which may be terminated by Products in the event of failure of the Exhibitor to pay the charges and taxes referred to in Section 3 hereof, or upon the insolvency or bankruptcy of the Exhibitor), the Exhibitor shall surrender the Equipment to Products in good order and condition, reasonable wear and tear only excepted, together with all repair and replacement parts (other than exhausted consumable parts such as vacuum tubes, photoelectric

Digitized by Google

cells, and exciting lamps) and all tools and other accessories which shall have been furnished by Products.

6. This agreement shall be binding upon the parties and their respective successors, assigns, and legal representatives, but may not be assigned either voluntarily or involuntarily by the Exhibitor without the written consent of Products. The entire understanding of the parties with respect to the subject matter of this agreement is expressed herein and the construction and performance thereof shall be governed by the laws of the State of New York.

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers or agents in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,
By _____
Vice-President, Treasurer, Authorized Agent.

Products' witness signs here:
_____

_____,
Exhibitor.

Exhibitor's witness signs here:
_____

3435 T.-R.W.

This agreement made in triplicate at New York, New York, this _____ day of _____, 193 __, by Electrical Research Products, Inc., a Delaware corporation of No. 250 West 57th Street, New York, New York (hereinafter called "Products"), and _____ a _____ _____ corporation of No. _____ Street/Avenue, City of _____, State of _____, (hereinafter called the "Exhibitor"), the operator of the _____ Theatre at No. _____ Street/Avenue, City of _____, State of _____, (hereinafter called the "Theatre");

Witnesseth, that in consideration of the covenants and conditions herein set forth, the parties agree as follows:

1. *Lease of Equipment and Grant of License.*—Products hereby leases to the Exhibitor and the Exhibitor hereby hires from Products the present Western Electric Sound Reproducing Equipment heretofore supplied by Products and now installed in the Theatre, together with any supplemental equipment described in this section.

The present equipment consists of:—

_____

The supplemental equipment consists of:—

_____

The supplemental equipment shall be furnished by Products f. o. b. its warehouse at _____, on or before _____, 193 __ (provided that Products shall not be responsible for any inconvenience or damage resulting from failure to ship the supplemental equipment on or before said date), and shall be installed by the Exhibitor at its own expense under Products' supervision, in the same manner and subject to all the provisions respecting the installation of repair and replacing equipment which are set forth in paragraphs (b) and (c) of Section 6.

All of the aforementioned equipment is hereinafter collectively referred to as the "Equipment." Products hereby grants to the Exhibitor, subject to the terms, conditions, and limitations herein contained, a non-exclusive, non-assignable license to use the Equipment in the Theatre, solely for the electrical reproduction of sound in connection with or incidental to the exhibition of motion pictures and to employ to the extent necessarily involved in such use of said Equipment, the methods and systems of Products covered by all United States patents and applications for United States Patents relating to said Equipment or to such use thereof, in respect of which Products now has, or during the term of this agreement may acquire, the right to grant such license. The Exhibitor shall operate the Equipment in manner approved by Products from time to time and shall not, without Products' approval, or otherwise than under its supervision, change or modify any circuits, or electrical or mechanical features of the Equipment, or break any seal which may be placed thereon.

Digitized by Google

2. *Charges.*—(*a*) The charges payable by the Exhibitor shall be the following: (Strike out inapplicable payment plan.)

Plan One.—The term of this agreement shall commence at close of business of the Exhibitor on _____, 193 __. On each and every Saturday thereafter during said term, the Exhibitor shall pay Products the sum of _____ ($_____) Dollars, subject only to the abatements hereinafter provided for and to the exercise of Option A, B, or C set forth in Section 13.

Plan Two—First Period.—The term of this agreement shall commence at close of business of the Exhibitor on _____, 193 __. On each and every Saturday thereafter the Exhibitor shall pay Products the sum of _____ ($_____) Dollars until _____ (__) such weekly payments shall have been made, which payments include a sum to be applied to payments required to be made under a prior agreement or agreements between the parties respecting the Equipment, in consideration of which payments Products agrees to the cancellation of said prior agreements as more particularly provided in Section 14.

Second Period.—Commencing on the Saturday following the last Saturday on which a payment is due in accordance with the preceding paragraph and on each and every Saturday thereafter during the remainder of the terms hereof, the Exhibitor shall pay Products the sum of _____ ($_____) Dollars, subject only to the abatements hereinafter provided for and to the exercise of Option A, B, or C set forth in Section 13.

(*b*) In addition to the charges referred to in paragraph (*a*) of this section, the Exhibitor shall pay all transportation and handling charges on all equipment and parts therefor which may be furnished hereunder and shall arrange for any trucking and handling necessary to effect delivery of all such equipment and parts to the Theatre.

3. *Inspection of Equipment.*—(*a*) Promptly following the commencement of the term hereof, Products will determine by tests and adjustments of the Equipment as installed, the normal limits of gain, frequency response, and output power level within which the Equipment will, in its judgment, give the best quality of sound reproduction in the Theatre under average audience conditions, and shall furnish to the Exhibitor a transmission test report setting forth such normal limits.

(*b*) From time to time during the term of this agreement (except as provided in Section 13), Products shall inspect, test, and adjust the equipment and furnish the Exhibitor with transmission test reports for comparison with the standards established under paragraph (*a*). When such inspection shows any material deviation in the performance of the Equipment from the established standards, Products shall inform the Exhibitor's employees regularly engaged in the operation of the Equipment of the steps that should be taken to obtain the standards of quality which have been established as normal.

(*c*) If Products shall be called upon by the Exhibitor to make special service calls or otherwise provide service and inspection facilities beyond the service and inspection provided for in paragraphs (*a*) and (*b*) above, and such services shall be found to have been required because of faulty operation of the Equipment occasioned by the use of parts not furnished by Products, or by reason of misuse or abuse of the Equipment or failure of the Exhibitor to safeguard the Equipment properly, or to operate it in the manner approved by Products, Products may charge the Exhibitor in addition to the weekly charges referred to in Section 2, for any services thus rendered Five ($5.00) Dollars per man per hour or fraction thereof, including time consumed in transit, together with any expenses and transportation charges incurred in furnishing such services.

4. *Liability for Interruption, Injuries, Etc.*—Nothing herein contained shall be construed as a guaranty by Products of uninterrupted functioning of the Equipment and Products shall not be responsible in any manner for any damage to or interruption in the operation of the Theatre, or any equipment therein, or for any injury, loss, or damage to persons or property in the Theatre, arising from any cause whatever and the Exhibitor shall save Products harmless from any such liability, except for injury to Products' employees.

5. *Additional Parts, Etc.*—Products shall furnish such repair and replacement parts as it is in a position to furnish and as the Exhibitor may order, at its rental charges in effect at the time of receipt of orders therefor. The Exhibitor shall pay Products' charges for any parts thus furnished and any

Digitized by Google

other charges the due date of which is not definitely fixed, either at the time of delivery of said parts, or at Products' option, upon rendition of billing.

6. *Damage or Destruction of Equipment.*—(*a*) If the Equipment while installed in the Theatre shall be damaged or destroyed by extraneous fire or by earthquake, tornado, or other act of God, without fault or neglect on the part of the Exhibitor, and provided the Exhibitor shall not, at the time of the occurrence of such damage or destruction, be in default in respect of the terms of this agreement, upon written request of the Exhibitor, Products (excepts as provided in Section 13), will at its own expense repair the Equipment or, at its option, furnish replacing Western Electric sound equipment then available to Products equivalent in type and condition to the Equipment thus damaged or destroyed.

(*b*) The Exhibitor, at its own expense, shall install all parts and replacing equipment furnished by Products in accordance with the provisions of this section, in such manner as to comply with all laws, rules, ordinances, and regulations pertaining to electrical installations of this character; shall furnish all necessary labor and facilities, including but not by way of limitation, a suitable source of electric power supply with outlets conveniently located for the equipment, supports for horns, a screen satisfactory to Products as to its acoustic properties, suitable space properly ventilated for the installation of storage batteries and charging equipment or other power equipment, and shall make such other alterations and modifications in and to the Theatre, including furnishing of drapes for acoustic purposes, as may be necessary for the proper installation and operation of the equipment. Replacing equipment and major replacement parts furnished under the provisions of this section, shall be installed under Products' supervision and all equipment and parts thus furnished shall be installed in accordance with instructions furnished by Products. All preliminary and installation work done and material furnished by the Exhibitor and its agents or servants shall be subject to approval by Products. Approval of installation work or material shall in no event subject Products to responsibility or liability of any kind or nature. Except as herein otherwise provided, the Exhibitor shall provide and pay for all material and services required in preparation for and in connection with the installation of replacing equipment and parts.

(*c*) In the event that the Equipment or a major portion thereof shall be replaced by Products as provided in this section, Products shall provide an engineer, and if deemed necessary by Products, a projectionist, to inspect the preliminary work done by the Exhibitor and to supervise the installation of the replacing equipment. Notice from the Exhibitor that the replacing equipment has been received and that the Theatre will be ready for installation of said equipment on a definite date shall be delivered to Products not less than three (3) days prior to said date and Products shall make every reasonable effort to have its engineer at the Theatre on said date. The services of said engineer, and projectionists if required, will be furnished without additional cost to the Exhibitor for a continuous period not to exceed three (3) days. If the preliminary work done by the Exhibitor is not ready for inspection, or said work is not advanced sufficiently to permit the installation of the equipment upon the date that the engineer shall arrive at the Theatre, or if supervisory services shall be required for a period in excess of three (3) days, or otherwise than for a continuous period, the Exhibitor shall pay Products its standard charge of Thirty-five ($35.00) Dollars per man per day or fraction thereof for any period in excess of three (3) days, including time consumed in transit, together with any additional expenses which Products may have incurred by reason of said services being required otherwise than for a continuous period. In the event of damage or destruction of the Equipment as aforesaid, the weekly charges payable hereunder shall abate pro rata from the date of the damage or destruction until repair or replacing equipment shall have been furnished by Products. Upon any repair or replacing equipment being furnished by Products in accordance with the provisions of this section, all of the provisions of this agreement shall apply to such replacing equipment. Except as herein otherwise provided, the Equipment shall be held at the sole risk of the Exhibitor.

7. *Title.*—Products shall retain title to all equnpment, repair, and replacement parts, tools, drawings, and printed or written data applicable thereto. All such equipment and accessories shall at all times be and remain personal property notwithstanding the manner or method of its attachment to any real property.

Digitized by Google

8. *Patent Protection.*—Products shall defend at its own expense any and all actions and suits alleging infringement of any United States patent by reason of the use of any apparatus or material furnished hereunder, as and for the purposes furnished, and will pay and satisfy all judgments and decrees for profits, damages, or costs which may be finally awarded against the Exhibitor on account of such infringement by the court of last resort in any such action or suit, and if such use shall be prevented by injunction in such suit, Products at its option may replace said apparatus or material with suitable non-infringing apparatus or material, or modify it so that it will not infringe, or procure for the Exhibitor the right to continue to use the same, and if within thirty (30) days from the date any such injunction becomes effective, Products does not thus replace or modify the apparatus or material, or procure for the Exhibihibitor the right to continue to use the same, either party may upon thirty (30) days' written notice, terminate this agreement, but such termination shall not relieve Products of its obligations hereunder with respect to infringements alleged to have occurred theretofore or relieve the Exhibitor of any of its obligations which accrued prior to such termination; provided however, that the obligation to Products referred to in this section shall not apply to uses of said apparatus or material or any part or parts thereof in combination with other apparatus or parts not furnished by Products therefor, if the alleged infringement results directly or indirectly from such combination or use of apparatus or parts not furnished by Products, and that the liability of Products hereunder shall in no event exceed the amount paid hereunder to Products. If at the time of commencement of any such action or suit against the Exhibitor, the Exhibitor is in default or shall thereafter default in any of its obligations to Products hereunder, or shall have assigned this agreement without the written consent of Products, Products shall not be subject to any of the obligations referred to in this section, but at its option, may undertake or continue the defense of any such action or suit at its own expense. The Exhibitor shall give Products immediate notice (with written confirmation) of all claims of infringement and of all such actions and suits and full opportunity and authority to assume the sole defense thereof, including appeals, and shall furnish Products, upon request, all information and assistance available to the Exhibitor for such defense. The liability of Products for any infringement shall be limited to the agreements herein contained.

9. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all personal property and license taxes which may be charged or levied in connection with or which may apply to any equipment furnished hereunder and the Exhibitor shall reimburse Products upon rendition of billing for any such taxes which Products may be required to pay.

10. *Abatement of Charges.*—(*a*) If during any annual period of the term hereof, the Exhibitor shall close the Theatre temporarily and cease to use the Equipment for a continuous period of not less than one (1) week and shall give Products not less than ten (10) days' prior written notice of intention to cease using the Equipment and a similar notice of intention to resume the use thereof, Products will abate the weekly charges payable hereunder during the continuous period that the Equipment is thus inoperative, commencing with the first full week following the week in which the Theatre is closed, but such abatement shall not be effective for more than thirteen (13) weeks during any annual period.

(*b*) Products, at its option, may seal the Equipment during any period that it is inoperative. If Products shall have sealed the Equipment and it shall be unsealed other than by authority of Products, it shall be deemed to have been in use for the purpose of determining charges payable hereunder. Notices referred to in this section shall be mailed to Products' office at New York, New York; Chicago, Illinois; or Los Angeles, California, whichever office is nearest the Exhibitor.

11. *Default.*—At the option of Products this agreement and the rights of the Exhibitor hereunder shall terminate in the event of failure of the Exhibitor to make payment of charges referred to in Section 2 hereof or failure to pay taxes in accordance with Section 9 hereof, as said charges and taxes shall become due, or upon the insolvency of the Exhibitor, or upon the filing of any petition in bankruptcy by or against the Exhibitor, or upon the making of an assignment of any of the Exhibitor's assets for the benefit of creditors, or upon any application for appointment of a receiver of the property and assets of the Exhibitor, or upon the commencement of any action, suit, or proceeding against the Exhibitor in respect of the title to, or right to

Digitized by Google

possession of, the Theatre or (except as provided in Section 10) upon the Exhibitor ceasing to operate the Theatre, or upon removal of the Equipment from the Theatre unless prior to such removal the Exhibitor shall have made arrangements satisfactory to Products for the care and custody of the Equipment, or upon the issue or levy of any attachment or the filing of, or attempt to assert or enforce, any lien which might in any manner affect Products' title to, or right to possession of, any apparatus or equipment furnished hereunder. The provisions respecting repair and replacement of damaged or destroyed equipment, patent protection, and abatement of charges, as referred to in Sections 6, 8, and 10, are conditional upon the Exhibitor not being in default at the time of an occurrence which would normally make the provisions of said sections operative. Without limitation of the provisions of this section, the Exhibitor shall be deemed in default at any time that payments hereunder shall be in arrears for a period of two (2) weeks or more.

12. *Surrender of Equipment.*—Upon any termination of this agreement the Exhibitor shall surrender to Products in good order and condition reasonable wear and tear only excepted, the Equipment together with all repair and replacement parts (other than exhausted consumable parts such as vacuum tubes, photoelectric cells, and exciting lamps), tools, and other accessories which shall have been furnished by Products.

13. *Term.*—The original term of this agreement and the license herein granted shall be three (3) years and a period equal to any period or periods within which charges were abated hereunder during the first three (3) years of the term hereof, commencing on the date of commencement referred to in paragraph (*a*), Section 2.

The following options shall be available to the Exhibitor, provided however, that if payments hereunder are to be made in accordance with Plan 2 of Section 2, then the said options shall be available only at such time as all of the payments required to be made during the *First Period* of said Plan 2, shall have been paid in full.

Option A.—At the expiration of the first year of the term hereof, but if there shall have been an abatement of charges during said first year, only at such time as Fifty-two (52) weekly payments shall have been made to Products hereunder, the Exhibitor may *either* terminate this agreement and surrender the Equipment to Products *or* pay Products the sum of _____ ($_____) Dollars, in addition to the other charges payable hereunder prior to the date of such payment and thereafter continue the lease of the Equipment for a period of fifteen (15) years at an annual rental of One ($1.00) Dollar, subject to the conditions hereinafter set forth.

Option B.—At the expiration of the second year of the term hereof, but if there shall have been an abatement of charges during the first two (2) years, only at such time as One hundred and four (104) weekly payments shall have been made to Products hereunder, the Exhibitor may *either* terminate this agreement and surrender the Equipment to Products *or* pay Products the sum of _____ ($_____) Dollars, in addition to the other charges payable hereunder prior to the date of such payment and thereafter continue the lease of the Equipment for a period of fifteen (15) years at an annual rental of One ($1.00) Dollar, subject to the conditions hereinafter set forth.

Option C.—At the expiration of the third year of term hereof, but if there shall have been an abatement of charges during the first three (3) years, only at such time as One hundred and fifty-six (156) weekly payments shall have been made to Products hereunder, the Exhibitor may *either* terminate this agreement and surrender the Equipment to Products *or* continue the lease of the Equipment for a period of fifteen (15) years at an annual rental of One ($1.00) Dollar, subject to the conditions hereinafter set forth.

If the Exhibitor shall desire to exercise Option A, B, or C, it shall give Products written notice of intention so to do, not less than sixty (60) days prior to the effective date of any of said options. If any of such options shall be exercised, Products shall be under no further obligation to inspect, test, or adjust the Equipment, to repair or replace the Equipment in the event of any damage or destruction, or to fulfill any other obligations hereinabove set forth respecting said Equipment (except the obligation to furnish patent protection subject to the provisions of Section 8), whether or not similar to the foregoing. Notwithstanding the service of a sixty (60) day notice by the Exhibitor as provided in this paragraph, the foregoing options shall not be

Digitized by Google

available to the Exhibitor if the Exhibitor shall be in default hereunder upon the effective date of any option which it may desire to exercise.

If upon the expiration of the original term the Exhibitor shall not have exercised Option A, B, or C, this agreement shall continue in effect after the original term until either party shall serve upon the other a sixty (60) day written notice of intention to terminate and such notice may be served by either party at any time after the expiration of the original term.

14. *General Provisions.*—(*a*) None of the provisions of this agreement shall be construed as prohibiting the Exhibitor from taking any reasonable action to protect or repair the Equipment in the event of an accident or breakdown. The Exhibitor shall notify Products immediately by registered mail of any unsatisfactory functioning of the Equipment and the absence of such notification shall be conclusive as to the Equipment functioning satisfactorily. The Exhibitor, at its own expense, shall obtain all necessary permits and do all other acts and things required by all laws, ordinances, and regulations relating to the maintenance, operation, and use of the Equipment, or any part thereof, and comply with any fire insurance underwriters' requirements relating thereto. Upon proper identification, the Exhibitor shall provide access for Products' representatives at all reasonable hours for all purposes referred to herein which may require such access. If in connection with any operation conducted by Products hereunder, it shall be necessary for any of the Exhibitor's employees to be in attendance at the Theatre, any charges for the services of such employees shall be borne by the Exhibitor.

(*b*) The time of all payments herein provided for shall be of the essence of this agreement.

(*c*) Upon any termination of this agreement Products shall retain and may enforce any and all claims and rights of action against the Exhibitor, which it may then possess arising out of any default by the Exhibitor hereunder or any indebtedness then due to Products which accrued under the provisions of this agreement.

(*d*) The agreement originally entered into between the Exhibitor and Products with respect to the furnishing and use of the Equipment and all agreements supplemental and amendatory thereto shall terminate as of the date of commencement of the term of this agreement and all obligations of said parties under said agreements are hereby released and forever discharged.

(*e*) This agreement shall not be assigned by the Exhibitor without Products' written consent. Subject to such restriction upon assignment by the Exhibitor, it shall be binding upon the parties and their respective successors, assigns, and legal representatives.

(*f*) The entire understanding of the parties with respect to the subject matter of this agreement is expressed herein and the construction and performance thereof shall be governed by the laws of the State of New York.

In witness whereof the parties hereto have caused these presents to be executed by their duly authorized officers or agents in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,

By _____,

Vice President, Treasurer, Authorized Agent.

Products' witness signs here:

_____.

_____,

Exhibitor.

By _____.

Exhibitor's witness signs here:

_____.

WAIVER

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named and of the payment by Electrical Research Products, Inc., of the sum of One ($1.00) Dollar, receipt of which is hereby acknowledged, the undersigned parties having an interest in the Theatre referred to in said agreement as owner or lessor thereof, hereby consent(s) to the installation of said Equipment and waive(s) any and all rights or claims thereto of whatsoever kind or nature which I/we have or

Digitized by Google

may hereafter acquire as landlord(s) of said Theatre, which might or could in any manner interfere with any rights of Electrical Research Products, Inc., in or to said Equipment.

Dated this _____ day of _____, 193__.

_____,
Owner of Theatre.

_____,
Lessor of Theatre (other than Owner).

3428 T—U. E.

This agreement made in triplicate at New York, New York, this_____day of_____193__, by Electrical Research Products, Inc., a Delaware corporation of No. 250 West 57th Street, New York, New York (hereinafter called "Products"), and_____, a _____ _____corporation of No._____Street/Avenue, City of _____State of_____, hereinafter called the "Exhibitor"), the operator of the_____ Theatre at No_____ Street/Avenue, City of_____, State of _____, hereinafter called the "Theatre");

Witnesseth, That in consideration of the covenants and conditions herein set forth, the parties agree as follows:

1. *Lease of Equipment and Grant of License.*—Products hereby leases to the Exhibitor and the Exhibitor hereby hires from Products a Western Electric Sound Reproducing Equipment (hereinafter called the "Equipment") and Products hereby grants to the Exhibitor, subject to the terms, conditions, and limitations herein contained, a non-exclusive, non-assignable license to use the Equipment in the Theatre, solely for the electrical reproduction of sound in connection with or incidental to the exhibition of motion pictures and to employ to the extent necessarily involved in such use of said Equipment, the methods and systems of Products covered by all United States patents and applications for United States patents relating to said Equipment or to such use thereof, in respect of which Products now has, or during the term of this agreement may acquire, the right to grant such license. The Exhibitor shall operate the Equipment in manner approved by Products from time to time and shall not, without Products' approval, or otherwise than under its supervision, change or modify any circuits, or electrical or mechanical features of the Equipment, or break any seal which may be placed thereon. The Equipment or any parts thereof which may have been previously leased for use in the Theatre or elsewhere shall be put in efficient operating condition by Products prior to or at the time of installation. The Equipment to be furnished hereunder is:

---

2. *Charges.*—(a) The Exhibitor shall pay to Products the sum of_____ _____ ($_____) Dollars upon submission of this agreement for acceptance and a like sum on each and Every Saturday commencing on the first Saturday of the term hereof as fixed by the provisions of Section 16. The foregoing charges shall be paid by the Exhibitor subject only to the abatements hereinafter provided for and to curtailment of such charges in the event that the Exhibitor shall elect to continue to use the Equipment at an annual rental of One ($1.00) Dollar in accordance with Option A, B, or C, referred to in Section 16.

(b) In addition to the charges referred to in paragraph (a) of this section, the Exhibitor shall pay all transportation and handling charges on all equipment and parts therefor which may be furnished hereunder and shall arrange for any trucking and handling necessary to effect delivery of said equipment and parts to the Theatre.

3. *Shipment of Equipment.*—The Equipment shall be furnished f. o. b. Products' warehouse at_____, and shall be shipped on or before _____, 193__, Products shall not be responsible for any inconvenience or damage resulting from failure to ship the Equipment on or before the aforementioned date.

4. *Facilities for Installation.*—Prior to the installation of the Equipment, the Exhibitor shall make available a suitable source of electric power supply, with outlets conveniently located for the Equipment, shall provide supports for horns, a screen satisfactory to Products as to its acoustic properties, suitable space properly ventilated for the installation of storage batteries and charging equipment or other power equipment and shall make such other alterations and

Digitized by Google

modifications in and to the Theatre, including furnishing of drapes for acoustic purposes, as may be necessary for the proper installation and operation of the Equipment.

5. *Installation of Equipment.*—(a) The Exhibitor shall install the Equipment at its own expense in such manner as to comply with all laws, rules, ordinances, and regulations pertaining to electrical installations of this character. The installation shall be made in accordance with instructions furnished by Products and under Products' supervision. All preliminary and installation work done and material furnished by the Exhibitor and its agents or servants shall be subject to approval by Products and the Equipment shall not be used for a public performance until the installation thereof shall have been approved by Products. Approval of installation work or material shall in no event subject Products to responsibility or liability of any kind or nature. Except as herein otherwise specifically provided, the Exhibitor shall provide and pay for all material and services required in preparation for and in connection with the installation of the Equipment.

(b) Products shall provide an engineer, and if deemed necessary by Products a projectionist, to inspect the preliminary work done by the Exhibitor and to supervise the installation of the Equipment. Notice from the Exhibitor that the Equipment has been received and that the Theatre will be ready for installation of the Equipment on a definite date shall be delivered to Products not less than three (3) days prior to said date and Products shall make every reasonable effort to have its engineer at the Theatre on said date. The services of said engineer, and projectionist if required, will be furnished without additional cost to the Exhibitor for a continuous period not to exceed three (3) days. If the preliminary work to be done by the Exhibitor is not ready for inspection, or said work is not sufficiently advanced to permit the installation of the Equipment upon the date that the engineer shall arrive at the Theatre, or in the event that supervisory services shall be required for a period in excess of three (3) days, or otherwise than for a continuous period, the Exhibitor shall pay to Products its standard charge of Thirty-five ($35.00) Dollars per man per day or fraction thereof for any period in excess of three (3) days, including time consumed in transit, together with any additional expense which Products may have incurred by reason of said services being required otherwise than for a continuous period. At the time of installation Products shall instruct the motion picture operators of the Exhibitor in the manner and method of operating the Equipment for a period not to exceed three (3) days.

6. *Inspection of Equipment.*—(a) At the time of installation, Products will determine by tests and adjustments of the Equipment as installed, the normal limits of gain, frequency response, and output power level within which the Equipment will, in its judgment, give the best quality of sound reproduction in the Theatre under average audience conditions, and shall furnish to the Exhibitor a transmission test report setting forth such normal limits.

(b) From time to time during the term of this agreement (except as provided in Section 16), Products shall inspect, test, and adjust the Equipment and furnish the Exhibitor with transmission test reports for comparison with the standards established under paragraph (a). When such inspection shows any material deviation in the performance of the Equipment from the established standards, Products shall inform the Exhibitor's employees regularly engaged in the operation of the Equipment of the steps that should be taken to obtain the standards of quality which have been established as normal.

(c) If Products shall be called upon by the Exhibitor to make special service call or otherwise provide service and inspection facilities beyond the service and inspection provided for in paragraphs (a) and (b) above, and such services shall be found to have been required because of faulty operation of the Equipment occasioned by the use of parts not furnished by Products, or by reason of misuse, or abuse of the Equipment, or failure of the Exhibitor to safeguard the Equipment properly, or to operate it in the manner approved by Products, Products may charge the Exhibitor in addition to the weekly charges referred to in Section 2, for any services thus rendered Five ($5.00) Dollars per man per hour or fraction thereof, including time consumed in transit, together with any expenses and transportation charges incurred in furnishing such services.

7. *Liability for Interruption, Injuries, Etc.*—Nothing herein contained shall be construed as a guaranty by Products of uninterrupted functioning of the

Digitized by Google

Equipment and Products shall not be responsible in any manner for any damage to or interruption in the operation of the Theatre or any equipment therein, or for any injury, loss, or damage to persons or property in the Theatre, arising from any cause whatever and the Exhibitor shall save Products harmless from any such liability, except for injury to Products' employees.

8. *Additional Parts, Etc.*—Products shall furnish such repair and replacement parts as it is in a position to furnish and as the Exhibitor may order, at its rental charges in effect at the time of receipt of orders therefor. The Exhibitor shall pay Products' charges for any parts thus furnished and any other charges the due date of which is not definitely fixed, either at the time of delivery of said parts, or at Products' option, upon rendition of billing.

9. *Damage or Destruction of Equipment.*—If the Equipment while installed in the Theatre shall be damaged or destroyed by extraneous fire, or by earthquake, tornado, or other act of God, without fault or neglect on the part of the Exhibitor, and provided the Exhibitor shall not, at the time of the occurrence of such damage or destruction, be in default in respect of the terms of this agreement, and shall continue to operate the Theatre, or shall resume the operation thereof at its original location during the term of this agreement, upon written request of the Exhibitor, Products (except as provided in Section 16), will at its own expense repair the Equipment or, at its option, furnish replacing Western Electric sound equipment then available to Products equivalent in type and condition to the Equipment thus damaged or destroyed. The Exhibitor, at its own expense, shall furnish all necessary facilities and labor and shall install all parts and replacing equipment furnished by Products in accordance with the provisions of this section. Such parts and replacing equipment shall be installed under Products' supervision and in the event of Products' supervisory services being required for a period in excess of three (3) days, the Exhibitor shall pay Products' charge for any services thus rendered at the per diem rate plus the additional expenses referred to in paragraph (b), Section 5 hereof. In the event of damage or destruction of the Equipment as aforesaid, the weekly charges payable hereunder shall abate pro rata from the date of the damage or destruction until repair or replacing equipment shall have been furnished by Products. Upon any repair or replacing equipment being furnished by Products in accordance with the provisions of this section, the Exhibitor shall provide facilities for the installation of such equipment in the same manner as provided in Section 4 and all of the provisions of this agreement shall apply to such replacing equipment. Except as herein otherwise provided, the Equipment shall be held at the sole risk of the Exhibitor.

10. *Title.*—Products shall retain title to all equipment, repair and replacement parts, tools, drawings, and printed or written data applicable thereto. All such equipment and accessories shall at all times be and remain personal property notwithstanding the manner or method of its attachment to any real property.

1. *Patent Protection.*—Products shall defend at its own expense any and all actions and suits alleging infringement of any United States patent by reason of the use of any apparatus or material furnished hereunder, as and for the purposes furnished and will pay and satisfy all judgments and decrees for profits, damages, or costs which may be finally awarded against the Exhibitor on account of such infringement by the court of last resort in any such action or suit, and if such use shall be prevented by injunction in such suit, Products at its option may replace said apparatus or material with suitable non-infringing apparatus or material, or modify it so that it will not infringe, or procure for the Exhibitor the right to continue to use the same, and if within thirty (30) days from the date any such injunction becomes effective, Products does not thus replace or modify the apparatus or material, or procure for the Exhibitor the right to continue to use the same, either party may upon thirty (30) days' written notice, terminate this agreement, but such termination shall not relieve Products of its obligations hereunder with respect to infringements alleged to have occurred theretofore or relieve the Exhibitor of any of its obligations which accrued prior to such termination; provided however, that the obligations of Products referred to in this section shall not apply to uses of said apparatus or material or any part or parts thereof in combination with other apparatus or parts not furnished by Products therefor, if the alleged infringement results directly or indirectly from such combination or use of apparatus or parts not furnished by Products, and that the liability of Products hereunder shall in no event exceed the amount paid

Digitized by Google

hereunder to Products. If at the time of commencement of any such action or suit against the Exhibitor, the Exhibitor is in default or shall thereafter default in any of its obligations to Products hereunder, or shall have assigned this agreement without the written consent of Products, Products shall not be subject to any of the obligations referred to in this section, but at its option, may undertake or continue the defense of any such action or suit at its own expense. The Exhibitor shall give Products immediate notice (with written confirmation) of all claims of infringement and of all such actions and suits and full opportunity and authority to assume the sole defense thereof, including appeals, and shall furnish Products, upon request, all information and assistance available to the Exhibitor for such defense. The liability of Products for any infringement shall be limited to the agreements herein contained.

12. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all personal property and license taxes which may be charged or levied in connection with or which may apply to any equipment furnished hereunder, and the Exhibitor shall reimburse Products for any such taxes which Products may be required to pay.

13. *Abatement of Charges.*—(a) If during any annual period of the term hereof, the Exhibitor shall close the Theatre temporarily and cease to use the Equipment for a continuous period of not less than one (1) week and shall give Products not less than ten (10) days' prior written notice of intention to cease using the Equipment and a similiar notice of intention to resume the use thereof, Products will abate the weekly charges payable hereunder during the continuous period that the Equipment is thus inoperative, commencing with the first full week following the week in which the Theatre is closed, but such abatement shall not be effective for more than thirteen (13) weeks during any annual period.

(b) Products, at its option, may seal the Equipment during any period that it is inoperative. If Products shall have sealed the Equipment and it shall be unsealed other than by authority of Products, it shall be deemed to have been in use for the purpose of determining charges payable hereunder. Notices referred to in this section shall be mailed to Products' offices at New York, New York, Chicago, Illinois, or Los Angeles, California, whichever office is nearest the Exhibitor.

14. *Default.*—At the option of Products this agreement and the rights of the Exhibitor hereunder shall terminate in the event of failure of the Exhibitor to make payment of charges referred to in Section 2 hereof or failure to pay taxes in accordance with Section 12 hereof, as said charges and taxes shall become due, or upon the insolvency of the Exhibitor, or upon the filing of any petition in bankruptcy by or against the Exhibitor, or upon the making of an assignment of any of the Exhibitor's assets for the benefit of creditors, or upon any application for the appointment of a receiver of the property and assets of the Exhibitor, or upon the commencement of any action, suit, or proceeding against the Exhibitor in respect of the title to, or right to possession of, the Theatre, or (except as provided in Section 13) upon the Exhibitor ceasing to operate the Theatre, or upon removal of the Equipment from the Theatre unless prior to such removal the Exhibitor shall have made arrangement satisto Products for the care and custody of the Equipment, or upon the issue or levy of any attachment or the filing of, or attempt to assert or enforce, any lien which might in any manner affect Products' title to, or right to possession of, any apparatus or equipment furnished hereunder. The provisions respecting repair and replacement of damaged or destroyed equipment, patent protection, and abatement of charges, as referred to in Section 9, 11 and 13, are conditional upon the Exhibitor not being in default at the time of an occurrence which would normally make the provisions of said sections operative. Without limitation of the provisions of this section, the Exhibitor shall be deemed in default at any time that payments hereunder shall be in arrears for a period of two (2) weeks or more.

15. *Surrender of Equipment.*—Upon any termination of this agreement the Exhibitor shall surrender to Products, in good order and condition reasonable wear and tear only excepted, the Equipment together with all repair and replacement parts (other than exhausted consumable parts such as vacuum tubes, photoelectric cells, and exciting lamps), tools and other accessories which shall have been furnished by Products.

16. *Term.*—The original term of this agreement and the license herein granted shall be three (3) years and a period equal to any period or periods within which charges were abated hereunder during the first three (3) years

Digitized by Google

of the term hereof, commencing on the day upon which the Equipment is first used for a public performance, or the day which Products shall certify to the Exhibitor that the Equipment is available for public performances, whichever date be the earlier; provided however, that the term hereof and the payments to Products hereunder (other than the payment tendered upon submission of this agreement) shall commence not later than thirty (30) days after the date of shipment of the Equipment.

The following options shall be available to the Exhibitor:

Option A.—At the expiration of the first year of the term hereof, but if there shall have been an abatement of charges during said first year, only at such time as Fifty-two (52) weekly payments shall have been made to Products hereunder, the Exhibitor may *either* terminate this agreement and surrender the Equipment to Products *or* pay Products the sum of ($) Dollars, in addition to the other charges payable hereunder prior to the date of such payment and thereafter continue the lease of the Equipment for a period of fifteen (15) years at an annual rental of One ($1.00) Dollar, subject to the conditions hereinafter set forth.

Option B.—At the expiration of the second year of the term hereof, but if there shall have been an abatement of charges during the first two (2) years, only at such time as One hundred and four (104) weekly payments shall have been made to Products hereunder, the Exhibitor may *either* terminate this agreement and surrender the Equipment to Products *or* pay Products the sum of ($) Dollars, in addition to the other charges payable hereunder prior to the date of such payment and thereafter continue the lease of the Equipment for a period of fifteen (15) years at an annual rental of One ($1.00) Dollar, subject to the conditions hereinafter set forth.

Option C.—At the expiration of the third year of the term hereof, but if there shall have been an abatement of charges during the first three (3) years, only at such time as One hundred and fifty-six (156) weekly payments shall have been made to Products hereunder, the Exhibitor may *either* terminate this agreement and surrender the Equipment to Products *or* continue the lease of the Equipment for a period of fifteen (15) years at an annual rental of One ($1.00) Dollar, subject to the conditions hereinafter set forth.

If the Exhibitor shall desire to exercise Option A, B, or C, it shall give Products written notice of intention so to do, not less than sixty (60) days prior to the effective date of any of said options. If any such options shall be exercised, Products shall be under no further obligation to inspect, test or adjust the Equipment, to repair or replace the Equipment in the event of any damage or destruction, or to fulfill any other obligations hereinabove set forth respecting said Equipment (except the obligation to furnish patent protection subject to the provisions of Section 11), whether or not similar to the foregoing. Notwithstanding the service of a sixty (60) day notice by the Exhibitor as provided in this paragraph, the foregoing options shall not be available to the Exhibitor if the Exhibitor shall be in default hereunder upon the effective date of any option which it may desire to exercise.

If upon the expiration of the original term the Exhibitor shall not have exercised Option A, B, or C, this agreement shall continue in effect after the original term until either party shall serve upon the other a sixty (60) day written notice of intention to terminate and such notice may be served by either party at any time after the expiration of the original term.

17. *General Provisions.*—(a) None of the provisions of this agreement shall be construed as prohibiting the Exhibitor from taking any reasonable action to protect or repair the Equipment in the event of an accident or breakdown. The Exhibitor shall notify Products immediately by registered mail of any unsatisfactory functioning of the Equipment and the absence of such notification shall be conclusive as to the Equipment functioning satisfactorily. The Exhibitor, at its own expense, shall obtain all necessary permits and do all other acts and things required by all laws, ordinances and regulations relating to the maintenance, operation and use of the Equipment, or any part thereof, and comply with any fire insurance underwriters' requirements relating thereto. Upon proper identification, the Exhibitor shall provide access for Products' representatives at all reasonable hours for all purposes referred to herein which may require such access. If in connection with any operation conducted by Products hereunder, it shall be necessary for any of the Exhibitor's employees to be in attendance at the Theatre, any charges for the services of such employees shall be borne by the Exhibitor.

Digitized by Google

(b) The time of all payments herein provided for shall be of the essence of this agreement.

(c) Upon any termination of this agreement Products shall retain and may enforce any and all claims and rights of action against the Exhibitor, which it may then possess arising out of any default by the Exhibitor hereunder or any indebtedness then due to Products which accrued under the provisions of this agreement.

(d) This agreement shall not be assigned by the Exhibitor without Products' written consent. Subject to such restriction upon assignment by the Exhibitor, it shall be binding upon the parties and their respective successors, assigns and legal representatives.

(e) The entire understanding of the parties with respect to the subject matter of this agreement is expressed herein and the construction and performance thereof shall be governed by the laws of the State of New York.

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers or agents in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.

By _____

Vice-President, Treasurer, Authorized Agent.

Products' witness signs here:

_____

_____

Exhibitor.

By _____

Exhibitor's witness signs here:

_____

WAIVER

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named and of the payment by Electrical Research Products, Inc., of the sum of One ($1.00) Dollar, receipt of which is hereby acknowledged, the undersigned parties having an interest in the Theatre referred to in said agreement as owner or lessor thereof, hereby consent(s) to the installation of said Equipment and waive(s) any and all rights or claims thereto of whatsoever kind or nature which I/we have or may hereafter acquire as landlord(s) of said Theatre, which might or could in any manner interfere with any rights or Electrical Research Products, Inc., in or to said Equipment.

Dated this _____ day of _____, 193__.

_____

Owner of Theatre.

_____

Lessor of Theatre (other than Owner).

3410 T—U. E.-REV.

This agreement made in triplicate at New York, New York, this_____day of_____193__, by Electrical Research Products, Inc., a Delaware corporation of No. 250 West 57th Street, New York, New York (hereinafter called "Products"), and_____ a _____ corporation of No._____ Street/Avenue, City of_____, State of_____, (hereinafter called the "Exhibitor"), the operator of the_____Theatre at No_____Street/Avenue, City of_____, State of_____, hereinafter called the "Theatre");

Witnesseth, that in consideration of the covenants and conditions herein set forth, the parties agree as follows:

1. *Lease of Equipment and Grant of License.*—Products hereby leases to the Exhibitor and the Exhibitor hereby hires from Products a Western Electric Sound Reproducing Equipment (hereinafter called the "Equipment") and Products hereby grants to the Exhibitor, subject to the terms, conditions, and limitations herein contained, a non-exclusive, non-assignable license to use

Digitized by Google

the Equipment in the Theatre, solely for the electrical reproduction of sound in connection with or incidental to the exhibition of motion pictures and to employ to the extent necessarily involved in such use of said Equipment, the methods and systems of Products covered by all United States patents and applications for United States patents relating to said Equipment or to such use thereof, in respect of which Products now has, or during the term of this agreement may acquire, the right to grant such license. The Exhibitor shall operate the Equipment in manner approved by Products from time to time and shall not, without Products' approval, or otherwise than under its supervision, change or modify any circuits, or electrical or mechanical features of the Equipment, or break any seal which may be placed thereon. The Equipment or any parts thereof which may have been previously leased for use in the Theatre or elsewhere shall be put in efficient operating condition by Products prior to or at the time of installation. The Equipment to be furnished hereunder is:

2. *Charges.*—(a) The Exhibitor shall pay to Products the sum of_____ _____ ($_____) Dollars upon submission of this agreement for acceptance and a like sum on each and every Saturday commencing on the first Saturday of the term hereof as fixed by the provisions of Section 16. The foregoing charges shall be paid by the Exhibitor subject only to the abatements hereinafter provided for and to curtailment of such charges in the event that the Exhibitor shall elect to continue to use the Equipment at an annual rental of One ($1.00) Dollar in accordance with Options A, B, or C, referred to in Section 16.

(b) In addition to the charges referred to in paragraph (a) of this section, the Exhibitor shall pay all transportation and handling charges on all Equipment and parts therefor which may be furnished hereunder and shall arrange for any trucking and handling necessary to effect delivery of the Equipment to the Theatre.

3. *Shipment of Equipment.*—The Equipment shall be furnished f. o. b. Products' warehouse at_____, and shall be shipped on or before _____, 193__. Products shall not be responsible for any inconvenience or damage resulting from failure to ship the Equipment on or before the aforementioned date.

4. *Facilities for Installation.*—Prior to the installation of the Equipment, the Exhibitor shall make available a suitable source of electric power supply, with outlets conveniently located for the Equipment, shall provide supports for horns, a screen satisfactory to Products as to its acoustic properties, suitable space properly ventilated for the installation of storage batteries and charging equipment or other power equipment and shall make such other alterations and modifications in and to the Theatre, including furnishing of drapes for acoustic purposes, as may be necessary for the proper installation and operation of the Equipment.

5. *Installation of Equipment.*—(a) The Exhibitor shall install the Equipment at its own expense in such manner as to comply with all laws, rules, ordinances, and regulations pertaining to electrical installations of this character. The installation shall be made in accordance with instructions furnished by Products and under Products' supervision. All preliminary and installation work done and material furnished by the Exhibitor and its agents or servants shall be subject to approval by Products and the Equipment shall not be used for a public performance until the installation thereof shall have been approved by Products. Approval of installation work or material shall in no event subject Products to responsibility or liability of any kind or nature. Except as herein otherwise specifically provided, the Exhibitor shall provide and pay for all material and services required in preparation for and in connection with the installation of the Equipment.

(b) Products shall provide an engineer, and if deemed necessary by Products a projectionist, to inspect the preliminary work done by the Exhibitor and to supervise the installation of the Equipment. Notice from the Exhibitor that the Equipment has been received and that the Theatre will be ready for installation of the Equipment on a definite date shall be delivered to Products not less than three (3) days prior to said date and Products shall make every reasonable effort to have its engineer at the Theatre on said date. The services of said engineer, and projectionist if required, will be furnished without additional cost to the Exhibitor for a continuous period not to exceed three (3) days. If the preliminary work to be done by the Exhibitor is not ready for inspection, or said work is not sufficiently advanced to permit the installation

Digitized by Google

of the Equipment upon the date that the engineer shall arrive at the Theatre, or in the event that supervisory services shall be required for a period in excess of three (3) days, or otherwise than for a continuous period, the Exhibitor shall pay to Products its standard charge of Thirty-five ($35.00) Dollars per man per day or fraction thereof for any period in excess of three (3) days, including time consumed in transit, together with any additional expense which Products may have incurred by reason of said services being required otherwise than for a continuous period. At the time of installation Products shall instruct the motion picture operators of the Exhibitor in the manner and method of operating the Equipment for a period not to exceed three (3) days.

6. *Inspection of Equipment.*—(a) At the time of installation, Products will determine by tests and adjustments of the Equipment as installed, the normal limits of gain, frequency response, and output power level within which the Equipment will, in its judgment, give the best quality of sound reproduction in the Theatre under average audience conditions, and shall furnish to the Exhibitor a transmission test report setting forth such normal limits.

(b) From time to time during the term of this agreement (except as provided in Section 16), Products shall inspect, test, and adjust the Equipment and furnish the Exhibitor with transmission test reports for comparison with the standards established under paragraph (a). When such inspection shows any material deviation in the performance of the Equipment from the established standards, Products shall inform the Exhibitor's employees regularly engaged in the operation of the Equipment of the steps that should be taken to obtain the standards of quality which have been established as normal.

(c) If Products shall be called upon by the Exhibitor to make special service calls or otherwise provide service and inspection facilities beyond the service and inspection provided for in paragraphs (a) and (b) above, and such services shall be found to have been required because of faulty operation of the Equipment occasioned by the use of parts not furnished by Products, or by reason of misuse or abuse of the Equipment or failure of the Exhibitor to safeguard the Equipment properly, or to operate it in the manner approved by Products, Products may charge the Exhibitor in addition to the weekly charges referred to in Section 2, for any services thus rendered, Five ($5.00) Dollars per man per hour or fraction thereof, including time consumed in transit, together with any expense and transportation charges incurred in furnishing such services.

7. *Liability for Interruption, Injuries, Etc.*—Nothing herein contained shall be construed as a guaranty by Products of uninterrupted functioning of the Equipment and Products shall not be responsible in any manner for any damage to or interruption in the operation of the Theatre or any equipment therein, or for any injury, loss, or damage to persons or property in the Theatre, arising from any cause whatever and the Exhibitor shall save Products harmless from any such liability, except for injury to Products' employees.

8. *Additional Parts, Etc.*—Products shall furnish such repair and replacement parts as it is in a position to furnish and as the Exhibitor may order, at its rental charges in effect at the time of receipt of orders therefor. The Exhibitor shall pay Products' charges for any parts thus furnished and any other charges the due date of which is not definitely fixed, either at the time of delivery of said parts or, at Products' option, upon rendition of billing.

9. *Damage or Destruction of Equipment.*—If the Equipment while installed in the Theatre shall be damaged or destroyed by extraneous fire, or by earthquake, tornado, or other act of God, without fault or neglect on the part of the Exhibitor, and provided the Exhibitor shall not, at the time of the occurrence of such damage or destruction, be in default in respect of the terms of this agreement, and shall continue to operate the Theatre, or shall resume the operation thereof at its original location during the term of this agreement, upon written request of the Exhibitor, Products (except as provided in Section 16), will at its own expense repair the Equipment or, at its option, furnish replacing Western Electric sound equipment then available to Products equivalent in type and condition to the Equipment thus damaged or destroyed. The Exhibitor, at its own expense, shall furnish all necessary facilities and labor and shall install all parts and replacing equipment furnished by Products in accordance with the provisions of this section. Such parts and replacing equipment shall be installed under Products' supervision and in the event of Products' supervisory services being required for a period in excess of three (3) days, the Exhibitor shall pay Products' charge for any services thus rendered at the per diem rate plus the additional expenses referred to in para-

Digitized by Google

graph (b), Section 5 hereof. In the event of damage or destruction of the Equipment as aforesaid, the weekly charges payable hereunder shall abate pro rata from the date of the damage or destruction until the Equipment shall have been repaired or replaced by Products. Upon any repair or replacing equipment being furnished by Products in accordance with the provisions of this section, the Exhibitor shall provide facilities for the installation of such equipment in the same manner as provided in Section 4; all of the provisions of this agreement shall apply to such replacing equipment and the original term of this agreement shall be extended for an interval equivalent to the period or periods of abatement. Except as herein otherwise provided, the Equipment shall be held at the sole risk of the Exhibitor.

10. *Title.*—Products shall retain title to all equipment, repair, and replacement parts, tools, drawings, and printed or written data applicable thereto. All such equipment and accessories shall at all times be and remain personal property notwithstanding the manner or method of its attachment to any real property.

11. *Patent Protection.*—Products shall defend at its own expense all suits alleging infringement of any United States patent by reason of the use of any apparatus or material furnished hereunder, as and for the purposes furnished, and will save the Exhibitor harmless from all expenses of defending said suits and from all payments which by final judgment the Exhibitor may be required to pay to the complainant as damages, profits, or costs on account of such infringement; and if such use shall be prevented by injunction in such suit, Products may, within thirty (30) days from the date of any such injunction becomes effective, at its option, replace said apparatus or material with suitable noninfringing apparatus or material, or modify it so that it will not infringe, or procure for the Exhibitor the right to continue to use the same, and if Products does not within said thirty (30) days thus replace or modify the apparatus or material or procure for the Exhibitor the right to continue to use the same, either party may upon thirty (30) days' written notice terminate this agreement, but such termination shall not relieve Products of its obligations hereunder with respect to infringement alleged to have occurred theretofore or relieve the Exhibitor of any of its obligations which accrued prior to such termination; provided, however, and all of the obligations of Products in this paragraph contained are upon condition that Products shall be given immediate written notice of all claims of such infringement and of all such suits and full opportunity and authority to assume the sole defense thereof, including appeals, and shall be furnished (at Products' request) all information and assistance available to the Exhibitor for such defense; and provided further, that the obligations of Products referred to in this section shall not apply to uses of said apparatus in combination with other apparatus or parts not furnished by Products and that the liability of Products hereunder shall in no event exceed the total amount paid hereunder by the Exhibitor to Products. If, at the time of commencement of any suit against the Exhibitor alleging patent infringement, the Exhibitor is in default hereunder, Products shall not be subject to the obligations referred to in this section, but the obligations of the Exhibitor to notify Products and to furnish information and assistance shall continue in effect, notwithstanding such default of the Exhibitor, and Products at its option may undertake the defense of any such suit at its own expense, but without obligation to indemnify the Exhibitor. The liability of Products for any infringement shall be limited to the agreements herein contained.

12. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all personal property and license taxes which may be charged or levied in connection with or which may apply to any equipment furnished hereunder, and the Exhibitor shall reimburse Products for any such taxes which Products may be required to pay.

13. *Abatement of Charges.*—(a) If during any annual period of the term hereof, the Exhibitor shall close the Theatre temporarily and cease to use the Equipment for a continuous period of not less than one (1) week and shall give Products not less than ten (10) days' written notice of intention to cease using the Equipment and a similar notice of intention to resume the use thereof, Products will abate the weekly charges payable hereunder during the continuous period that the Equipment is thus inoperative, commencing with the first full week following the week in which the Theatre is closed, but such abatement shall not be effective for more than thirteen (13) weeks during any annual period.

Digitized by Google

(b) Products, at its option, may seal the Equipment during any period that it is inoperative. If Products shall have sealed the Equipment and it shall be unsealed other than by authority of Products, it shall be deemed to have been in use for the purpose of determining charges payable hereunder. Notices referred to in this section shall be mailed to Products' office at New York, New York, Chicago, Illinois, or Los Angeles, California, whichever office is nearest the Exhibitor.

14. *Default.*—At the option of Products this agreement and the rights of the Exhibitor hereunder shall terminate in the event of failure of the Exhibitor to make payment of charges referred to in Section 2 hereof or failure to pay taxes in accordance with Section 12 hereof, as said charges and taxes shall become due, or upon the insolvency of the Exhibitor, or upon the filing of any petition in bankruptcy by or against the Exhibitor, or upon the making of an assignment of any of the Exhibitor's assets for the benefit of creditors, or upon any application for the appointment of a receiver of the property and assets of the Exhibitor, or upon the commencement of any action, suit, or proceeding against the Exhibitor, in respect of the title to, or right to possession of, the Theatre, or (except as provided in Section 13) upon the Exhibitor ceasing to operate the Theatre, or upon removal of the Equipment from the Theatre unless prior to such removal the Exhibitor shall have made arrangements satisfactory to Products for the care and custody of the Equipment, or upon the issue or levy of any attachment or the filing of, or attempt to assert or enforce any lien which might in any manner affect Products' title to or right to possession of any apparatus or equipment furnished hereunder. The provisions respecting repair and replacement of damaged or destroyed equipment, patent protection, and abatement of charges, as referred to in Sections 9, 11, and 13, are conditional upon the Exhibitor not being in default at the time of an occurrence which would normally make the provisions of said sections operative. Without limitation of the provisions of this section, the Exhibitor shall be deemed in default at any time that payments hereunder shall be in arrears for a period of two (2) weeks or more.

15. *Repossession of Equipment.*—Upon any termination of this agreement the Exhibitor shall surrender to Products, in good order and condition, reasonable wear and tear only excepted, the Equipment together with all repair and replacement parts (other than exhausted consumable parts such as vacuum tubes, photoelectric cells, and exciting lamps), tools and other accessories which shall have been furnished by Products.

16. *Term.*—The original term of this agreement and the license herein granted shall be three (3) years and a period equal to any period or periods of abatement of charges hereunder, commencing on the day upon which the Equipment is first used for a public performance, or the day which Products shall certify to the Exhibitor that the Equipment is available for public performances, whichever date be the earlier; provided, however, that the term hereof and the payments to Products hereunder (other than the payment tendered upon submission of this agreement) shall commence not later than thirty (30) days after the date of shipment of the Equipment.

The following options shall be available to the Exhibitor:

Option A.—At the expiration of the first year of the term hereof, but if there shall have been an abatement of charges during said first year, only at such time as Fifty-two (52) weekly payments shall have been made to Products hereunder, the Exhibitor may *either* terminate this agreement and surrender the Equipment to Products *or* pay Products the sum of _____ ($_____) Dollars, in addition to the other charges payable hereunder prior to the date of such payment and thereafter continue the lease of the Equipment for a period of fifteen (15) years at an annual rental of One ($1.00) Dollar, subject to the conditions hereinafter set forth.

Option B.—At the expiration of the second year of the term hereof, but if there shall have been an abatement of charges during the first two (2) years, only at such time as One hundred and four (104) weekly payments shall have been made to Products hereunder, the Exhibitor may *either* terminate this agreement and surrender the Equipment to Products *or* pay Products the sum of _____ ($_____) Dollars, in addition to the other charges payable hereunder prior to the date of such payment and thereafter continue the lease of the equipment for a period of fifteen (15) years at an annual rental of One ($1.00) Dollar, subject to the conditions hereinafter set forth.

Digitized by Google

Option C.—At the expiration of the third year of the term hereof, but if there shall have been an abatement of charges during the first three (3) years, only at such time as One Hundred and fifty-six (156) weekly payments shall have been made to Products, the Exhibitor may *either* terminate this agreement and surrender the Equipment to Products *or* continue the lease of the Equipment for a period of fifteen (15) years at an annual rental of One ($1,00) Dollar, subject to the conditions hereinafter set forth.

If the Exhibitor shall desire to exercise Options A, B, or C, it shall give Products written notice of intention so to do, not less than sixty (60) days prior to the effective date of any of said options. If any of such options shall be exercised, Products shall be under no further obligation to inspect, test, or adjust the Equipment, to repair or replace the Equipment in the event of any damage or destruction, to furnish any patent protection, or to fulfill any other obligations hereinabove set forth respecting said Equipment, whether or not similar to the foregoing.

If upon the expiration of the original term the Exhibitor shall have exercised Options A, B, or C, this agreement shall continue in effect after the original term until either party shall serve upon the other a sixty (60) day written notice of intention to terminate and such notice may be served by either party at any time after the expiration of the original term.

17. *General Provisions.*—(a) None of the provisions of this agreement shall be construed as prohibiting the Exhibitor from taking any reasonable action to protect or repair the Equipment in the event of an accident or breakdown. The Exhibitor shall notify Products immediately by registered mail of any unsatisfactory functioning of the Equipment and the absence of such notification shall be conclusive as to the Equipment functioning satisfactorily. The Exhibitor, at its own expense, shall obtain all necessary permits and do all other acts and things required by all laws, ordinances, and regulations relating to the maintenance, operation, and use of the Equipment, or any part thereof, and comply with any fire insurance underwriters' requirements relating thereto. Upon proper identification, the Exhibitor shall provide access for Products' representatives at all reasonable hours for all purposes referred to herein which may require such access. If in connection with any operation conducted by Products hereunder, it shall be necessary for any of the Exhibitor's employees to be in attendance at the Theatre, any charges for the services of such employees shall be borne by the Exhibitor.

(b) The time of all payments herein provided for shall be of the essence of this agreement.

(c) Upon any termination of this agreement Products shall retain and may enforce any and all claims and rights of action against the Exhibitor, which it may then possess arising out of any default by the Exhibitor hereunder or any indebtedness then due to Products which accrued under the provisions of this agreement.

(d) This agreement shall not be assigned by the Exhibitor without Products' written consent. Subject to such restriction upon assignment by the Exhibitor, it shall be binding upon the parties and their respective successors, assigns, and legal representatives.

(e) The entire understanding of the parties with respect to the subject matter of this agreement is expressed herein and the construction and performance thereof shall be governed by the laws of the State of New York.

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers or agents in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,

By _____

Vice-President, Treasurer, Authorized Agent.

_____

Exhibitor.

By _____

Products' witness signs here:

_____

Exhibitor's witness signs here:

_____

Digitized by Google

WAIVER

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named and of the payment by Electrical Research Products, Inc., of the sum of One ($1.00) Dollar, receipt of which is hereby acknowledged, the undersigned parties having an interest in the theatre referred to in said agreement as owner or lessor thereof, hereby consent(s) to the installation of said Equipment and waive(s) any and all rights or claims thereto of whatsoever kind or nature which I/we haye or may hereafter acquire as landlord(s) of said Theatre, which might or could in any manner interfere with any rights of Electrical Research Products, Inc., in or to said Equipment.

Dated this _____ day of _____, 193____.

_____
Owner of Theatre.

_____
Lessor of Theatre (other than Owner).

THIS AGREEMENT made in triplicate at New York, New York, this _____ day of _____ 193__, by Electrical Research Products, Inc., a Delaware corporation of No. 250 West 57th Street, New York, New York (hereinafter called "Products"), and _____ a _____ _____ corporation of No. _____ Street/Avenue, City of _____ State of_____, (hereinafter called the "Exhibitor"), the operator of the _____ Theatre at No. _____ Street/Avenue, City of _____, State of _____, (hereinafter called the "Theatre");

Witnesseth, that in consideration of the covenants and conditions herein set forth, the parties agree as follows:

1. *Lease of Equipment and Grant of License.*—Products hereby leases to the Exhibitor and the Exhibitor hereby hires from Products a Western Electric Sound Reproducing Equipment (hereinafter called the "Equipment") and Products hereby grants to the Exhibitor, subject to the terms, conditions, and limitations herein contained, a nonexclusive, nonassignable license to use the Equipment in the Theatre, solely for the electrical reproduction of sound in connection with or incidental to the exhibition of motion pictures and to employ to the extent necessarily involved in such use of said Equipment, the methods and systems of Products covered by all United States patents and applications for United States patents relating to said Equipment or to such use thereof, in respect of which Products now has, or during the term of this agreement may acquire, the right to grant such license. The Exhibitor shall operate the Equipment in manner approved by Products from time to time and shall not, without Products' approval, or otherwise than under its supervision, change or modify any circuits, or electrical or mechanical features of the Equipment, or break any seal which may be placed thereon. The Equipment or any parts thereof which may have been previously leased for use in the Theatre or elsewhere shall be put in efficient operating condition by Products prior to or at the time of installation. The Equipment to be furnished hereunder is:

---

2. *Charges.*—(a) The Exhibitor shall pay to Products the sum of _____ _____ ($_____) Dollars upon submission of this agreement for acceptance and a like sum on each and every Saturday commencing on the first Saturday of the term hereof as fixed by the provisions of Section 16. The foregoing charges shall be paid by the Exhibitor subject only to the abatements hereinafter provided for and to curtailment of such charges in the event that the Exhibitor shall elect to continue to use the Equipment at an annual rental of One ($1.00) Dollar in accordance with Options A, B, or C, referred to in Section 16.

(b) In addition to the charges referred to in paragraph (a) of this section, the Exhibitor shall pay all transportation and handling charges on all equipment and parts therefor which may be furnished hereunder and shall arrange for any trucking and handling necessary to effect delivery of the Equipment to the Theatre.

Digitized by Google

3. *Shipment of Equipment.*—The Equipment shall be furnished f. o. b. Products' warehouse at ----------, and shall be shipped on or before ----------, 193--. Products shall not be responsible for any inconvenience or damage resulting from failure to ship the Equipment on or before the aforementioned date.

4. *Facilities for Installation.*—Prior to the installation of the Equipment, the Exhibitor shall make available a suitable source of electric power supply, with outlets conveniently located for the Equipment, shall provide supports for horns, a screen satisfactory to Products as to its acoustic properties, suitable space properly ventilated for the installation of storage batteries and charging equipment or other power equipment, and shall make such other alterations and modifications in and to the Theatre, including furnishing of drapes for acoustic purposes, as may be necessary for the proper installation and operation of the Equipment.

5. *Installation of Equipment.*—(a) The Exhibitor shall install the Equipment at its own expense in such manner as to comply with all laws, rules, ordinances, and regulations pertaining to electrical installations of this character. The installation shall be made in accordance with instructions furnished by Products and under Products' supervision. All preliminary and installation work done and material furnished by the Exhibitor and its agents or servants shall be subject to approval by Products and the Equipment shall not be used for a public performance until the installation thereof shall have been approved by Products. Approval of installation work or material shall in no event subject Products to responsibility or liability of any kind or nature. Except as herein otherwise specifically provided, the Exhibitor shall provide and pay for all material and services required in preparation for and in connection with the installation of the Equipment.

(b) Products shall provide an engineer, and if deemed necessary by Products a projectionist, to inspect the preliminary work done by the Exhibitor and to supervise the installation of the Equipment. Notice from the Exhibitor that the Equipment has been received and that the Theatre will be ready for installation of the Equipment on a definite date shall be delivered to Products not less than three (3) days prior to said date, and Products shall make every reasonable effort to have its engineer at the Theatre on said date. The services of said engineer, and projectionist if required, will be furnished without additional cost to the Exhibitor for a continuous period not to exceed three (3) days. If the preliminary work to be done by the Exhibitor is not ready for inspection, or said work is not sufficiently advanced to permit the installation of the Equipment upon the date that the engineer shall arrive at the Theatre, or in the event that supervisory services shall be required for a period in excess of three (3) days, or otherwise than for a continuous period, the Exhibitor shall pay to Products its standard charge of Thirty-five ($35.00) Dollars per man per day or fraction thereof for any period in excess of three (3) days, including time consumed in transit, together with any additional expense which Products may have incurred by reason of said services being required otherwise than for a continuous period. At the time of installation Products shall instruct the motion picture operators of the Exhibitor in the manner and method of operating the Equipment for a period not to exceed three (3) days.

6. *Inspection of Equipment.*—(a) At the time of installation, Products will determine by tests and adjustments of the Equipment as installed, the normal limits of gain, frequency response, and output power level within which the Equipment will, in its judgment, give the best quality of sound reproduction in the Theatre under average audience conditions, and shall furnish to the Exhibitor a transmission test report setting forth such normal limits.

(b) From time to time during the term of this agreement (except as provided in Section 16), Products shall inspect, test, and adjust the Equipment and furnish the Exhibitor with transmission test reports for comparison with the standards established under paragraph (a). When such inspection shows any material deviation in the performance of the Equipment from the established standards, Products shall inform the Exhibitor's employees regularly engaged in the operation of the Equipment of the steps that should be taken to obtain the standards of quality which have been established as normal.

(c) If Products shall be called upon by the Exhibitor to make special service calls or otherwise provide service and inspection facilities beyond the service and inspection provided for in paragraphs (a) and (b) above, and such services shall be found to have been required because of faulty operation of the Equipment occasioned by the use of parts not furnished by Products, or by reason of

Digitized by Google

misuse or abuse of the Equipment or failure of the Exhibitor to safeguard the Equipment properly, or to operate it in the manner approved by Products, Products may charge the Exhibitor in addition to the weekly charges referred to in Section 2, for any services thus rendered Five ($5.00) Dollars per man per hour or fraction thereof, including time consumed in transit, together with any expenses and transportation charges incurred in furnishing such services.

7. *Liability for Interruption, Injuries, Etc.*—Nothing herein contained shall be construed as a guaranty by Products of uninterrupted functioning of the Equipment and Products shall not be responsible in any manner for any damage to or interruption in the operation of the Theatre or any equipment therein, or for any injury, loss, or damage to persons or property in the Theatre, arising from any cause whatever and the Exhibitor shall save Products harmless from any such liability, except for injury to Products' employees.

8. *Additional Parts, Etc.*—Products shall furnish such repair and replacement parts as it is in a position to furnish and as the Exhibitor may order, at its rental charges in effect at the time of receipt of orders therefor. The Exhibitor shall pay Products' charges for any parts thus furnished and any other charges the due date of which is not definitely fixed, either at the time of delivery of said parts, or at Products' option, upon rendition of billing.

9. *Damage or Destruction of Equipment.*—If the Equipment while installed in the Theatre shall be damaged or destroyed by extraneous fire, or by earthquake, tornado, or other act of God, without fault or neglect on the part of the Exhibitor, and provided the Exhibitor shall not, at the time of the occurrence of such damage or destruction, be in default in respect of the terms of this agreement, and shall continue to operate the Theatre, or shall resume the operation thereof at its original location during the term of this agreement, upon written request of the Exhibitor, Products (except as provided in Section 16), will at its own expense repair the Equipment or, at its option, furnish replacing Western Electric sound equipment then available to Products equivalent in type and condition to the Equipment thus damaged or destroyed. The Exhibitor, at its own expense, shall furnish all necessary facilities and labor and shall install all parts and replacing equipment furnished by Products in accordance with the provisions of this section. Such parts and replacing equipment shall be installed under Products' supervision and in the event of Products' supervisory services being required for a period in excess of three (3) days, the Exhibitor shall pay Products' charge for any services thus rendered at the per diem rate plus the additional expenses referred to in paragraph (b), Section 5 hereof. In the event of damage or destruction of the Equipment as aforesaid, the weekly charges payable hereunder shall abate pro rata from the date of the damage or destruction until the Equipment shall have been repaired or replaced by Products. Upon any repair or replacing equipment being furnished by Products in accordance with the provisions of this section, the Exhibitor shall provide facilities for the installation of such equipment in the same manner as provided in Section 4; all of the provisions of this agreement shall apply to such replacing equipment and the original term of this agreement shall be extended for an interval equivalent to the period or periods of abatement. Except as herein otherwise provided, the Equipment shall be held at the sole risk of the Exhibitor.

10. *Title.*—Products shall retain title to all equipment, repair, and replacement parts, tools, drawings, and printed or written data applicable thereto. All such equipment and accessories shall at all times be and remain personal property notwithstanding the manner or method of its attachment to any real property.

11. *Patent Protection.*—Products shall defend at its own expense all suits alleging infringement of any United States patent by reason of the use of any apparatus or material furnished hereunder, as and for the purposes furnished, and will save the Exhibitor harmless from all expenses of defending said suits and from all payments which by final judgment the Exhibitor may be required to pay to the complainant as damages, profits, or costs on account of such infringement; and if such use shall be prevented by injunction in such suit, Products may, within thirty (30) days from the date any such injunction becomes effective, at its option, replace said apparatus or material with suitable noninfringing apparatus or material, or modify it so that it will not infringe, or procure for the Exhibitor the right to continue to use the same, and if Products does not within said thirty (30) days thus replace or modify the apparatus or material or procure for the Exhibitor the right to continue to use the same, either party may upon thirty (30) days' written notice terminate

Digitized by Google

this agreement, but such termination shall not relieve Products of its obligations hereunder with respect to infringements alleged to have occurred theretofore or relieve the Exhibitor of any of its obligations which accrued prior to such termination; provided, however, and all of the obligations of Products in this paragraph contained are upon condition that Products shall be given immediate written notice of all claims of such infringement and of all such suits and full opportunity and authority to assume the sole defense thereof, including appeals, and shall be furnished (at Products' request) all information and assistance available to the Exhibitor for such defense; and provided further, that the obligations of Products referred to in this section shall not apply to uses of said apparatus in combination with other apparatus or parts not furnished by Products, and that the liability of Products hereunder shall in no event exceed the total amount paid hereunder by the Exhibitor to Products. If, at the time of commencement of any suit against the Exhibitor alleging patent infringement, the Exhibitor is in default hereunder, Products shall not be subject to the obligations referred to in this section, but the obligations of the Exhibitor to notify Products and to furnish information and assistance shall continue in effect, notwithstanding such default of the Exhibitor, and Products at its option may undertake the defense of any such suit at its own expense, but without obligation to indemnify the Exhibitor. The liability of Products for any infringement shall be limited to the agreements herein contained.

12. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all personal property and license taxes which may be charged or levied in connection with or which may apply to any equipment furnished hereunder, and the Exhibitor shall reimburse Products for any such taxes which Products may be required to pay.

13. *Abatement of Charges.*—(a) If during any annual period of the term hereof, the Exhibitor shall close the Theatre temporarily and cease to use the Equipment for a continuous period of not less than one (1) week, and shall give Products not less than ten (10) days' written notice of intention to cease using the Equipment and a similar notice of intention to resume the use thereof, Products will abate the weekly charges payable hereunder during the continuous period that the Equipment is thus inoperative, commencing with the first full week following the week in which the Theatre is closed, but such abatement shall not be effective for more than thirteen (13) weeks during any annual period.

(b) Products, at its option, may seal the Equipment during any period that it is inoperative. If Products shall have sealed the Equipment and it shall be unsealed other than by authority of Products, it shall be deemed to have been in use for the purpose of determining charges payable hereunder. Notices referred to in this section shall be mailed to Products' office at New York, New York, Chicago, Illinois, or Los Angeles, California, whichever office is nearest the Exhibitor.

14. *Default.*—At the option of Products this agreement and the rights of the Exhibitor hereunder shall terminate in the event of any breach or default on the part of the Exhibitor, or upon the insolvency of the Exhibitor, or upon the filing of any petition in bankruptcy by or against the Exhibitor or upon the making of an assignment of any of the Exhibitors' assets for the benefit of creditors, or upon any application for the appointment of a receiver of the property and assets of the Exhibitor, or upon the commencement of any action, suit, or proceeding against the Exhibitor in respect of the title to, or right to possession of, the Theatre, or (except as provided in Section 13), upon the Exhibitor ceasing to operate the Theatre, or upon the issue or levy of any attachment or the filing of, or attempt to assert or enforce, any lien which might in any manner affect Products' title to, or right to possession of any apparatus or equipment furnished hereunder. The provisions respecting repair and replacement of damaged or destroyed equipment, patent protection and abatement of charges, as referred to in Section 9, 11, and 13, are conditional upon the Exhibitor not being in default at the time of an occurrence which would normally make the provisions of said sections operative. Without limitation of the provisions of this section, the Exhibitor shall be deemed in default at any time that payments hereunder shall be in arrears for a period of two (2) weeks or more.

15. *Repossession of Equipment.*—Upon any termination of this agreement the Exhibitor shall surrender to Products, in good order and condition, reasonable wear and tear only excepted, the Equipment together with all repair and re-

Digitized by Google

placement parts (other than exhausted consumable parts such as vacuum tubes, photoelectric cells, and exciting lamps), tools, and other accessories which shall have been furnished by Products.

16. *Term.*—The original term of this agreement and the license herein granted shall be three (3) years and a period equal to any period or periods of abatement of charges hereunder, commencing on the day upon which the Equipment is first used for a public performance, or the day which Products shall certify to the Exhibitor that the Equipment is available for public performances, whichever date be the earlier; provided, however, that the term hereof and the payments to Products hereunder (other than the payment tendered upon submission of this agreement) shall commence not later than thirty (30) days after the date of shipment of the Equipment.

The following options shall be available to the Exhibitor:

Option A.—At the expiration of the first year of the term hereof, but if there shall have been an abatement of charges during said first year, only at such time as Fifty-two (52) weekly payments shall have been made to Products hereunder, the Exhibitor may *either* terminate this agreement and surrender the Equipment to Products *or* pay Products the sum of ---------- ($----------) Dollars, in addition to the other charges payable hereunder prior to the date of such payment and thereafter continue the lease of the Equipment for a period of fifteen (15) years at an annual rental of One ($1.00) Dollar, subject to the conditions hereinafter set forth.

Option B.—At the expiration of the second year of the term hereof, but if there shall have been an abatement of charges during the first two (2) years, only at such time as One hundred and four (104) weekly payments shall have been made to Products hereunder, the Exhibitor may *either* terminate this agreement and surrender the Equipment to Products *or* pay Products the sum of ---------- ($--------) Dollars, in addition to the other charges payable hereunder prior to the date of such payment and thereafter continue the lease of the Equipment for a period of fifteen (15) years at an annual rental of One ($1.00) Dollar, subject to the conditions hereinafter set forth.

Option C.—At the expiration of the third year of the term hereof, but if there shall have been an abatement of charges during the first three (3) years, only at such time as One hundred and fifty-six (156) weekly payments shall have been made to Products, the Exhibitor may *either* terminate this agreement and surrender the Equipment to Products *or* continue the lease of the Equipment for a period of fifteen (15) years at an annual rental of One ($1.00) Dollar, subject to the conditions hereinafter set forth.

If the Exhibitor shall desire to exercise Options A, B, or C, it shall give Products written notice of intention so to do, not less than sixty (60) days prior to the effective date of any of said options. If any of such options shall be exercised, Products shall be under no further obligation to inspect, test, or adjust the Equipment, to repair or replace the Equipment in the event of any damage or destruction, to furnish any patent protection, or to fulfill any other obligations hereinabove set forth respecting said Equipment, whether or not similar to the foregoing.

If upon the expiration of the original term the Exhibitor shall not have exercised Options A, B, or C, this agreement shall continue in effect after the original term until either party shall serve upon the other a sixty (60) day written notice of intention to terminate and such notice may be served by either party at any time after the expiration of the original term.

17. *General Provisions.*—(a) None of the provisions of this agreement shall be construed as prohibiting the Exhibitor from taking any reasonable action to protect or repair the Equipment in the event of an accident or breakdown. The Exhibitor shall notify Products immediately by registered mail of any unsatisfactory functioning of the Equipment and the absence of such notification shall be conclusive as to the Equipment functioning satisfactorily. The Exhibitor, at its own expense, shall obtain all necessary permits and do all other acts and things required by all laws, ordinances, and regulations relating to the maintenance, operation, and use of the Equipment, or any part thereof, and comply with any fire insurance underwriters' requirements relating thereto. Upon proper identification, the Exhibitor shall provide access for Products' representatives at all reasonable hours for all purposes referred to herein which may require such access. If in connection with any operation conducted by Products hereunder, it shall be necessary for any of the Exhibitor's employees to be in attendance at the Theatre, any charges for the services of such employees shall be borne by the Exhibitor.

Digitized by Google

(b) The time of all payments herein provided for shall be of the essence of this agreement.

(c) Upon any termination of this agreement Products shall retain and may enforce any and all claims and rights of action against the Exhibitor, which it may then possess arising out of any default by the Exhibitor hereunder or any indebtedness then due to Products which accrued under the provisions of this agreement.

(d) This agreement shall not be assigned by the Exhibitor without Products' written consent. Subject to such restriction upon assignment by the Exhibitor, it shall be binding upon the parties and their respective successors, assigns, and legal representatives.

(e) The entire understanding of the parties with respect to the subject matter of this agreement is expressed herein and the construction and performance thereof shall be governed by the laws of the State of New York.

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers or agents in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,

By _____
Vice-President, Treasurer, Authorized Agent.

_____

_____
Exhibitor.

By _____

Products' witness signs here:
Exhibitor's witness signs here:
_____

WAIVER

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named and of the payment by Electrical Research Products, Inc., of the sum of One ($1.00) Dollar, receipt of which is hereby acknowledged, the undersigned parties having an interest in the Theatre referred to in said agreement as owner or lessor thereof, hereby consent(s) to the installation of said Equipment and waive(s) any and all rights or claims thereto of whatsoever kind or nature which I/we have or may hereafter acquire as landlord(s) of said Theatre, which might or could in any manner interfere with any rights of Electrical Research Products, Inc., in or to said Equipment.

Dated this _____ day of _____, 193__.

_____
Owner of Theatre.

_____
Lessor of Theatre (other than Owner).

---

347 T.-R.W.—Rev.

This agreement, made in triplicate at New York, New York, this _____ day of _____, 193__, by Electrical Research Products, Inc., a Delaware corporation of No. 250 West 57th Street, New York, New York (hereinafter called "Products"), and _____, a _____ _____ corporation of No. _____ Street/Avenue, City of _____, State of _____, (hereinafter called the "Exhibitor"), the operator of the _____ Theatre at No. _____ Street/Avenue, City of _____, State of _____, (hereinafter called the "Theatre");

Witnesseth, that in consideration of the covenants and conditions herein set forth, the parties agree as follows:

1. *Lease of Equipment and Grant of License.*—Products hereby leases to the Exhibitor and the Exhibitor hereby hires from Products the present Western Electric Sound Reproducing Equipment heretofore supplied by Products and now installed in the Theatre, together with any supplemental equipment described in this section.

The present equipment consists of—

_____

The supplemental equipment consists of—

_____

Digitized by Google

The supplemental equipment shall be furnished by Products f. o. b. its warehouse at _____ on or before _____, 193__, (provided that Products shall not be responsible for any inconvenience or damage resulting from failure to ship the supplemental equipment on or before said date); shall be installed by the Exhibitor at its own expense and under Products' supervision, in the same manner and subject to all of the provisions respecting the installation of repair and replacing equipment which are set forth in paragraphs (b) and (c) of Section 5.

All of the aforementioned equipment is hereinafter collectively referred to as the "Equipment." Products hereby grants to the Exhibitor, subject to the terms, conditions, and limitations herein contained, a non-exclusive, non-assignable license to use the Equipment in the Theatre, solely for the electrical reproduction of sound in connection with or incidental to the exhibition of motion pictures and to employ to the extent necessarily involved in such use of said Equipment, the methods and systems of Products covered by all United States patents and applications for United States patents relating to said Equipment or to such use thereof, in respect of which Products now has, or during the term of this agreement may acquire the right to grant such license. The Exhibitor shall operate the Equipment in manner approved by Products from time to time and shall not, without Products' approval, or otherwise than under its supervision, change or modify any circuits, or electrical or mechanical features of the Equipment, or break any seal which may be placed thereon.

2. *Charges.*—(a) The charges payable by the Exhibitor shall be the following: (Strike out inapplicable payment plan.)

Plan One.—The term of this agreement shall commence at close of business of the Exhibitor on _____ 193__. On each and every Saturday thereafter during said term, the Exhibitor shall pay Products the sum of _____ ($_____) Dollars, subject only to the abatements hereinafter provided for and to the exercise of Options A, B, or C, set forth in Section 13.

Plan Two—First Period.—The term of this agreement shall commence at close of business of the Exhibitor on _____ 193__. On each and every Saturday thereafter the Exhibitor shall pay Products the sum of _____ ($_____) Dollars until _____ (_____) such weekly payments shall have been made, which payments include a sum to be applied to payments required to be made under a prior agreement or agreements between the parties respecting the Equipment, in consideration of which payments Products agrees to the cancellation of said prior agreements as more particularly provided in Section 14.

Second Period.—Commencing on the Saturday following the last Saturday on which a payment is due in accordance with the preceding paragraph and on each and every Saturday thereafter during the remainder of the term hereof, the Exhibitor shall pay Products the sum of _____ ($ _____) Dollars, subject only to the abatements hereinafter provided for and to the exercise of Options A, B, or C, set forth in Section 13.

(b) In addition to the charges referred to in paragraph (a) of this section, the Exhibitor shall pay all transportation and handling charges on all equipment and parts therefor which may be furnished hereunder and shall arrange for any trucking and handling necessary to effect delivery of all such equipment and parts to the Theatre.

3. *Inspection of Equipment.*—(a) Promptly following the commencement of the term hereof, Products will determine by tests and adjustments of the Equipment as installed, the normal limits of gain, frequency response, and output power level within which the Equipment will, in its judgment, give the best quality of sound reproduction in the Theatre under average audience conditions, and shall furnish to the Exhibitor a transmission test report setting forth such normal limits.

(b) From time to time during the term of this agreement (except as provided in Section 13), Products shall inspect, test, and adjust the Equipment and furnish the Exhibitor with transmission test reports for comparison with the standards established under paragraph (a). When such inspection shows any material deviation in the performance of the Equipment from the established standards, Products shall inform the Exhibitor's employees regularly engaged in the operation of the Equipment of the steps that should be taken to obtain the standards of quality which have been established as normal.

Digitized by Google

(c) Products shall be called upon by the Exhibitor to make special service calls or otherwise provide service and inspection facilities beyond the service and inspection provided for in paragraphs (a) and (b) above, and such services shall be found to have been required because of faulty operation of the Equipment occasioned by the use of parts not furnished by Products, or by reason of misuse or abuse of the Equipment or failure of the Exhibitor to safeguard the Equipment properly, or to operate it in the manner approved by Products, Products may charge the Exhibitor in addition to the weekly charges referred to in Section 2, for any services thus rendered Five ($5.00) Dollars per man per hour or fraction thereof, including time consumed in transit, together with any expenses and transportation charges incurred in furnishing such services.

4. *Liability for Interruption, Injuries, Etc.*—Nothing herein contained shall be construed as a guaranty by Products of uninterrupted functioning of the Equipment and Products shall not be responsible in any manner for any damage to or interruption in the operation of the Theatre, or any equipment therein, or for any injury, loss, or damage to persons or property in the Theatre, arising from any cause whatever and the Exhibitor shall save Products harmless from any such liability, except for injury to Products' employees.

5. *Additional Parts, Etc.*—Products shall furnish such repair and replacement parts as it is in a position to furnish and as the Exhibitor may order, at its rental charges in effect at the time of receipt of orders therefor. The Exhibitor shall pay Products' charges for any parts thus furnished and any other charges the due date of which is not definitely fixed, either at the time of delivery of said parts, or at Products' option, upon rendition of billing.

6. *Damage or Destruction of Equipment.*—(a) If the Equipment while installed in the Theatre shall be damaged or destroyed by extraneous fire, or by earthquake, tornado, or other act of God, without fault or neglect on the part of the Exhibitor, and provided the Exhibitor shall not, at the time of the occurrence of such damage or destruction, be in default in respect of the terms of this agreement, upon written request of the Exhibitor, Products (except as provided in Section 13), will at its own expense repair the Equipment or, at its option, furnish replacing Western Electric sound equipment then available to Products equivalent in type and condition to the Equipment thus damaged or destroyed.

(b) The Exhibitor, at its own expense, shall install all parts and replacing equipment furnished by Products in accordance with the provisions of this section, in such manner as to comply with all laws, rules, ordinances, and regulations pertaining to electrical installations of such equipment; shall furnish all necessary labor and facilities, including but not by way of limitation, a suitable source of electric power supply with outlets conveniently located for the equipment, supports for horns, a screen satisfactory to Products as to its acoustic properties, suitable space properly ventilated for the installation of storage batteries and charging equipment or other power equipment, and shall make such other alterations and modifications in and to the Theatre, including furnishing of drapes for acoustic purposes, as may be necessary for the proper installation and operation of the Equipment. Replacing equipment and major replacement parts furnished under the provisions of this section, shall be installed under Products' supervision and all equipment and parts thus furnished shall be installed in accordance with instructions furnished by Products. All preliminary and installation work done and material furnished by the Exhibitor and its agents or servants shall be subject to approval by Products. Approval of installation work or material shall in no event subject Products to responsibility or liability of any kind or nature. Except as herein otherwise provided, the Exhibitor shall provide and pay for all material and services required in preparation for and in connection with the installation of replacing equipment and parts.

(c) In the event that the Equipment or a major portion thereof shall be replaced by Products as provided in this section, Products shall provide an engineer, and if deemed necessary by Products, a projectionist, to inspect the preliminary work done by the Exhibitor and to supervise the installation of the replacing equipment. Notice from the Exhibitor that the replacing equipment has been received and that the Theatre will be ready for installation of said equipment on a definite date shall be delivered to Products not less than three (3) days prior to said date and Products shall make every reasonable effort to have its engineer at the Theatre on said date. The services of said

Digitized by Google

engineer, and projectionist if required, will be furnished without additional cost to the Exhibitor for a continuous period not to exceed three (3) days. If the preliminary work done by the Exhibitor is not ready for inspection, or said work is not advanced sufficiently to permit the installation of the equipment upon the date that the engineer shall arrive at the Theatre, or if supervisory services shall be required for a period in excess of three (3) days, or otherwise than for a continuous period, the Exhibitor shall pay Products its standard charge of Thirty-five ($35.00) Dollars per man per day or fraction thereof for any period in excess of three (3) days, including time consumed in transit, together with any additional expenses which Products may have incurred by reason of said services being required otherwise than for a continuous period. In the event of the Equipment being damaged or destroyed as aforesaid, the weekly charges payable hereunder shall abate pro rata from the date of the damage or destruction until the Equipment shall have been repaired or replaced by Products. Upon any repair or replacing equipment being furnished by Products in accordance with the provisions of this section, all of the provisions of this agreement shall apply to such replacing equipment and the original term of this agreement shall be extended for an interval equivalent to the period or periods of abatement. Except as herein otherwise provided, the Equipment shall be held at the sole risk of the Exhibitor.

7. *Title.*—Products shall retain title to all equipment, repair, and replacement parts, tools, drawings, and printed or written data applicable thereto. All such equipment and accessories shall at all times be and remain personal property notwithstanding the manner or method of its attachment to any real property.

8. *Patent Protection.*—Products shall defend at its own expense all suits alleging infringement of any United States patent by reason of the use of any apparatus or material furnished hereunder, as and for the purpose furnished, and will save the Exhibitor harmless from all expenses of defending said suits and from all payments which by final judgment the Exhibitor may be required to pay to the complainant as damages, profits, or costs on account of such infringement; and if such use shall be prevented by injunction in such suit, Products may, within thirty (30) days from the date any such injunction becomes effective, at its option, replace said apparatus or material with suitable non-infringing apparatus or material, or modify it so that it will not infringe, or procure for the Exhibitor the right to continue to use the same, and if Products does not within said thirty (30) days thus replace or modify the apparatus or material or procure for the Exhibitor the right to continue to use the same, either party may upon thirty (30) days' written notice terminate this agreement, but such termination shall not relieve Products of its obligations hereunder with respect to infringements alleged to have occurred theretofore or relieve the Exhibitor of any of its obligations which accrued prior to such termination; provided, however, and all of the obligations of Products in this paragraph contained are upon condition that Products shall be given immediate written notice of all claims of such infringement and of all such suits and full opportunity and authority to assume the sole defense thereof, including appeals, and shall be furnished (at Products' request) all information and assistance available to the Exhibitor for such defense; and provided further, that the obligations of Products referred to in this section shall not apply to uses of said apparatus in combination with other apparatus or parts not furnished by Products and that the liability of Products hereunder shall in no event exceed the total amount paid hereunder by the Exhibitor to Products. If, at the time of commencement of any suit against the Exhibitor alleging patent infringement, the Exhibitor is in default hereunder, Products shall not be subject to the obligations referred to in this section, but the obligations of the Exhibitor to notify Products and to furnish information and assistance shall continue in effect, notwithstanding such default of the Exhibitor, and Products at its option may undertake the defense of any such suit and in such event Products' liability shall be limited to the obligations set forth in the first sentence of this paragraph. The liability of Products for any infringement shall be limited to the agreements herein contained.

9. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all personal property and license taxes which may be charged or levied in connection with or which may apply to any equipment furnished hereunder, and the Exhibitor shall reimburse Products for any such taxes which Products may be required to pay.

Digitized by Google

10. *Abatement of Charges.*—(a) If during any annual period of the term hereof, the Exhibitor shall close the Theatre temporarily and cease to use the Equipment for a continuous period of not less than one (1) week and shall give Products not less than ten (10) days' written notice of intention to cease using the Equipment and a similar notice of intention to resume the use thereof, Products will abate the weekly charges payable hereunder during the continuous period that the Equipment is thus inoperative, commencing with the first full week following the week in which the Theatre is closed, but such abatement shall not be effective for more than thirteen (13) weeks during any annual period.

(b) Products, at its option, may seal the Equipment during any period that it is inoperative. If Products shall have sealed the Equipment and it shall be unsealed other than by authority of Products, it shall be deemed to have been in use for the purpose of determining charges payable hereunder. Notices referred to in this section shall be mailed to Products' office at New York, New York, Chicago, Illinois, or Los Angeles, California, whichever office is nearest the Exhibitor.

11. *Default.*—At the option of Products this agreement and the rights of the Exhibitor hereunder shall terminate in event of failure of the Exhibitor to make payment of charges referred to in Section 2 hereof or failure to pay taxes in accordance with Section 9 hereof, as said charges and taxes shall become due, or upon the insolvency of the Exhibitor, or upon the filing of any petition in bankruptcy by or against the Exhibitor, or upon the making of an assignment of any of the Exhibitor's assets for the benefit of creditors, or upon any application for the appointment of a receiver of the property and assets of the Exhibitor, or upon the commencement of any action, suit, or proceeding against the Exhibitor in respect of the title to, or right to possession of, the Theatre, or (except as provided in Section 10) upon the Exhibitor ceasing to operate the Theatre, or upon removal of the Equipment from the Theatre unless prior to such removal the Exhibitor shall have made arrangements satisfactory to Products for the care and custody of the Equipment, or upon the issue or levy of any attachment or the filing of, or attempt to assert or enforce, any lien which might in any manner affect Products' title to, or right to possession of, any apparatus or equipment furnished hereunder. The provisions respecting repair and replacement of damage or destroyed equipment, patent protection, and abatement of charges, as referred to in Sections 6, 8, and 10, are conditional upon the Exhibitor not being in default at the time of an occurrence which would normally make the provisions of said sections operative. Without limitation of the provisions of this section, the Exhibitor shall be deemed in default at any time that payments hereunder shall be in arrears for a period of two (2) weeks or more.

12. *Repossession of Equipment.*—Upon any termination of this agreement the Exhibitor shall surrender to Products, in good order and condition, reasonable wear and tear only excepted, the Equipment together with all repair and replacement parts (other than exhausted consumable parts such as vacuum tubes, photoelectric cells, and exciting lamps), tools, and other accessories which shall have been furnished by Products.

13. *Term.*—The original term of this agreement and the license herein granted shall be three (3) years and a period equal to any period or periods of abatement of charges hereunder, commencing on the date of commencement referred to in paragraph (a), Section 2.

The following options shall be available to the Exhibitor, provided however, that if payments hereunder are to be made in accordance with Plan 2 of Section 2, then the said option shall be available only at such time as all of the payments required to be made during the *First Period* of said Plan 2, shall have been paid in full.

Option A.—At the expiration of the first year of the term hereof, but if there shall have been an abatement of charges during said first year, only at such time as Fifty-two (52) weekly payments shall have been made to Products hereunder, the Exhibitor may *either* terminate this agreement and surrender the Equipment to Products *or* pay Products the sum of _____ ($_____) Dollars, in addition to the other charges payable hereunder prior to the date of such payment, and thereafter continue the lease of the Equipment for a period of fifteen (15) years at an annual rental of One ($1.00) Dollar, subject to the conditions hereinafter set forth.

Digitized by Google

Option B.—At the expiration of the second year of the term hereof, but if there shall have been an abatement of charges during the first two (2) years, only at such time as One hundred and four (104) weekly payments shall have been made to Products hereunder, the Exhibitor may *either* terminate this agreement and surrender the Equipment to Products *or* pay Products the sum of _____ ($_____) Dollars, in addition to the other charges payable hereunder prior to the date of such payment and thereafter continue the lease of the Equipment for a period of fifteen (15) years at an annual rental of One ($1.00) Dollar, subject to the conditions hereinafter set forth.

Option C.—At the expiration of the third year of term hereof, but if there shall have been an abatement of charges during the first three (3) years, only at such time as One hundred and fifty-six (156) weekly payments shall have been made to Products, the Exhibitor may *either* terminate this agreement and surrender the Equipment to Products *or* continue the lease of the Equipment for a period of fifteen (15) years at an annual rental of One ($1.00) Dollar, subject to the conditions hereinafter set forth.

If the Exhibitor shall desire to exercise Option A, B, or C, it shall give Products written notice of intention so to do, not less than sixty (60) days prior to the effective date of any of said options. If any of such options shall be exercised, Products shall be under no further obligation to inspect, test, or adjust the Equipment, to repair or replace the Equipment in the event of any damage or destruction, to furnish any patent protection, or to fulfill any other obligations hereinabove set forth respecting said Equipment, whether or not similar to the foregoing.

If upon the expiration of the original term the Exhibitor shall not have exercised Options A, B, or C, this agreement shall continue in effect after the original term until either party shall serve upon the other a sixty (60) day written notice of intention to terminate, and such notice may be served by either party at any time after the expiration of the original term.

14. *General Provisions.*—(a) None of the provisions of this agreement shall be construed as prohibiting the Exhibitor from taking any reasonable action to protect or repair the Equipment in the event of an accident or breakdown. The Exhibitor shall notify Products immediately by registered mail of any unsatisfactory functioning of the Equipment, and the absence of such notification shall be conclusive as to the Equipment functioning satisfactorily. The Exhibitor, at its own expense, shall obtain all necessary permits and do all other acts and things required by all laws, ordinances, and regulations relating to the maintenance, operation, and use of the Equipment, or any part thereof, and comply with any fire insurance underwriters' requirements relating thereto. Upon proper identification, the Exhibitor shall provide access for Producers' representatives at all reasonable hours for all purposes referred to herein which may require such access. If in connection with any operation conducted by Products hereunder, it shall be necessary for any of the Exhibitor's employees to be in attendance at the Theatre, any charges for the services of such employees shall be borne by the Exhibitor.

(b) The time of all payments herein provided for shall be of the essence of this agreement.

(c) Upon any termination of this agreement Products shall retain and may enforce any and all claims and rights of action against the Exhibitor, which it may then possess arising out of any default by the Exhibitor hereunder or any indebtedness then due to Products which accrued under the provisions of this agreement.

(d) The agreement originally entered into between the Exhibitor and Products with respect to the furnishing and use of the Equipment and all agreements supplemental and amendatory thereto shall terminate as of the date of commencement of the term of this agreement and all obligations of said parties under said agreements are hereby released and forever discharged.

(e) This agreement shall not be assigned by the Exhibitor without Products' written consent. Subject to such restriction upon assignment by the Exhibitor, it shall be binding upon the parties and their respective successors, assigns, and legal representatives.

(f) The entire understanding of the parties with respect to the subject matter of this agreement is expressed herein, and the construction and performance thereof shall be governed by the laws of the State of New York.

Digitized by Google

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers or agents in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,
By _____
Vice-President, Treasurer, Authorized Agent.

_____
Exhibitor.
By _____

Products' witness signs here:

_____

Exhibitor's witness signs here:

_____

WAIVER

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named, and of the payment by Electrical Research Products, Inc., of the sum of One ($1.00) Dollar, receipt of which is hereby acknowledged, the undersigned parties having an interest in the Theatre referred to in said agreement as owner or lessor thereof, hereby consent(s) to the installation of said Equipment and waive(s) any and all rights or claims thereto of whatsoever kind or nature which I/we have or may hereafter acquires as land lord(s) of said Theatre, which might or could in any manner interfere with any rights of Electrical Research Products, Inc., in or to said Equipment.

Dated this _____ day of _____, 193__.

_____
Owner of Theatre.

_____
Lessor of Theatre (other than Owner).

---

347 T.-R. W.—Rev.

This agreement made in triplicate at New York, New York, this _____ day of _____, 193 _____, by Electrical Research Products, Inc., a Delaware corporation, of No. 250 West 57th Street, New York, New York (hereinafter called "Products"), and _____, a _____ corporation, of No. _____ Street/Avenue, City of _____, State of _____ (hereinafter called the "Exhibitor"), the operator of the _____ Theatre, at No. _____ Street/Avenue, City of _____, State of _____ (hereinafter called the "Theatre");

Witnesseth, that in consideration of the covenants and conditions herein set forth, the parties agree as follows:

1. *Lease and Equipment and Grant of License.*—Products hereby leases to the Exhibitor and the Exhibitor hereby hires from Products the present Western Electric Sound Reproducing Equipment heretofore supplied by Products and now installed in the Theatre, together with any supplemental equipment described in this section.

The present equipment consists of:

_____

The supplemental equipment consists of:

_____

The supplemental equipment shall be furnished by Products f. o. b. its warehouse at _____, on or before _____, 193__ (provided that Products shall not be responsible for any inconvenience or damage resulting from failure to ship the supplemental equipment on or before said date); shall be installed by the Exhibitor at its own expense and under Products' supervision, in the same manner and subject to all of the provisions respecting the installation of repair and replacing equipment which are set forth in paragraphs (b) and (c) of Section 6.

All of the aforementioned equipment is hereinafter collectively referred to as the "Equipment." Products hereby grants to the Exhibitor, subject to the terms, conditions, and limitations herein contained, a non-exclusive, non-assignable license to use the Equipment in the Theatre, solely for the electrical re-

Digitized by Google

production of sound in connection with or incidental to the exhibition of motion pictures and to employ to the extent necessarily involved in such use of said Equipment, the methods and systems of Products covered by all United States patents and applications for United States patents relating to said Equipment or to such use thereof, in respect of which Products now has, or during the term of this agreement may acquire, the right to grant such license. The Exhibitor shall operate the Equipment in manner approved by Products from time to time and shall not, without Products' approval, or otherwise than under its supervision, change or modify any circuits, or electrical or mechanical features of the Equipment, or break any seal which may be placed thereon.

2. *Charges.*—(a) The charges payable by the Exhibitor shall be the following: (Strike out inapplicable payment plan).

Plan One.—The term of this agreement shall commence at close of business of the Exhibitor on _____, 193__. On each and every Saturday thereafter during said term, the Exhibitor shall pay Products the sum of _____ ($_____) Dollars, subject only to the abatements hereinafter provided for and to the exercise of Options A, B, or C, set forth in Section 13.

Plan Two—First Period.—The term of this agreement shall commence at close of business of the Exhibitor on _____, 193__. On each and every Saturday thereafter the Exhibitor shall pay Products the sum of _____ ($_____) Dollars until _____ (_____) such weekly payments shall have been made, which payments include a sum to be applied to payments required to be made under a prior agreement or agreements between the parties respecting the Equipment, in consideration of which payments Products agrees to the cancellation of said prior agreements as more particularly provided in Section 14.

Second Period.—Commencing on the Saturday following the last Saturday on which a payment is due in accordance with the preceding paragraph and on each and every Saturday thereafter during the remainder of the term hereof, the Exhibitor shall pay Products the sum of _____ ($_____) Dollars, subject only to the abatements hereinafter provided for and to the exercise of Options A, B, or C, as set forth in Section 13.

(b) In addition to the charges referred to in paragraph (a) of this section, the Exhibitor shall pay all transportation and handling charges on all equipment and parts therefor which may be furnished hereunder, and shall arrange for any trucking and handling necessary to effect delivery of all such equipment and parts to the Theatre.

3. *Inspection of Equipment.*—(a) Promptly following the commencement of the term hereof, Products will determine by tests and adjustments of the Equipment as installed, the normal limits of gain, frequency response, and output power level within which the Equipment will, in its judgment, give the best quality of sound reproduction in the Theatre under average audience conditions, and shall furnish to the Exhibitor a transmission test report setting forth such normal limits.

(b) From time to time during the term of this agreement (except as provided in Section 13), Products shall inspect, test, and adjust the Equipment and furnish the Exhibitor with transmission test reports for comparison with the standards established under paragraph (a). When such inspection shows any material deviation in the performance of the Equipment from the established standards, Products shall inform the Exhibitor's employees regularly engaged in the operation of the Equipment of the steps that should be taken to obtain the standards of quality which have been established as normal.

(c) If Products shall be called upon by the Exhibitor to make special service calls or otherwise provide service and inspection facilities beyond the service and inspection provided for in paragraphs (a) and (b) above, and such services shall be found to have been required because of faulty operation of the Equipment occasioned by the use of parts not furnished by Products, or by reason of misuse or abuse of the Equipment or failure of the Exhibitor to safeguard the Equipment properly, or to operate it in the manner approved by Products, Products may charge the Exhibitor in addition to the weekly charges referred to in Section 2, for any services thus rendered Five ($5.00) Dollars per man per hour or fraction thereof, including time consumed in transit, together with any expenses and transportation charges incurred in furnishing such services.

4. *Liability for Interruption, Injuries, Etc.*—Nothing herein contained shall be construed as a guaranty by Products of uninterrupted functioning of the

Digitized by Google

Equipment, and Products shall not be responsible in any manner for any damage to or interruption in the operation of the Theatre, or any equipment therein, or for any injury, loss, or damage to persons or property in the Theatre, arising from any cause whatever, and the Exhibitor shall save Products harmless from any such liability, except for injury to Products' employees.

5. *Additional Parts, Etc.*—Products shall furnish such repair and replacement parts as it is in a position to furnish and as the Exhibitor may order, at its rental charges in effect at the time of receipt of orders therefor. The Exhibitor shall pay Products' charges for any parts thus furnished and any other charges the due date of which is not definitely fixed, either at the time of delivery of said parts, or at Products' option, upon rendition of billing.

6. *Damage or Destruction of Equipment.*—(a) If the Equipment while installed in the Theatre shall be damaged or destroyed by extraneous fire, or by earthquake, tornado, or other act of God, without fault or neglect on the part of the Exhibitor, and provided the Exhibitor shall not, at the time of the occurrence of such damage or destruction, be in default in respect of the terms of this agreement, upon written request of the Exhibitor, Products (except as provided in Section 13), will, at its own expense, repair the Equipment or, at its option, furnish replacing Western Electric sound equipment then available to Products equivalent in type and condition to the Equipment thus damaged or destroyed.

(b) The Exhibitor, at its own expense, shall install all parts and replacing equipment furnished by Products in accordance with the provisions of this section, in such manner as to comply with all laws, rules, ordinances, and regulations pertaining to electrical installations of such equipment; shall furnish all necessary labor and facilities, including but not by way of limitation, a suitable source of electric power supply with outlets conveniently located for the equipment, supports for horns, a screen satisfactory to Products as to its acoustic properties, suitable space properly ventilated for the installation of storage batteries and charging equipment or other power equipment, and shall make such other alterations and modifications in and to the Theatre, including furnishing of drapes for acoustic purposes, as may be necessary for the proper installation and operation of the Equipment. Replacing equipment and major replacement parts furnished under the provisions of this section, shall be installed under Products' supervision, and all equipment and parts thus furnished shall be installed in accordance with instructions furnished by Products. All preliminary and installation work done and material furnished by the Exhibitor and its agents or servants shall be subject to approval by Products. Approval of installation work or material shall in no event subject Products to responsibility or liability of any kind or nature. Except as herein otherwise provided, the Exhibitor shall provide and pay for all material and services required in preparation for and in connection with the installation of replacing equipment and parts.

(c) In the event that the Equipment or a major portion thereof shall be replaced by Products as provided in this section, Products shall provide an engineer, and, if deemed necessary by Products, a projectionist, to inspect the preliminary work done by the Exhibitor and to supervise the installation of the replacing equipment. Notice from the Exhibitor that the replacing equipment has been received and that the Theatre will be ready for installation of said equipment on a definite date shall be delivered to Products not less than three (3) days prior to said date and Products shall make every reasonable effort to have its engineer at the Theatre on said date. The services of said engineer, and projectionist, if required, will be furnished without additional cost to the Exhibitor for a continuous period not to exceed three (3) days. If the preliminary work done by the Exhibitor is not ready for inspection, or said work is not advanced sufficiently to permit the installation of the equipment upon the date that the engineer shall arrive at the Theatre, or if supervisory services shall be required for a period in excess of three (3) days, or otherwise than for a continuous period, the Exhibitor shall pay Products its standard charge of Thirty-five ($35.00) Dollars per man per day or fraction thereof for any period in excess of three (3) days, including time consumed in transit, together with any additional expenses which Products may have incurred by reason of said services being required otherwise than for a continuous period. In the event of the Equipment being damaged or destroyed as aforesaid, the weekly charges payable hereunder shall abate pro rata from the date of the damage or destruction until the Equipment shall have been repaired or replaced by Products. Upon any repair or replacing equipment being furnished by

Digitized by Google

Products in accordance with the provisions of this section, all of the provisions of this agreement shall apply to such replacing equipment, and the original term of this agreement shall be extended for an interval equivalent to the period or periods of abatement. Except as herein otherwise provided, the Equipment shall be held at the sole risk of the Exhibitor.

7. *Title.*—Products shall retain title to all equipment, repair and replacement parts, tools, drawings, and printed or written data applicable thereto. All such equipment and accessories shall at all times be and remain personal property notwithstanding the manner or method of its attachment to any real property.

8. *Patent Protection.*—Products shall defend at its own expense all suits alleging infringement of any United States patent by reason of the use of any apparatus or material furnished hereunder, as and for the purposes furnished, and will save the Exhibitor harmless from all expenses of defending said suits and from all payments which by final judgment the Exhibitor may be required to pay to the complainant as damages, profits, or costs on account of such infringement; and if such use shall be prevented by injunction in such suit, Products may, within thirty (30) days from the date any such injunction becomes effective, at its option, replace said apparatus or material with suitable non-infringing apparatus or material, or modify it so that it will not infringe, or procure for the Exhibitor the right to continue to use the same, and if Products does not within said thirty (30) days thus replace or modify the apparatus or material or procure for the Exhibitor the right to continue to use the same, either party may, upon thirty (30) days' written notice, terminate this agreement, but such termination shall not relieve Products of its obligations hereunder with respect to infringements alleged to have occurred theretofore or relieve the Exhibitor of any of its obligations which accrued prior to such termination; provided, however, and all of the obligations of Products in this paragraph contained are upon condition that Products shall be given immediate written notice of all claims of such infringement and of all such suits and full opportunity and authority to assume the sole defense thereof, including appeals, and shall be furnished (at Products' request) all information and assistance available to the Exhibitor for such defense; and provided further, that the obligations of Products referred to in this section shall not apply to uses of said apparatus in combination with other apparatus or parts not furnished by Products and that the liability of Products hereunder shall in no event exceed the total amount paid hereunder by the Exhibitor to Products. If, at the time of commencement of any suit against the Exhibitor alleging patent infringement, the Exhibitor is in default hereunder, Products shall not be subject to the obligations referred to in this section, but the obligations of the Exhibitor to notify Products and to furnish information and assistance shall continue in effect, notwithstanding such default of the Exhibitor, and Products at its option may undertake the defense of any such suit and in such event Products' liability shall be limited to the obligations set forth in the first sentence of this paragraph. The liability of Products for any infringement shall be limited to the agreements herein contained.

9. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all personal property and license taxes which may be charged or levied in connection with or which may apply to any equipment furnished hereunder, and the Exhibitor shall reimburse Products for any such taxes which Products may be required to pay.

10. *Abatement of Charges.*—(a) If during any annual period of the term hereof, the Exhibitor shall close the Theatre temporarily and cease to use the Equipment for a continuous period of not less than one (1) week and shall give Products not less than ten (10) days' written notice of intention to cease using the Equipment and a similar notice of intention to resume the use thereof, Products will abate the weekly charges payable hereunder during the continuous period that the Equipment is thus inoperative, commencing with the first full week following the week in which the Theatre is closed, but such abatement shall not be effective for more than thirteen (13) weeks during any annual period.

(b) Products, at its option, may seal the Equipment during any period that it is inoperative. If Products shall have sealed the Equipment and it shall be unsealed other than by authority of Products, it shall be deemed to have been in use for the purpose of determining charges payable hereunder. Notices referred to in this section shall be mailed to Products' office at New York, New York; Chicago, Illinois; or Los Angeles, California; whichever office is nearest the Exhibitor.

Digitized by Google

11. *Default.*—At the option of Products this agreement and the rights of the Exhibitor hereunder shall terminate in the event of any breach or default on the part of the Exhibitor, or upon the insolvency of the Exhibitor, or upon the filing of any petition in bankruptcy by or against the Exhibitor, or upon the making of an assignment of any of the Exhibitor's assets for the benefit of creditors, or upon any application for the appointment of a receiver of the property and assets of the Exhibitor, or upon the commencement of any action, suit, or proceeding against the Exhibitor in respect of the title to, or right to possession of, the Theatre, or (except as provided in Section 10), upon the Exhibitor ceasing to operate the Theatre, or upon the issue or levy of any attachment or the filing of, or attempt to assert or enforce, any lien which might in any manner affect Products' title to, or right to possession of any apparatus or equipment furnished hereunder. The provisions respecting repair and replacement of damaged or destroyed equipment, patent protection, and abatement of charges, as referred to in Sections 6, 8, and 10, are conditional upon the Exhibitor not being in default at the time of an occurrence which would normally make the provisions of said sections operative. Without limitation of the provisions of this section, the Exhibitor shall be deemed in default at any time that payments hereunder shall be in arrears for a period of two (2) weeks or more.

12. *Repossession of Equipment.*—Upon any termination of this agreement the Exhibitor shall surrender to Products, in good order and condition, reasonable wear and tear only excepted, the Equipment, together with all repair and replacement parts (other than exhausted consumable parts such as vacuum tubes, photoelectric cells, and exciting lamps), tools, and other accessories which shall have been furnished by Products.

13. *Term.*—The original term of this agreement and the license herein granted shall be three (3) years and a period equal to any period or periods of abatement of charges hereunder, commencing on the date of commencement referred to in paragraph (a), Section 2.

The following options shall be available to the Exhibitor; provided, however, that if payments hereunder are to be made in accordance with Plan 2 of Section 2, then the said options shall be available only at such time as all of the payments required to be made during the *First Period* of said Plan 2, shall have been paid in full.

Option A.—At the expiration of the first year of the term hereof, but if there shall have been an abatement of charges during said first year, only at such time as Fifty-two (52) weekly payments shall have been made to Products hereunder, the Exhibitor may *either* terminate this agreement and surrender the Equipment to Products *or* pay Products the sum of _____ ($_____) Dollars, in addition to the other charges payable hereunder prior to the date of such payment and thereafter continue the lease of the Equipment for a period of fifteen (15) years at an annual rental of One ($1.00) Dollar, subject to the conditions hereinafter set forth.

Option B.—At the expiration of the second year of the term hereof, but if there shall have been an abatement of charges during the first two (2) years, only at such time as One hundred and four (104) weekly payments shall have been made to Products hereunder, the Exhibitor may *either* terminate this agreement and surrender the Equipment to Products *or* pay Products the sum of _____ ($_____) Dollars, in addition to the other charges payable hereunder prior to the date of such payment and thereafter continue the lease of the Equipment for a period of fifteen (15) years at an annual rental of One ($1.00) Dollar, subject to the conditions hereinafter set forth.

Option C.—At the expiration of the third year of term hereof, but if there shall have been an abatement of charges during the first three (3) years, only at such time as One hundred and fifty-six (156) weekly payments shall have been made to Products, the Exhibitor may *either* terminate this agreement and surrender the Equipment to Products *or* continue the lease of the Equipment for a period of fifteen (15) years at an annual rental of One ($1.00) Dollar, subject to the conditions hereinafter set forth.

If the Exhibitor shall desire to exercise Option A, B, or C, it shall give Products written notice of intention so to do, not less than sixty (60) days prior to the effective date of any of said options. If any of such options shall be exercised, Products shall be under no further obligation to inspect, test, or adjust the Equipment, to repair or replace the Equipment in the event of any damage or destruction, to furnish any patent protection, or to fulfill any other

Digitized by Google

obligations hereinabove set forth respecting said Equipment, whether or not similar to the foregoing.

If upon the expiration of the original term the Exhibitor shall not have exercised Options A, B, or C, this agreement shall continue in effect after the original term until either party shall serve upon the other a sixty (60) day written notice of intention to terminate and such notice may be served by either party at any time after the expiration of the original term.

14. *General Provisions.*—(a) None of the provisions of this agreement shall be construed as prohibiting the Exhibitor from taking any reasonable action to protect or repair the Equipment in the event of an accident or breakdown. The Exhibitor shall notify Products immediately by registered mail of any unsatisfactory functioning of the Equipment and the absence of such notification shall be conclusive as to the Equipment functioning satisfactorily. The Exhibitor, at its own expense, shall obtain all necessary permits and do all other acts and things required by all laws, ordinances, and regulations relating to the maintenance, operation, and use of the Equipment, or any part thereof, and comply with any fire insurance underwriters' requirements relating thereto. Upon proper identification, the Exhibitor shall provide access for Products' representatives at all reasonable hours for all purposes referred to herein which may require such access. If in connection with any operation conducted by Products hereunder, it shall be necessary for any of the Exhibitor's employees to be in attendance at the Theatre, any charges for the services of such employees shall be borne by the Exhibitor.

(b) The time of all payments herein provided for shall be of the essence of this agrement.

(c) Upon any termination of this agreement Products shall retain and may enforce any and all claims and rights of action against the Exhibitor, which it may then possess arising out of any default by the Exhibitor hereunder or any indebtedness then due to Products which accrued under the provisions of this agreement.

(d) The agreement originally entered into between the Exhibitor and Products with respect to the furnishing and use of the Equipment and all agreements supplemental and amendatory thereto shall terminate as of the date of commencement of the term of this agreement and all obligations of said parties under said agreements are hereby released and forever discharged.

(e) This agreement shall not be assigned by the Exhibitor without Products' written consent. Subject to such restriction upon assignment by the Exhibitor, it shall be binding upon the parties and their respective successors, assigns, and legal representatives.

(f) The entire understanding of the parties with respect to the subject matter of this agreement is expressed herein and the construction and performance thereof shall be governed by the laws of the State of New York.

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers or agents in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,

By _____,

Vice-President, Treasurer, Authorized Agent.

_____,

Exhibitor.

Products' witness signs here:

_____,

By _____.

Exhibitor's witness signs here:

_____.

WAIVER

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named and of the payment by Electrical Research Products, Inc., of the sum of One ($1.00) Dollar, receipt of which is hereby acknowledged, the undersigned parties having an interest in the Theatre referred to in said agreement as owner or lessor thereof, hereby consent(s) to the installation of said Equipment and waive(s) any and all rights or claims thereto of whatsoever kind or nature which I/we have or may hereafter acquire as landlord(s) of said Theatre, which might or could

Digitized by Google

in any manner interfere with any rights of Electrical Research Products, Inc., in or to said Equipment.

Dated this _____ day of _____, 193__.

_____,
Owner of Theatre.

_____,
Lessor of Theatre (other than Owner).

---

347 T.-R. W.

This agreement made in triplicate at New York, New York, this _____ day of _____, 193__, by Electrical Research Products, Inc., a Delaware corporation of No. 250 West 57th Street, New York, New York (hereinafter called "Products"), and _____, a _____ corporation of No. _____ Street/Avenue, City of _____, State of _____ (hereinafter called the "Exhibitor"), the operator of the _____ Theatre at No. _____ Street/Avenue, City of _____, State of _____ (hereinafter called the "Theatre");

Witnesseth, that in consideration of the covenants and conditions herein set forth the parties agree as follows:

1. *Lease of Equipment and Grant of License.*—Products hereby leases to the Exhibitor and the Exhibitor hereby hires from Products the present Western Electric Sound Reproducing Equipment heretofore supplied by Products and now installed in the Theatre, together with any supplemental equipment described in this section.

The present equipment consists of:—

The supplemental equipment consists of:—

The supplemental equipment shall be furnished by Products f. o. b. its warehouse at _____, on or before _____, 193__ (provided that Products shall not be responsible for any inconvenience or damage resulting from failure to ship the supplemental equipment on or before said date); shall be installed by the Exhibitor at its own expense and under Products' supervision, in the same manner and subject to all of the provisions respecting the installation of repair and replacing equipment which are set forth in paragraphs (b) and (c) of Section 6.

All of the aforementioned equipment is hereinafter collectively referred to as the "Equipment." Products hereby grants to the Exhibitor, subject to the terms, conditions, and limitations herein contained, a non-exclusive, non-assignable license to use the Equipment in the Theatre, solely for the electrical reproduction of sound in connection with or incidental to the exhibition of motion pictures and to employ to the extent necessarily involved in such use of said Equipment, the methods and systems of Products covered by all United States patents and applications for United States patents relating to said Equipment or to such use thereof, in respect of which Products now has, or during the term of this agreement may acquire, the right to grant such license. The Exhibitor shall operate the Equipment in manner approved by Products from time to time and shall not, without Products' approval, or otherwise than under its supervision, change or modify any circuits, or electrical or mechanical features of the Equipment, or break any seal which may be placed thereon.

2. *Charges.*—(a) The charges payable by the Exhibitor shall be the following: (Strike out inapplicable payment plan).

Plan One.—On _____, 193__, which shall be the date of commencement of the term of this agreement, and on each and every Saturday thereafter during said term, the Exhibitor shall pay Products the sum of _____ ($_____) Dollars, subject only to the abatements hereinafter provided for and to the exercise of Options A, B, or C set forth in Section 13.

Plan Two—First Period.—On _____, 193__, which shall be the date of commencement of the term of this agreement, the Exhibitor shall pay Products the sum of _____ ($_____) Dollars and shall pay a like sum on each and every Saturday thereafter until _____ (_____) such weekly payments shall have been made, which payments include a sum to be applied to payments required to be made under a prior agree-

Digitized by Google

ment or agreements between the parties respecting the Equipment, in consideration of which payments Products agree to the cancellation of said prior agreements as more particularly provided in Section 14.

Second Period.—Commencing on the Saturday following the last Saturday on which a payment is due in accordance with the preceding paragraph and on each and every Saturday thereafter during the remainder of the term hereof, the Exhibitor shall pay Products the sum of _____ ($_____) Dollars, subject only to the abatements hereinafter provided for and to the exercise of Options A, B, or C set forth in Section 13.

(b) In addition to the charges referred to in paragraph (a) of this section, the Exhibitor shall pay all transportation and handling charges on all equipment and parts therefor which may be furnished hereunder and shall arrange for any trucking and handling necessary to effect delivery of all such equipment and parts to the Theatre.

3. *Inspection of Equipment.*—(a) Promptly following the commencement of the term hereof, Products will determine by tests and adjustments of the Equipment as installed, the normal limits of gain, frequency response, and output power level within which the Equipment will, in its judgment, give the best quality of sound reproduction in the Theatre under average audience conditions, and shall furnish to the Exhibitor a transmission test report setting forth such normal limits.

(b) From time to time during the term of this agreement (except as provided in Section 13), Products shall inspect, test, and adjust the Equipment and furnish the Exhibitor with transmission test reports for comparison with the standards established under paragraph (a). When such inspection shows any material deviation in the performance of the Equipment from the established standards, Products shall inform the Exhibitor's employees regularly engaged in the operation of the Equipment of the steps that should be taken to obtain the standards of quality which have been established as normal.

(c) If Products shall be called upon by the Exhibitor to make special service calls or otherwise provide service and inspection facilities beyond the service and inspection provided in paragraphs (a) and (b) above, and such services shall be found to have been required because of faulty operation of the Equipment occasioned by the use of parts not furnished by Products, or by reason of misuse or abuse of the Equipment or failure of the Exhibitor to safeguard the Equipment properly, or to operate it in the manner approved by Products, Products may charge the Exhibitor, in addition to the weekly charges referred to in Section 2, for any services thus rendered Five ($5.00) Dollars per man per hour or fraction thereof, including time consumed in transit, together with any expenses and transportation charges incurred in furnishing such services.

4. *Liability for Interruption, Injuries, Etc.*—Nothing herein contained shall be construed as a guaranty by Products of uninterrupted functioning of the Equipment and Products shall not be responsible in any manner for any damage to or interruption in the operation of the Theatre, or any equipment therein, or for any injury, loss, or damage to persons or property in the Theatre, arising from any cause whatever and the Exhibitor shall save Products harmless from any such liability, except for injury to Products' employees.

5. *Additional Parts, Etc.*—Products shall furnish such repair and replacement parts as it is in a position to furnish and as the Exhibitor may order, at its rental charges in effect at the time of receipt of orders therefor. The Exhibitor shall pay Products' charges for any parts thus furnished and any other charges the due date of which is not definitely fixed, either at the time of delivery of said parts, or at Products' option, upon rendition of billing.

6. *Damage or Destruction of Equipment.*—(a) If the Equipment while installed in the Theatre shall be damaged or destroyed by extraneous fire, or by earthquake, tornado, or other act of God, without fault or neglect on the part of the Exhibitor, and provided the Exhibitor shall not, at the time of the occurrence of such damage or destruction, be in default in respect to the terms of this agreement, upon written request of the Exhibitor, Products (except as provided in Section 13) will at its own expense repair the Equipment or, at its option, furnish replacing Western Electric sound equipment then available to Products equivalent in type and condition to the Equipment thus damaged or destroyed.

(b) The Exhibitor, at its own expense, shall install all parts and replacing equipment furnished by Products in accordance with the provisions of this section, in such manner as to comply with all laws, rules, ordinances, and regulations pertaining to electrical installations of such equipment; shall furnish

Digitized by Google

all necessary labor and facilities, including, but not by way of limitation, a suitable source of electric power supply with outlets conveniently located for the equipment, supports for horns, a screen satisfactory to Products as to its acoustic properties, suitable space properly ventilated for the installation of storage batteries and charging equipment or other power equipment and shall make such other alterations and modifications in and to the Theatre, including furnishing of drapes for acoustic purposes, as may be necessary for the proper installation and operation of the Equipment. Replacing equipment and major replacement parts furnished under the provisions of this section shall be installed under Products' supervision and all equipment and parts thus furnished shall be installed in accordance with instructions furnished by Products. All preliminary and installation work done and material furnished by the Exhibitor and its agents or servants shall be subject to approval by Products. Approval of installation work or material shall in no event subject Products to responsibility or liability of any kind or nature. Except as herein otherwise provided, the Exhibitor shall provide and pay for all material and services required in preparation for and in connection with the installation of replacing equipment and parts.

(c) In the event that the Equipment or a major portion thereof shall be replaced by Products as provided in this section, Products shall provide an engineer, and, if deemed necessary by Products, a projectionist, to inspect the preliminary work done by the Exhibitor and to supervise the installation of the replacing equipment. Notice from the Exhibitor that the replacing equipment has been received and that the Theatre will be ready for installation of said equipment on a definite date shall be delivered to Products not less than three (3) days prior to said date, and Products shall make every reasonable effort to have its engineer at the Theatre on said date. The services of said engineer, and projectionist if required, will be furnished without additional cost to the Exhibitor for a continuous period not to exceed three (3) days. If the preliminary work done by the Exhibitor is not ready for inspection, or said work is not advanced sufficiently to permit the installation of the equipment upon the date that the engineer shall arrive at the Theatre, or if supervisory services shall be required for a period in excess of three (3) days, or otherwise than for a continuous period, the Exhibitor shall pay Products its standard charge of Thirty-five ($35.00) Dollars per man per day or fraction thereof for any period in excess of three (3) days, including time consumed in transit, together with any additional expenses which Products may have incurred by reason of said services being required otherwise than for a continuous period. In the event of the Equipment being damaged or destroyed as aforesaid, the weekly charges payable hereunder shall abate pro rata from the date of the damage or destruction until the Equipment shall have been repaired or replaced by Products. Upon any repair or replacing equipment being furnished by Products in accordance with the provisions of this section, all of the provisions of this agreement shall apply to such replacing equipment and the original term of this agreement shall be extended for an interval equivalent to the period or periods of abatement. Except as herein otherwise provided, the Equipment shall be held at the sole risk of the Exhibitor.

7. *Title.*—Products shall retain title to all equipment, repair and replacement parts, tools, drawings, and printed or written data applicable thereto. All such equipment and accessories shall at all times be and remain personal property, notwithstanding the manner or method of its attachment to any real property.

8. *Patent Protection.*—Products shall defend at its own expense all suits alleging infringement of any United States patent by reason of the use of any apparatus or material furnished hereunder, as and for the purposes furnished, and will save the Exhibitor harmless from all expenses of defending said suits and from all payments which by final judgment the Exhibitor may be required to pay to the complainant as damages, profits, or costs on account of such infringement; and if such use shall be prevented by injunction in such suit, Products may, within thirty (30) days from the date any such injunction becomes effective, at its option, replace said apparatus or material with suitable non-infringing apparatus or material, or modify it so that it will not infringe, or procure for the Exhibitor the right to continue to use the same, and if Products does not within said thirty (30) days thus replace or modify the apparatus or material or procure for the Exhibitor the right to continue to use the same, either party may upon thirty (30) days' written notice terminate this agreement, but such termination shall not relieve Products of its obligations

Digitized by Google

hereunder with respect to infringements alleged to have occurred theretofore or relieve the Exhibitor of any of its obligations which accrued prior to such termination; provided however, and all of the obligations of Products in this paragraph contained are upon condition that Products shall be given immediate written notice of all claims of such infringement and of all such suits and full opportunity and authority to assume the sole defense thereof, including appeals, and shall be furnished (at Products' request) all information and assistance available to the Exhibitor for such defense; and provided further, that the obligations of Products referred to in this section shall not apply to uses of said apparatus in combination with other apparatus or parts not furnished by Products and that the liability of Products hereunder shall in no event exceed the total amount paid hereunder by the Exhibitor to Products. If, at the time of commencement of any suit against the Exhibitor alleging patent infringement, the Exhibitor is in default hereunder, Products shall not be subject to the obligations referred to in this section, but the obligations of the Exhibitor to notify Products and to furnish information and assistance shall continue in effect, notwithstanding such default of the Exhibitor, and Products at its option may undertake the defense of any such suit and in such event Products' liability shall be limited to the obligations set forth in the first sentence of this paragraph. The liability of Products for any infringement shall be limited to the agreements herein contained.

9. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all personal property and license taxes which may be charged or levied in connection with or which may apply to any equipment furnished hereunder, and the Exhibitor shall reimburse Products for any such taxes which Products may be required to pay.

10. *Abatement of Charges.*—(a) If during any annual period of the term hereof, the Exhibitor shall close the Theatre temporarily and cease to use the Equipment for a continuous period of not less than one (1) week and shall give Products not less than ten (10) days' written notice of intention to cease using the Equipment and a similar notice of intention to resume the use thereof, Products will abate the weekly charges payable hereunder during the continuous period that the Equipment is thus inoperative, commencing with the first full week following the week in which the Theatre is closed, but such abatement shall not be effective for more than thirteen (13) weeks during any annual period.

(b) Products, at its option, may seal the Equipment during any period that it is inoperative. If Products shall have sealed the Equipment and it shall be unsealed other than by authority of Products, it shall be deemed to have been in use for the purpose of determining charges payable hereunder. Notices referred to in this section shall be mailed to Products' office at New York, New York, Chicago, Illinois, or Los Angeles, California, whichever office is nearest the Exhibitor.

11. *Default.*—At the option of Products this agreement and the rights of the Exhibitor hereunder shall terminate in the event of any breach or default on the part of the Exhibitor, or upon the insolvency of the Exhibitor, or upon the filing of any petition in bankruptcy by or against the Exhibitor, or upon the making of an assignment of any of the Exhibitor's assets for the benefit of creditors, or upon any application for the appointment of a receiver of the property and assets of the Exhibitor, or upon the commencement of any action, suit, or proceeding against the Exhibitor in respect of the title to, or right to possession of, the Theatre, or (except as provided in Section 10), upon the Exhibitor ceasing to operate the Theatre, or upon the issue or levy of any attachment or the filing of, or attempt to assert or enforce, any lien which might in any manner affect Products' title to, or right to possession of any apparatus or equipment furnished hereunder. The provisions respecting repair and replacement of damaged or destroyed equipment, patent protection and abatement of charges, as referred to in Sections 6, 8, and 10, are conditional upon the Exhibitor not being in default at the time of an occurrence which would normally make the provisions of said sections operative. Without limitation of the provisions of this section, the Exhibitor shall be deemed in default at any time that payments hereunder shall be in arrears for a period of two (2) weeks or more.

12. *Repossession of Equipment.*—Upon any termination of this agreement the Exhibitor shall surrender to Products, in good order and condition reasonable wear and tear only excepted, the Equipment together with all repair and

Digitized by Google

replacement parts (other than exhausted consumable parts such as vacuum tubes, photoelectric cells, and exciting lamps), tools, and other accessories which shall have been furnished by Products.

13. *Term.*—The original term of this agreement and the license herein granted shall be three (3) years and a period equal to any period or periods of abatement of charges hereunder, commencing on the date of commencement referred to in paragraph (a), Section 2.

The following options shall be available to the Exhibitor, provided however, that if payments hereunder are to be made in accordance with Plan 2 of Section 2, then the said options shall be available only at such time as all of the payments required to be made during the *First Period* of said Plan 2, shall have been paid in full.

Option A.—At the expiration of the first year of the term hereof, but if there shall have been an abatement of charges during said first year, only at such time as Fifty-two (52) weekly payments shall have been made to Products hereunder, the Exhibitor may *either* terminate this agreement and surrender the Equipment to Products *or* pay Products the sum of ($) Dollars, in addition to the other charges payable hereunder prior to the date of such payment and thereafter continue the lease of the Equipment for a period of fifteen (15) years at an annual rental of One ($1.00) Dollar, subject to the conditions hereinafter set forth.

Option B.—At the expiration of the second year of the term hereof, but if there shall have been an abatement of charges during the first two (2) years, only at such time as One hundred and four (104) weekly payments shall have been made to Products hereunder, the Exhibitor may *either* terminate this agreement and surrender the Equipment to Products *or* pay Products the sum of ($) Dollars, in addition to the other charges payable hereunder prior to the date of such payment and thereafter continue the lease of the Equipment for a period of fifteen (15) years at an annual rental of One ($1.00) Dollar, subject to the conditions hereinafter set forth.

Option C.—At the expiration of the third year of term hereof, but if there shall have been an abatement of charges during the first three (3) years, only at such time as One hundred and fifty-six (156) weekly payments shall have been made to Products, the Exihibitor may *either* terminate this agreement and surrender the Equipment to Products *or* continue the lease of the Equipment for a period of fifteen (15) years at an annual rental of One ($1.00) Dollar, subject to the conditions hereinafter set forth.

If the Exhibitor shall desire to exercise Option A, B, or C, it shall give Products written notice of intention so to do, not less than sixty (60) days prior to the effective date of any of said options. If any of such options shall be exercised, Products shall be under no further obligations to inspect, test or adjust the Equipment, to repair or replace the Equipment in the event of any damage or destruction, to furnish any patent protection, or to fulfill any other obligations hereinabove set forth respecting said Equipment, whether or not similar to the foregoing.

If upon the expiration of the original term the Exhibitor shall not have exercised Options A, B, or C, this agreement shall continue in effect after the original term until either party shall serve upon the other a sixty (60) day written notice of intention to terminate and such notice may be served by either party at any time after the expiration of the original term.

14. *General Provisions.*—(a) None of the provisions of this agreement shall be construed as prohibiting the Exhibitor from taking any reasonable action to protect or repair the Equipment in the event of an accident or breakdown. The Exhibitor shall notify Products immediately by registered mail of any unsatisfactory functioning of the Equipment and the absence of such notification shall be conclusive as to the Equipment functioning satisfactorily. The Exhibitor, at its own expense, shall obtain all necessary permits and do all other acts and things required by all laws, ordinances, and regulations relating to the maintenance, operation, and use of the Equipment, or any part thereof, and comply with any fire insurance underwriters' requirements relating thereto. Upon proper identification, the Exhibitor shall provide access for Products' representatives at all reasonable hours for all purposes referred to herein which may require such access. If in connection with any operation conducted by Products hereunder, it shall be necessary for any of the Exhibitor's employees to be in attendance at the Theatre, any charges for the services of such employees shall be borne by the Exhibitor.

Digitized by Google

(b) The time of all payments herein provided for shall be of the essence of this agreement.

(c) Upon any termination of this agreement Products shall retain and may enforce any and all claims and rights of action against the Exhibitor, which it may then possess arising out of any default by the Exhibitor hereunder or any indebtedness then due to Products which accrued under the provisions of this agreement.

(d) The agreement originally entered into between the Exhibitor and Products with respect to the furnishing and use of the Equipment and all agreements supplemental and amendatory thereto shall terminate as of the date of commencement of the term of this agreement and all obligations of said parties under said agreements are hereby released and forever discharged.

(e) This agreement shall not be assigned by the Exhibitor without Products' written consent. Subject to such restriction upon assignment by the Exhibitor, it shall be binding upon the parties and their respective successors, assigns, and legal representatives.

(f) The entire understanding of the parties with respect to the subject matter of this agreement is expressed herein and the construction and performance thereof shall be governed by the laws of the State of New York.

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers or agents in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,

By _____

Vice-President, Treasurer, Authorized Agent.

_____

Exhibitor.

By _____

Products' witness signs here:

_____

Exhibitor' witness signs here:

_____

WAIVER

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named and of the payment by Electrical Research Products Inc. of the sum of One ($1.00) Dollars, receipt of which is hereby acknowledged, the undersigned partles having an interest in the Theatre referred to in said agreement as owner or lessor thereof, hereby consent(s) to the installation of said Equipment and waive(s) any and all rights or claims thereto of whatsoever kind or nature which I/we have or may hereafter acquire as landlord(s) of said Theatre, which might or could in any manner interfere with any rights of Electrical Research Products, Inc. in or to said Equipment.

Dated this_____day of_____, 193__.

_____

Owner of Theatre.

_____

Lessor of Theatre (other than Owner).

This agreement made in triplicate at New York, New York, this_____ day of_____193__, by Electrical Research Products, Inc., a Delaware corporation of No. 250 West 57th Street, New York, New York (hereinafter called "Products"), and_____ a _____ _____corporation of No_____ Street/Avenue, City of_____, State of _____ (hereinafter called the "Exhibitor"), the operator of the_____ Theatre at No_____ Street/Avenue, City of_____, State of _____ (hereinafter called the "Theatre");

Witnesseth, that in consideration of the covenants and conditions herein set forth, the parties agree as follows:

1. *Lease of Equipment and Grant of License.*—Products hereby leases to the Exhibitor and the Exhibitor hereby hires from Products a Western Electric

Digitized by Google

Sound Reproducing Equipment (hereinafter called the "Equipment") and Products hereby grants to the Exhibitor, subject to the terms, conditions, and limitations herein contained, a non-exclusive, non-assignable license to use the Equipment in the Theatre, solely for the electrical reproduction of sound in connection with or incidental to the exhibition of motion pictures and to employ to the extent necessarily involved in such use of said Equipment, the methods and systems of Products covered by all United States patents and applications for United States patents relating to said Equipment or to such use thereof, in respect of which Products now has, or during the term of this agreement may acquire, the right to grant such license. The Exhibitor shall operate the Equipment in manner approved by Products from time to time and shall not, without Products' approval, or otherwise than under its supervision, change or modify any circuits, or electrical or mechanical features of the Equipment, or break any seal which may be placed thereon. The Equipment to be furnished hereunder is:_____

_____

2. *Charges.*—(a) The Exhibitor shall pay to Products the sum of_____ _____($_____) Dollars upon submission of this agreement for acceptance and a like sum on each and every Saturday commencing on the first Saturday of the term hereof as fixed by the provisions of Section 16. The foregoing charges shall be paid by the Exhibitor subject only to the abatements hereinafter provided for and to curtailment of such charges in the event that the Exhibitor shall elect to continue to use the Equipment at an annual rental of One ($1.00) Dollar in accordance with Options A, B, or C, referred to in Section 16.

(b) In addition to the charges referred to in paragraph (a) of this section, the Exhibitor shall pay all transportation and handling charges on all equipment and parts therefor which may be furnished hereunder and shall arrange for any trucking and handling necessary to effect delivery of the Equipment to the Theatre.

3. *Shipment of Equipment.*—The Equipment shall be furnished f. o. b. Products' warehouse at_____, and shall be shipped on or before _____, 193__. Products shall not be responsible for any inconvenience or damage resulting from failure to ship the Equipment on or before the aforementioned date.

4. *Facilities for Installation.*—Prior to the installation of the Equipment, the Exhibitor shall make available a suitable source of electric power supply, with outlets conveniently located for the Equipment, shall provide supports for horns, a screen satisfactory to Products as to its acoustic properties, suitable space properly ventilated for the installation of storage batteries and charging equipment or other power equipment and shall make such other alterations and modifications in and to the Theatre, including furnishing of drapes for acoustic purposes, as may be necessary for the proper installation and operation of the Equipment.

5. *Installation of Equipment.*—(a) The Exhibitor shall install the Equipment at its own expense in such manner as to comply with all laws, rules, ordinances, and regulations pertaining to electrical installations of this character. The installation shall be made in accordance with instructions furnished by Products and under Products' supervision. All preliminary and installation work done and material furnished by the Exhibitor and its agents or servants shall be subject to approval by Products and the Equipment shall not be used for a public performance until the installation thereof shall have been approved by Products. Approval of installation work or material shall in no event subject Products to responsibility or liability of any kind or nature. Except as herein otherwise specifically provided, the Exhibitor shall provide and pay for all material and services required in preparation for and in connection with the installation of the Equipment.

(b) Products shall provide an engineer, and if deemed necessary by Products a projectionist, to inspect the preliminary work done by the Exhibitor and to supervise the installation of the Equipment. Notice from the Exhibitor that the Equipment has been received and that the Theatre will be ready for installation of the Equipment on a definite date shall be delivered to Products not less than three (3) days prior to said date and Products shall make every reasonable effort to have its engineer at the Theatre on said date. The services of said engineer, and projectionist if required, will be furnished without additional cost to the Exhibitor for a continuous period not to exceed three (3) days. If the preliminary work to be done by the Exhibitor is not ready for-

Digitized by Google

inspection, or said work is not sufficiently advanced to permit the installation of the Equipment upon the date that the engineer shall arrive at the Theatre, or in the event that supervisory services shall be required for a period in excess of three (3) days, or otherwise than for a continuous period, the Exhibitor shall pay to Products its standard charge of Thirty-five ($35.00) Dollars per man per day or fraction thereof for any period in excess of three (3) days, including time consumed in transit, together with any additional expense which Products may have incurred by reason of said services being required otherwise than for a continuous period. At the time of installation Products shall instruct the motion pictures operators of the Exhibitor in the manner and method of operating the Equipment for a period not to exceed three (3) days.

6. *Inspection of Equipment.*—(a) At the time of installation, Products will determine by tests and adjustments of the Equipment as installed, the normal limits of gain, frequency response, and output power level within which the Equipment will, in its judgment, give the best quality of sound reproduction in the Theatre under average audience conditions, and shall furnish to the Exhibitor a transmission test report setting forth such normal limits.

(b) From time to time during the term of this agreement (except as provided in Section 16), Products shall inspect, test, and adjust the Equipment and furnish the Exhibitor with transmission test reports for comparison with the standards established under paragraph (a). When such inspection shows any material deviation in the performance of the Equipment from the established standards, Products shall inform the Exhibitor's employees regularly engaged in the operation of the Equipment of the steps that should be taken to obtain the standards of quality which have been established as normal.

(c) If Products shall be called upon by the Exhibitor to make special service calls or otherwise provide service and inspection facilities beyond the service and inspection provided for in paragraphs (a) and (b) above, and such services shall be found to have been required because of faulty operation of the Equipment occasioned by the use of parts not furnished by Products, or by reason of misuse or abuse of the Equipment or failure of the Exhibitor to safeguard the Equipment properly, or to operate it in the manner approved by Products, Products may charge the Exhibitor in addition to the weekly charges referred to in Section 2, for any services thus rendered Five ($5.00) Dollars per man per hour or fraction thereof, including time consumed in transit, together with any expenses and transportation charges incurred in furnishing such services.

7. *Liability for Interruption, Injuries, Etc.*—Nothing herein contained shall be construed as a guaranty by Products of uninterrupted functioning of the Equipment and Products shall not be responsible in any manner for any damage to or interruption in the operation of the Theatre or any equipment therein, or for any injury, loss, or damage to persons or property in the Theatre, arising from any cause whatever and the Exhibitor shall save Products harmless from any such liability, except for injury to Products' employees.

8. *Additional Parts, Etc.*—Products shall furnish such repair and replacement parts as it is in a position to furnish and as the Exhibitor may order, at its rental charges in effect at the time of receipt of orders therefor. The Exhibitor shall pay Products' charges for any parts thus furnished and any other charges the due date of which is not definitely fixed, either at the time of delivery of said parts or, at Products' option, upon rendition of billing.

9. *Damage or Destruction of Equipment.*—If the Equipment while installed in the Theatre shall be damaged or destroyed by extraneous fire, or by earthquake, tornado, or other act of God, without fault or neglect on the part of the Exhibitor, and provided the Exhibitor shall not, at the time of the occurrence of such damage or destruction, be in default in respect of the terms of this agreement, and shall continue to operate the Theatre, or shall resume the operation thereof at its original location during the term of this agreement, upon written request of the Exhibitor, Products (except as provided in Section 16), will at its own expense repair the Equipment or, at its option, furnish replacing Western Electric sound equipment then available to Products equivalent in type and condition to the Equipment thus damaged or destroyed. The Exhibitor, at its own expense, shall furnish all necessary facilities and labor and shall install all parts and replacing equipment furnished by Products in accordance with the provisions of this section. Such parts and replacing equipment shall be installed under Products' supervision and in the event of Products' supervisory services being required for a period in

Digitized by Google

excess of three (3) days, the Exhibitor shall pay Products' charge for any services thus rendered at the per diem rate plus the additional expenses referred to in paragraph (b), Section 5 hereof. In the event of damage or destruction of the Equipment as aforesaid, the weekly charges payable hereunder shall abate pro rata from the date of the damage or destruction until the Equipment shall have been repaired or replaced by Products. Upon any repair or replacing equipment being furnished by Products in accordance with the provisions of this section, the Exhibitor shall provide facilities for the installation of such equipment in the same manner as provided in Section 4; all of the provisions of this agreement shall apply to such replacing equipment and the original term of this agreement shall be extended for an interval equivalent to the period or periods of abatement. Except as herein otherwise provided, the Equipment shall be held at the sole risk of the Exhibitor.

10. *Title.*—Products shall retain title to all equipment, repair, and replacement parts, tools, drawings, and printed or written data applicable thereto. All such equipment and accessories shall at all times be and remain personal property notwithstanding the manner or method of its attachment to any real property.

11. *Patent Protection.*—Products shall defend at its own expense all suits alleging infringement of any United States patent by reason of the use of any apparatus or material furnished hereunder, as and for the purposes furnished, and will save the Exhibitor harmless from all expenses of defending said suits and from all payments which by final judgment the Exhibitor may be required to pay to the complainant as damages, profits, or costs on account of such infringement; and if such use shall be prevented by injunction in such suit, Products may, within thirty (30) days from the date any such injunction becomes effective, at its option, replace said apparatus or material with suitable noninfringing apparatus or material, or modify it so that it will not infringe, or procure for the Exhibitor the right to continue to use the same, and if Products does not within said thirty (30) days thus replace or modify the apparatus or material or procure for the Exhibitor the right to continue to use the same, either party may upon thirty (30) days' written notice terminate this agreement, but such termination shall not relieve Products of its obligations hereunder with respect to infringements alleged to have occurred theretofore or relieve the Exhibitor of any of its obligations which accrued prior to such termination; provided, however, and all of the obligations of Products in this paragraph contained are upon condition that Products shall be given immediate written notice of all claims of such infringement and of all such suits and full opportunity and authority to assume the sole defense thereof, including appeals, and shall be furnished (at Products' request) all information and assistance available to the Exhibitor for such defense; and provided further, that the obligations of Products referred to in this section shall not apply to uses of said apparatus in combination with other apparatus or parts not furnished by Products and that the liability of Products hereunder shall in no event exceed the total amount paid hereunder by the Exhibitor to Products. If, at the time of commencement of any suit against the Exhibitor alleging patent infringement, the Exhibitor is in default hereunder, Products shall not be subject to the obligations referred to in this section, but the obligations of the Exhibitor to notify Products and to furnish information and assistance shall continue in effect, notwithstanding such default of the Exhibitor, and the defense of any such suit and in such event Products' liability shall be limited to the obligations set forth in the first sentence of this paragraph. The liability of Products for any infringement shall be limited to the agreements herein contained.

12. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all personal property and license taxes which may be charged or levied in connection with or which may apply to any equipment furnished hereunder, and the Exhibitor shall reimburse Products for any such taxes which Products may be required to pay.

13. *Abatement of Charges.*—(a) If during any annual period of the term hereof the Exhibitor shall close the Theatre temporarily and cease to use the Equipment for a continuous period of not less than one (1) week and shall give Products not less than ten (10) days' written notice of intention to cease using the Equipment and a similar notice of intention to resume the use thereof, Products will abate the weekly charges payable hereunder during the continuous period that the Equipment is thus inoperative, commencing with the

Digitized by Google

first full week following the week in which the Theatre is closed, but such abatement shall not be effective for more than thirteen (13) weeks during any annual period.

(b) Products, at its option, may seal the Equipment during any period that it is inoperative. If Products shall have sealed the Equipment and it shall be unsealed other than by authority of Products, it shall be deemed to have been in use for the purpose of determining charges payable hereunder. Notices referred to in this section shall be mailed to Products' office at New York, New York, Chicago, Illinois, or Los Angeles, California, whichever office is nearest the Exhibitor.

14. *Default.*—At the option of Products this agreement and the rights of the Exhibitor hereunder shall terminate in the event of any breach or default on the part of the Exhibitor, or upon the insolvency of the Exhibitor, or upon the filing of any petition in bankruptcy by or against the Exhibitor or upon the making of an assignment of any of the Exhibitors' assets for the benefit of creditors, or upon any application for the appointment of a receiver of the property and assets of the Exhibitor, or upon the commencement of any action, suit, or proceeding against the Exhibitor in respect of the title to, or right to possession of, the Theatre, or (except as provided in Section 13), upon the Exhibitor ceasing to operate the Theatre, or upon the issue or levy of any attachment or the filing of, or attempt to assert or enforce, any lien which might in any manner affect Products' title to, or right to possession of any apparatus or equipment furnished hereunder. The provisions respecting repair and replacement of damaged or destroyed equipment, patent protection, and abatement of charges, as referred to in Section 9, 11, and 13, are conditional upon the Exhibitor not being in default at the time of an occurrence which would normally make the provisions of said sections operative. Without limitation of the provisions of this section the Exhibitor shall be deemed in default at any time that payments hereunder shall be in arrears for a period of two (2) weeks or more.

15. *Repossession of Equipment.*—Upon any termination of this agreement the Exhibitor shall surrender to Products, in good order and condition reasonable wear and tear only excepted, the Equipment together with all repair and replacement parts (other than exhausted consumable parts such as vacuum tubes, photoelectric cells, and exciting lamps), tools, and other accessories which shall have been furnished by Products.

16. *Term.*—The original term of this agreement and the license herein granted shall be three (3) years and a period equal to any period or periods of abatement of charges hereunder, commencing on the day upon which the Equipment is first used for a public performance, or the day which Products shall certify to the Exhibitor that the Equipment is available for public performances, whichever date be the earlier; provided, however, that the term hereof and the payments to Products hereunder (other than the payment tendered upon submission of this agreement) shall commence not later than thirty (30) days after the date of shipment of the Equipment.

The following options shall be available to the Exhibitor:

Option A.—At the expiration of the first year of the term hereof, but if there shall have been an abatement of charges during said first year, only at such time as Fifty-two (52) weekly payments shall have been made to Products hereunder, the Exhibitor may *either* terminate this agreement and surrender the Equipment to Products *or* pay Products the sum of _____ ($_____) Dollars, in addition to the other charges payable hereunder prior to the date of such payment and thereafter continue the lease of the Equipment for a period of fifteen (15) years at an annual rental of One ($1.00) Dollar, subject to the conditions hereinafter set forth.

Option B.—At the expiration of the second year of the term hereof, but if there shall have been an abatement of charges during the first two (2) years, only at such time as One hundred and four (104) weekly payments shall have been made to Products hereunder, the Exhibitor may *either* terminate this agreement and surrender the Equipment to Products *or* pay Products the sum of _____ ($_____) Dollars, in addition to the other charges payable hereunder prior to the date of such payment and thereafter continue the lease of the Equipment for a period of fifteen (15) years at an annual rental of One ($1.00) Dollar, subject to the conditions hereinafter set forth.

Option C.—At the expiration of the third year of the term hereof, but if there shall have been an abatement of charges during the first three (3) years,

Digitized by Google

only at such time as One hundred and fifty-six (156) weekly payments shall have been made to Products, the Exhibitor may *either* terminate this agreement and surrender the Equipment to Products *or* continue the lease of the Equipment for a period of fifteen (15) years at an annual rental of One ($1.00) Dollar, subject to the conditions hereinafter set forth.

If the Exhibitor shall desire to exercise Options A, B, or C, it shall give Products written notice of intention so to do, not less than sixty (60) days prior to the effective date of any of said options. If any of such options shall be exercised, Products shall be under no further obligation to inspect, test, or adjust the Equipment, to repair or replace the Equipment in the event of any damage or destruction, to furnish any patent protection, or to fulfill any other obligations hereinabove set forth respecting said Equipment, whether or not similar to the foregoing.

If upon the expiration of the original term the Exhibitor shall not have exercised Options A, B, or C, this agreement shall continue in effect after the original term until either party shall serve upon the other a sixty (60) day written notice of intention to terminate and such notice may be served by either party at any time after the expiration of the original term.

17. General Provisions.—(a) None of the provisions of this agreement shall be construed as prohibiting the Exhibitor from taking any reasonable action to protect or repair the Equipment in the event of an accident or breakdown. The Exhibitor shall notify Products immediately by registered mail of any unsatisfactory functioning of the Equipment and the absence of such notification shall be conclusive as to the Equipment functioning satisfactorily. The Exhibitor, at its own expense, shall obtain all necessary permits and do all other acts and things required by all laws, ordinances, and regulations relating to the maintenance, operation, and use of the Equipment, or any part thereof, and comply with any fire insurance underwriters' requirements relating thereto. Upon proper identification, the Exhibitor shall provide access for Products' representatives at all reasonable hours for all purposes referred to herein which may require such access. If in connection with any operation conducted by Products hereunder, it shall be necessary for any of the Exhibitor's employees to be in attendance at the Theatre, any charges for the services of such employees shall be borne by the Exhibitor.

(b) The time of all payments herein provided for shall be of the essence of this agreement.

(c) This agreement shall not be assigned by the Exhibitor without Products' written consent. Subject to such restriction upon assignment by the Exhibitor, it shall be binding upon the parties and their respective successors, assigns, and legal representatives.

(d) The entire understanding of the parties with respect to the subject matter of this agreement is expressed herein and the construction and performance thereof shall be governed by the laws of the State of New York.

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers or agents in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,
By_____,
Vice-President, Treasurer, Authorized Agent.

Products' witness signs here:
_____

_____,
Exhibitor.

Exhibitor's witness signs here:
_____

WAIVER

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named and of the payment by Electrical Research Products, Inc., of the sum of One ($1.00) Dollar, receipt of which is hereby acknowledged, the undersigned parties having an interest in the Theatre referred to in said agreement as owner or lessor thereof, hereby consent(s) to the installation of said Equipment and waive(s) any and all rights or claims thereto of whatsoever kind or nature which I/we have or may hereafter acquire as landlord(s) of said Theatre, which might or could

Digitized by Google

in any manner interfere with any rights of Electrical Research Products, Inc., in or to said Equipment.

Dated this _____ day of _____, 193__.

_____,
Owner of Theatre.

_____,
Lessor of Theatre (other than Owner).

3310 S. T. R.

This agreement, made in triplicate at New York, N. Y., this _____ day of _____, 193__, by Electrical Research Products, Inc. (subsidiary of Western Electric Company, Incorporated), a Delaware corporation, having its principal place of business at 250 West 57th Street, New York, N. Y. (hereinafter called "Products"), and _____ a _____ corporation having its principal place of business at No. _____ Street/Avenue, in the City of _____, State of _____ (hereinafter called the "Exhibitor"), the operator of the _____ Theatre, at No. _____ Street/Avenue, in the city of _____, State of _____ (hereinafter called the "Theatre"):

Witnesseth, that, for and in consideration of the covenants and conditions herein set forth, the parties hereto agree as follows:

1. (a) *Grant of License and Furnishing of Equipment.*—Products hereby agrees to furnish a used Western Electric Sound Equipment (hereinafter called the "Equipment"), and hereby grants to the Exhibitor, subject to all the terms, conditions, and limitations herein contained, a non-exclusive, non-assignable license to use the Equipment in the Theatre for the electrical reproduction of sound in connection with or as incidental to, the exhibition of motion pictures, or any performance given in conjunction therewith, and to employ to the extent necessarily involved in such use of said Equipment the methods and systems of Products, under all United States patents and applications for United States patents, relating to said Equipment or to such use thereof, which are now owned or controlled, or which may during the term of this agreement be owned or controlled by Products, or in respect of which it has or may hereafter during the term of this agreement have the right to grant such license. The Equipment to be furnished hereunder is as follows:

_____

(b) *Shipment of Equipment.*—Said Equipment shall be furnished f. o. b. _____ and Products will ship the Equipment on or about _____, 193__. Nothing herein contained shall be considered as a firm agreement on the part of Products to ship the Equipment on or before said date, it being understood that the extent of the obligation of Products in this respect is limited to using its best efforts to procure expeditiously the manufacture and shipment of the Equipment. Products shall not be liable for damages resulting from failure to ship the Equipment at the time stipulated herein.

2. *Rental.*—(a) As rental for the first week or part thereof of the term of this agreement the Exhibitor shall pay to Products herewith _____ ($_____) Dollars. Thereafter the Exhibitor shall pay to Products as rental throughout the term hereof the sum of _____ ($_____) Dollars per week, provided, however, that rental payable for the weeks falling within the period commencing with the _____ Sunday of _____ of each year and ending with the Saturday of the thirteenth (13th) week thereafter shall be the sum of _____ ($_____) Dollars per week. The charges above referred to, other than the payment tendered herewith, shall be payable for each week in advance on Saturday of the preceding week. The term "week" as used herein shall be deemed to mean a period of seven (7) days, commencing at midnight on Saturday and ending at midnight on the following Saturday.

(b) If the Theatre shall be closed for a minimum period of four (4) weeks and if the Equipment shall have been sealed for shut-down by Products pursuant to the written request of the Exhibitor, the rental payable hereunder shall be reduced, commencing with the second full week of the shut-down period and ending on the Saturday prior to the last full week of said shut-down period, to sixty-six and two-thirds (66⅔%) percent of the rental which would otherwise be payable during said period; provided, however, that the Exhibitor

Digitized by Google

shall not be entitled to the benefit of the reduced rental above referred to during any shut-down period or periods exceeding in the aggregate six (6) months during any year of the term hereof. If the Exhibitor desires Products to seal the Equipment for shut-down, it shall give Products not less than fourteen (14) days' written notice, which shall specify the date when the Equipment is to be shut-down, and upon the date so specified, or as soon thereafter as it can conveniently do so, Products shall seal the Equipment and may take such steps for the protection of the Equipment during the shut-down period as it may deem desirable. When the Exhibitor desires to resume the use of the Equipment it shall give Products not less than fourteen (14) days' written notice, specifying the date upon which it desires that the Equipment be unsealed, and if the Exhibitor shall not be in default under the terms of this agreement, Products shall unseal the Equipment on or prior to the date specified by the Exhibitor, and restore it to operating condition insofar as it may have been affected by any steps taken by Products for the protection of the Equipment while in shut-down condition. If any of the Equipment which has been sealed by Products shall be unsealed other than by authority of Products, the Equipment shall be deemed not to have been placed in a shut-down condition for the purpose of determining rentals payable hereunder. Products shall not be obligated to inspect the Equipment while it is in a shut-odwn condition, but may do so at its option. Notices referred to in this section shall be mailed to Products' office at New York, N. Y., Chicago, Ill., or Los Angeles, Cal., whichever office is nearest the exhibitor.

3. *Installation and use of Equipment.*—(a) The Equipment shall be installed by the Exhibitor at its own expense in strict accordance with installation specifications, which will be furnished by Products. All preliminary and installation work done and material furnished by the Exhibitor or its agents or servants shall be subject to inspection and approval by Products, and the Equipment shall not be used for public performances until the installation thereof shall have been approved by Products. Approval of installation work or material shall in no event subject Products to any responsibility or liability of any kind or nature not specifically assumed by it in this agreement. The Exhibitor, except as herein otherwise specifically provided, shall provide and pay for all services, material, and expenses required in preparation for and in connection with the installation of the Equipment.

Products shall provide an engineer and, if deemed necessary by Products a projectionist, to inspect the preliminary work to be done by the Exhibitor and to supervise the installation of the Equipment. Notice from the Exhibitor that the Equipment has been received and that the Theatre will be ready for the installation of the Equipment on a definite date shall be delivered to Products not less than three (3) days prior to said date, and Products shall make every reasonable effort to have its engineer at the Theatre on said date. The services of said engineer and projectionist, if required, will be furnished without additional cost to the Exhibitor for a period of two (2) days, and for such additional continuous period not exceeding _____ (____) days as Products shall deem requisite. If the preliminary work to be done by the Exhibitor is not ready for inspection, or said work is not sufficiently advanced to permit the installation of the Equipment upon the date that the engineer shall arrive at the Theatre, or in the event that supervisory services shall be required for a period in excess of the aforementioned maximum number of days, or otherwise than for a continuous period, the Exhibitor shall pay to Products its standard charge of Thirty-five ($35.00) Dollars per day per man for any period in excess of said maximum number of days, including time consumed in transit, together with any additional expense which Products may have incurred by reason of said services being required otherwise than for a continuous period.

(b) The Exhibitor recognizes that the Equipment is furnished by Products as a complete assemblage of mechanisms, electrical apparatus, and circuits, the construction and operation of which are highly technical, and that any changes or modifications may result in seriously impairing the quality of sound reproduction, thus injuring both the reputation of Products and the business of the Exhibitor. Therefore, in order to secure and insure satisfactory functioning of the Equipment the Exhibitor shall at all times during the term of this agreement operate the Equipment in the manner approved by Products from time to time and keep and maintain the Equipment in good condition and repair, and shall not, without the written consent of Products, or otherwise than under its supervision, move, alter, change, or modify the Equipment. The Exhibitor shall not, without the written consent of Products, add anything to

Digitized by Google

the Equipment or take anything therefrom, or break the seal upon any part or collection of parts which is or may be sealed by Products, except that nothing herein contained shall be construed as prohibiting the Exhibitor from taking any reasonable steps consistent with the general intent hereof, either alone or together with Products, to protect, correct, or repair the Equipment in the event of an accident or breakdown, or as preventing the Exhibitor from replacing defective or worn-out parts. If the Exhibitor shall itself take any action with respect to the correction or repair of the Equipment, it shall immediately notify Products in writing, giving full details of the action thus taken. If at any time the Equipment fails to function satisfactorily the Exhibitor shall notify Products immediately by registered mail, and the absence of such notification shall be conclusive as to satisfactory functioning of the Equipment. The Exhibitor shall use and employ the Equipment only in the Theatre, and shall at its own expense obtain all necessary permits, and comply with all laws and ordinances in effect throughout the term of this agreement relating to the maintenance, use, and operation of the Equipment or any part thereof, and with any fire insurance underwriters' requirements relating thereto.

4. *Instruction of Operators and Inspection of Equipment.*—At the time of installation Products agrees to instruct the motion picture operators of the Exhibitor in the manner and method of operating the Equipment for a period of _____ (_____) days and for such additional continuous period not exceeding_____ (_____) days as Products shall deem requisite. Products shall from time to time, during the term of this agreement, inspect the Equipment furnished by it, and make minor adjustments thereto. The character and frequency of such inspection shall accord with such practice as shall from time to time have been found to be required for the maintenance and normal operation of similar installations leased for the same general purposes as those referred to in Section 1 hereof. Products shall make no charge for such service and inspection in addition to the rental specifically provided for in this agreement, provided, however, that if the service and inspection facilities of Products are required by reason of misuse or abuse of the Equipment, or by reason of the Exhibitor's failure to safeguard the Equipment properly, or to use the same in a reasonably careful and prudent manner, the Exhibitor, upon receipt of billing therefor, shall pay to Products Thirty-five ($35.00) Dollars per day per man plus any expenses and transportation charges incurred for any services thus required.

5. *Transportation Charges.*—The Exhibitor shall pay direct to the carrier, truckman, or other transportation agency, all freight, express, trucking, and handling charges on all equipment or parts therefor which may be furnished hereunder.

6. *Additional Parts, Special Service, etc.*—Products shall render to the Exhibitor such special services relating to the Equipment or the Theatre as Products is in a position to render, and as the Exhibitor may order. Products shall furnish such repair and replacement parts as it is in a position to furnish, and as the Exhibitor may order, at its rental charges in effect at the time of receipt of orders therefor. The Exhibitor shall pay Products' charges for any special services thus rendered, for any parts thus furnished, and any other charges the due date of which is not definitely fixed, either at the time of rendition of the services or delivery of said parts, or at Products' option, upon rendition of billing therefor by it. The time of payments herein provided for shall be of the essence of this agreement.

7. *Facilities for Installation and Operation.*—The Exhibitor warrants that the Theatre is, or before said Equipment is installed, will be, supplied with suitable electric current; electric power leads of suitable capacity with outlets conveniently located for power supply for the Equipment; suitable space, properly ventilated, for the installation of storage batteries and charging equipment or other power equipment; a screen having proper acoustic properties; drapes for acoustic purposes, and suitable horn supports. The Exhibitor shall make at its own expense such reasonable changes, alterations, and modifications in and to the Theatre as may be necessary for the proper installation of the Equipment.

8. *Title to Equipment.*—Title to and ownership of all equipment, repair, and replacement parts, tools, drawings, prints, and written descriptions and instructions furnished hereunder shall at all times be and remain vested in Products. All equipment furnished in accordance with the terms of this agreement shall at all times be and remain personal property, notwithstanding the manner or method of its attachment to any real property.

Digitized by Google

9. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all personal property taxes which may be charged or levied in connection with or which may apply to any equipment furnished hereunder, and the Exhibitor shall reimburse Products for any such taxes which Products may be required to pay.

10. *Access to Equipment.*—The Exhibitor shall provide access for Products' representatives, engineers, and mechanics to the Theatre at all reasonable hours, for the purpose of examining and inspecting the Equipment from time to time and for all other purposes referred to herein which may require such access.

11. *Liability for Interruption, Injuries, etc.*—Products shall not be responsible in any manner for any interruption in the operation of the Theatre or of any equipment therein arising from any cause whatsoever or for any loss, injury, or damage to persons or property in or upon the said premises for any reason whatsoever. The Exhibitor shall indemnify Products for and save it harmless from any liability for injury to persons handling, installing, or operating the Equipment (other than Products' employees) and from any liability to others resulting from negligence of such persons. The Exhibitor shall use every reasonable effort to prevent the filing of any liens for rent or material or for work, labor, or services which might in any manner affect equipment leased hereunder and shall discharge promptly any such liens which may be filed.

12. *Default.*—At the option of Products, this agreement and the rights of the Exhibitor hereunder shall terminate and come to and end in the event of any breach or default on the part of the Exhibitor with respect to any of the covenants and conditions herein contained on its part to be performed, or upon the insolvency of the Exhibitor or upon the filing of any petition in bankruptcy or upon any assignment of any of the Exhibitor's assets for the benefit of creditors, or upon the application for the appointment of a receiver of the property and assets of the Exhibitor, or upon the commencement of any action, suit or proceeding against the Exhibitor in the nature of ejectment, distress for rent, summary dispossession of any other action, suit or proceeding in respect of the title to or right to possession of the Theatre, or upon the issue or levy of any attachment or the filing of or attempt to assert or enforce any lien which might in any manner affect Products' title to or right to possession of any apparatus or equipment leased hereunder. The Exhibitor shall indemnify Products for any loss or damage suffered by Products as a result of the commencement or final determination of any action, suit or proceeding against the Exhibitor respecting the title to or right to possession of the Theatre, or the issue or levy of any attachment or the filing of, or attempt to assert or enforce any lien above referred to.

In the event of a default under any of the provisions of this agreement at any time during the term hereof, the rights and license herein granted to the Exhibitor may thereupon be suspended by Products serving a written notice of suspension on the Exhibitor or by depositing such notice in the United States mail, addressed to the Exhibitor at the Theatre; provided however, that such suspension shall not operate in any way to void or restrict Products' right of termination on account of such default.

13. *Destruction of Theatre or Equipment.*—In the event of the total destruction of the Theatre by fire, earthquake, tornado or other act of God, the rental payable hereunder shall be paid to the time of such destruction and this agreement shall cease and terminate as of the date of such destruction. If the Theatre be damaged as a result of the happening of any of the aforementioned events and the damage thereto is such that the Theatre is temporarily unavailable for use for the exhibition of motion pictures, but can be repaired or reconditioned, the rental payable hereunder shall abate during such period of time as is reasonably required for the reconstruction or reconditioning of the Theatre (but not to exceed thirteen (13) weeks in any event) and thereafter rental shall be payable at the stipulated weekly rate.

If the Equipment be partially or totally destroyed (except total destruction of the Equipment incidental to total destruction of the Theatre) during the term of this agreement by extraneous fire, or act of God, without fault or neglect on the part of the Exhibitor, and provided the Exhibitor shall not be in default in respect of any of the terms of this agreement and shall continue to operate the Theatre, or shall resume the operation of the Theatre after any necessary repairs thereto have been made, Products will at its own expense either repair the Equipment, or, if in the judgment of Products the destruction is so extensive as to render repair of the Equipment impracticable, furnish replacing Western Electric equipment then available to Products as nearly

Digitized by Google

similar as possible in type and conditon to the Equpment so destroyed. In the event of partial or total destruction of the Equipment occurring in the manner referred to in this paragraph, the rental payable hereunder shall abate until the Equipment shall have been repaired by Products, or until replacing equipment shall have been furnished by Products. Except as herein otherwise provided the Equipment shall at all times be held at the sole risk of the Exhibitor. If Products shall provide replacing equipment in accordance with the foregoing provisions, such equipment shall be installed by the Exhibitor at its own expense, under Products' supervision and the equipment shall not be used for a public performance until the installation thereof shall have been approved by Products. The Exhibitor shall pay all transportation charges on replacing equipment so furnished.

14. *Repossession of Equipment.*—Upon termination or expiration of this agreement by lapse of time or otherwise, the Exhibitor shall surrender the Equipment to Products, together with all repair and replacement parts therefor and all tools, drawings, prints and written descriptions and instructions which shall have been furnished by Products. Said Equipment and parts shall be surrendered in good order and condition, reasonable wear and tear due to the proper use thereof in the manner and place and for the purposes set forth in this agreement only excepted, and Products may repossess the Equipment and may, for the purpose of reducing the same to possession, enter the Theatre or any other premises where said Equipment may be and without any legal proceedings whatever possess and remove said Equipment, and the Exhibitor agrees to cooperate in such removal. If this agreement shall be terminated by default, or if the Exhibitor permits any default hereunder to occur, whether or not Products shall exercise the option to terminate this agreement, Products shall thereupon have the right without notice and without any legal proceedings whatever to take immediate possession of said Equipment, or any part thereof, and for that purpose may pursue the same wherever it or any part thereof may be found and may enter, with the aid and assistance of any person or persons, the Theatre, or any other premises whatever, in which the Equipment or any part thereof may be placed, and may take and seize the same to its own proper use forever, free from any right of the Exhibitor under this agreement. In the event of the suspension of the rights of the Exhibitor under the provisions of Section 12 hereof, Products shall also have the right in like manner to enter said premises and to render the Equipment inoperative by whatever means may, in the opinion of Products, be necessary or expedient. Products shall also have the right in like manner to enter the said premises and remove the Equipment in the event of the said premises being destroyed or damaged by fire or otherwise, to an extent which, in the opinion of Products, endangers the Equipment. The Exhibitor expressly covenants that in any of such events it will not claim damages on account of such action or otherwise, and the Exhibitor shall hold and save harmless Products and its agents from and against any and all claims for damages by any parties whomsoever on account of any action taken by Products pursuant to this agreement. In the event of termination or expiration of this agreement by lapse of time, the occurrence of any default, or otherwise, and irrespective of whether Products shall remove and repossess the Equipment in accordance with the provisions contained in this section, Products shall retain and may enforce any and all claims or rights of action against the Exhibitor which it may then possess in respect of any indebtedness then due to Products hereunder.

15. *Patent Protection.*—Subject to the provisions hereof Products will at its own expense defend any and all actions and suits which may during the term hereof be brought against the Exhibitor for infringement of any United States patent or patents relating to the apparatus or equipment leased by Products hereunder, on account of any use of said apparatus or equipment by the Exhibitor for the purpose and in the manner for which it is herein licensed and Products will pay or satisfy all judgments and decrees for profits, damages and costs which may be finally awarded against the Exhibitor by the court of last resort in any such action or suit on account of any such infringement, provided that the Exhibitor shall give Products prompt notice (with written confirmation) of each claim of any such infringement and of each such action or suit together with full information and all reasonable cooperation in connection therewith and full opportunity to defend the same and to compromise or settle the same at Products' expense if Products shall so elect, and provided further, that this agreement shall not extend to any infringement or

Digitized by Google

claim of infringement relating to any apparatus or thing not furnished by Products or relating to any combination of said Equipment or any part or parts thereof with any apparatus or thing not furnished by Products, except sound records produced under licenses from Products where the alleged infringement resides in characteristics thereof or in methods or apparatus for producing the same specifically prescribed by Products; and the liability of Products under this agreement shall in no event exceed the total amount paid hereunder by the Exhibitor to Products. To the end that Products may protect itself and the Exhibitor from claims for infringement of patents, Products may at any time substitute for any of the equipment or parts thereof which may have been furnished to the Exhibitor hereunder, other equipment or parts which Products shall determine to be suitable for performing the function required, such substitution to be made without additional expense to the Exhibitor and with the least possible inconvenience to it.

16. *Term.*—This agreement shall be for a term of one (1) year from the day upon which the Equipment is first used for a public performance, or from the day which Products shall certify to the Exhibitor as to the date that the Equipment was made available for public performance, whichever date be the earlier; provided however, that the term hereof and the payments to Products hereunder (other than the payment tendered upon the submission of this agreement) shall begin not later than thirty (30) days after the date of shipment. The agreement shall continue in effect thereafter from year to year, subject to the provisions herein contained, until either party shall serve upon the other by registered United States mail a notice of intention to terminate this agreement at the end of any annual period dating from the commencement of the term hereof, which notice shall be served not less than thirty (30) nor more than sixty (60) days prior to the end of any annual period.

17. *General Provisions.*—This agreement expresses the entire understanding of the parties in respect of the subject matter hereof. No waiver by either party, whether express or implied, of any of the provisions of this agreement shall be construed as constituting a waiver of any other provision or provisions of this agreement, or as estopping either party from its right to enforce any provision or all provisions hereof, other than the provision or provisions specifically waived. No waiver by either party, whether express or implied, of any of the provisions of this agreement shall be construed as constituting a waiver of any other provision or provisions of this agreement, or as estopping either party from its right to enforce any provision or all provisions hereof, other than the provision or provisions specifically waived.

18. *Construction.*—The construction and performance of this agreement shall be governed by the laws of the State of New York.

19. *Assignment.*—This agreement shall not be assigned by the Exhibitor without the written consent of Products. It shall, however, subject to such restriction upon assignment by the Exhibitor, be binding upon the parties and their respective successors, assigns, and legal representatives.

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers or authorized agents in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,
By _____
Vice-President, Treasurer, Authorized Agent.

_____
Exhibitor.
By _____

Products' witness signs here:
_____

Exhibitor's witness signs here:
_____

WAIVER

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named and of the payment by Electrical Research Prdoucts, Inc., of the sum of One ($1.00) Dollar, receipt of which is hereby acknowledged, the undersigned having an interest in the Theatre referred to in said agreement as owner or lessor thereof hereby consent(s) to the installation of said Equipment and waive(s) any and all rights

Digitized by Google

or claims thereto of whatsoever kind or nature which I/we have or may hereafter acquire as landloard(s) of said Theatre, which might or could in any manner interfere with any rights of Electrical Research Products, Inc., in or to said Equipment, and also waives the right to require Electrical Research Products, Inc., to remove said Equipment (except on ten (10) days' written notice) upon termination of Exhibitor's right to possession of the Theatre or abandonment thereof as well as any right to storage charges prior to the expiration of said ten (10) days, hereby granting to Electrical Research Products, Inc., full right of access for the purpose of removing said Equipment.

Dated this _____ day of _____, 1933.

_____
Owner of Theatre.

_____
Lessor of Theatre (other than Owner).

Witness:

_____

GUARANTY

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named and of the payment to me by Electrical Research Products Inc. of the sum of One ($1.00) Dollar, I, _____, of the City of _____, State of _____, do hereby covenant and agree to and with the said Electrical Research Products Inc. that if default shall at any time be made by said Exhibitor in the payment of any monies which shall become due to said Electrical Research Products Inc. under said agreement or in the performance of the covenants contained therein on the part of said Exhibitor to be paid or performed, that I will well and truly pay the said sums which may become due thereunder to said Electrical Research Products Inc. or any arrears thereof, and also all damages which may arise in consequence of the nonperformance of the covenants of said agreement, or any of them, upon written notice of any such default being forwarded to me at the address above indicated.

As an additional inducement to Electrical Research Products Inc. to furnish and lease the aforementioned equipment I further agree that the foregoing obligations assumed by me shall not be affected or prejudiced by any extension of the time for payment of the obligations of the Exhibitor or by waiver of any other provisions set forth in said agreement to be kept or performed by the Exhibitor, or by any other modification of said agreement whereby the obligations herein assumed by me would, but for this provision, be discharged.

Signed and sealed this _____ day of _____, 1933.

_____(L. S.)

Witness:

_____

3216 TS–RW

Lease No. _____

This agreement, made in triplicate in the City of New York, State of New York, this _____ day of _____, 193__, by and between Electrical Research Products, Inc. (subsidiary of Western Electric Company, Incorporated), a Delaware corporation having its principal place of business in the City, County, and State of New York (hereinafter called "Products"), lessor, and _____, a _____ corporation having its principal place of business at No. _____ Street/Avenue, in the City of _____, State of _____ (hereinafter called the "Exhibitor"), lessee, and operating the _____ Theatre, at No. _____ Street/Avenue, in the City of _____, State of _____ (hereinafter called the "Theatre"):

Witnesseth, that, for, and in consideration of the covenants, stipulations, and representations herein set forth, the respective parties hereto agree as follows:

1. *Equipment Leased.*—Products hereby leases to the Exhibitor and the Exhibitor hereby hires from Products the Western Electric Sound Equipment now installed in the Theatre (hereinafter called the "Equipment") for use

Digitized by Google

solely in the Theatre for the electrical reproduction of sound in connection with, or, as incidental to, the exhibition of motion pictures, or any performance given in conjunction therewith, said Equipment being:

---

2. *Rental.*—(a) The Exhibitor shall pay to Products as rental throughout the term hereof the sum of _____ ($_____) Dollars per week, provided, however, that rental payable for the weeks falling within the period commencing with the _____ Sunday of _____ of each year and ending with the Saturday of the thirteenth (13th) week thereafter shall be the sum of _____ ($_____) Dollars per week. In consideration of the termination of all prior agreements between Products and the Exhibitor referred to in Section 15 hereof and of Products' release of the Exhibitor from obligations thereunder as provided in said Section, and as rental for the first week or part thereof of the term of this lease, the Exhibitor pays to Products herewith the sum of _____ ($_____) Dollars. In addition to the above rental the Exhibitor shall pay to Products each week for the first consecutive _____ (_____) weeks of the term hereof, the sum of _____ ($_____) Dollars in liquidation of indebtedness of the Exhibitor to Products existing on the date hereof, which said indebtedness the Exhibitor hereby acknowledges. The charges above referred to, other than the payment tendered herewith, shall be payable for each week in advance on Saturday of the preceding week. The term "week" as used herein shall be deemed to mean a period of seven (7) days commencing at midnight on Saturday and ending at midnight on the following Saturday.

(b) If the Theater shall be closed for a minimum period of four (4) weeks and if the Equipment shall have been sealed for shut-down by Products pursuant to the written request of the Exhibitor, the rental payable hereunder (but not the additional payments above provided in liquidation of pre-existing indebtedness) shall be reduced, commencing with the send full week of the shut-down period and ending on the Saturday prior to the last full week of said shut-down period, to sixty-six and two-thirds (66⅔%) percent of the rental which would otherwise be payable during said period; provided, however, that the Exhibitor shall not be entitled to the benefit of the reduced rental above referred to during any shut-down period or periods exceeding in the aggregate six (6) months during any year of the term hereof. If the Exhibitor desires Products to seal the Equipment for shut-down, it shall give Products not less than fourteen (14) days' written notice which shall specify the date when the Equipment is to be shut down and upon the date so specified or as soon thereafter as it can conveniently do so, Products shall seal the Equipment and may take such steps for the protection of the Equipment during the shut-down period as it may deem desirable. When the Exhibitor desires to resume the use of the Equipment it shall give Products not less than fourteen (14) days' written notice specifying the date upon which it desires that the equipment be unsealed, and if the Exhibitor shall not be in default under the terms of this lease, Products shall unseal the Equipment on or prior to the date specified by the Exhibitor, and restore it to operating condition insofar as it may have been affected by any steps taken by Products for the protection of the Equipment while in shut-down condition. If any of the Equipment which has been sealed by Products shall be unsealed other than by authority of Products, the Equipment shall be deemed not to have been placed in a shut-down condition for the purpose of determining rentals payable hereunder. Products shall not be obligated to inspect the Equipment while it is in a shut-down condition, but may do so at its option. Notices referred to in this section shall be mailed to Products' office at New York, N. Y., Chicago, Ill., or Los Angeles, Cal., whichever office is nearest the Exhibitor.

3. *Use of Equipment.*—The Exhibitor recognizes that the Equipment is furnished by Products as a complete assemblage of mechanisms, electrical apparatus, and circuits, the construction and operation of which are highly technical, and that any changes or modifications may result in seriously impairing the quality of sound reproduction, thus injuring both the reputation of Products and the business of the Exhibitor. Therefore, in order to secure and insure satisfactory functioning of the Equipment the Exhibitor shall at all times during the term of this lease operate the Equipment in the manner approved by Products from time to time and keep and maintain the Equipment in good condition and repair, and shall not, without the written consent of Products, or otherwise than under its supervision, move, alter, change, or modify the Equipment. The Exhibitor shall not, without the written consent of Products, add

Digitized by Google

anything to the Equipment or take anything therefrom, or break the seal upon any part or collection of parts which is or may be sealed by Products. Nothing herein contained shall be construed as prohibiting the Exhibitor from taking any reasonable steps consistent with the general intent hereof, either alone or together with Products, to protect, correct, or repair the Equipment in the event of an accident or breakdown, or as preventing the Exhibitor from replacing defective or worn-out parts. If the Exhibitor shall itself take any action with respect to the correction or repair of the Equipment, it shall immediately notify Products in writing, giving full details of the action thus taken. The Exhibitor shall use and employ the Equipment only in the Theatre, and shall at its own expense obtain all necessary permits and comply with all laws and ordinances in effect throughout the term of this lease relating to the maintenance, use, and operation of the Equipment or any part thereof and with any fire insurance underwriters' requirements relating thereto. If at any time the Equipment fails to function satisfactorily the Exhibitor shall immediately notify Products by registered mail and the absence of such notification shall be conclusive as to satisfactory functioning of the Equipment.

4. *Inspection of Equipment.*—Products shall from time to time, during the term of this lease, inspect the Equipment furnished by it and make minor adjustments thereto. The character and frequency of such inspection shall accord with such practice as shall from time to time have been found to be required for the maintenance and normal operation of similar installations leased for the same general purposes as those referred to in Section 1 hereof, and Products shall maintain facilities for rendering such service and inspection. Products shall make no charge for such service and inspection in addition to the rental specifically provided for in this lease, provided, however, that if the service and inspection facilities of Products are required by reason of misuse or abuse of the Equipment, or by reason of the Exhibitors' failure to safeguard the Equipment properly or to use the same in a reasonably careful and prudent manner, the Exhibitor upon receipt of billing therefor, shall pay to Products Thirty-five ($35.00) Dollars per day per man plus any expenses and transportation charges incurred for any services thus required.

5. *Payment for Additional Parts, Special Services, etc.*—Products shall render to the Exhibitor such special services relating to the Equipment or the Theatre as Products is in a position to render and as the Exhibitor may order. Products shall furnish such repair and replacement parts as it is in a position to furnish and as the Exhibitor may order at its rental charges in effect at the time of receipt of orders therefor. The Exhibitor shall pay Products' charges for any special services thus rendered, for any parts thus furnished, and any other charges the due date of which is not otherwise definitely fixed, either upon rendition of billing by Products or at the option of Products at the time of rendition of the services or delivery of said parts. The time of payments herein provided for shall be of the essence of this lease.

6. *Title to Equipment.*—Title to and ownership of all equipment, including spare or renewal parts, at any time furnished hereunder and also all tools of all kinds, drawings, prints, and written descriptions and instructions, shall at all times be and remain vested in Products. Any and all equipment leased in accordance with the terms of this agreement, shall at all times be and remain personal property notwithstanding the manner or method of its attachment to any real property.

7. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all personal property taxes which may be charged or levied in connection with or which may apply to any equipment leased hereunder, and the Exhibitor shall reimburse Products for any such taxes which Products may be required to pay.

8. *Access to Equipment.*—The Exhibitor shall provide access for Products' representatives, engineers, and mechanics to the Theatre and to all parts thereof where any of the Equipment may be, at all reasonable hours, for the purpose of examining and inspecting the Equipment from time to time, and for all other purposes referred to herein which may require such access.

9. *Liability for Interruption, Injuries, etc.*—Products shall not be responsible in any manner for any interruption in the operation of the Theatre or of any equipment therein arising from any cause whatsoever, or for any loss or damage to persons or property in or upon the said premises for any reason whatsoever. The Exhibitor shall indemnify Products for and save it harmless from any liability for injury to persons handling or operating the Equipment (other than Products' employees) and from any liability to others resulting from negligence of such persons. The Exhibitor shall use every reasonable effort to

Digitized by Google

prevent the filing of any liens for rent or material or for work, labor, or services which might in any manner affect equipment leased hereunder and shall discharge promptly any such liens which may be filed.

10. *Default.*—This lease and the rights of the Exhibitor hereunder shall, at the option of Products, terminate and come to an end in the event of any breach or default on the part of the Exhibitor with respect to any of the covenants and conditions herein contained on its part to be performed, or upon the insolvency of the Exhibitor, or upon the filing of a voluntary or involuntary petition in bankruptcy, or upon the voluntary or involuntary assignment of any of the Exhibitor's assets for the benefit of creditors, or upon the application for the appointment of a receiver of the property and assets of the Exhibitor, or upon the commencement of any action, suit, or proceeding against the Exhibitor in the nature of ejectment, distress for rent, summary dispossesion, or any other action, suit, or proceeding in respect of the title to or right to possession of the Theatre, or upon the issue or levy of any attachment or the filing of or attempt to assert or enforce any lien which might in any manner affect Products' title to or right to possession of any apparatus or equipment leased hereunder. The Exhibitor shall indemnify Products for any loss or damage suffered by Products as a result of the commencement or final determination of any action, suit, or proceeding against the Exhibitor respecting the title to or right to possession of the Theatre, or the issue or levy of any attachment or the filing of, or attempt to assert or enforce any lien above referred to.

In the event of a default under any of the provisions of this lease at any time during the term hereof, the rights herein granted to the Exhibitor may thereupon be suspended by Products personally serving a written notice of suspension on the Exhibitor or by depositing such notice in the United States mail, addressed to the Exhibitor at the Theatre; provided, however, that such suspension shall not operate in any way to void or restrict Products' right of termination on account of such default.

11. *Destruction of Theatre or Equipment.*—In the event of the total destruction of the Theater by fire, earthquake, tornado, or other act of God, the rental payable hereunder shall be paid to the time of such destruction and this lease shall cease and terminate as of the date of such destruction. If the Theatre be damaged as a result of the happening of any of the aforementioned events and the damage thereto is such that the Theatre is temporarily unavailable for use for the exhibition of motion pictures, but may be repaired or reconditioned, the rental payable hereunder shall abate during such period of time as is reasonably required for the reconstruction or reconditioning of the Theatre (but not to exceed thirteen (13) weeks in any event) and thereafter rental shall be payable at the stipulated weekly rate.

If the Equipment be partially or totally destroyed (except total destruction of the Equipment incidental to total destruction of the Theatre) during the term of this lease by extraneous fire, or act of God, without fault or neglect on the part of the Exhibitor, and provided the Exhibitor shall not be in default in respect of any of the terms of this lease and shall continue to operate the Theatre, or shall resume the operation of the Theatre after any necessary repairs thereto have been made, Products will at its own expense either repair the Equipment, or, if in the judgment of Products, the destruction is so extensive as to render repair of the Equipment impracticable, furnish replacing Western Electric equipment then available to Products as nearly similar as possible in type and condition to the equipment so destroyed. In the event of partial or total destruction of the Equipment occurring in the manner referred to in this paragraph, the rental payable hereunder shall abate until the Equipment shall have been repaired by Products, or until replacing equipment furnished by Products, as aforesaid, shall have been placed in operation in the Theatre; provided, however, that there shall be no abatement of rental in any event subsequent to the second week after replacing equipment shall have been furnished by Products. Except as herein otherwise provided, the Equipment shall at all times be held at the sole risk of the Exhibitor. If Products shall provide replacing equipment in accordance with the foregoing provisions, such equipment shall be installed by the Exhibitor at its own expense, under Products' supervision and the equipment shall not be used for a public performance until the installation thereof shall have been approved by Products. The Exhibitor shall pay all transportation charges on replacing equipment so furnished.

12. *Repossession of Equipment.*—Upon termination or expiration of this lease by lapse of time or otherwise, the Exhibitor shall surrender to Products the

Digitized by Google

Equipment, together with all repair and replacement parts therefor which shall have been furnished by Products. Said Equipment and parts shall be surrendered in good order and condition, reasonable wear and tear due to proper use thereof in the manner and place and for the purposes set forth in this agreement only excepted, and Products may repossess the Equipment and may, for the purpose of reducing the same to possession, enter the Theatre or any other premises where said Equipment may be and without any legal proceedings whatever possess and remove said Equipment, and the Exhibitor agrees to cooperate in such removal. If this lease shall be terminated by default, or if the Exhibitor permits any default hereunder to occur, whether or not Products shall exercise the option to terminate this lease, Products shall thereupon have the right without notice and without any legal proceedings whatever to take immediate possession of said Equipment, or any part thereof, and for that purpose may pursue the same wherever it or any part thereof may be found and may enter, with the aid and assistance of any person or persons, the Theatre, or any other premises whatever, whether belonging to the Exhibitor or not, in which the Equipment or any part thereof may be placed, and may take and seize the same to its own proper use forever, free from any right of the Exhibitor under this lease. In the event of the suspension of the rights of the Exhibitor under the provisions of Section 10 hereof, Products shall also have the right in like manner to enter said premises and to render the Equipment inoperative by whatever means may, in the opinion of Products, be necessary or expedient. Products shall also have the right in like manner to enter the said premises and remove the Equipment in the event of the said premises being destroyed or damaged by fire or otherwise, to an extent which, in the opinion of Products, endangers the Equipment. The Exhibitor expressly covenants that in any of such events no claim will be made for damages on account of such action or otherwise, and the Exhibitor shall hold and save harmless Products and its agents from and against any and all claims for damages by any parties whomsoever on account of such action. In the event of termination or expiration of this lease by lapse of time, the occurrence of any default, or otherwise, and irrespective of whether Products shall remove and repossess the Equipment in accordance with the provisions contained in this section, Products shall retain and may enforce any and all claims or rights of action against the Exhibitor which it may then possess in respect of any sum or sums then due to Products in accordance with the terms and conditions of this lease.

13. *Patent Protection.*—Subject to the provisions hereof Products will at its own expense, defend any and all actions and suits which may during the term hereof be brought against the Exhibitor for infringement of any United States patent or patents relating to the apparatus or equipment leased by Products hereunder, on account of any use of said apparatus or equipment by the Exhibitor for the purpose and in the manner contemplated by this lease and Products will pay or satisfy all judgments and decrees for profits, damages, and costs which may be finally awarded against the Exhibitor by the court of last resort in any such action or suit on account of any such infringement; provided, that the Exhibitor shall give Products prompt notice (with written confirmation) of each claim of any such infringement and of each such action or suit together with full information and all reasonable cooperation in connection therewith and full opportunity to defend the same and to compromise or settle the same at Products' expense, if Products shall so elect; and provided further, that this agreement shall not extend to any infringement or claim of infringement relating to any apparatus or thing not furnished by Products or relating to any combination of said Equipment or any part or parts thereof with any apparatus or thing not furnished by Products, except films and records produced under licenses from Products where the alleged infringement resides in characteristics thereof or in methods or apparatus for producing the same specifically prescribed by Products and that the liability of Products under this agreement shall in no event exceed the total amount paid hereunder by the Exhibitor to Products. To the end that Products may protect itself and the Exhibitor from claims for infringement of patents, Products may at any time substitute for any of the equipment or parts thereof which may have been furnished to the Exhibitor hereunder, other equipment or parts which Products shall determine to be suitable for performing the function required, such substitution to be made without additional expense to the Exhibitor and with the least possible inconvenience to it.

14. *Term.*—This lease shall be for a term of one (1) year commencing on the date hereof, and shall continue in effect thereafter from year to year,

Digitized by Google

subject to the provisions herein contained, until either party hereto shall serve upon the other by registered United States mail a written notice of intention to terminate this lease at the end of any annual period dating from the commencement of the term hereof, which notice shall be served not less than thirty (30) nor more than sixty (60) days prior to the end of any annual period; provided, however, that the Exhibitor shall not terminate this lease while any of the payments designated in section 2 (a) hereof as in liquidation of prior indebtedness are unpaid.

15. *General Provisions.*—(a) The parties expressly stipulate that this lease contains the entire understanding of the respective parties with reference to the subject matter hereof, and that there is no other understanding agreement or representation, express or implied, in any way limiting, extending, defining or otherwise relating to the provision hereof or any of the matters to which this lease relates. No waiver by either party, whether express or implied, of any of the provisions of this lease shall be construed as constituting a waiver of any other provision or provisions of this lease or as estopping either party from its right to enforce any provision or all provisions hereof, other than the provision or provisions specifically waived.

(b) This lease shall terminate all prior agreements between Products and the Exhibitor relating to the installation and licensing of Western Electric sound equipment in the Theatre and all rights and obligations of said parties under said agreements are hereby released and forever discharged, except as to past indebtedness to be liquidated as provided in section 2 (a) hereof.

16. *Construction.*—The construction and performance of this lease shall be governed by the laws of the State of New York.

17. *Assignment.*—This lease shall not be assigned by the Exhibitor without the written consent of Products. It shall, however, subject to such restriction upon assignment by the Exhibitor, be binding upon the parties and their respective successors, assigns, and legal representatives.

In witness whereof, the parties hereo have caused these presents to be executed by their duly authorized officers in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS INC.,

By _____

Vice-President, Treasurer.

_____

Exhibitor.

By _____

Products' witness signs here:

_____

Exhibitor's witness signs here:

_____

WAIVER

In consideration of the furnishing and leasing of the Equipment covered by the foregoing lease to the Exhibitor therein named and of the payment by Electrical Research Products, Inc., of the sum of One ($1.00) Dollar, receipt of which is hereby acknowledged, the undersigned having an interest in the Theatre referred to in said lease as owner or lessor thereof, hereby consent(s) to the installation of said Equipment and waive(s) any and all rights or claims thereto of whatsoever kind or nature which I/we have or may hereafter acquire as landlord(s) of said Theatre, which might or could in any manner interfere with any rights of Electrical Research Products Inc., in or to said Equipment, and also waives the right to require Electrical Research Products, Inc., to remove said Equipment (except on ten (10) days' written notice) upon termination of Exhibitor's right to possession of the Theatre or abandonment thereof as well as any right to storage charges prior to the expiration of said ten (10) days, hereby granting to Electrical Research Products, Inc., full right of access, for the purpose of removing said Equipment.

Dated this _____ day of _____, 193__.

_____

Owner of Theatre.

_____

Lessor of Theatre (other than Owner).

Digitized by Google

GUARANTY

In consideration of the furnishing and leasing of the Equipment covered by the foregoing lease to the Exhibitor therein named and of the payment to me by Electrical Research Products, Inc., of the sum of One ($1.00) Dollar, I _____, of the City of _____, State of _____, do hereby covenant and agree to and with the said Electrical Research Products, Inc., that if default shall at any time be made by said Exhibitor in the payment of any monies which shall become due to said Electrical Research Products, Inc., under said lease or in the performance of the covenants contained therein on the part of said Exhibitor to be paid or performed, that I will well and truly pay the said sums which may become due thereunder to said Electrical Research Products, Inc., or any arrears thereof, and also all damages which may arise in consequence of the non-performance of the covenants of said lease, or any of them, upon written notice of any such default being forwarded to me at the address above indicated.

As an additional inducement to Electrical Research Products, Inc., to furnish and lease the aforementioned equipment, I further agree that the foreging obligations assumed by me shall not be affected or prejudiced by any extension of the time for payment of the obligations of the Exhibitor, or by waiver of any other provisions set forth in said lease to be kept or performed by the Exhibitor, or by any other modification of said lease whereby the obligations herein assumed by me would, but for this provision, be discharged.

Witness my hand and seal this _____ day of _____, 193__.

_____(L. S.)

3214 TS–RW
Lease No._____

This agreement, made in triplicate in the City of New York, State of New York, this_____day of_____193__, by and between Electrical Research Products, Inc. (subsidiary of Western Electric Company, Incorporated), a Delaware corporation having its principal place of business in the City, County, and State of New York (hereinafter called "Products"), lessor, and _____a_____corporation having its principal place of business at No._____Street/Avenue, in the City of_____, State of_____(hereinafter called the "Exhibitor"), lessee, and operating the_____Theatre, at No._____Street/Avenue, in the City of_____, State of_____(hereinafter called the "Theatre"):

Witnesseth, that, for and in consideration of the covenants, stipulations, and representations herein set forth, the respective parties hereto agree as follows:

1. *Equipment Leased.*—Products hereby leases to the Exhibitor and the Exhibitor hereby hires from Products the Western Electric Sound Equipment now installed in the Theatre (hereinafter called the "Equipment") for use solely in the Theatre for the electrical reproduction of sound in connection with, or as incidental to, the exhibition of motion pictures, or any performance given in conjunction therewith.

2. *Rental.*—(*a*) The Exhibitor agrees to pay to Products as rental throughout the term hereof the sum of_____ ($_____) Dollars per week, provided however, that rental payable for the weeks falling within the period commencing with the_____Sunday of_____of each year and ending with the Saturday of the thirteenth (13th) week thereafter shall be the sum of_____($_____) Dollars per week. In consideration of Products' execution of this agreement, and as rental for the first week or part thereof of the term of this lease, the Exhibitor tenders to Products herewith the sum of_____($_____) Dollars. In addition to the above rental, the Exhibitor agrees to pay to Products each week for the first consecutive_____(_____) weeks of the term hereof the sum of _____($_____) Dollars in liquidation of indebtedness incurred by the Exhibitor to Products under the terms of a prior agreement relating to the installation and licensing of Western Electric Sound Equipment in the Theatre, which said indebtedness the Exhibitor hereby acknowledges. The charges above referred to, other than the payment tendered herewith, shall

Digitized by Google

be payable in advance on Saturday of each week. The term "week" as used herein shall be deemed to mean a period of seven (7) days commencing at midnight on Saturday and ending at midnight on the following Saturday.

(*b*) If the Theatre shall be closed for a minimum period of four (4) weeks and if the Equipment shall have been sealed for shut-down by Products pursuant to the written request of the Exhibitor, the rental payable hereunder (but not the additional payments above provided in liquidation of pre-existing indebtedness) shall be reduced, commencing with the second full week of the shut-down period and ending on the Saturday prior to the last full week of said shut-down period, to sixty-six and two-thirds (66⅔%) percent of the rental which would otherwise be payable during said period; provided however, that the Exhibitor shall not be entitled to the benefit of the reduced rental above referred to during any shut-down period or periods exceeding in the aggregate six (6) months during any year of the term hereof. If the Exhibitor desires Products to seal the Equipment for shut-down, it shall give Products not less than fourteen (14) days' written notice which shall specify the date when the Equipment is to be shut down and upon the date so specified or as soon thereafter as it can conveniently do so, Products shall seal the Equipment and may take such steps for the protection of the Equipment during the shut-down period as it may deem desirable. When the Exhibitor desires to resume the use of the Equipment it shall give Products not less than fourteen (14) days' written notice specifying the date upon which it desires that the Equipment be unsealed, and if the Exhibitor shall not be in default under the terms of this lease, Products shall unseal the Equipment on or prior to the date specified by the Exhibitor, and restore it to operating condition insofar as it may have been affected by any steps taken by Products for the protection of the Equipment while in shut-down condition. If any of the Equipment which has been sealed by Products shall be unsealed other than by authority of Products, the Equipment shall be deemed not to have been placed in a shut-down condition for the purpose of determining rentals payable hereunder. Products shall not be obligated to inspect the Equipment while it is in a shut-down condition, but may do so at its option. Notices referred to in this section shall be mailed to Products' office at New York, N. Y., Chicago, Ill., or Los Angeles, Cal., whichever office is nearest the Exhibitor.

3. *Use of Equipment.*—(*a*) The Exhibitor recognizes that the Equipment is furnished by Products as a complete unit and that the inventions and construction of the same involve highly technical mechanism and art. Therefore, in order to secure and insure satisfactory functioning of the Equipment the Exhibitor shall at all times during the term of this lease, keep, maintain, and operate the Equipment in the manner approved by Products from time to time and in no other manner and shall not, without the written consent of Products or otherwise than under its supervision, move, alter, change, or modify the Equipment. The Exhibitor shall not, without the written consent of Products, add anything to the Equipment or take anything therefrom; or break the seal upon any part or collection of parts which is or may be sealed by Products; or cause any repairs to be made to the Equipment, except by Products or as specified by Products; provided that nothing herein contained shall be construed as prohibiting the Exhibitor from taking any reasonable steps consistent with the general intent hereof, either alone or together with Products, to protect, correct, or repair the Equipment in the event of an accident or breakdown. If the Exhibitor shall itself take any action with respect to correction or repair of the Equipment, it shall immediately notify Products in writing, giving full details of the action thus taken. The Exhibitor shall use and employ the Equipment only in the Theatre and shall at its own expense obtain all necessary permits and comply with all laws and ordinances in effect throughout the term of this lease relating to the maintenance, use, and operation of the Equipment or any part thereof and with any Fire Insurance Underwriters' requirements relating thereto.

(*b*) In the event of the Exhibitor violating any of the provisions of paragraph (*a*) of this section 3, or using spare, additional, or renewal parts not supplied by Products, or causing the Equipment to be repaired in a manner otherwise than as herein provided, the Exhibitor expressly waives any claim against Products in respect of the operation of the Equipment.

(*c*) If at any time the Equipment fails to function satisfactorily the Exhibitor shall immediately notify Products by registered mail and the absence of such notification shall be conclusive as to satisfactory functioning of the Equipment.

Digitized by Google

4. *Inspection of Equipment.*—Products shall, from time to time, during the term of this agreement, inspect the Equipment and make minor adjustments thereto. The character and frequency of such inspection shall accord with such practice as shall from time to time have been found to be required for the maintenance and normal operation of similar installations leased for the same general purposes as those referred to in Section 1 hereof and Products shall maintain facilities for rendering such service and inspection. Products shall make no charge for such service and inspection in addition to the rental specifically provided for in this lease, provided, however, that if the service and inspection facilities of Products are required by reason of the use by the Exhibitor of any parts for or attachments to the Equipment, other than those furnished by Products, or by reason of violation of Products' instructions relating to the use and operation of the Equipment, the Exhibitor upon receipt of billing therefor, shall pay to Products Thirty-five ($35.00) Dollars per day per man plus any expenses and transportation charges incurred for any services thus required.

5. *Payment for Additional Parts, Special Services, etc.*—Products shall render to the Exhibitor such special services relating to the Equipment or the Theatre as Products is in a position to render and as the Exhibitor may order in writing. Products shall furnish such repair and replacement parts as it is in a position to furnish and as the Exhibitor may order in writing at its rental charges in effect at the time of receipts of orders therefor. The Exhibitor shall pay Products' charges for any special services thus rendered, for any parts thus furnished, and any other charges the due date of which is not otherwise definitely fixed, either upon rendition of billing by Products or at the option of Products at the time of rendition of the services or delivery of said parts. The time of payments herein provided for shall be of the essence of this agreement.

6. *Title to Equipment.*—Title to and ownership of all equipment, including spare or renewal parts, at any time furnished hereunder and also all tools of all kinds, drawings, prints, and written descriptions and instructions, shall at all times be and remain vested in Products. Any and all equipment leased in accordance with the term of this agreement shall at all times be and remain personal property notwithstanding the manner or method of its attachment to any real propery.

7. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all personal property taxes which may be charged or levied in connection with or which may apply to any equipment leased hereunder, and the Exhibitor shall reimburse Products for any such taxes which Products may be required to pay.

8. *Access to Equipment.*—The Exhibitor shall provide access for Products' representatives, engineers, and mechanics to the Theatre and to all parts thereof where any of the Equipment may be, at all reasonable hours, for the purpose of examining and inspecting the Equipment from time to time and for all other purposes referred to herein which may require such access.

9. *Liability for Interruption, Injuries, etc.*—Products shall not be responsible in any manner for any interruption in the operation of the Theatre or of any equipment therein arising from any cause whatsoever or for any loss or damage to persons or property in or upon the said premises for any reason whatsoever. The Exhibitor shall indemnify Products for and save it harmless from any liability or injury to workmen handling or operating the Equipment and from any liability to others resulting from negligence of such workmen. The Exhibitor shall use every reasonable effort to prevent the filing of any liens for rent or material or for work, labor, or services which might in any manner affect equipment leased hereunder and shall discharge promptly any such liens which may be filed.

10. *Default.*—This lease and the rights of the Exhibitor hereunder shall, at the option of Products, terminate and come to an end in the event of any breach or default on the part of the Exhibitor with respect to any of the covenants and conditions herein contained on its part to be performed, or upon the insolvency of the Exhibitor, or upon the filing of a voluntary or involuntary petition in bankruptcy or upon the voluntary or involuntary assignment of any of the Exhibitor's assets for the benefit of creditors, or upon the application for the appointment of a receiver of the property and assets of the Exhibitor, or upon the commencement of any action, suit, or proceeding against the Exhibitor in the nature of ejection, distress for rent, summary dispossession, or any other action, suit, or proceeding in respect of the title to or right to possession of the

Digitized by Google

Theatre, or upon the issue or levy of any attachment or the filing of or attempt to assert or enforce any lien which might in any manner affect Products' title to or right to possession of any apparatus or equipment leased hereunder. The Exhibitor shall indemnify Products for any loss or damage suffered by Products as a result of the commencement or final determination of any action, suit, or proceeding against the Exhibitor respecting the title to or right to possession of the Theatre, or the issue or levy of any attachment, or the filing of, or attempt to assert or enforce, any lien above referred to.

In the event of a default under any of the provisions of this lease at any time during the term hereof, the rights herein granted to the Exhibitor may thereupon be suspended by Products' personally serving a written notice of suspension on the Exhibitor or by depositing such notice in the United States mail, addressed to the Exhibitor at the Theatre; provided, however, that such suspension shall not operate in any way to void or restrict Products' right of termination on account of such default.

11. *Destruction of Theatre or Equipment.*—In the event of the total destruction of the Theatre by fire, earthquake, tornado, or other act of God, the rental payable hereunder shall be paid to the time of such destruction and this lease shall cease and terminate as of the date of such destruction. If the Theatre be damaged as a result of the happening of any of the aforementioned events and the damage thereto is such that the Theatre is temporarily unavailable for use for the exhibition of motion pictures, but may be repaired or reconditioned, the rental payable hereunder shall abate during such period of time as is reasonably required for the reconstruction or reconditioning of the Theatre (but not to exceed thirteen (13) weeks in any event) and thereafter rental shall be payable at the stipulated weekly rate.

If the Equipment be partially or totally destroyed (except total destruction of the Equipment incidental to total destruction of the Theatre) during the term of this lease by extraneous fire, or act of God, without fault or neglect on the part of the Exhibitor, and provided the Exhibitor shall not be in default in respect of any of the terms of this lease and shall continue to operate the Theatre, or shall resume the operation of the Theatre after any necessary repairs thereto have been made, Products will at its own expense either repair the Equipment, or, if in the judgment of Products, the destruction is so extensive as to render repair of the Equipment impracticable, furnish replacing Western Electric equipment then available to Products as nearly similar as possible in type and condition to the equipment so destroyed. Except as herein otherwise provided the Equipment shall at all times be held at the sole risk of the Exhibitor. If Products shall provide replacing equipment in accordance with the foregoing provisions, such equipment shall be installed by the Exhibitor at its own expense, under Products' supervision, and the equipment shall not be used for a public performance until the installation thereof shall have been approved by Products. The Exhibitor shall pay all transportation charges on replacing equipment so furnished.

12. *Repossession of Equipment.*—Upon termination or expiration of this lease by lapse of time or otherwise, the Exhibitor shall surrender the Equipment to Products in good order and condition, reasonable wear and tear due to proper use thereof in the manner and place and for the purposes set forth in this agreement only excepted, and Products may repossess the Equipment and may, for the purpose of reducing the same to possession, enter the Theatre or any other premises where said Equipment may be and without any legal proceedings whatever possess and remove said Equipment, and the Exhibitor agrees to cooperate in such removal. If this lease shall be terminated by default, or if the Exhibitor permits any default hereunder to occur, whether or not Products shall exercise the option to terminate this lease, Products shall thereupon have the right without notice and without any legal proceedings whatever to take immediate possession of said Equipment, or any part thereof, and for that purpose may pursue the same wherever it or any part thereof may be found and may enter, with the aid and assistance of any person or persons, the Theatre or any other premises whatever, whether belonging to the Exhibitor or not, in which the Equipment or any part thereof may be placed, and may take and seize the same to its own proper use forever, free from any right of the Exhibitor under this lease. In the event of the suspension of the rights of the Exhibitor under the provisions of Section 10 hereof, Products shall also have the right in like manner to enter said premises and to render the Equipment inoperative by whatever means may, in the opinion of Products, be necessary or expedient. Products shall also have the right in like manner to enter the

Digitized by Google

said premises and remove the Equipment in the event of the said premises being destroyed or damaged by fire or otherwise, to an extent which, in the opinion of Products, endangers the Equipment. The Exhibitor expressly covenants that in any of such events no claim will be made for damages on account of such action or otherwise, and the Exhibitor shall hold and save harmless Products and its agents from and against any and all claims for damages by any parties whomsoever on account of such action. In the event of termination or expiration of this lease by lapse of time, the occurrence of any default, or otherwise, and irrespective of whether Products shall remove and repossess the Equipment in accordance with the provisions contained in this section, Products shall retain and may enforce any and all claims or rights of action against the Exhibitor which it may then possess in respect of any sum or sums then due to Products in accordance with the terms and conditions of this lease.

13. *Patent Protection.*—Subject to the provisions hereof Products will at its own expense defend any and all actions and suits which may during the term hereof be brought against the Exhibitor for infringement of any United States patent or patents relating to the apparatus or equipment leased by Products hereunder, on account of any use of said apparatus or equipment by the Exhibitor for the purpose and in the manner contemplated by this lease and Products will pay or satisfy all judgments and decrees for profits, damages, and costs which may be finally awarded against the Exhibitor by the court of last resort in any such action or suit on account of any such infringement provided that the Exhibitor shall give Products prompt notice (with written confirmation) of each claim of any such infringement and of each such action or suit together with full information and all reasonable cooperation in connection therewith and full opportunity to defend the same and to compromise or settle the same at Products' expense, if Products shall so elect, and provided further, that this agreement shall not extend to any infringement or claim of infringement relating to any apparatus or thing not furnished by Products or relating to any combination of said Equipment or any part or parts thereof with any apparatus or thing not furnished by Products, except films and records produced under licenses from Products where the alleged infringement resides in characteristics thereof or in methods or apparatus for producing the same specifically prescribed by Products and that the liability of Products under this agreement shall in no event exceed the total amount paid hereunder by the Exhibitor to Products. To the end that Products may protect itself and the Exhibitor from claims for infringement of patents, Products may at any time substitute for any of the equipment or parts thereof which may have been furnished to the Exhibitor hereunder, other equipment or parts which Products shall determine to be suitable for performing the function required, such substitution to be made without additional expense to the Exhibitor and with the least possible inconvenience to it.

14. *Terms.*—This lease shall be for a term of one (1) year commencing on the date hereof, and shall continue in effect from year to year, subject to the provisions herein contained, until either party hereto shall serve upon the other by registered United States mail a written notice of intention to terminate this lease at the end of any annual period dating from the commencement of the term hereof, which notice shall be served not less than thirty (30) nor more than sixty (60) days prior to the end of any annual period; provided however, that the Exhibitor shall not terminate this lease while any of the payments designated in section 2 (*a*) hereof as in liquidation of prior indebtedness are unpaid.

15. *General Provisions.*—(*a*) The charges to be paid by the Exhibitor are not subject to any reduction on account of any change which hereafter may be made in Products' charges for like equipment or on account of any change in the type, character, or quantity of equipment which Products may hereafter offer, or for any other reason.

(*b*) The parties expressly stipulate that this lease contains the entire understanding of the respective parties with reference to the subject matter hereof, and that there is no other understanding, agreement, or representation, express or implied, in any way limiting, extending, defining, or otherwise relating to the provisions hereof or any of the matters to which this lease relates. No waiver by either party, whether express or implied, of any of the provisions of this lease shall be construed as constituting a waiver of any other provision or provisions of this lease, or as estopping either party from its right to enforce any provision or all provisions hereof, other than the provision or provisions specifically waived.

Digitized by Google

(*c*) This agreement shall terminate all prior agreements between Products and the Exhibitor relating to the installation and licensing of Western Electric Sound Equipment in the Theatre.

16. *Construction.*—The construction and performance of this lease shall be governed by the laws of the State of New York.

17. *Assignment.*—This lease shall not be assigned by the Exhibitor without the written consent of Products. It shall, however, subject to such restriction upon assignment by the Exhibitor, be binding upon the parties and their respective successors, assigns, and legal representatives.

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,

By _____

Vice-President, Treasurer.

Products' witness signs here:

_____

_____

Exhibitor.

By _____

Exhibitors witness signs here:

_____

WAIVER

In consideration of the furnishing and leasing of the Equipment covered by the foregoing lease to the Exhibitor therein named and of the payment by Electrical Research Products, Inc., of the sum of One ($1.00) Dollar, receipt of which is hereby acknowledged, the undersigned having an interest in the Theatre referred to in said lease as owner or lessor thereof, hereby consent(s) to the installation of said Equipment and waive(s) any and all rights or claims thereto of whatsoever kind or nature which I/we have or may hereafter acquire as landlord(s) of said Theatre, which might or could in any manner interfere with any rights of Electrical Research Products, Inc., in or to said Equipment, and also waives the right to require Electrical Research Products, Inc., to remove said Equipment (except on ten (10) days' written notice) upon termination of Exhibitor's right to possession of the Theatre or abandonment thereof as well as any right to storage charges prior to the expiration of said ten (10) days, hereby granting to Electrical Research Products, Inc., full right of access for the purpose of removing said Equipment.

Dated this_____day of_____, 193__.

_____

Owner of Theatre.

_____

Lessor of Theatre (other than Owner).

GUARANTY

In consideration of the furnishing and leasing of the Equipment covered by the foregoing lease to the Exhibitor therein named and of the payment to me by Electrical Research Products, Inc., of the sum of One ($1.00) Dollar, I,_____, of the City of_____, State of_____, do hereby covenant and agree to and with the said Electrical Research Products, Inc., that if default shall at any time be made by said Exhibitor in the payment of any monies which shall become due to said Electrical Research Products, Inc., under said lease and/or in the performance of the covenants contained therein on the part of said Exhibitor to be paid and/or performed, that I will well and truly pay the said sums which may become due thereunder to said Electrical Research Products, Inc., or any arrears thereof, and also all damages which may arise in consequence of the non-performance of the covenants of said lease, or any of them, upon written notice of any such default being forwarded to me at the address above indicated.

As an additional inducement to Electrical Research Products, Inc., to furnish and lease the aforementioned equipment I further agree that the foregoing obligations assumed by me shall not be affected or prejudiced by any extension

Digitized by Google

of the time for payment of the obligations of the Exhibitor, or by waiver of any other provision set forth in said lease to be kept or performed by the Exhibitor, or by any other modification of said lease whereby the obligations herein assumed by me would, but for this provision, be discharged.

Witness my hand and seal this_____day of_____, 193__.

_____[L. S.]

AGREEMENT FOR WESTERN ELECTRIC SOUND SYSTEM IN ——— (THEATRE), ——— (LOCATION)

PLAN A-%-B. O. P. P.

321 T S

Contract No. _____

This Agreement made in triplicate in the City of New York, State of New York, this _____ day of _____, 193__, by and between Electrical Research Products, Inc. (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation having its principal place of business in the City, County, and State of New York (hereinafter called "Products"), licensor, and _____ a _____ Corporation having its principal place of business at No. _____ Avenue/Street, in the City of _____, State of _____ (hereinafter called the "Exhibitor"), licensee, and operating the _____ Theatre, at No. _____ Avenue/Street, in the City of _____, State of _____ (hereinafter called the "Theatre"):

Witnesseth that, for and in consideration of the covenants, stipulations and representations herein set forth, the respective parties hereto agree as follows:

1. (a) *Grant of License and Furnishing of Equipment.*—Products hereby agrees to furnish a Western Electric Sound Equipment of the type set forth in Item One of Section 23 (hereinafter called the "Equipment"), and hereby grants to the Exhibitor, subject to all the terms, conditions, limitations, and agreements herein contained, a non-exclusive non-assignable license to use the Equipment in the Theatre for the electrical reproduction of sound in connection with, or as incidental to, the exhibition of motion pictures, or any performance given in conjunction therewith, and to employ to the extent necessarily involved in such use of said Equipment the methods and/or systems of Products, under all United States patents and applications for United States patents, relating to said Equipment or to such use thereof, which are now owned or controlled, or which may during the term of this agreement be owned or controlled by Products, or in respect of which it has or may hereafter during the term of this agreement have the right to grant such license.

(b) *Shipment of Equipment.*—Said Equipment shall be furnished f. o. b. Products' warehouse and Products will endeavor to ship the Equipment on or before the date set forth in Item Two of Section 23 hereof. Nothing herein contained shall be considered as a firm agreement on the part of Products to ship the Equipment on or before said date, it being understood that the extent of the obligation of Products in this respect is limited to using its best efforts to procure expeditiously the manufacture and shipment of the Equipment.

2. (a) *Installation and Use of Equipment.*—The Equipment shall be installed by the Exhibitor at its own expense in strict accordance with installation specifications which will be furnished by Products. All preliminary and installation work done and material furnished by the Exhibitor or its agents or servants shall be subject to inspection and approval by Products and the Equipment shall not be used for public performances until the installation thereof shall have been approved by Products. Approval of installation work or material shall in no event subject Products to any responsibility or liability of any kind or nature not specifically assumed by it in this agreement. The Exhibitor, except as herein otherwise specifically provided, shall provide and pay for all services, material, and expenses required in preparation for and/or in connection with the installation of the Equipment.

Products shall provide an engineer and/or projectionist to inspect the preliminary work to be done by the Exhibitor and to supervise the installation of the Equipment. Notice from the Exhibitor that the Equipment has been received and that the Theatre will be ready for the installation of the Equipment on a definite date shall be delivered to Products not less than three (3) days prior

Digitized by Google

to said date and Products shall make every reasonable effort to have its engineer and/or projectionist at the Theatre on said date. The services of said engineer and/or projectionist will be furnished without additional cost to the Exhibitor for a period of two (2) days and for such additional continuous period not exceeding _____ (____) days as Products shall deem requisite. If the preliminary work to be done by the Exhibitor is not ready for inspection, or said work is not sufficiently advanced to permit the installation of the Equipment upon the date that the engineer and/or projectionist shall arrive at the Theatre, or in the event that their services shall be required for a period in excess of the aforementioned maximum number of days, or otherwise than for a continuous period, the Exhibitor shall pay to Products its standard charge of Thirty-five ($35.00) Dollars per day per man for any period in excess of said maximum number of days, including time consumed in transit, together with any additional expense which Products may have incurred by reason of said services being required otherwise than for a continuous period.

(b) The Exhibitor recognizes that the Equipment is furnished by Products as a complete unit and that the inventions and construction of the same, and the making of sound records in any form for use therewith, involve highly technical mechanism and art, and that the prestige and business reputation of Products might be seriously affected by imperfect operation of the Equipment or by its use with sound records which are not suited to it or which produce inferior results when used with the Equipment and that the use of said Equipment otherwise than as herein licensed may involve infringement of patent rights. Therefore, in order to secure and insure the functioning of the Equipment to the satisfaction of the parties hereto, the Exhibitor agrees that it will at all times during the period of this license keep, maintain, and operate the Equipment in the manner from time to time prescribed by Products, and in no other manner, and will not, without the written consent of Products or otherwise than under its supervision, move, alter, change, or modify the Equipment. The Exhibitor shall not, without the written consent of Products, add anything thereto nor take anything therefrom; or break the seal upon any part or collection of parts which is or may be sealed by Products; or operate, use, or employ the Equipment in any manner in conjunction with any sound record not made under license from Products for such use, unless such sound record is of such character that the Equipment will operate properly, reliably, and efficiently to produce sound from such sound record with accuracy, quality, and adequacy of volume; or cause any repairs to be made to the Equipment, except by Products or as specified by Products; provided, that nothing herein contained shall be construed as prohibiting the Exhibitor from taking all reasonable steps, consistent with the general intent hereof, either alone or together with Products, to protect, correct, or repair the Equipment in the event of an accident or breakdown. The Exhibitor agrees that if it shall itself take any action with respect to the correction or repair of the Equipment, it will immediately notify Products in writing, giving full details of the action taken to correct or remedy any unsatisfactory condition of the Equipment. The Exhibitor shall use and employ the Equipment only in the Theatre, unless Products shall consent to its removal in accordance with the provisions of Section 3 hereof.

(c) In the event of the Exhibitor violating any of the provisions of paragraph (b) of this Section 2, or using spare, additional, or renewal parts not supplied by Products, or causing the Equipment to be repaired in a manner otherwise than as herein provided, the Exhibitor expressly waives any claim against Products in respect to the operation of the Equipment.

(d) The Exhibitor expressly agrees that if at any time the Equipment fails to function satisfactorily, it will immediately notify Products by registered mail and telegraph, and the absence of such notification shall be conclusive as to satisfactory functioning of the Equipment.

3. *Change of Theatre or Management.*—In the event that the Exhibitor shall contemplate a sale of the Theatre or its interest therein, or shall contemplate ceasing to operate the Theatre, it shall notify Products in writing of such contemplated action not less than fourteen (14) days prior to the date upon which it will cease to own or operate the Theatre, and shall either make provision for the assumption of this agreement by the successor exhibitor of the Theatre, provided such successor exhibitor is satisfactory to Products (the Exhibitor hereunder hereby guaranteeing the performance by the successor exhibitor of the agreement so assumed by it), or shall make provision satisfactory to Products for the care and custody of the Equipment (the Exhibitor

Digitized by Google

hereby agreeing to assume full responsibility for the safekeeping of the Equipment), and if such care and custody shall involve the removal of the Equipment from the Theatre, Products will consent thereto provided such removal is made under Products' supervision and provided the Exhibitor shall agree to pay Products' then standard charges therefor.

If the Exhibitor shall cease to operate the Theatre or shall dispose of its interest therein, and shall desire to install the Equipment in another theatre (which other theatre shall first be approved by Products), Products shall agree thereto, provided such removal and the installation in such other theatre is made under Products' supervision and provided the Exhibitor shall agree to pay Products' then standard charges therefor and shall enter into a new agreement on Products' then standard form for the unexpired term of the license herein granted.

The Exhibitor shall, at its own expense, perform all of the work required with respect to any removal of the Equipment and shall provide all of the material mentioned in Section 2 (a) hereof which may be required for any reinstallation of the Equipment.

4. *Instruction of Operators and Inspection of Equipment.*—At the time of installation Products agrees to instruct the motion picture operators of the Exhibitor in the manner and method of operating the Equipment for a period of _____ (____) days and for such additional continuous period not exceeding _____ (____) days as Products shall deem requisite. Products shall from time to time, during the term of this agreement, inspect the Equipment and make minor adjustments thereto. The character and frequency of such inspection shall accord with such practice as shall from time to time have been found to be required for the maintenance and normal operation of similar installations licensed for the same general purposes as those referred to in Section 1 hereof and Products shall maintain facilities for rendering such service and inspection. Products shall make no charge for such service and inspection in addition to the consideration specifically provided for in this agreement; provided, however, that if the service and inspection facilites of Products are required by reason of the use by the Exhibitor of any parts for or attachments to the Equipment, other than those furnished by Products, or by reason of violation of Products' instruction relating to the use and operation of the Equipment, the Exhibitor upon receipt of billing therefor, shall pay to Products Thirty-five ($35.00) Dollars per day per man plus any expenses and transportation charges incurred for any services thus required.

5. *Products' Charges.*—During the term of this license the Exhibitor agrees to pay to Products the charges more particularly hereinafter referred to in Section 22 hereof.

6. *Transportation Charges.*—The Exhibitor agrees to pay the cost of transporting all equipment or parts therefor which may be furnished hereunder from the place of shipment to the Theatre, and to accept delivery thereof from the common carrier and make payment directly to the common carrier of freight and express charges thereon. The Exhibitor shall also arrange for any necessary loading, trucking, and unloading to put the Equipment down inside the Theatre, and shall directly defray the cost thereof.

7. *Payment for Additional Parts, Special Service, etc.*—Products shall render to the Exhibitor such special services relating to the Equipment or the Theatre as Products is in a position to render and as the Exhibitor may order in writing. Products shall furnish such repair and replacement parts as it is in a position to furnish and as the Exhibitor may order in writing, at its list price in effect at the time of receipt of orders therefor. The Exhibitor shall pay Products' charges for any special services thus rendered, for any parts thus furnished, and any other charges the due date of which is not otherwise definitely fixed, upon rendition of billing by Products. The time of payments herein provided for shall be of the essence of this agreement.

8. *Facilities for Installation and Operation.*—The Exhibitor warrants that the Theatre is, or before said Equipment is installed will be, supplied with suitable electric current; electric power leads of suitable capacity with outlets conveniently located for power supply to the Equipment; suitable space, properly ventilated, for the installation of the storage batteries and charging equipment or other power equipment; a screen, satisfactory to Products as to its acoustic properties; drapes for acoustic purposes, and suitable supports for horns, and agrees to make such other reasonable changes, alterations, and modifications as may be necessary for the proper installation and accommodation of the Equipment, all at the expense of the Exhibitor and when and to

Digitized by Google

the extent and in the manner prescribed by Products. The Exhibitor further agrees at its own expense to obtain all necessary permits and to comply with all laws and ordinances in effect from the date hereof and throughout the term of this license relating to the installation, maintenance, use, and operation of the Equipment or any part thereof and with any Fire Insurance Underwriters' requirements relating thereto.

9. *Title to Equipment.*—Title to and ownership of all equipment, including spare or renewal parts, at any time furnished hereunder and also all tools of all kinds, drawings, prints, and written descriptions and instructions, shall at all times be and remain vested in Products. Any and all equipment furnished in accordance with the terms of this agreement, shall at all times be and remain personal property notwithstanding the manner or method of its attachment to any real property.

10. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all personal property taxes which may be charged or levied in connection with or which may apply to any equipment furnished hereunder, and the Exhibitor shall reimburse Products for any such taxes which Products may be required to pay.

11. *Access to Equipment.*—The Exhibitor shall provide access for Products' representatives, engineers, and mechanics to the Theatre and to all parts thereof where any of the Equipment may be, at all reasonable hours, for the purpose of supervising the installation and from time to time for the purpose of examining and inspecting the Equipment and for all other purposes referred to herein which may require such access.

12. *Liability for Interruption, Injuries, etc.*—Products shall not be responsible in any manner for any interruption in the operation of the Theatre or of any equipment therein arising from any cause whatsoever or for any loss or damage to persons or property in or upon the said premises for any reason whatsoever. The Exhibitor agrees to indemnify Products for, and save it harmless from any liability or injury to workmen who shall assist in the handling, installing, or operation of the Equipment, and from any liability to any persons resulting from negligence of such workmen. The Exhibitor agrees to use every reasonable effort to prevent the filing of any liens for rent or material or for work, labor, or services which might in any manner affect equipment furnished hereunder and further covenants that if any such liens be filed it will promptly discharge the same.

13. *Default.*—This agreement and/or the rights of the Exhibitor hereunder and/or the license hereby granted shall, at the option of Products, terminate and come to an end in the event of any breach or default on the part of the Exhibitor with respect to any of the covenants and conditions herein contained on its part to be performed, or upon the insolvency of the Exhibitor or upon the filing of a voluntary or involuntary petition in bankruptcy or upon the voluntary or involuntary assignment of any of the Exhibitor's assets for the benefit of creditors, or upon the application for the appointment of a receiver of the property and assets of the Exhibitor, or upon the commencement of any action, suit, or proceeding against the Exhibitor in the nature of ejectment, distress for rent, summary dispossession, or any other action, suit, or proceeding in respect of the title to or right to possession of the Theatre, or upon the issue or levy of any attachment or the filing of or attempt to assert or enforce any lien which might in any manner affect Products' title to or right to possession of any apparatus or equipment furnished hereunder. The Exhibitor shall indemnify Products for any loss or damage suffered by Products as a result of the commencement or final determination of any action, suit, or proceeding against the Exhibitor respecting the title to or right to possession of the Theatre, or the issue or levy of any attachment or the filing of, or attempt to assert or enforce any lien above referred to.

In the event of a default under any of the provisions of this agreement at any time during the term of this license, the right and/or license herby granted may thereupon be suspended by Products' personally serving a written notice of suspension on the Exhibitor or by depositing such notice in the United States mail, addressed to the Exhibitor at the Theatre; provided however that such suspension shall not operate in any way to void or restrict Products' right of termination on account of such default.

14. *Repossession of Equipment.*—Upon termination or expiration of this license, by lapse of time or otherwise, the Exhibitor shall surrender the Equipment to Products in good order and condition, reasonable wear and tear due to proper use thereof in the manner and place and for the purposes set forth in

Digitized by Google

this agreement only excepted, and Products may repossess the Equipment and may, for the purpose of reducing the same to possession, enter the Theatre or any other premises where said Equipment may be and without any legal proceedings whatever possess and remove said Equipment, and the Exhibitor agrees to cooperate in such removal. If this license shall be terminated by default, or if the Exhibitor permits any default hereunder to occur, whether or not Products shall exercise the option to terminate this agreement, Products shall thereupon have the right, without notice and without any legal proceedings whatever, to take immediate possession of said Equipment, or any part thereof, and for that purpose may pursue the same wherever it or any part thereof may be found, and may enter, with the aid and assistance of any person or persons, the Theatre or other premises of the Exhibitor and such place or places whatsoever, whether belonging to the Exhibitor or not, in which the Equipment or any part thereof may be placed, and may take and seize the same to its own proper use forever, free from any right of the Exhibitor under this agreement. In the event of the suspension of the rights and/or license under the provisions of section 13 hereof, Products shall also have the right in like manner to enter said premises and to render the Equipment inoperative by whatever means may, in the opinion of Products, be necessary or expedient. Products shall also have the right in like manner to enter the said premises and remove the Equipment in the event of the said premises being destroyed or damaged by fire or otherwise, to an extent which, in the opinion of Products, endangers the Equipment. The Exhibitor expressly covenants that in any such events no claim will be made for damage on account of such action or otherwise, and the Exhibitor further agrees that it will hold and save harmless Products and its agents from and against any and all claims for damages by any paries whomsoever on account of such action. In the event of termination or expiration of this license by lapse of time, the occurrence of any default, or otherwise, and irrespective of whether Products shall remove and repossess the Equipment in accordance with the provisions contained in this section, Products shall retain and may enforce any and all claims or rights of action against the Exhibitor which it may then possess in respect of any sum or sums then due to Products in accordance with the terms and conditions of this agreement.

15. *Replacement of Equipment in the Event of Destruction.*—In the event of the partial or total destruction of the Equipment during the term of this license by extraneous fire, or act of God, without fault or neglect on the part of the Exhibitor, and provided the Exhibitor shall not be in default in respect of any of the terms of this agreement, and shall continue to operate the Theatre, or after any necessary repairs to the Theatre shall resume its operation, Products will, at its own expense, either repair the Equipment or, if in the sole judgment of Products such destruction is so extensive as to render repair of the Equipment impracticable, furnish to the Exhibitor equipment then manufactured by or for Products as nearly similar as possible to the type of Equipment so destroyed. Except as herein otherwise provided, it is agreed that the Equipment shall at all times subsequent to shipment thereof by Products to the Exhibitor, be held at the sole risk of the Exhibitor. If replacing equipment be provided by Products in the manner hereinabove indicated, the obligations of Products and the Exhibitor respecting the installation thereof shall be as set forth in Section 2 (a) hereof. The foregoing obligation of Products to repair or replace Equipment shall not apply to partial or total destruction of said Equipment while it is in the cutsody of a common carrier.

16. *Patent Protection.*—Products agrees that subject to the provisions hereof it will at its own expense defend any and all actions and suits which may during the term hereof be brought against the Exhibitor for infringement of any United States patent or patents relating to the apparatus or equipment furnished by Products hereunder, on account of any use of said apparatus or equipment by the Exhibitor for the purpose and in the manner contemplated by this agreement, and Products will pay or satisfy all judgments and decrees for profits, damages, and/or costs which may be finally awarded against the Exhibitor by the Court of last resort in any such action or suit on account of any such infringement, provided that the Exhibitor shall give Products prompt notice (with written confirmation) of such action or suit, full information, and all reasonable cooperation in connection therewith, and full opportunity to defend the same; and provided further, that this agreement shall not extend to any infringement or claim of infringement on account of the use of any apparatus or thing not furnished by Products, or of any of said equipment in combination with any apparatus or thing not furnished by Products, except films and

Digitized by Google

records produced under licenses from Products where the alleged infringement resides in characteristics thereof or in methods of apparatus for producing the same specifically prescribed by Products, and that the liability of Products under this agreement shall in no case exceed the total amount paid hereunder by the Exhibitor to Products. To the end that Products may protect itself and the Exhibitor from claims for infringement of patents, it is agreed that Products may at any time substitute for any of the equipment or parts thereof which may have been furnished to the Exhibitor hereunder, other equipment or parts which Products shall determine to be suitable for performing the function required, such substitution to be made without additional expense to the Exhibitor, and with the least possible inconvenience to it or interruption of its business.

17. *License Nonexclusive.*—Nothing in this agreement shall be construed as granting to the Exhibitor an exclusive right or license to operate the Equipment in any particular City, Town, zone, or neighborhood, or as preventing or prohibiting Products from entering into similar agreements or granting licenses for the installation and use of similar equipment in competing theatres.

18. *Period of License.*—This license shall be for a term of ten (10) years from the day upon which the Equipment is first used for a public performance, or from the day which Products shall certify to the Exhibitor as the date that the Equipment was made available for public performance, whichever date be the earlier; provided, however, that the term hereof and the payments to Products hereunder (other than the payment tendered upon the submission of this agreement) shall begin not later than thirty (30) days after the date of shipment. If this agreement be terminated at any time prior to the expiration of ten (10) years from the date of commencement of the term hereof, in accordance with any of the provisions contained in this agreement, all sums paid hereunder to Products prior to the effective date of such termination shall be retained in full by Products, and no part thereof shall be deemed to apply to any portion of the ten (10) year term subsequent to the effective date of termination.

19. *General Provisions.*—(a) The sums to be paid by the Exbibitor are not subject to any reduction on account of any change which hereafter may be made in Products' charges for like licenses or equipment or on account of any change in the type, character, or quantity of equipment which Products may hereafter offer, or for any other reason.

(b) Products shall not be liable for consequential damages arising by reason of failure to make delivery of the Equipment at the time contemplated herein, nor for consequential damages arising from any other cause whatsoever, whether or not similar to the foregoing.

(c) The parties hereto expressly stipulate that this agreement as herein set forth contains the entire understanding of the respective parties with reference to the subject matter hereof, and that there is no other understanding, agreement, or representation, express or implied, in any way limiting, extending, defining, or otherwise relating to the provisions hereof or any of the matters to which the present agreement relates. No agent or employee of Products is authorized to alter or modify this agreement in any way unless such alteration or modification shall be approved in writing by the President, a Vice President, or the Treasurer of Products, or by such representatives as may from time to time be designated in writing by any of such officers. No waiver by either party, whether express or implied, of any of the provisions of this agreement shall be construed as constituting a waiver of any other provision or provisions of this agreement or as estopping either party from its right to enforce any provision or all provisions hereof, other than the provision or provisions specifically waived.

(d) This agreement shall not become binding upon Products by reason of the acceptance, use, or negotiation of any currency, check, draft, or other instrument for the payment of money.

20. *Construction.*—The construction and performance of this agreement shall be governed by the laws of the State of New York.

21. *Assignment.*—This agreement shall not be assigned by the Exhibitor, without the written consent of Products. It shall, however, subject to such restriction upon assignment by the Exhibitor, be binding upon the parties and their respective successors, assigns, and legal representatives.

22. *Payments.*—In accordance with the provisions of Section 5 hereof, the Exhibitor agrees to pay to Products the charges provided for in the payment

Digitized by Google

plan hereinafter set forth; said payments to be made at the time and in the manner provided herein, which time and manner shall be of the essence of this agreement.

(1) *Payment Plan.*—(a) The Exhibitor hereby represents and warrants to Products that he/it has had box office receipts of an average weekly amount of not less than _____ ($_____) Dollars during the period of _____ (_____) weeks prior to the execution of this agreement by the Exhibitor; it being understood and agreed that said representation and warranty is made for the purpose of inducing Products to enter into this agreement and that Products has based the percentages and amounts referred to in the second paragraph of this section upon such representation and warranty of the Exhibitor.

(b) The Exhibitor agrees to furnish to Products not later than Tuesday of each week, a statement in the form prescribed by Products, certified to by the Exhibitor, setting forth the total box office receipts of the Theatre for the previous calendar week, and hereby grants to Products their right to check the box office receipts by whatever means and at whatever time or times Products may deem appropriate, and for that purpose will provide Products with full information respecting said box office receipts and permit access to all accounts and records relating thereto.

(c) If the representation and warranty of the Exhibitor respecting box office receipts prior to the execution of this agreement, or any statement as to box office receipts required to be furnished hereunder, shall be found to have been false, the Exhibitor shall be deemed in default and Products shall be entitled to resort to any remedies it may have under the terms of this agreement in the event of default on the part of the Exhibitor.

(2) On each and every Tuesday, beginning with the Tuesday of the week succeeding the week during which the term of the license herein granted shall commence, as fixed by the provisions of Section 18 hereof, the Exhibitor shall pay to Products a sum which shall be based upon the total box office receipts of the Theatre for the preceding calendar week, and which shall be equal to ____% of the first $_____ of such box office receipts and ____% of the remainder of said box office receipts for said week, provided, however, that the total amount so payable by the Exhibitor to Products shall not in any consecutive 13 weeks, be less than $_____ and shall not, in any consecutive 26 weeks, be less than $_____ and that any deficiency in the total of the weekly payments for either of such periods shall be payable by the Exhibitor to Products upon Products' demand therefor. Payments upon this basis shall continue to be made by the Exhibitor until the amount so paid in excess of $_____ per week shall have equalled the total sum of $_____.

(3) For the balance of the term of this license the Exhibitor shall pay to Products on each and every Saturday a weekly charge of $_____.

(4) In the event of the failure of the Exhibitor to make any of the payments provided for in Paragraph 2 of this Section, or if any representation, warranty or report of the Exhibitor made pursuant to the provisions of this Section shall be found to have been false, it would be difficult and impracticable to prove the exact damage to Products resulting from such default. Therefore, in case this agreement shall be terminated by Products by reason of any such default, the Exhibitor shall pay to Products, not as a penalty but as agreed or liquidated damages, all sums accrued to Products hereunder (including a pro rata amount of the minimum charges specified in this Section), to and including the date when Products removes the Equipment or renders it inoperative, and in addition thereto twenty (20%) percent of an amount obtained by adding the amount last mentioned in Paragraph 2 of this Section to an amount arrived at by multiplying the amount set forth as a weekly payment in Paragraph 3 of this Section by the number of weeks which have elapsed from the beginning of the term of this license to the effective date of termination thereof by Products, and deducting from the sum obtained the aggregate amount of payments theretofore paid by the Exhibitor to Products based upon percentages of box office receipts, to gether with any deficiencies paid to make up the minimum charges referred to in this Section. The rights of Products contained in this Paragraph shall apply irrespective of whether Products elects to or does repossess the Equipment or any part thereof.

Provided that the payments called for in Paragraph 2 of this Section shall have been fully paid and provided the Exhibitor shall not be and shall not have

Digitized by Google

been in default in respect of any of the terms of this agreement, the Exhibitor may terminate this agreement at any time after the expiration of the first three (3) years of the term hereof upon six (6) months' written notice given by the Exhibitor to Products of its intention so to terminate, which notice shall indicate the effective date of termination.

(5) The above special terms of payment are in consideration of the right on the part of Products to furnish for installation in the Theatre in whole or in part reconditioned and/or special equipment and the Exhibitor agrees to accept such equipment subject to all the terms and conditions of this agreement.

23. *Description of Equipment and Date of Shipment—Item One.*—Description of Equipment:

Item Two.—The proposed date of shipment is _____, 193____.

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,

By _____,

Vice-President, Treasurer.

Products' witness signs here:

_____.

Exhibitor.

By _____,

Exhibitor's witness signs here:

_____

GUARANTY

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named and of the payment to me by Electrical Research Products, Inc., of the sum of One ($1.00) Dollar, I, _____, of the City of _____, State of _____, do hereby covenant and agree to and with the said Electrical Research Products, Inc., that if default shall at any time be made by said Exhibitor in the payment of any monies which shall become due to said Electrical Research Products, Inc., under said agreement and/or in the performance of the covenants contained therein on the part of said Exhibitor to be paid and/or performed, that I will well and truly pay the said sums which may become due thereunder to said Electrical Research Products, Inc., or any arrears thereof, and also all damages which may arise in consequence of the nonperformance of the covenants of said agreement, or any of them, upon written notice of any such default being forwarded to me at the address above indicated.

As an additional inducement to Electrical Research Products, Inc., to furnish and lease the aforementioned equipment I further agree that the foregoing obligations assumed by me shall not be affected or prejudiced by any extension of the time for payment of the obligations of the Exhibitor, or by waiver of any other provisions set forth in said agreement to be kept or performed by the Exhibitor, or by any other modification of said agreement whereby the obligations herein assumed by me would, but for this provision be discharged.

Witness my hand and seal this _____ day of _____, 193__.

_____ (L. S.)

WAIVER

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named and of the payment by Electrical Research Products, Inc., of the sum of One Dollar ($1.00), receipt of which is hereby acknowledged, the undersigned parties having an interest in the Theatre referred to in said agreement as owner or lessor thereof, hereby consent(s) to the installation of said Equipment and waive(s) any and all rights or claims thereto of whatsoever kind or nature which I/we have or may hereafter acquire as landlord(s) of said Theatre, which might or could in any

Digitized by Google

manner interfere with any rights of Electrical Research Products, Inc., in or to said Equipment.

Dated this _____ day of _____, 193__.

_____,
Owner of Theatre.

_____,
Lessor of Theatre (other than Owner).

AGREEMENT FOR WESTERN ELECTRIC SOUND SYSTEM IN _____ (THEATRE), _____(LOCATION)

PLAN X

321 T S

Contract No. _____

This Agreement made in triplicate in City of New York, State of New York, this ____ day of _____ 193__, by and between Electrical Research Products, Inc. (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation having its principal place of business in the City, County, and State of New York (hereinafter called "Products"), licensor, and _____ a _____ Corporation having its principal place of business at No. _____ Avenue/Street, in the City of _____ State of _____ (hereinafter called the "Exhibitor"), licensee, and operating the _____ Theatre, at No. _____ Avenue/Street, in the City of _____ State of _____ (hereinafter called the "Theatre"):_____

Witnesseth that, for and in consideration of the covenants, stipulations, and representations herein set forth, the respective parties hereto agree as follows:

(Pars. 1-21, inclusive, are the same as Plan A-⅝-B. O. P. P.)

22. *Payments.*—In accordance with the provisions of Section 5 hereof, the Exhibitor agrees to pay to Products the charges provided for in the payment plan hereinafter set forth; said payments to be made at the time and in the manner provided herein, which time and manner shall be of the essence of this agreement.

Plan X.—(1) The sum of _____ ($_____) Dollars, upon submission of this agreement for acceptance.

(2) _____

(3) The following amounts on each and every Saturday during the term of this license, as fixed by the provisions of Section 18 hereof:

The sum of _____ ($_____) Dollars per week for the first twenty-six (26) weeks of the term of this license;

The sum of _____ ($_____) Dollars per week for the second twenty-six (26) weeks of said term; and

The sum of _____ ($_____) Dollars per week for the balance of said term.

(4) In the event of failure of the Exhibitor to make any of the payments provided for in Paragraph 2 of this Section, it would be difficult and impracticable to prove the exact damage to Products resulting from such default. Therefore, in case this agreement shall be terminated by Products by reason of any such default the Exhibitor shall pay to Products, not as a penalty but as agreed or liquidated damages, all sums accrued to Products hereunder to and including the date when Products removes the Equipment or renders it inoperative, and in addition thereto twenty (20%) percent of all sums set forth in Paragraph 2 of this Section which would otherwise accrue thereafter and any note or notes made by the Exhibitor and delivered to Products in accordance with the provisions of said Paragraph shall, to the extent necessary to enable Products to collect said twenty (20%) percent of the aforementioned balance, become due and payable immediately. The rights of Products contained in this Paragraph shall apply irrespective of whether Products elects to or does repossess the Equipment or any part thereof.

Provided that the payments called for in Paragraph 2 of this Section shall have been fully paid and provided the Exhibitor shall not be and shall not

Digitized by Google

have been in default in respect of any of the terms of this agreement, the Exhibitor may terminate this agreement at any time after the expiration of the first three (3) years of the term hereof upon six (6) months' written notice given by the Exhibitor to Products of its intention so to terminate, which notice shall indicate the effective date of termination.

23. *Description of Equipment and Date of Shipment—Item One.*—Description of Equipment:

Item Two.—The proposed date of shipment is _____, 193__

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,

By _____

Vice-President, Treasurer.

Products' witness signs here:

_____

_____

Exhibitor.

By _____

Exhibitor's witness signs here:

_____

GUARANTY

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named and of the payment to me by Electrical Research Products, Inc., of the sum of One ($1.00) Dollar, I, _____ of the City of _____, State of_____, do hereby covenant and agree to and with the said Electrical Research Products, Inc., that if default shall at any time be made by said Exhibitor in the payment of any monies which shall become due to said Electrical Research Products, Inc., under said agreement and/or in the performance of the covenants contained therein on the part of said Exhibitor to be paid and/or performed, that I will well and truly pay the said sums which may become due thereunder to said Electrical Research Products, Inc., or any arrears thereof, and also all damages which may arise in consequence of the nonperformance of the covenants of said agreement, or any of them, upon written notice of any such default being forwarded to me at the address above indicated.

As an additional inducement to Electrical Research Products, Inc., to furnish and lease the aforementioned equipment I further agree that the foregoing obligations assumed by me shall not be affected or prejudiced by any extension of the time for payment of the obligations of the Exhibitor, or by waiver of any other provisions set forth in said agreement to be kept or performed by the Exhibitor, or by any other modification of said agreement whereby the obligations herein assumed by me would but for this provision be discharged.

Witness my hand and seal this _____ day of _____, 193__

_____(L. S.)

WAIVER

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named and of the payment by Electrical Research Products, Inc., of the sum of One Dollar ($1.00), receipt of which is hereby acknowledged, the undersigned parties having an interest in the Theatre referred to in said agreement as owner or lessor thereof, hereby consent(s) to the installation of said Equipment and waive(s) any and all rights or claims thereto of whatsoever kind of nature which I/we have or may hereafter acquire as landlord(s) of said Theatre, which might or could in any manner interfere with any rights of Electrical Research Products, Inc., in or to said Equipment.

Dated this _____ day of _____, 193__

_____

Owner of Theatre.

_____

Lessor of Theatre (other than Owner).

Digitized by Google

AGREEMENT FOR WESTERN ELECTRIC SOUND SYSTEM IN _____ (THEATRE), _____ (LOCATION)

PLAN B–N.D.P.–XW–F.R.

321 T S

Contract No_____

This Agreement made in triplicate in the City of New York, State of New York, this _____ day of _____, 193__, by and between Electrical Research Products, Inc. (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation having its principal place of business in the City, County, and State of New York (hereinafter called "Products"), licensor, and _____, a _____ Corporation having its principal place of business at No. _____ Avenue/Street, in the City of _____, State of _____ (hereinafter called the "Exhibitor"), licensee, and operating the _____ Theatre, at No. _____ Avenue/Street, in the City of _____ _____, State of _____ (hereinafter called the "Theatre"):

Witnesseth that, for and in consideration of the covenants, stipulations, and representations herein set forth, the respective parties hereto agree as follows:

1. (a) *Grant of License and Furnishing of Equipment.*—Products hereby agrees to furnish a Western Electric Sound Equipment of the type set forth in Item One of Section 23 (hereinafter called the "Equipment"), and hereby grants to the Exhibitor, subject to all the terms, conditions, limitations, and agreements herein contained, a non-exclusive non-assignable license to use the Equipment in the Theatre for the electrical reproduction of sound in connection with, or as incidental to, the exhibition of motion pictures, or any performance given in conjunction therewith, and to employ to the extent necessarily involved in such use of said Equipment the methods and/or systems of Products, under all United States patents and applications for United States patents, relating to said Equipment or to such use thereof, which are now owned or controlled, or which may during the term of this agreement be owned or controlled by Products, or in respect of which it has or may hereafter during the term of this agreement have the right to grant such license.

(b) *Shipment of Equipment.*—Said Equipment shall be furnished f. o. b. Products' warehouse and Products will endeavor to ship the Equipment on or before the date set forth in Item Two of Section 23 hereof. Nothing herein contained shall be considered as a firm agreement on the part of Products to ship the Equipment on or before said date, it being understood that the extent of the obligation of Products in this respect is limited to using its best efforts to procure expeditiously the manufacture and shipment of the Equipment.

2. (a) *Installation and Use of Equipment.*—The Equipment shall be installed by the Exhibitor at its own expense in strict accordance with installation specifications which will be furnished by Products. All preliminary and installation work done and material furnished by the Exhibitor or its agents or servants shall be subject to inspection and approval by Products and the Equipment shall not be used for public performances until the installation thereof shall have been approved by Products. Approval of installation work or material shall in no event subject Products to any responsibility or liability of any kind or nature not specifically assumed by it in this agreement. The Exhibitor, except as herein otherwise specifically provided, shall provide and pay for all services, material, and expenses required in preparation for and/or in connection with the installation of the Equipment.

Products shall provide an engineer and/or projectionist to inspect the preliminary work to be done by the Exhibitor and to supervise the installation of the Equipment. Notice from the Exhibitor that the Equipment has been received and that the Theatre will be ready for the installation of the Equipment on a definite date shall be delivered to Products not less than three (3) days prior to said date and Products shall make every reasonable effort to have its engineer and/or projectionist at the Theatre on said date. The services of said engineer and/or projectionist will be furnished without additional cost to the Theatre for a period of two (2) days and for such additional continuous period not exceeding _____ (_____) days as Products shall deem requisite. If the preliminary work to be done by the Exhibitor is not ready for inspection, or said work is not sufficiently advanced to permit the installation of the Equipment upon the date that the engineer and/or projectionist shall arrive at the Theatre, or in the event that their services shall be required for

Digitized by Google

a period in excess of the aforementioned maximum number of days, or otherwise than for a continuous period, the Exhibitor shall pay to Products its standard charge of Thirty-five ($35.00) Dollars per day per man for any period in excess of said maximum number of days, including time consumed in transit, together with any additional expense which Products may have incurred by reason of said services being required otherwise than for a continuous period.

(b) The Exhibitor recognizes that the Equipment is furnished by Products as a complete unit and that the inventions and construction of the same, and the making of sound records in any form for use therewith, involve highly technical mechanism and art, and that the prestige and business reputation of Products might be seriously affected by imperfect operation of the Equipment or by its use with sound records which are not suited to it or which produce inferior results when used with the Equipment and that the use of said Equipment otherwise than as herein licensed may involve infringement of patent rights. Therefore, in order to secure and insure the functioning of the Equipment to the satisfaction of the parties hereto, the Exhibitor agrees that it will at all times during the period of this license keep, maintain, and operate the Equipment in the manner from time to time prescribed by Products, and in no other manner, and will not, without the written consent of Products or otherwise than under its supervision, move, alter, change, or modify the Equipment. The Exhibitor shall not, without the written consent of Products, add anything thereto nor take anything therefrom; or break the seal upon any part or collection of parts which is or may be sealed by Products. The Exhibitor agrees that if it shall itself take any action with respect to the correction or repair of the Equipment, it will immediately notify Products in writing, giving full details of the action taken to correct or remedy any unsatisfactory condition of the Equipment. The Exhibitor shall use and employ the Equipment only in the Theatre, unless Products shall consent to its removal in accordance with the provisions of Section 3 hereof.

(c) In the event of the Exhibitor violating any of the provisions of paragraph (b) of this Section 2, or using spare, additional or renewal parts not supplied by Products, the Exhibitor expressly waives any claim against Products in respect to the operation of the Equipment.

(d) The Exhibitor expressly agrees that if at any time the Equipment fails to function satisfactorily, it will immediately notify Products by registered mail and telegraph, and the absence of such notification shall be conclusive as to satisfactory functioning of the Equipment.

3. *Change of Theatre or Management.*—In the event that the Exhibitor shall contemplate a sale of the Theatre or its interest therein, or shall contemplate ceasing to operate the Theatre, it shall notify Products in writing of such contemplated action not less than fourteen (14) days prior to the date upon which it will cease to own or operate the Theatre, and shall either make provision for the assumption of this agreement by the successor exhibitor of the Theatre, provided such successor exhibitor is satisfactory to Products (the Exhibitor hereunder hereby guaranteeing the performance by the successor exhibitor of the agreement so assumed by it), or shall make provision satisfactory to Products for the care and custody of the Equipment (the Exhibitor hereby agreeing to assume full responsibility for the safekeeping of the Equipment), and if such care and custody shall involve the removal of the Equipment from the Theatre, Products will consent thereto provided such removal is made under Products' supervision and provided the Exhibitor shall agree to pay Products' then standard charges therefor.

If the Exhibitor shall cease to operate the Theatre or shall dispose of its interest therein, and shall desire to install the Equipment in another theatre (which other theatre shall first be approved by Products), Products shall agree thereto, provided such removal and the installation in such other theatre is made under Products' supervision and provided the Exhibitor shall agree to pay Products' then standard charges therefor and shall enter into a new agreement on Products' then standard form for the unexpired term of the license herein granted.

The Exhibitor shall, at its own expense, perform all of the work required with respect to any removal of the Equipment and shall provide all of the material mentioned in Section 2 (a) hereof which may be required for any reinstallation of the Equipment.

4. *Instruction of Operators and Inspection of Equipment.*—At the time of installation Products agrees to instruct the motion picture operators of the Exhibitor in the manner and method of operating the Equipment for a period

Digitized by Google

of_____(_____) days and for such additional continuous period not exceeding_____(_____) days as Products shall deem requisite. Products shall from time to time, during the term of this agreement, inspect the Equipment and make minor adjustments thereto. The character and frequency of such inspection shall accord with such practice as shall from time to time have been found to be required for the maintenance and normal operation of similar installations licensed for the same general purposes as those referred to in Section 1 hereof and Products shall maintain facilities for rendering such service and inspection. Products shall make no charge for such service and inspection in addition to the consideration specifically provided for in this agreement; provided, however, that if the service and inspection facilities of Products are required by reason of the use of the Exhibitor of any parts for or attachments to the Equipment, other than those furnished by Products, or by reason of violation of Products' instruction relating to the use and operation of the Equipment, the Exhibitor upon receipt of billing therefor, shall pay to Products Thirty-five ($35.00) Dollars per day per man plus any expenses and transportation charges incurred for any services thus required.

5. *Products' Charges.*—During the term of this license the Exhibitor agrees to pay to Products the charges more particularly hereinafter referred to in Section 22 hereof.

6. *Transportation Charges.*—The Exhibitor agrees to pay the cost of transporting all equipment or parts therefor which may be furnished hereunder from the place of shipment to the Theatre, and to accept delivery thereof from the common carrier and make payment directly to the common carrier of freight and express charges thereon. The Exhibitor shall also arrange for any necessary loading, trucking, and unloading to put the Equipment down inside the Theatre, and shall directly defray the cost thereof.

7. *Payment for Additional Parts, Special Service, etc.*—Producers shall render to the Exhibitor such special services relating to the Equipment or the Theatre as Products is in a position to render and as the Exhibitor may order in writing. Products shall furnish such repair and replacement parts as it is in a position to furnish and as the Exhibitor may order in writing, at its list prices in effect at the time of receipt of orders therefor. The Exhibitor shall pay Products' charges for any special services thus rendered, for any parts thus furnished, and any other charges the due date of which is not otherwise definitely fixed, upon rendition of billing by Products. The time of payments herein provided for shall be of the essence of this agreement.

8. *Facilities for Installation and Operation.*—The Exhibitor warrants that the Theatre is, or before said Equipment is installed will be, supplied with suitable electric current; electric power leads of suitable capacity with outlets conveniently located for power supply to the Equipment; suitable space, properly ventilated, for the installation of the storage batteries and charging equipment or other power equipment; a screen, satisfactory to Products as to its acoustic properties; drapes for acoustic purposes, and suitable supports for horns, and agrees to make such other reasonable changes, alterations, and modifications as may be necessary for the proper installation and accommodation of the Equipment, all at the expense of the Exhibitor and when and to the extent and in the manner prescribed by Products. The Exhibitor further agrees at its own expense to obtain all necessary permits and to comply with all laws and ordinances in effect from the date hereof and throughout the term of this license relating to the installation, maintenance, use, and operation of the Equipment or any part thereof and with any Fire Insurance Underwriters' requirements relating thereto.

9. *Title to Equipment.*—Title to and ownership of all equipment, including spare or renewal parts, at any time furnished hereunder and also all tools of all kinds, drawings, prints, and written descriptions and instructions shall at all times be and remain vested in Products. Any and all equipment furnished in accordance with the terms of this agreement shall at all times be and remain personal property notwithstanding the manner or method of its attachment to any real property.

10. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all personal property taxes which may be charged or levied in connection with or which may apply to any equipment furnished hereunder, and the Exhibitor shall reimburse Products for any such taxes which Products may be required to pay.

11. *Access to Equipment.*—The Exhibitor shall provide access for Products' representatives, engineers, and mechanics to the Theatre and to all parts thereof

Digitized by Google

where any of the Equipment may be, at all reasonable hours, for the purpose of supervising the installation and from time to time for the purpose of examining and inspecting the Equipment and for all other purposes referred to herein which may require such access.

12. *Liability for Interruption, Injuries, etc.*—Products shall not be responsible in any manner for any interruption in the operation of the Theatre or of any equipment therein arising from any cause whatsoever or for any loss or damage to persons or property in or upon the said premises for any reason whatsoever. The Exhibitor agrees to indemnify Products for, and save it harmless from any liability or injury to workmen who shall assist in the handling, installing, or operation of the Equipment, and from any liability to any persons resulting from negligence of such workmen. The Exhibitor agrees to use every reasonable effort to prevent the filing of any liens for rent or material or for work, labor, or services which might in any manner affect equipment furnished hereunder and further covenants that if any such lien be filed it will promptly discharge the same.

13. *Default.*—At the option of Products this agreement and the rights of the Exhibitor hereunder shall terminate in the event of failure of the Exhibitor to make payment of charges referred to in Section 22 hereof or failure to pay taxes in accordance with Section 10 hereof, as said charges and taxes shall become due, or upon the insolvency of the Exhibitor, or upon the filing of any petition in bankruptcy by or against the Exhibitor, or upon the making of an assignment of any of the Exhibitor's assets for the benefit of creditors, or upon any application for the appointment of a receiver of the property and assets of the Exhibitor, or upon the commencement of any action, suit, or proceeding against the Exhibitor in respect of the title to, or right to possession of, the Theatre, or (except as provided in Section 3) upon the Exhibitor ceasing to operate the Theatre, or upon removal of the Equipment from the Theatre unless prior to such removal the Exhibitor shall have made arrangements satisfactory to Products for the care and custody of the Equipment, or upon the issue or levy of any attachment or the filing of, or attempt to assert or enforce, any lien which might in any manner affect Producers' title to, or right to possession of, any apparatus or equipment furnished hereunder. The provisions respecting repair and replacement of damaged or destroyed equipment and patent protection, as referred to in Sections 15 and 16, are conditioned upon the Exhibitor not being in default at the time of an occurrence which would normally make the provisions of said sections operative. Without limitation of the provisions of this section, the Exhibitor shall be deemed in default at any time that payments hereunder shall be in arrears for a period of two (2) weeks or more.

In the event of a default under any of the provisions of this agreement at any time during the term hereof the rights and license hereby granted may thereupon be suspended by Products' personally serving a written notice of suspension on the Exhibitor or by depositing such notice in the United States mail, addressed to the Exhibitor at the Theatre; provided, however, that such suspension shall not operate in any way to void or restrict Products' right of termination on account of such default.

14. *Repossession of Equipment.*—Upon termination or expiration of this license by lapse of time or otherwise, the Exhibitor shall surrender the Equipment to Products in good order and condition, reasonable wear and tear due to proper use thereof in the manner and place and for the purposes set forth in this agreement only excepted, and Products may repossess the Equipment and may, for the purpose of reducing the same to possession, enter the Theatre or any other premises where said Equipment may be and without any legal proceedings whatever possess and remove said Equipment, and the Exhibitor agrees to cooperate in such removal. If this license shall be terminated by default, or if the Exhibitor permits any default hereunder to occur, whether or not Products shall exercise the option to terminate this agreement, Products shall thereupon have the right without notice and without any legal proceedings whatever to take immediate possession of said Equipment, or any part thereof, and for that purpose may pursue the same wherever it or any part thereof may be found and may enter, with the aid and assistance of any person or persons, the Theatre or other premises of the Exhibitor and such place or places whatsoever, whether belonging to the Exhibitor or not, in which the Equipment or any part thereof may be placed, and may take and seize the same to its own proper use forever, free from any right of the Exhibitor under this agreement. In the event of the suspension of the rights and/or

Digitized by Google

license under the provisions of Section 13 hereof, Products shall also have the right in like manner to enter said premises and to render the Equipment inoperative by whatever means may, in the opinion of Products, be necessary or expedient. Products shall also have the right in like manner to enter the said premises and remove the Equipment in the event of the said premises being destroyed or damaged by fire or otherwise, to an extent which, in the opinion of Products, endangers the Equipment. The Exhibitor expressly covenants that in any of such events no claim will be made for damage on account of such action or otherwise, and the Exhibitor further agrees that it will hold and save harmless Products and its agents from and against any and all claims for damages by any parties whomsoever on account of such action. In the event of termination or expiration of this license by lapse of time, the occurrence of any default, or otherwise, and irrespective of whether Products shall remove and repossess the Equipment in accordance with the provisions contained in this section, Products shall retain and may enforce any and all claims or rights of action against the Exhibitor which it may then possess in respect of any sum or sums then due to Products in accordance with the terms and conditions of this agreement.

15. *Replacement of Equipment in the Event of Destruction.*—In the event of the partial or total destruction of the Equipment during the term of this license by extraneous fire, or act of God, without fault or neglect on the part of the Exhibitor, and provided the Exhibitor shall not be in default in respect of any of the terms of this agreement and shall continue to operate the Theatre or after any necessary repairs to the Theatre shall resume its operation, Products will, at its own expense, either repair the Equipment or, if in the sole judgment of Products such destruction is so extensive as to render repair of the Equipment impracticable, furnish to the Exhibitor equipment then manufactured by or for Products as nearly similar as possible to the type of Equipment so destroyed. Except as herein otherwise provided, it is agreed that the Equipment shall at all times subsequent to shipment thereof by Products to the Exhibitor, be held at the sole risk of the Exhibitor. If replacing equipment be provided by Products in the manner hereinabove indicated the obligations of Products and the Exhibitor respecting the installation thereof shall be as set forth in Section 2 (a) hereof. The foregoing obligation of Products to repair or replace Equipment shall not apply to partial or total destruction of said Equipment while it is in the custody of a common carrier.

16. *Patent Protection.*—Products agree that subject to the provisions hereof it will at its own expense defend any and all actions and suits which may during the term hereof be brought against the Exhibitor for infringement of any United States patent or patents relating to the apparatus or equipment furnished by Products hereunder, on account of any use of said apparatus or equipment by the Exhibitor for the purpose and in the manner contemplated by this agreement and Products will pay or satisfy all judgments and decrees for profits, damages and/or costs which may be finally awarded against the Exhibitor by the Court of last resort in any such action or suit on account of any such infringement, provided that the Exhibitor shall give Products prompt notice (with written confirmation) of such action or suit, full information and all reasonable cooperation in connection therewith and full opportunity to defend the same, and provided further, that this agreement shall not extend to any infringement or claim of infringement on account of the use of any apparatus or thing not furnished by Products, or of any of said equipment in combination with any apparatus or thing not furnished by Products, except films and records produced under licenses from Products where the alleged infringement resides in characteristics thereof or in methods or apparatus for producing the same specifically prescribed by Products and that the liability of Products under this agreement shall in no case exceed the total amount paid hereunder by the Exhibitor to Products. To the end that Products may protect itself and the Exhibitor from claims for infringement of patents, it is agreed that Products may at any time substitute for any of the equipment or parts thereof which may have been furnished to the Exhibitor hereunder, other equipment or parts which Products shall determine to be suitable for performing the function required, such substitution to be made without additional expense to the Exhibitor and with the least possible inconvenience to it or interruption of its business.

17. *License Non-exclusive.*—Nothing in this agreement shall be construed as granting to the Exhibitor an exclusive right or license to operate the Equip-

Digitized by Google

ment in any particular City, Town, zone or neighborhood or as preventing or prohibiting Products from entering into similar agreements or granting licenses for the installation and use of similar equipment in competing theatres.

18. *Period of License.*—This license shall be for a term of ten (10) years from the day upon which the Equipment is first used for a public performance, or from the day which Products shall certify to the Exhibitor as the date that the Equipment was made available for public performance, whichever date be the earlier; provided, however, that the term hereof and the payments to Products hereunder (other than the payment tendered upon the submission of this agreement) shall begin not later than thirty (30) days after the date of shipment. If this agreement be terminated at any time prior to the expiration of ten (10) years from the date commencement of the term hereof, in accordance with any of the provisions contained in this agreement, all sums paid hereunder to Products prior to the effective date of such termination shall be retained in full by Products and no part thereof shall be deemed to apply to any portion of the ten (10) year term subsequent to the effective date of termination.

19. *General Provisions.*—(a) The sums to be paid by the Exhibitor are not subject to any reduction on account of any change which hereafter may be made in Products' charges for like licenses or equipment or on account of any change in the type, character or quantity of equipment which Products may hereafter offer, or for any other reason.

(b) Products shall not be liable for consequential damages arising by reason of failure to make delivery of the Equipment at the time contemplated herein, nor for consequential damages arising from any other cause whatsoever, whether or not similar to the foregoing.

(c) The parties hereto expressly stipulate that this agreement as herein set forth contains the entire understanding of the respective parties with reference to the subject matter hereof, and that there is no other understanding, agreement or representation, express or implied, in any way limiting, extending, defining, or otherwise relating to the provisions hereof or any of the matters to which the present agreement relates. No agent or employee of Products is authorized to alter or modify this agreement in any way unless such alteration or modification shall be approved in writing by the President, a Vice-President, of the Treasurer of Products or by such representative as may from time to time be designated in writing by any of such officers. No waiver by either party, whether express of implied, of any of the provisions of this agreement shall be construed as constituting a waiver of any other provision or provisions of this agreement or as to estopping either party from its right to enforce any provision or all provisions hereof, other than the provisions or provisions specifically waived.

(d) This agreement shall not become binding upon Products by reason of the acceptance, use or negotiation of any curency, check, draft or other instrument for the payment of money.

20. *Construction.*—The construction and performance of this agreement shall be governed by the laws of the State of New York.

21. *Assignment.*—This agreement shall not be assigned by the Exhibitor without the written consent of Products. It shall, however, subject to such restriction upon assignment by the Exhibitor, be binding upon the parties and their respective successors, assigns, and legal representatives.

22. *Payments.*—In accordance with the provisions of Section 5 hereof, the Exhibitor agrees to pay to Products the charges provided for in the payment plan hereinafter set forth, said payments to be made at the time and in the manner provided herein, which time and manner shall be of the essence of this agreement.

Payment Plan.—(1) The sum of _____ ($_____) Dollars upon submission of this agreement for acceptance.

(2) The sum of _____ ($_____) Dollars on the Saturday next succeeding the date of commencement of the term of the license herein granted, as fixed by the provisions of Section 18, and a like amount on each and every Saturday thereafter for a period of _____ weeks.

(3) Thereafter and for the balance of the term of this license the sum of _____ ($_____) Dollars on each and every Saturday commencing with the Saturday next succeeding the final payment made in accordance with Paragraph 2 above.

(4) In the event of failure of the Exhibitor to make any of the payments provided for in Paragraph 2 of this Section, it would be difficult and impracticable

Digitized by Google

to prove the exact damage to Products resulting from such default. Therefore, in case this agreement shall be terminated by Products by reason of any such default, the Exhibitor shall pay to Products, not as a penalty but as agreed or liquidated damages, all sums accrued to Products hereunder to and including the date when Products removes the Equipment or renders it inoperative, and in addition thereto twenty (20%) percent of all sums set forth in Paragraph 2 of this Section which would otherwise accrue thereafter. The rights of Products contained in this Paragraph shall apply irrespective of whether Products elects to or does repossess the Equipment or any part thereof.

Provided that the payments called for in Paragraph 2 of this Section shall have been fully paid and provided the provided the Exhibitor shall not be and shall not have been in default in respect of any of the terms of this agreement, the Exhibitor may terminate this agreement at any time after the expiration of the first three (3) years of the term hereof upon six (6) months' written notice given by the Exhibitor to Products of its intention so to terminate, which notice shall indicate the effective date of termination.

---

23. *Description of Equipment and Date of Shipment—Item One.*—Description of Equipment:

Item Two.—The proposed date of shipment is _____, 193_.

IN WITNESS WHEREOF the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf the day and year first above written.

Products' witness signs here:

_____

ELECTRICAL RESEARCH PRODUCTS, INC.,

By _____,

Vice-President and Treasurer.

Exhibitor's witness signs here:

_____,

Exhibitor.

By _____.

GUARANTY

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named and of the payment to me by ELECTRICAL RESEARCH PRODUCTS, INC., of the sum of One ($1.00) Dollar, I, _____, of the City of _____, State of _____, do hereby covenant and agree to and with the said Electrical Research Products, Inc., that if default shall at any time be made by said Exhibitor in the payment of any monies which shall become due to said Electrical Research Products, Inc., under said agreement and/or in the performance of the covenants contained therein on the part of said Exhibitor to be paid and/or performed, that I will well and truly pay the said sums which may become due thereunder to said Electrical Research Products, Inc., or any arrears thereof, and also all damages which may arise in consequence of the nonperformance of the covenants of said agreement, or any of them, upon written notice of any such default being forwarded to me at the address above indicated.

As an additional inducement to Electrical Research Products, Inc., to furnish and lease the aforementioned equipment I further agree that the foregoing obligations assumed by me shall not be affected or prejudiced by any extension of the time for payment of the obligations of the Exhibitor, or by waiver of any other provisions set forth in said agreement to be kept or performed by the Exhibitor, or by any other modification of said agreement whereby the obligations herein assumed by me would, but for this provision, be discharged.

Witness my hand and seal this _____ day of _____, 193_.

_____ [L.S.]

WAIVER

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named and of the payment by Electrical Research Products, Inc., of the sum of One Dollar ($1.00), receipt of which is hereby acknowledged, the undersigned parties having an interest in the

Digitized by Google

Theatre referred to in said agreement as owner or lessor thereof, hereby consent(s) to the installation of said Equipment and waive(s) any and all rights or claims thereto of whatsoever kind or nature which I/we have or may hereafter acquire as landlord(s) of said Theatre which might or could in any manner interfere with any rights of Electrical Research Products, Inc., in or to said Equipment.

Dated this _____ day of _____, 193..

_____,
Owner of Theatre.

_____,
Lessor of Theatre (other than Owner).

AGREEMENT FOR WESTERN ELECTRIC SOUND SYSTEM IN ——— (THEATRE), ——— LOCATION

PLAN RW

Contract No. _____

This Agreement made in triplicate in the City of New York, State of New York, this _____ day of _____, 193.., by and between Electrical Research Products, Inc. (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation, having its principal place of business in the City, County, and State of New York (hereinafter called "Products"), licensor, and _____, a _____ Corporation, having its principal place of business at No. _____ Avenue/Street, in the City of _____, State of _____ (hereinafter called the "Exhibitor"), licensee, and operating the _____ Theatre, at No. _____ Avenue/Street, in the City of _____, State of_____ (hereinafter called the "Theatre"):

Witnesseth that, for and in consideration of the covenants, stipulations, and representations herein set forth, the respective parties hereto agree as follows:

1. (a) *Grant of License and Furnishing of Equipment.*—Products hereby agrees to furnish a Western Electric Sound Equipment of the type set forth in Item One of Section 23 (hereinafter called the "Equipment"), and hereby grants to the Exhibitor, subject to all the terms, conditions, limitations, and agreements herein contained, a non-exclusive non-assignable license to use the Equipment in the Theatre for the electrical reproduction of sound in connection with, or as incidental to, the exhibition of motion pictures, or any performance given in conjunction therewith, and to employ to the extent necessarily involved in such use of said Equipment the methods and/or systems of Products, under all United States patents and applications for United States patents, relating to said Equipment or to such use thereof, which are now owned or controlled, or which may during the term of this agreement be owned or controlled by Products, or in respect of which it has or may hereafter during the term of this agreement have the right to grant such license.

(b) *Shipment of Equipment.*—Said Equipment shall be furnished f. o. b. Products' warehouse, and Products will endeavor to ship the Equipment on or before the date set forth in Item Two of Section 23 hereof. Nothing herein contained shall be considered as a firm agreement on the part of Products to ship the Equipment on or before said date, it being understood that the extent of the obligation of Products in this respect is limited to using its best efforts to procure expeditiously the manufacture and shipment of the Equipment.

2. (a) *Installation and Use of Equipment.*—The Equipment shall be installed by the Exhibitor at its own expense in strict accordance with installation specifications which will be furnished by Products. All preliminary and installation work done and material furnished by the Exhibitor or its agents or servants shall be subject to inspection and approval by Products, and the Equipment shall not be used for public performances until the installation thereof shall have been approved by Products. Approval of installation work or material shall in no event subject Products to any responsibility or liability of any kind or nature not specifically assumed by it in this agreement. The Exhibitor, except as herein otherwise specifically provided, shall provide and pay for all services, material, and expenses required in preparation for and/or in connection with the installation of the Equipment.

Digitized by Google

Products shall provide an engineer and/or projectionist to inspect the preliminary work to be done by the Exhibitor and to supervise the installation of the Equipment. Notice from the Exhibitor that the Equipment has been received and that the Theatre will be ready for the installation of the Equipment on a definite date shall be delivered to Products not less than three (3) days prior to said date, and Products shall make every reasonable effort to have its engineer and/or projectionist at the Theatre on said date. The services of said engineer and/or projectionist will be furnished without additional cost to the Exhibitor for a period of two (2) days and for such additional continuous period not exceeding _____ (_____) days as Products shall deem requisite. If the preliminary work to be done by the Exhibitor is not ready for inspection, or said work is not sufficiently advanced to permit the installation of the Equipment upon the date that the engineer and/or projectionist shall arrive at the Theatre, or in the event that their services shall be required for a period in excess of the aforementioned maximum number of days, or otherwise than for a continuous period, the Exhibitor shall pay to Products its standard charge of Thirty-five ($35.00) Dollars per day per man for any period in excess of said maximum number of days, including time consumed in transit, together with any additional expense which Products may have incurred by reason of said services being required otherwise than for a continuous period.

(b) The Exhibitor recognizes that the Equipment is furnished by Products as a complete unit and that the inventions and construction of the same, and the making of sound records in any form for use therewith, involve highly technical mechanism and art, and that the prestige and business reputation of Products might be seriously affected by imperfect operation of the Equipment or by its use with sound records which are not suited to it or which produce inferior results when used with the Equipment, and that the use of said Equipment otherwise than as herein licensed may involve infringement of patent rights. Therefore, in order to secure and insure the functioning of the Equipment to the satisfaction of the parties hereto, the Exhibitor agrees that it will at all times during the period of this license keep, maintain, and operate the Equipment in the manner from time to time prescribed by Products, and in no other manner, and will not, without the written consent of Products or otherwise than under its supervision, move, alter, change, or modify the Equipment. The Exhibitor shall not, without the written consent of Products, add anything thereto nor take anything therefrom, or break the seal upon any part or collection of parts which is or may be sealed by Products. The Exhibitor agrees that if it shall itself take any action with respect to the correction or repair of the Equipment, it will immediately notify Products in writing, giving full details of the action taken to correct or remedy any unsatisfactory condition of the Equipment. The Exhibitor shall use and employ the Equipment only in the Theatre, unless Products shall consent to its removal in accordance with the provisions of Section 3 hereof.

(c) In the event of the Exhibitor violating any of the provisions of paragraph (b) of this Section 2, or using spare, additional, or renewal parts not supplied by Products, the Exhibitor expressly waives any claim against Products in respect to the operation of the Equipment.

(d) The Exhibitor expressly agrees that if at any time the Equipment fails to function satisfactorily, it will immediately notify Products by registered mail and telegraph, and the absence of such notification shall be conclusive as to satisfactory functioning of the Equipment.

3. *Change of Theatre or Management.*—In the event that the Exhibitor shall contemplate a sale of the Theatre or its interest therein, or shall contemplate ceasing to operate the Theatre, it shall notify Products in writing of such contemplated action not less than fourteen (14) days prior to the date upon which it will cease to own or operate the Theatre, and shall either make provision for the assumption of this agreement by the successor exhibitor of the Theatre, provided such successor exhibitor is satisfactory to Products (the Exhibitor hereunder hereby guaranteeing the performance by the successor exhibitor of the agreement so assumed by it), or shall make provision satisfactory to Products for the care and custody of the Equipment (the Exhibitor hereby agreeing to assume full responsibility for the safekeeping of the Equipment), and if such care and custody shall involve the removal of the Equipment from the Theatre, Products will consent thereto, provided such removal is made under Products' supervision and provided the Exhibitor shall agree to pay Products' then standard charge therefor.

Digitized by Google

If the Exhibitor shall cease to operate the Theatre or shall dispose of its interest therein, and shall desire to install the Equipment in another theatre (which other theatre shall first be approved by Products), Products shall agree thereto, provided such removal and the installation in such other theatre is made under Products' supervision and provided the Exhibitor shall agree to pay Products' then standard charges therefor and shall enter into a new agreement on Products' then standard form for the unexpired term of the license herein granted.

The Exhibitor shall, at its own expense, perform all of the work required with respect to any removal of the Equipment and shall provide all of the material mentioned in Section 2 (a) hereof which may be required for any reinstallation of the Equipment.

4. *Instruction of Operators and Inspection of Equipment.*—At the time of installation Products agrees to instruct the motion picture operators of the Exhibitor in the manner and method of operating the Equipment for a period of _____ (_____) days and for such additional continuous period, not exceeding _____ (_____) days as Products shall deem requisite. Products shall, from time to time, during the term of this agreement, inspect the Equipment and make minor adjustments thereto. The character and frequency of such inspection shall accord with such practice as shall from time to time have been found to be required for the maintenance and normal operation of similar installations licensed for the same general purposes as those referred to in Section 1 hereof, and Products shall maintain facilities for rendering such service and inspection. Products shall make no charge for such service and inspection in addition to the consideration specifically provided for in this agreement; provided, however, that if the service and inspection facilities of Products are required by reason of the use by the Exhibitor of any parts for or attachments to the Equipment, other than those furnished by Products, or by reason of violation of Products' instruction relating to the use and operation of the Equipment, the Exhibitor, upon receipt of billing therefor, shall pay to Products Thirty-five ($35.00) Dollars per day per man plus any expenses and transportation charges incurred for any services thus required.

5. *Products' Charges.*—During the term of this license the Exhibitor agrees to pay to Products the charges more particularly hereinafter referred to in Section 22 hereof.

6. *Transportation Charges.*—The Exhibitor agrees to pay the cost of transporting all equipment or parts therefor which may be furnished hereunder from the place of shipment to the Theatre, and to accept delivery thereof from the common carrier and make payment directly to the common carrier of freight and express charges thereon. The Exhibitor shall also arrange for any necessary loading, trucking, and unloading to put the Equipment down inside the Theatre, and shall directly defray the cost thereof.

7. *Payment for Additional Parts, Special Service, etc.*—Products shall render to the Exhibitor such special services relating to the Equipment or the Theatre as Products is in a position to render and as the Exhibitor may order in writing. Products shall furnish such repair and replacement parts as it is in a position to furnish and as the Exhibitor may order in writing, at its list prices in effect at the time of receipt of orders therefor. The Exhibitor shall pay Products' charges for any special services thus rendered, for any parts thus furnished, and any other charges, the due date of which is not otherwise definitely fixed, upon rendition of billing by Products. The time of payments herein provided for shall be of the essence of this agreement.

8. *Facilities for Installation and Operation.*—The Exhibitor warrants that the Theatre is, or before said Equipment is installed will be, supplied with suitable electric current; electric power leads of suitable capacity with outlets conveniently located for power supply to the Equipment; suitable space, properly ventilated, for the installation of the storage batteries and charging equipment or other power equipment; a screen, satisfactory to Products as to its acoustic properties; drapes for acoustic purposes, and suitable supports for horns; and agrees to make such other reasonable changes, alterations, and modifications as may be necessary for the proper installation and accommodation of the Equipment, all at the expense of the Exhibitor and when and to the extent and in the manner prescribed by Products. The Exhibitor further agrees at its own expense to obtain all necessary permits and to comply with all laws and ordinances in effect from the date hereof and throughout the term of this license relating to the installation, maintenance, use, and operation of the Equipment or any part thereof and with any Fire Insurance Underwriters' requirements relating thereto.

Digitized by Google

9. *Title to Equipment.*—Title to and ownership of all equipment, including spare or renewal parts, at any time furnished hereunder, and also all tools of all kinds, drawings, prints, and written descriptions and instructions, shall at all times be and remain vested in Products. Any and all equipment furnished in accordance with the terms of this agreement shall at all times be and remain personal property, notwithstanding the manner or method of its attachment to any real property.

10. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all personal property taxes which may be charged or levied in connection with or which may apply to any equipment furnished hereunder, and the Exhibitor shall reimburse Products for any such taxes which Products may be required to pay.

11. *Access to Equipment.*—The Exhibitor shall provide access for Products' representatives, engineers, and mechanics to the Theatre and to all parts thereof where any of the Equipment may be, at all reasonable hours, for the purpose of supervising the installation and from time to time for the purpose of examining and inspecting the Equipment and for all other purposes referred to herein which may require such access.

12. *Liability for Interruption, Injuries, etc.*—Products shall not be responsible in any manner for any interruption in the operation of the Theatre or of any equipment therein arising from any cause whatsoever, or for any loss or damage to persons or property in or upon the said premises for any reason whatsoever. The Exhibitor agrees to indemnity Products for, and save it harmless from, any liability or injury to workmen who shall assist in the handling, installing, or operation of the Equipment, and from any liability to any persons resulting from negligence of such workmen. The Exhibitor agrees to use every reasonable effort to prevent the filing of any liens for rent or material or for work, labor, or services which might in any manner affect equipment furnished hereunder, and further covenants that if any such liens be filed it will promptly discharge the same.

13. *Default.*—This agreement and/or the rights of the Exhibitor hereunder and/or the license hereby granted shall, at the option of Products, terminate and come to an end in the event of any breach or default on the part of the Exhibitor with respect to any of the covenants and conditions herein contained on its part to be performed, or upon the insolvency of the Exhibitor or upon the filing of a voluntary or involuntary petition in bankruptcy or upon the voluntary or involuntary assignment of any of the Exhibitor's assets for the benefit of creditors, or upon the application for the appointment of a receiver of the property and assets of the Exhibitor, or upon the commencement of any action, suit, or proceeding against the Exhibitor in the nature of ejectment, distress for rent, summary dispossession, or any other action, suit, or proceeding in respect of the title to or right to possession of the Theatre, or upon the issue or levy of any attachment, or the filing of or attempt to assert or enforce any lien which might in any manner affect Products' title to or right to possession of any apparatus or equipment furnished hereunder. The Exhibitor shall indemnify Products for any loss or damage suffered by Products as a result of the commencement or final determination of any action, suit, or proceeding against the Exhibitor respecting the title to or right to possession of the Theatre, or the issue or levy of any attachment, or the filing of or attempt to assert or enforce any lien above referred to.

In the event of a default under any of the provisions of this agreement at any time during the term of this license, the right and/or license hereby granted may there upon be suspended by Products' personally serving a written notice of suspension on the Exhibitor or by depositing such notice in the United States mail, addressed to the Exhibitor at the Theatre; provided, however, that such suspension shall not operate in any way to void or restrict Products' right of termination on account of such defaults.

14. *Repossession of Equipment.*—Upon termination or expiration of this license by lapse of time or otherwise, the Exhibitor shall surrender the Equipment to Products in good order and condition, reasonable wear and tear due to proper use thereof in the manner and place and for the purposes set forth in this agreement only excepted, and Products may repossess the Equipment and may, for the purpose of reducing the same to possession, enter the Theatre or any other premises where said Equipment may be and without any legal proceedings whatever possess and remove said Equipment, and the Exhibitor agrees to cooperate in such removal. If this license shall be terminated by default, or if the Exhibitor permits any default hereunder to occur, whether or not Products shall exercise the option to terminate this agreement, Products shall thereupon have the right

Digitized by Google

without notice and without any legal proceedings whatever to take immediate possession of said Equipment, or any part thereof, and for that purpose may pursue the same wherever it or any part thereof may be found and may enter, with the aid and assistance of any person or persons, the Theatre or other premises of the Exhibitor and such place or places whatsoever, whether belonging to the Exhibitor or not, in which the Equipment or any part thereof may be placed, and may take and seize the same to its own proper use forever, free from any right of the Exhibitor under this agreement. In the event of the suspension of the rights and/or license under the provisions of Section 13 hereof, Products shall also have the right in like manner to enter said premises and to render the Equipment inoperative by whatever means may, in the opinion of Products, be necessary or expedient. Producers shall also have the right in like manner to enter the said premises and remove the Equipment in the event of the said premises being destroyed or damaged by fire or otherwise, to an extent which, in the opinion of Products, endangers the Equipment. The Exhibitor expressly covenants that in any of such events no claim will be made for damage on account of such action or otherwise, and the Exhibitor further agrees that it will hold and save harmless Products and its agents from and against any and all claims for damages by any parties whomsoever on account of such action. In the event of termination or expiration of this license by lapse of time, the occurrence of any default, or otherwise, and irrespective of whether Products shall remove and repossess the Equipment in accordance with the provisions contained in this section, Products shall retain and may enforce any and all claims or rights of action against the Exhibitor which it may then possess in respect of any sum or sums then due to Products in accordance with the terms and conditions of this Agreement.

15. *Replacement of Equipment in the Event of Destruction.*—In the event of the partial or total destruction of the Equipment during the term of this license by extraneous fire, or act of God, without fault or neglect on the part of the Exhibitor, and provided the Exhibitor shall not be in default in respect of any of the terms of this agreement and shall continue to operate the Theatre or after any necessary repairs to the Theatre shall resume its operation, Products will, at its own expense, either repair the Equipment or, if in the sole judgment of Products such destruction is so extensive as to render repair of the Equipment impracticable, furnish to the Exhibitor equipment then manufactured by or for Products as nearly similar as possible to the type of Equipment so destroyed. Except as herein otherwise provided, it is agreed that the Equipment shall at all times subsequent to shipment thereof by Products to the Exhibitor be held at the sole risk of the Exhibitor. If replacing equipment be provided by Products in the manner hereinabove indicated, the obligations of Products and the Exhibitor respecting the installation thereof shall be as set forth in Section 2 (a) hereof. The foregoing obligation of Products to repair or replace Equipment shall not apply to partial or total destruction of said Equipment while it is in the custody of a common carrier.

16. *Patent Protection.*—Products agrees that subject to the provisions hereof it will at its own expense defend any and all actions and suits which may during the term hereof be brought against the Exhibitor for infringement of any United States patent or patents relating to the apparatus or equipment furnished by Products hereunder, on account of any use of of said apparatus or equipment by the Exhibitor for the purpose and in the manner contemplated by this agreement, and Products will pay or satisfy all judgments and decrees for profits, damages, and/or costs which may be finally awarded against the Exhibitor by the Court of last resort in any such action or suit on account of any such infringement, provided that the Exhibitor shall give Products prompt notice (with written confirmation) of such action or suit, full information and all reasonable cooperation in connection therewith, and full opportunity to defend the same; and provided further, that this agreement shall not extend to any infringement or claim of infringement on account of the use of any apparatus or thing not furnished by Products, or of any of said equipment in combination with any apparatus or thing not furnished by Products, except films and records produced under licenses from Products where the alleged infringement resides in characteristics thereof or in methods or apparatus for producing the same specifically prescribed by Products, and that the liability of Products under this agreement shall in no case exceed the total amount paid hereunder by the Exhibitor to Products. To the end that Products may protect itself and the Exhibitor from claims for infringement of patents, it is agreed that Products may at any time substitute for any of the equipment or parts thereof which may have been furnished to the Ex-

Digitized by Google

hibitor hereunder, other equipment or parts which Products shall determine to be suitable for performing the function required, such substitution to be made without additional expense to the Exhibitor and with the least possible inconvenience to it or interruption of its business.

17. *License Non-exclusive.*—Nothing in this agreement shall be construed as granting to the Exhibitor an exclusive right or license to operate the Equipment in any particular City, Town, zone, or neighborhood, or as preventing or prohibiting Products from entering into similar agreements or granting licenses for the installation and use of similar equipment in competing theatres.

18. *Period of license.*—This license shall be for a term of ten (10) years from the day upon which the Equipment is first used for a public performance, or from the day which Products shall certify to the Exhibitor as the date that the Equipment was made available for public performance, whichever date be the earlier; provided, however, that the term hereof and the payments to Products hereunder (other than the payment tendered upon the submission of this agreement) shall begin not later than thirty (30) days after the date of shipment. If this agreement be terminated at any time prior to the expiration of ten (10) years from the date of commencement of the term hereof, in accordance with any of the provisions contained in this agreement, all sums paid hereunder to Products prior to the effective date of such termination shall be retained in full by Products and no part thereof shall be deemed to apply to any portion of the ten (10) year term subsequent to the effective date of termination.

19. *General Provisions.*—(a) The sums to be paid by the Exhibitor are not subject to any reduction on account of any change which hereafter may be made in Products' charges for like licenses or equipment or on account of any change in the type, character, or quantity of equipment which Products may hereafter offer, or for any other reason.

(b) Products shall not be liable for consequential damages arising by reason of failure to make delivery of the Equipment at the time contemplated herein, nor for consequential damages arising from any other cause whatsoever, whether or not similar to the foregoing.

(c) The parties hereto expressly stipulate that this agreement as herein set forth contains the entire understanding of the respective parties with reference to the subject matter hereof, and that there is no other understanding, agreement, or representation, express or implied, in any way limiting, extending, defining, or otherwise relating to the provisions hereof or any of the matters to which the present agreement relates. No agent or employee of Products is authorized to alter or modify this agreement in any way unless such alteration or modification shall be approved in writing by the President, a Vice-President, or the Treasurer of Products, or by such representative as may from time to time be designated in writing by any of such officers. No waiver by either party, whether express or implied, of any of the provisions of this agreement shall be construed as constituting a waiver of any other provision or provisions of this agreement or as estopping either party from its right to enforce any provision or all provisions hereof, other than the provision or provisions specifically waived.

(d) This ageement shall not become binding upon Products by reason of the acceptance, use, or negotiation of any currency, check, draft, or other instrument for the payment of money.

20. *Construction.*—The construction and performance of this agreement shall be governed by the laws of the State of New York.

21. *Assignment.*—This agreement shall not be assigned by the Exhibitor without the written consent of Products. It shall, however, subject to such restriction upon assignment by the Exhibitor, be binding upon the parties and their respective successors, assigns, and legal representatives.

22. *Payments.*—In accordance with the provisions of Section 5 hereof, the Exhibitor agrees to pay to Products the charges provided for in the payment plan hereinafter set forth; said payments to be made at the time and in the manner provided herein, which time and manner shall be of the essence of this agreement.

Plan RW.—(1) The sum of _____ ($_____) Dollars, due and payable upon submission of this agreement for acceptance.

(2)

(3)

(4) In the event of failure of the Exhibitor to make any of the payments provided for in Paragraph 2 of this Section, it would be difficult and impracticable to prove the exact damage to Products resulting from such default

Digitized by Google

Therefore, in case this agreement shall be terminated by Products by reason of any such default, the Exhibitor shall pay to Products, not as a penalty but as agreed or liquidated damages, all sums accrued to Products hereunder to and including the date when Products removes the Equipment or renders it inoperative, and in addition thereto twenty (20%) percent of all sums set forth in Paragraph 2 of this Section which would otherwise accrue thereafter. The rights of Products contained in this Paragraph shall apply irrespective of whether Products elects to or does repossess the Equipment or any part thereof.

23. *Equipment—Item One.*—Description of Equipment:

Item Two.—(a) The Equipment having been installed and used in the Theatre prior to the execution of this agreement, the provisions of Sections 1 (a), 1 (b), 2 (a), the first sentence of Section 4 and the first sentence of Section 8, shall be deemed to have been complied with by the parties hereto. The provisions contained in the first sentence of Section 18 are amended so as to provide that the license herein granted shall be for a period of ten (10) years from the date hereof.

(b) This agreement shall terminate all prior agreements between Products and the Exhibitor relating to the installation and licensing of Western Electric Sound Equipment in the Theatre.

In witness whereof the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf the day and year first above written.

Products' witness signs here:

ELECTRICAL RESEARCH PRODUCTS, INC.,

By _____

Vice-President, Treasurer.

Exhibitor's witness signs here:

_____

Exhibitor.

By _____

GUARANTY

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named and of the payment to me by Electrical Research Products, Inc., of the sum of One ($1.00) Dollar, I, _____, of the City of _____, State of _____, do hereby covenant and agree to and with the said Electrical Research Products, Inc., that if default shall at any time be made by said Exhibitor in the payment of any monies which shall become due to said Electrical Research Products, Inc., under said agreement and/or in the performance of the covenants contained therein on the part of said Exhibitor to be paid and/or performed, that I will well and truly pay the said sums which may become due thereunder to said Electrical Research Products, Inc., or any arrears thereof, and also all damages which may arise in consequence of the nonperformance of the covenants of said agreement, or any of them, upon written notice of any such default being forwarded to me at the address above indicated.

As an additional inducement to Electrical Research Products, Inc., to furnish and lease the aforementioned equipment I further agree that the foregoing obligations assumed by me shall not be affected or prejudiced by any extension of the time for payment of the obligations of the Exhibitor, or by waiver of any other provisions set forth in said agreement to be kept or performed by the Exhibitor, or by any other modification of said agreement whereby the obligations herein assumed by me would, but for this provision, be discharged.

Witness my hand and seal this _____ day of _____ 193__.

_____ (L. S.)

WAIVER

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named and of the payment by Electrical Research Products, Inc., of the sum of One Dollar ($1.00), receipt of which is hereby acknowledged, the undersigned parties having an interest in the Theatre referred to in said agreement as owner or lessor thereof, hereby consent(s) to the installation of said Equipment and waive(s) any and all rights

Digitized by Google

or claims thereto of whatsoever kind or nature which I/we have or may hereafter acquire as landlord(s) of said Theatre, which might or could in any manner interfere with any rights of Electrical Research Products, Inc., in or to said Equipment.

Dated this _____ day of _____ 193__.

_____
Owner of Theatre.

_____
Lessor of Theatre (other than Owner).

AGREEMENT FOR WESTERN ELECTRIC SOUND SYSTEM IN _____ THEATRE, _____ LOCATION

PLAN 315%–B. O. P. P.

315 T S

Contract No. _____

This Agreement made in triplicate in the City of New York, State of New York, this _____ day of _____, 193__, by and between Electrical Research Products, Inc. (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation, having its principal place of business in the City, County, and State of New York (hereinafter called "Products), licensor, and _____, a _____ Corporation, having its principal place of business at No. _____ Avenue/Street, in the City of _____, State of _____ (hereinafter called the "Exhibitor"), licensee, and operating the_____ Theatre, at No. _____ Avenue/Street, in the City of _____, State of _____ (hereinafter called the "Theatre"):

Witnesseth that, for, and in consideration of the covenants, stipulations, and representations herein set forth, the respective parties hereto agree as follows:

1. (*a*) *Grant of License and Furnishing of Equipment.*—Products hereby agrees to furnish a Western Electric Sound System of the type set forth in Item One of Section 23 (hereinafter called the "Equipment"), and hereby grants to the Exhibitor, subject to all the terms, conditions, limitations and agreements herein contained, a non-exclusive non-assignable license to use the Equipment in the Theatre for the electrical reproduction of sound in synchronism with, or as incidental to, the exhibition of motion pictures, or any performance given in conjunction therewith, and to employ to the extent necessarily involved in such use of said Equipment the methods and/or systems of Products, under all United States patents and applications for United States patents, relating to said equipment or to such use thereof, which are now owned or controlled, or which may during the term of this agreement be owned or controlled by Products, or in respect of which it has or may hereafter during the term of this agreement have the right to grant such license.

(*b*) *Shipment of Equipment.*—Said Equipment shall be furnished f. o. b. Products' warehouse and Products will endeavor to ship the Equipment on or before the date set forth in Item Two of Section 23 hereof. Nothing herein contained shall be considered as a firm agreement on the part of Products to ship the Equipment on or before said date, it being understood that the extent of the obligation of Products in this respect is limited to using its best efforts to procure expeditiously the manufacture and shipment of the Equipment.

2. (*a*) *Installation and Use of Equipment.*—The Equipment shall be installed by the Exhibitor at its own expense in strict accordance with installation specifications which will be furnished by Products. All installation work done and material furnished by the Exhibitor or its agents or servants shall be subject to inspection and approval by Products and the Equipment shall not be used for public performances until the installation thereof shall have been approved by Products. Approval of installation work or material shall in no event subject Products to any responsibility or liability of any kind or nature not specifically assumed by it in this agreement. The Exhibitor, except as herein otherwise specifically provided, shall provide and pay for all services, material and expenses required in connection with the installation of the Equipment.

Digitized by Google

Products shall provide an engineer to inspect said installation work to be done by the Exhibitor and to supervise the installation of the Equipment. Notice from the Exhibitor that the Equipment has been received and that the Theatre will be ready for the installation of the Equipment on a definite date shall be delivered to Products not less than three (3) days prior to said date and Products shall make every reasonable effort to have its engineer at the Theatre on said date. The services of said engineer will be furnished without additional cost to the Exhibitor for such continuous period as Products shall deem requisite, not to exceed_____ days. If the installation work to be done by the Exhibitor is not ready for inspection or said work is not sufficiently advanced to permit the installation of the Equipment upon the date that the engineer shall arrive at the Theatre, and/or in the event that his services shall be required for a continuous period in excess of_____ days, the Exhibitor shall pay to Products its standard per diem charges for any period in excess of said_____ consecutive days and any additional expense incurred by Products by reason of said services being required for other than a continuous period or for more than_____ days.

(*b*) The Exhibitor agrees that it will use and employ the Equipment only in the Theatre, and that it will at all times during the period of this license keep, maintain and operate the Equipment in the manner from time to time prescribed by Products and in no other manner. The Exhibitor recognizes the highly technical mechanism and art involved in the inventions and construction of the Equipment, and in the making of sound records (in any form) for use therewith, and that the prestige and business reputation of Products might be seriously affected by imperfect operation of the Equipment or by its use with sound records which are not suited to it or which produce inferior results when used with the Equipment, and that use of said Equipment otherwise than as herein licensed may involve infringement of patent rights. Therefore, in order to secure and insure the functioning of the Equipment to the satisfaction of the parties hereto, the Exhibitor shall not, without the written consent of Products, move, alter, change, or modify the Equipment, nor add anything thereto nor take anything therefrom; nor break the seal upon any part or collection of parts which is or may be sealed by Products; nor operate, use or employ the Equipment in any manner in conjunction with any sound record not made under license from Products for such use, unless such sound record is of such character that the Equipment will operate properly, reliably, and efficiently to reproduce sound from such sound record with accuracy of quality and adequacy of volume. Also, in order further to secure proper functioning of the Equipment as aforesaid satisfactorily to the parties hereto, it is agreed that all additional and renewal parts and assembled parts for the Equipment shall be obtained from Products and that all repairs to the Equipment shall be made as specified by Products. Products may from time to time at the expense of the Exhibitor, supply and install such spare and renewal parts as may, in its opinion, be necessary to the satisfactory operation and maintenance of the Equipment. Nothing herein contained, however, shall be construed as prohibiting the Exhibitor from taking all reasonable steps, consistent with the general intent hereof, either alone or together with Products, to protect, correct, or repair the Equipment in the event of an accident or breakdown, but the Exhibitor agrees that in the event that it shall itself take any action with respect to the correction or repair of the Equipment, it will immediately notify Products in writing, giving full details of the action taken to correct or remedy any unsatisfactory condition of the Equipment. The Exhibitor agrees that prior to the first public use in the Theatre of each film and/or sound record, it will cause such films and/or sound records to be run privately upon the Equipment for the purpose of ascertaining that the Equipment is in satisfactory condition and adjustment for the particular film and/or sound record. The Exhibitor expressly agrees that if at any time the Equipment fails to function satisfactorily, it will immediately notify Products by registered mail and telegraph, and the absence of such notification shall be conclusive as to satisfactory functioning of the Equipment.

3. *Change of Theatre or Management.*—In the event that the Exhibitor shall contemplate a sale of the Theatre or its interests therein, or shall contemplate ceasing to operate the Theatre, it shall notify Products in writing of such contemplated action not less than fourteen (14) days prior to the date upon which it will cease to own or operate the Theatre and shall make provision, satisfactory to Products, for the care and custody of the Equipment or for the assumption of this agreement by the successor operator of the Theatre, provided such successor operator is satisfactory to Products. If the notice hereinabove

Digitized by Google

required shall have been given to Products, Products will supervise the removal of the Equipment and its installation in another theatre designated by the Exhibitor; provided, however, that Products' standard charge as from time to time established for removal of the Equipment shall first be paid by the Exhibitor, and that a new agreement on Products' then standard form for the unexpired term of this license shall first be executed by the exhibitor operating such other theatre; and provided further, that such exhibitor and the theatre designated shall be satisfactory to Products. The Exhibitor also agrees to pay to Products upon rendition of invoice therefor its standard per diem charges for engineering or other services in connection with such removal and reinstallation, and the transportation charges of all employees of Products furnished in connection therewith. If the exhibitor operating such other theatre is not the Exhibitor hereunder, the latter shall become a guarantor to Products for the performance by the former of such new agreement. The exhibitor operating the theatre to which the Equipment may be removed shall at its own expense perform all of the work and provide all of the material set forth in Section 2 (*a*) hereof required for the installation of the Equipment in said theatre.

4. *Instruction of Operators and Inspection of Equipment.*—At the time of installation Products agrees, to the extent deemed necessary by it, and for a continuous period not exceeding four (4) days, to instruct the motion picture machine operators of the Exhibitor in the manner and method of operating the Equipment. Products also agrees to inspect the Equipment from time to time after it shall have been installed.

5. *Products' Charges.*—During the term of this license the Exhibitor agrees to pay to Products, as rental for the Equipment including an initial set of spare parts therefor in accordance with Products' standard list thereof (but exclusive of any additional or renewal parts or equipment) the charges more particularly hereinafter referred to in Section 22 hereof.

6. *Transportation Charges.*—The Exhibitor agrees to pay the cost of transporting all equipment or parts therefor which may be furnished hereunder from the place of shipment to the Theatre, and to accept delivery thereof from the common carrier and make payment directly to the common carrier of freight and express charges thereon. The Exhibitor shall also arrange for any necessary loading, trucking, and unloading to put the Equipment down inside the Theatre, and shall directly defray the cost thereof.

7. *Payment for Additional Parts, Special Service, etc.*—The Exhibitor agrees to pay to Products upon rendition of invoices therefor its standard charges as from time to time established for any repairs to the Equipment and for any additional equipment or spare or renewal parts, furnished or supplied by Products and to pay the transportation charges thereon. The Exhibitor also agrees upon rendition of invoices to pay for any services rendered and expenses incurred by Products in connection with the Equipment or its operation or for the benefit of the Exhibitor, other than the inspection of Equipment provided for in Section 4 hereof. The time of the payments herein provided for shall be of the essence of this agreement.

8. *Facilities for Installation and Operation.*—The Exhibitor warrants that the Theatre is, or before said Equipment is installed will be, supplied with suitable electric current; electric power leads of suitable capacity with outlets conveniently located for power supply to the Equipment; suitable space, properly ventilated, for the installation of the storage batteries and charging equipment; a screen, satisfactory to Products as to its acoustic properties; drapes for acoustic purposes, and suitable supports for horns, and agrees to make such other reasonable changes, alterations, and modifications as may be necessary for the proper installation and accommodation of the Equipment, all at the expense of the Exhibitor, and when and to the extent and in the manner prescribed by Products. The Exhibitor further agrees, at its own expense, to obtain all necessary permits and to comply with all laws and ordinances in effect from the date hereof and throughout the term of this license relating to the iustallation, maintenance, use, and operation of the Equipment, or any part thereof, and with any Fire Insurance Underwriters' requirements relating thereto.

9. *Title to Equipment.*—Title to and ownership of all equipment, including spare or renewal parts, at any time furnished hereunder and also all tools of all kinds, drawings, prints, and written descriptions and instructions, shall at all times be and remain vested in Products. Any and all equipment furnished in accordance with the terms of this agreement shall at all times be and remain personal property notwithstanding the manner or method of its attachment to any real property.

Digitized by Google

10. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all personal property taxes which may be charged or levied in connection with or which may apply to any equipment furnished hereunder, and the Exhibitor shall reimburse Products for any such taxes which Products may be required to pay.

11. *Access to Equipment.*—The Exhibitor shall provide access for Products' representatives, engineers, and mechanics to the Theatre and to all parts thereof where any of the Equipment may be, at all reasonable hours, for the purpose of supervising the installation and from time to time for the purpose of examining and inspecting the Equipment, and shall grant to Products full opportunity to make such adjustments therein and repairs thereto as, in the opinion of Products, are necessary or desirable.

12. *Liability for Interruption, Injuries, etc.*—Products shall not be responsible in any manner for any interruption in the operation of the Theatre or of any equipment therein arising from any cause whatsoever or for any loss or damage to persons or property in or upon the said premises for any reason whatsoever. The Exhibitor agrees to indemnify Products for, and save it harmless from any liability or injury to workmen who shall assist in the handling, installing, or operation of the Equipment, and from any liability to any persons resulting from negligence of such workmen. The Exhibitor agrees to use every reasonable effort to prevent the filing of any liens for rent or material or for work, labor, or services which might in any manner affect equipment furnished hereunder and further covenants that if any such liens be filed it will promptly discharge the same.

13. *Default.*—This agreement and/or the rights of the Exhibitor hereunder and/or the license hereby granted shall, at the option of Products, terminate and come to an end in the event of any breach or default on the part of the Exhibitor with respect to any of the covenants and conditions herein contained on its part to be performed, or upon the insolvency of the Exhibitor or upon the filing of a voluntary or involuntary petition in bankruptcy or upon the voluntary or involuntary assignment of any of the Exhibitor's assets for the benefit of creditors, or upon the application for the appointment of a receiver of the property and assets of the Exhibitor, or upon the commencement of any action, suit, or proceeding against the Exhibitor in the nature of ejectment, distress for rent, summary dispossession, or any other action, suit, or proceeding in respect of the title to or right to possession of the Theatre, or upon the issue or levy of any attachment or the filing of or attempt to assert or enforce any lien which might in any manner affect Products' title to or right to possession of any apparatus or equipment furnished hereunder.

In the event of a default under any of the provisions of this agreement at any time during the term of this license, and if Products does not elect to terminate this agreement and/or the rights granted and/or the license hereby granted, the rights and/or the license hereby granted shall thereupon be suspended, provided, however, that such suspension shall not operate in any way to void or restrict Products' right of termination on account of such default.

14. *Repossession of Equipment.*—Upon termination or expiration of this license by lapse of time or otherwise, the Exhibitor shall surrender the Equipment to Products in good order and condition, reasonable wear and tear and obsolescence due to proper use thereof in the manner and place and for the purposes set forth in this agreement only excepted, and Products may repossess the Equipment and may, for the purpose of reducing the same to possession, enter the Theatre or any other premises where said Equipment may be and without any legal proceedings whatever possess and remove said Equipment, and the Exhibitor agrees to cooperate in such removal. If this license shall be terminated by default, or if the Exhibitor permits any default hereunder to occur, whether or not Products shall exercise the option to terminate this agreement, Products shall thereupon have the right without notice and without any legal proceedings whatever to take immediate possession of said Equipment, or any part thereof, and for that purpose may pursue the same wherever it or any part thereof may be found and may enter, with the aid and assistance of any person or persons, the Theatre or other premises of the Exhibitor and such place or places whatsoever, whether belonging to the Exhibitor or not, in which the Equipment or any part thereof may be placed, and may take and seize the same to its own proper use forever, free from any right of the Exhibitor under this agreement. In the event of the suspension of the rights and/or license under the provisions of Section 13 hereof, Products shall also have the right in like manner to enter said premises and to render the Equip-

Digitized by Google

ment inoperative by whatever means may, in the opinion of Products, be necessary or expedient. Products shall also have the right in like manner to enter the said premises and remove the Equipment in the event of the said premises being destroyed or damaged by fire or otherwise, to an extent which, in the opinion of Products, endangers the Equipment. The Exhibitor expressly covenants that in any of such events no claim will be made for damage on account of such action or otherwise, and the Exhibitor further agrees that it will hold and save harmless Products and its agents from and against any and all claims for damages by any parties whomsoever on account of such action. In the event of termination or expiration of this license by lapse of time, the occurrence of any default, or otherwise, and irrespective of whether Products shall remove and repossess the Equipment in accordance with the provisions contained in this section, Products shall retain and may enforce any and all claims or rights of action against the Exhibitor which it may then possess in respect of any sum or sums then due to Products in accordance with the terms and conditions of this agreement.

15. *Replacement of Equipment in the Event of Destruction.*—In the event of the partial or total destruction of the Equipment during the term of this license by extraneous fire, or act of God, without fault or neglect on the part of the Exhibitor, provided the Exhibitor shall not be in default in respect of any of the terms of this agreement and provided the Exhibitor shall continue to operate the Theatre or after any necessary repairs to the Theatre shall resume its operation, Products will, at its own expense, either repair the Equipment, or if in the sole judgment of Products, such destruction is so extensive as to render repair of the Equipment impracticable, furnish to the Exhibitor equipment then manufactured by or for Products as nearly similar as possible to the type of Equipment so destroyed. If replacing equipment be provided by Products in the manner hereinabove indicated the obligations of Products and the Exhibitor respecting the installation thereof shall be as set forth in Section 2 (*a*) hereof. The provisions of this section shall not apply to partial or total destruction of the Equipment while same is in the custody of a common carrier.

16. *Patent Protection.*—Products agrees that subject to the provisions hereof it will at its own expense defend any and all actions and suits which may during the term hereof be brought against the Exhibitor for infringement of any United States patent or patents relating to the apparatus or equipment furnished by Products hereunder, on account of any use of said apparatus or equipment by the Exhibitor for the purpose and in the manner contemplated by this agreement and Products will pay or satisfy all judgments and decrees for profits, damages, and/or costs which may be finally awarded against the Exhibitor by the Court of last resort in any such action or suit on account of any such infringement, provided that the Exhibitor shall give Products prompt notice (with written confirmation) of such action or suit, full information and all reasonable cooperation in connection therewith and full opportunity to defend the same, and provided further, that this agreement shall not extend to any infringement or claim of infringement on account of the use of any of said equipment in combination with any apparatus or thing not furnished by Products, except films and records produced under licenses from Products where the alleged infringement resides in characteristics thereof or in methods or apparatus for producing the same specifically prescribed by Products and that the liability of Products under this agreement shall in no case exceed the total amount paid hereunder by the Exhibitor to Products. To the end that Products may protect itself and the Exhibitor from claims for infringement of patents, it is agreed that Products may at any time substitute for any of the equipment or parts thereof which may have been furnished to the Exhibitor hereunder, other equipment or parts which Products shall determine to be suitable for performing the function required, such substitution to be made without additional expense to the Exhibitor, and with the least possible inconvenience to it or interruption of its business.

17. *License Non-exclusive.*—Nothing in this agreement shall be construed as granting to the Exhibitor an exclusive right or license to operate the Equipment in any particular City, Town, zone, or neighborhood or as preventing or prohibiting Products from entering into similar agreements or granting licenses for the installation and use of similar equipment in competing theatres.

18. *Period of License.*—This license shall be for a term of ten (10) years from the day upon which the Equipment is first used for a public performance, or from the day which Products shall certify to the Exhibitor as the date that

Digitized by Google

the Equipment was made available for public performance, whichever date be the earlier; provided, however, that the term hereof and the payments to Products hereunder (other than the payment tendered upon the submission of this agreement) shall begin not later than thirty (30) days after the date of shipment. It may, however, provided the Exhibitor shall not be in default in respect of any of the terms of this agreement, be terminated at the option of the Exhibitor at any time after the expiration of the first three (3) years of the term hereof upon not less than six (6) months written notice given by the Exhibitor to Products of its intention so to terminate.

19. *Liquidated Damages.*—It is recognized by the parties hereto that in the event that the Exhibitor makes default in any of the terms of this agreement it would be difficult to determine the exact damage to Products resulting from such default. It is therefore agreed that in the event the Exhibitor makes any default under the terms of this agreement and if this agreement be terminated by Products, Products shall retain all sums theretofore paid to it by the Exhibitor, and the Exhibitor shall pay to Products, not as a penalty, but as agreed and/or liquidated damages, all sums accruing to Products hereunder to and including the date when Products removes the Equipment or renders it inoperative, and in addition thereto twenty (20%) percent of all sums set forth in Paragraph 2 of the payment plan indicated in Section 22 hereof, which would otherwise accrue thereafter, and any note or notes made by the Exhibitor and delivered to Products in accordance with the provisions of the aforementioned Plan, shall, to the extent necessary to enable Products to collect said twenty (20%) percent of the aforementioned unpaid balance, become immediately due and payable.

The rights of Products contained in this section shall be in addition to all other rights reserved to it under the terms of this agreement and shall apply whether or not it elects to or does repossess the said Equipment, or any part thereof.

20. *General Provisions.*—(*a*) The sums to be paid by the Exhibitor are not subject to any reduction on account of any change which hereafter may be made in Products' charges for like licenses or equipment or on account of any change in the type, character, or quantity of equipment which Products may hereafter offer for installation in any theatre, or for any other reason.

(*b*) Products shall not be liable for consequential damages arising by reason of failure to make delivery of the Equipment at the time contemplated herein, nor for consequential damages arising from any other cause whatsoever, whether or not similar to the foregoing.

(*c*) The parties hereto expressly stipulate that this agreement as herein set forth contains the entire understanding of the respective parties with reference to the subject matter hereof, and that there is no other understanding, agreement, or representation, express or implied, in any way limiting, extending, defining, or otherwise relating to the provisions hereof or any of the matters to which the present agreement relates. No agent or employee of Products is authorized to alter or modify this agreement in any way unless such alteration or modification shall be approved in writing by the President, a Vice-President, or the Treasurer of Products, or by such representative as may from time to time be designated in writing by any of such officers. No waiver by either party, whether express or implied, of any of the provisions of this agreement shall be construed as constituting a waiver of any other provision or provisions of this agreement or as estopping either party from its right to enforce any provision or all provisions hereof, other than the provision or provisions specifically waived.

(*d*) This agreement shall not become binding upon Products by reason of the acceptance, use, or negotiation of any currency, check, draft, or other instrument for the payment of money.

(*e*) The construction and performance of this agreement shall be governed by the laws of the State of New York.

21. *Assignment.*—This agreement shall not be assigned by the Exhibitor without the written consent of Products. It shall, however, subject to such restriction upon assignment by the Exhibitor, be binding upon the parties and their respective successors, assigns, and legal representatives.

22. *Payments.*—In accordance with the provisions of Section 5 hereof, the Exhibitor agrees to pay to Products the charges provided for in the payment plan hereinafter set forth; said payments to be made at the time and in the manner provided herein, which time and manner shall be of the essence of this agreement.

Payment Plan.—(1) The Exhibitor shall furnish to Products not later than Tuesday of each week, a statement in the form prescribed by Products, certified to by the Exhibitor, setting forth the total box office receipts of the theatre for

Digitized by Google

the previous calendar week, and hereby grants to Products the right to check the box office receipts by whatever means and at whatever time or times Products may deem appropriate, and for that purpose will provide Products with full information respecting said box office receipts and permit access to all accounts and records relating thereto.

The Exhibitor shall be deemed in default and Products, in addition to any other remedies provided for herein, may terminate this agreement and remove the Equipment and shall be entitled to the liquidated damages provided for elsewhere herein, if any statement furnished hereunder shall be found to be false or if the Exhibitor's representation of having had box office receipts of an average weekly amount of not less than $_____ for _____ weeks prior to the execution of this agreement by the Exhibitor shall be found to have been false.

(2) On each and every Tuesday beginning with the Tuesday of the week succeeding the week during which the equipment is first used for a public performance, or the Tuesday succeeding the week which Products certifies to the Exhibitor as the date that the equipment was made available for public performance, whichever date is the earlier, and in no event later than thirty (30) days after the date of shipment, the Exhibitor shall pay to Products a sum which shall be based upon the total box office receipts of the theatre for the preceding calendar week, and which shall be equal to _____% of the first $_____ of such box office receipts and _____% of the remainder of said box office receipts for said week, provided, however, that the total amount so payable by the Exhibitor to Products shall not in any consecutive 13 weeks, be less than $_____ and shall not, in any consecutive 26 weeks, be less than $_____, and that any deficiency in the total of the weekly payments for either of such periods shall be payable by the Exhibitor to Products upon Products' demand therefor.

The 20% mentioned in Section 19 hereof shall be applied in liquidation of damages only in the event of termination of this agreement by Products pursuant to the provisions of paragraph (1) of this Section 22 and shall then apply to the difference between the sum secondly mentioned in paragraph (3) of this Section 22 and the total amount in excess of $_____ per week paid by the Exhibitor to Products prior to the effective date of such termination.

(3) Subsequent to the date when the total amount paid by the Exhibitor to Products under the provisions of paragraph 2 above in excess of $_____ per week shall have equalled the total sum of $_____ and for the balance of the term of this license, the Exhibitor shall pay to Products on each and every Saturday a weekly rental charge of $_____.

(4) The above special terms of payment are in consideration of the right on the part of Products to furnish for installation in the theatre in whole or in part reconditioned and/or special equipment and the Exhibitor agrees to accept such equipment subject to all the terms and conditions of this agreement.

(5) The right of the Exhibitor to terminate this agreement at any time after the expiration of the first three (3) years of the term hereof upon not less than six (6) months' written notice to Products of Exhibitor's intention to so terminate as provided in Section 18 of this agreement shall not become effective unless during the first three (3) years of the term hereof the total sum secondly mentioned in paragraph 3 of this section shall have been fully paid by the Exhibitor.

23. *Description of Equipment and Date of Shipment—Item One.*—Description of Equipment: _____

_____

Item Two.—The proposed date of shipment is _____, 193__.

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,

By _____

Vice President, Treasurer.

_____

(Products' witness sign here)

_____

Exhibitor.

By _____

_____

(Exhibitor's witness sign here)

Digitized by Google

GUARANTY

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named and of the payment to me by Electrical Research Products, Inc., of the sum of One ($1.00) Dollar, I, _____, of the City of _____, State of _____, do hereby covenant and agree to and with the said Electrical Research Products, Inc., that if default shall at any time be made by said Exhibitor in the payment of any monies which shall become due to said Electrical Research Products, Inc., under said agreement and/or in the performance of the covenants contained therein on the part of said Exhibitor to be paid and/or performed, that I will well and truly pay the said sums which may become due thereunder to said Electrical Research Products, Inc., or any arrears thereof, and also all damages which may arise in consequence of the nonperformance of the covenants of said agreement, or any of them, upon written notice of any such default being forwarded to me at the address above indicated.

As an additional inducement to Electrical Research Products, Inc., to furnish and lease the aforementioned equipment I further agree that the foregoing obligations assumed by me shall not be affected or prejudiced by any extension of the time for payment of the obligations of the Exhibitor, or by waiver of any other provisions set forth in said agreement to be kept or performed by the Exhibitor, or by any other modification of said agreement whereby the obligations herein assumed by me would, but for this provision be discharged.

Witness my hand and seal this _____ day of _____, 193__.

_____ (L. S.)

WAIVER

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named and of the payment by Electrical Research Products, Inc., of the sum of One Dollar ($1.00), receipt of which is hereby acknowledged, the undersigned parties having an interest in the Theatre referred to in said agreement as owner or lessor thereof, hereby consent(s) to the installation of said Equipment and waive(s) any and all rights or claims thereto of whatsoever kind or nature which I/we have or may hereafter acquire as landlord(s) of said Theatre, which might or could in any manner interfere with any rights of Electrical Research Products, Inc., in or to said Equipment.

Dated this _____ day of _____, 193__.

_____

Owner of Theater.

_____

Lessor of Theater (other than owner).

AGREEMENT FOR WESTERN ELECTRIC SOUND SYSTEM

PLAN X

315 T S

Contract No._____

This Agreement made in triplicate in the City of New York, State of New York, this _____ day of _____, 193__, by and between Electrical Research Products, Inc. (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation having its principal place of business in the City, County, and State of New York (hereinafter called "Products"), licensor, and _____ a _____ Corporation having its principal place of business at No. _____ Avenue/Street, in the City of _____, State of _____ (hereinafter called the "Exhibitor") licensee, and operating the _____ Theatre at No. _____ Avenue/Street, in the City of _____, State of _____ (hereinafter called the "Theatre"):

Witnesseth that, for and in consideration of the covenants, stipulations, and representations herein set forth, the respective parties hereto agree as follows:

1. (a) *Grant of License and Furnishing of Equipment.*—Products hereby agrees to furnish a Western Electric Sound System of the type set forth in

Digitized by Google

Item One of Section 23 (hereinafter called the "Equipment"), and hereby grants to the Exhibitor, subject to all the terms, conditions, limitations, and agreements herein contained, a non-exclusive, non-assignable license to use the Equipment in the Theatre for the electrical reproduction of sound in synchronism with, or as incidental to, the exhibition of motion pictures, or any performance given in conjunction therewith, and to employ to the extent necessarily involved in such use of said Equipment the methods and/or systems of Products, under all United States patents and applications for United States patents, relating to said equipment or to such use thereof, which are now owned or controlled, or which may during the term of this agreement be owned or controlled by Products, or in respect of which it has or may hereafter during the term of this agreement have the right to grant such license.

(b) *Shipment of Equipment.*—Said Equipment shall be furnished f. o. b. Products' Warehouse, and Products will endeavor to ship the Equipment on or before the date set forth in Item Two of Section 23 hereof. Nothing herein contained shall be considered as a firm agreement on the part of Products to ship the Equipment on or before said date, it being understood that the extent of the obligation of Products in this respect is limited to using its best efforts to procure expeditiously the manufacture and shipment of the Equipment.

2. *Installation and Use of Equipment.*—(a) The Equipment shall be installed by the Exhibitor at its own expense in strict accordance with installation specifications which will be furnished by Products. All installation work done and material furnished by the Exhibitor or its agents or servants shall be subject to inspection and approval by Products, and the Equipment shall not be used for public performances until the installation thereof shall have been approved by Products. Approval of installation work or material shall in no event subject Products to any responsibility or liability of any kind or nature not specifically assumed by it in this agreement. The Exhibitor, except as herein otherwise specifically provided, shall provide and pay for all services, material and expenses required in connection with the installation of the Equipment.

Products shall provide an engineer to inspect said installation work to be done by the Exhibitor and to supervise the installation of the Equipment. Notice from the Exhibitor that the Equipment has been received and that the Theatre will be ready for the installation of the Equipment on a definite date shall be delivered to Products not less than three (3) days prior to said date, and Products shall make every reasonable effort to have its engineer at the Theatre on said date. The services of said engineer will be furnished without additional cost to the Exhibitor for such continuous period as Products shall deem requisite, not to exceed one week. If the installation work to be done by the Exhibitor is not ready for inspection or said work is not sufficiently advanced to permit the installation of the Equipment upon the date that the engineer shall arrive at the Theatre, and/or in the event that his services shall be required for a continuous period in excess of one week, the Exhibitor shall pay to Products its standard per diem charges for any period in excess of said one week and any additional expense incurred by Products by reason of said services being required for other than a continuous period or for more than one week.

(b) The Exhibitor agrees that it will use and employ the Equipment only in the Theatre, and that it will at all times during the period of this license keep, maintain, and operate the Equipment in the manner from time to time prescribed by Products and in no other manner. The Exhibitor recognizes the highly technical mechanism and art involved in the inventions and construction of the Equipment, and in the making of sound records (in any form) for use therewith, and that the prestige and business reputation of Products might be seriously affected by imperfect operation of the Equipment or by its use with sound records which are not suited to it or which produce inferior results when used with the Equipment, and that use of said Equipment otherwise than as herein licensed may involve infringement of patent rights. Therefore, in order to secure and insure the functioning of the Equipment to the satisfaction of the parties hereto, the Exhibitor shall not, without the written consent of Products, move, alter, change or modify the Equipment, nor add anything thereto nor take anything therefrom; nor break the seal upon any part or collection of parts which is or may be sealed by Products; nor operate, use or employ the Equipment in any manner in conjunction with any sound record not made under license from Products for such use, unless such sound record is of such character that the Equipment will operate properly, reliably, and effi-

Digitized by Google

ciently to reproduce sound from such sound record with accuracy of quality and adequacy of volume. Also, in order further to secure proper functioning of the Equipment as aforesaid satisfactorily to the parties hereto, it is agreed that all additional and renewal parts and assembled parts for the Equipment shall be obtained from Products and that all repairs to the Equipment shall be made as specified by Products. Products may from time to time at the expense of the Exhibitor, supply and install such spare and renewal parts as may, in its opinion, be necessary to the satisfactory operation and maintenance of the Equipment. Nothing herein contained, however, shall be construed as prohibiting the Exhibitor from taking all reasonable steps, consistent with the general intent hereof, either alone or together with Products, to protect, correct, or repair the Equipment in the event of an accident or breakdown, but the Exhibitor agrees that in the event that it shall itself take any action with respect to the correction or repair of the Equipment, it will immediately notify Products in writing, giving full details of the action taken to correct or remedy any unsatisfactory condition of the Equipment. The Exhibitor agrees that prior to the first public use in the Theatre of each film and/or sound record, it will cause such films and/or sound records to be run privately upon the Equipment for the purpose of ascertaining that the Equipment is in satisfactory condition and adjustment for the particular film and/or sound record. The Exhibitor expressly agrees that if at any time the Equipment fails to function satisfactorily, it will immediately notify Products by registered mail and telegraph, and the absence of such notification shall be conclusive as to the satisfactory functioning of the Equipment.

3. *Change of Theatre or Management.*—In the event that the Exhibitor shall contemplate a sale of the Theatre or its interests therein, or shall contemplate ceasing to operate the Theatre, it shall notify Products in writing of such contemplated action not less than fourteen (14) days prior to the date upon which it will cease to own or operate the Theatre and shall make provisions, satisfactory to Products, for the care and custody of the Equipment or for the assumption of this agreement by the successor operator of the Theatre, provided such successor operator is satisfactory to Products. If the notice hereinabove required shall have been given to Products, Products will supervise the removal of the Equipment and its installation in another theatre designated by the Exhibitor; provided, however, that Products' standard charge as from time to time established for removal of the Equipment shall first be paid by the Exhibitor, and that a new agreement on Products' then standard form for the unexpired term of this license shall first be executed by the exhibitor operating such other theatre; and provided further, that such exhibitor and the theatre designated shall be satisfactory to Products. The Exhibitor also agrees to pay to Products upon rendition of invoice therefor its standard per diem charges for engineering or other services in connection with such removal and reinstallation, and the transportation charges of all employees of Products furnished in connection therewith. If the exhibitor operating such other theatre is not the Exhibitor hereunder, the latter shall become a guarantor to Products for the performance by the former of such new agreement. The exhibitor operating the theatre to which the Equipment may be removed shall at its own expense perform all of the work and provide all of the material set forth in Section 2 (a) hereof required for the installation of the Equipment in said theatre.

4. *Instruction of Operators and Inspection of Equipment.*—At the time of installation Products agrees, to the extent deemed necessary by it, and for a continuous period not exceeding one (1) week, to instruct the motion picture machine operators of the Exhibitor in the manner and method of operating the Equipment. Products also agrees to inspect the Equipment from time to time after it shall have been installed.

5. *Products' Charges.*—During the term of this license the Exhibitor agrees to pay to Products, as rental for the Equipment, including an initial set of spare parts therefor in accordance wtih Products' standard list thereof (but exclusive of any additional or renewal parts or equipment) the charges more particularly hereinafter referred to in Section 22 hereof.

6. *Transportation Charges.*—The Exhibitor agrees to pay the cost of transporting all equipment or parts therefor which may be furnished hereunder from the place of shipment to the Theatre, and to accept delivery thereof from the common carrier and make payment directly to the common carrier of freight and express charges thereon. The Exhibitor shall also arrange for any neces-

Digitized by Google

sary loading, trucking, and unloading to put the Equipment down inside the Theatre, and shall directly defray the cost thereof.

7. *Payment for Additional Parts, Special Service, etc.*—The Exhibitor agrees to pay to Products upon rendition of invoices therefor its standard charges as from time to time established for any repairs to the Equipment and for any additional equipment or spare or renewal parts, furnished or supplied by Products and to pay the transportation charges thereon. The Exhibitor also agrees upon rendition of invoices to pay for any services rendered and expenses incurred by Products in connection with the Equipment or its operation or for the benefit of the Exhibitor, other than the inspection of Equipment provided for in Section 4 hereof. The time of the payments herein provided for shall be of the essence of this agreement.

8. *Facilities for Installation and Operation.*—The Exhibitor warrants that the Theatre is, or before said Equipment is installed will be, supplied with suitable electric current; electric power leads of suitable capacity with outlets conveniently located for power supply to the Equipment; suitable space, properly ventilated, for the installation of the storage batteries and charging equipment; a screen, satisfactory to Products as to its acoustic properties; drapes for acoustic purposes, and suitable supports for horns, and agrees to make such other reasonable changes, alterations, and modifications as may be necessary for the proper installation and accommodation of the Equipment, all at the expense of the Exhibitor and when and to the extent and in the manner prescribed by Products. The Exhibitor further agrees at its own expense to obtain all necessary permits and to comply with all laws and ordinances in effect from the date hereof and throughout the term of this license relating to the installation, maintenance, use, and operation of the Equipment or any part thereof and with any Fire Insurance Underwriters' requirements relating thereto.

9. *Title to Equipment.*—Title to and ownership of all equipment, including spare or renewal parts, at any time furnished hereunder and also all tools of all kinds, drawings, prints, and written descriptions and instructions, shall at all times be and remain vested in Products. Any and all equipment furnished in accordance with the terms of this agreement, shall at all times be and remain personal property notwithstanding the manner or method of its attachment to any real property.

10. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all personal property taxes which may be charged or levied in connection with or which may apply to any equipment furnished hereunder, and the Exhibitor shall reimburse Products for any such taxes which Products may be required to pay.

11. *Access to Equipment.*—The Exhibitor shall provide access for Products' representatives, engineers, and mechanics to the Theatre and to all parts thereof where any of the Equipment may be, at all reasonable hours, for the purpose of supervising the installation and from time to time for the purpose of examining and inspecting the Equipment, and shall grant to Products full opportunity to make such adjustments therein and repairs thereto as, in the opinion of Products, are necessary or desirable.

12. *Liability for Interruption, Injuries, etc.*—Products shall not be responsible in any manner for any interruption in the operation of the Theatre or of any equipment therein arising from any cause whatsoever or for any loss or damage to persons or property in or upon the said premises for any reason whatsoever. The Exhibitor agrees to indemnify Products for, and save it harmless from any liability or injury to workmen who shall assist in the handling, installing, or operation of the Equipment, and from any liability to any persons resulting from negligence of such workmen. The Exhibitor agrees to use every reasonable effort to prevent the filing of any liens for rent or material or for work, labor, or services which might in any manner affect equipment furnished hereunder and further covenants that if any such liens be filed it will promptly discharge the same.

13. *Default.*—This agreement and/or the rights of the Exhibitor hereunder and/or the license hereby granted shall, at the option of Products, terminate and come to an end in the event of any breach or default on the part of the Exhibitor with respect to any of the covenants and conditions herein contained on its part to be performed, or upon the insolvency of the Exhibitor or upon the filing of a voluntary or involuntary petition in bankruptcy or upon the voluntary or involuntary assignment of any of the Exhibitor's assets for the

Digitized by Google

benefit of creditors, or upon the application for the appointment of a receiver of the property and assets of the Exhibitor, or upon the commencement of any action, suit, or proceeding against the Exhibitor in the nature of ejectment, distress for rent, summary dispossession, or any other action, suit, or proceeding in respect of the title to or right to possession of the Theatre, or upon the issue or levy of any attachment or the filing of or attempt to assert or enforce any lien which might in any manner affect Products' title to or right to possession of any apparatus or equipment furnished hereunder.

In the event of a default under any of the provisions of this agreement at any time during the term of this license, and if Products does not elect to terminate this agreement and/or the license hereby granted, the rights and/or the license hereby granted shall thereupon be suspended, provided, however, that such suspension shall not operate in any way to void or restrict Products' right of termination on account of such default.

14. *Repossession of Equipment.*—Upon termination or expiration of this license by lapse of time or otherwise, the Exhibitor shall surrender the Equipment to Products in good order and condition, reasonable wear and tear and obsolescence due to proper use thereof in the manner and place and for the purposes set forth in this agreement only accepted, and Products may repossess the Equipment and may, for the purpose of reducing the same to possession, enter the Theatre or any other premises where said Equipment may be and without any legal proceedings whatever possess and remove said Equipment, and the Exhibitor agrees to cooperate in such removal. If this license shall be terminated by default, or if the Exhibitor permits any default hereunder to occur, whether or not Products shall exercise the option to terminate this agreement, Products shall thereupon have the right without notice and without any legal proceedings whatever to take immediate possession of said Equipment, or any part thereof, and for that purpose may pursue the same wherever it or any part thereof may be found and may enter, with the aid and assistance of any person or persons, the Theatre or other premises of the Exhibitor and such place or places whatsoever, whether belonging to the Exhibitor or not, in which the Equipment or any part thereof may be placed, and may take and seize the same to its own proper use forever, free from any right of the Exhibitor under this agreement. In the event of the suspension of the rights and/or license under the provisions of Section 13 hereof, Products shall also have the right in like manner to enter said premises and to render the Equipment inoperative by whatever means may, in the opinion of Products be necessary or expedient. Products shall also have the right in like manner to enter the said premises and remove the Equipment in the event of the said premises being destroyed or damaged by fire or otherwise, to an extent which, in the opinion of Products, endangers the Equipment. The Exhibitor expressly covenants that in any of such events no claim will be made for damage on account of such action or otherwise, and the Exhibitor further agrees that it will hold and save harmless Products and its agents from and against any and all claims for damages by any parties whomsoever on account of such action. In the event of termination or expiration of this license by lapse of time, the occurrence of any default, or otherwise, and irrespective of whether Products shall remove and repossess the Equipment in accordance with the provisions contained in this section, Products shall retain and may enforce any and all claims or rights of action against the Exhibitor which it may then possess in respect of any sum or sums then due to Products in accordance with the terms and conditions of this agreement.

15. *Replacement of Equipment in the Event of Destruction.*—In the event of the partial or total destruction of the Equipment during the term of this license by extraneous fire, or act of God, without fault or neglect on the part of the Exhibitor, provided the Exhibitor shall not be in default in respect of any of the terms of this agreement and provided the Exhibitor shall continue to operate the Theatre or after any necessary repairs to the Theatre shall resume its operation, Products will, at its own expense, either repair the Equipment, or if in the sole judgment of Products, such destruction is so extensive as to render repair of the Equipment impracticable, furnish to the Exhibitor equipment then manufactured by or for Products as nearly similar as possible to the type of Equipment so destroyed. If replacing equipment be provided by Products in the manner hereinabove indicated the obligations of Products and the Exhibitor respecting the installation thereof shall be as set forth in Section 2 (a) hereof. The provisions of this section shall not apply

Digitized by Google

to partial or total destruction of the Equipment while same is in the custody of a common carrier.

16. *Patent Protection.*—Products agrees that subject to the provisions hereof it will at its own expense defend any and all actions and suits which may during the term hereof be brought against the Exhibitor for infringement of any United States patent or patents relating to the apparaus or equipment furnished by Products hereunder, on account of any use of said apparatus or equipment by the Exhibitor for the purpose and in the manner contemplated by this agreement and Products will pay or satisfy all judgments and decrees for profits, damages, and/or costs which may be finally awarded against the Exhibitor by the Court of last resort in any such action or suit on account of any such infringement, provided that the Exhibitor shall give Products prompt notice (with written confirmation) of such action or suit, full information and all reasonable cooperation in connection therewith and full opportunity to defend the same, and provided further, that this agreement shall not extend to any infringement or claim of infringement on account of the use of any of said equipment in combination with any apparatus or thing not furnished by Products, except films and records produced under licenses from Products where the alleged infringement resides in characteristics thereof or in methods or apparatus for producing the same specifically prescribed by Products and that the liability of Products under this agreement shall in no case exceed the total amount paid hereunder by the Exhibitor to Products. To the end that Products may protect itself and the Exhibitor from claims for infringement of patents, it is agreed that Products may at any time substitute for any of the equipment or parts thereof which may have been furnished to the Exhibitor hereunder, other equipment or parts which Products shall determine to be suitable for performing the function required, such substitution to be made without additional expense to the Exhibitor and with the least possible inconvenience to it or interruption of its business.

17. *License Non-exclusive.*—Nothing in this agreement shall be construed as granting to the Exhibitor an exclusive right or license to operate the Equipment in any particular city, Town, zone, or neighborhood, or as preventing or prohibiting Products from entering into similar agreements or granting licenses for the installation and use of similar equipment in competing theatres.

18. *Period of License.*—This license shall be for a term of ten (10) years from the day upon which the Equipment is first used for a public performance, or from the day which Products shall certify to the Exhibitor as the date that the Equipment was made available for public performance, whichever date be the earlier; provided, however, that the term hereof and the payments to Products hereunder (other than the payment tendered upon the submission of this agreement) shall begin not later than thirty (30) days after the date of shipment. It may, however, provided the Exhibitor shall not be in default in respect of any of the terms of this agreement, be terminated at the option of the Exhibitor at any time after the expiration of the first three (3) years of the term hereof upon not less than six (6) months written notice given by the Exhibitor to Products of its intention so to terminate.

19. *Liquidated Damages.*—It is recognized by the parties hereto that in the event that the Exhibitor makes default in any of the terms of this agreement it would be difficult to determine the exact damage to Products resulting from such default. It is therefore agreed that in the event the Exhibitor makes any default under the terms of this Agreement and if this agreement be terminated by Products, Products shall retain all sums theretofore paid to it by the Exhibitor and the Exhibitor shall pay to Products, not as a penalty, but as agreed and/or liquidated damages, all sums accruing to Products hereunder to and including the date when Products removes the Equipment or renders it inoperative, and in addition thereto twenty (20%) percent of all sums set forth in Paragraph 2 of the payment plan indicated in Section 22 hereof, which would otherwise accrue thereafter, and any note or notes made by the Exhibitor and delivered to Products in accordance with the provision of the aforementioned Plan, shall, to the extent necessary to enable Products to collect said twenty (20%) percent of the aforementioned unpaid balance, become immediately due any payable.

The rights of Products contained in this section shall be in addition to all other rights reserved to it under the terms of this agreement and shall apply whether or not it elects to or does reposses the said Equipment, or any part thereof.

Digitized by Google

20. *General Provisions.*—(a) The sums to be paid by the Exhibitor are not subject to any reduction on account of any change which hereafter may be made in Products' charges for like licenses or equipment or on account of any change in the type, character, or quantity of equipment which Products may hereafter offer for installation in any theatre or for any other reason.

(b) Products shall not be liable for consequential damages arising by reason of failure to make delivery of the Equipment at the time contemplated herein, nor for consequential damages arising from any other cause whatsoever, whether or not similar to the foregoing.

(c) The parties hereto expressly stipulate that this agreement as herein set forth contains the entire understanding of the respective parties with reference to the subject matter hereof, and that there is no other understanding, agreement, or representation, express or implied, in any way limiting, extending, defining, or otherwise relating to the provisions hereof or any of the matters to which the present agreement relates. No agent or employee of Products is authorized to alter or modify this agreement in any way unless such alteration or modification shall be approved in writing by the President, a Vice-President, or the Treasurer of Products or by such representative as may from time to time be designated in writing by any of such officers. No waiver by either party, whether express or implied, of any of the provisions of this agreement shall be construed as constituting a waiver of any other provision or provisions of this agreement or as estopping either party from its right to enforce any provision or all provisions hereof, other than the provision or provisions specifically waived.

(d) This agreement shall not become binding upon Products by reason of the acceptance, use, or negotiation of any currency, check, draft, or other instrument for the payment of money.

(e) The construction and performance of this agreement shall be governed by the laws of the State of New York.

21. *Assignment.*—This agreement shall not be assigned by the Exhibitor without the written consent of Products. It shall, however, subject to such restriction upon assignment by the Exhibitor, be binding upon the parties and their respective successors, assigns, and legal representatives.

22. *Payments.*—In accordance with the provisions of Section 5 hereof, the Exhibitor agrees to pay to Products the charges provided for in the payment plan hereinafter set forth; said payments to be made at the time and in the manner provided herein, which time and manner shall be of the essence of this agreement.

Plan X.—_____

23. *Description of Equipment and Date of Shipment.—Item One.*—Description of Equipment:

Item Two.—The proposed date of shipment is _____, 193__.

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf, the day and year first above written.

Products' witness signs here:

_____

ELECTRICAL RESEARCH PRODUCTS, INC.,

By _____

Vice-President, Treasurer.

Exhibitor's witness signs here:

_____

_____

Exhibitor.

By _____

GUARANTY

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named and of the payment to me by Electrical Research Products, Inc., of the sum of One ($1.00) Dollar, I, _____, of the City of _____, State of _____, do hereby covenant and agree to and with the said Electrical Research Products, Inc., that if default shall at any time be made

Digitized by Google

by said Exhibitor in the payment of any monies which shall become due to said Electrical Research Products, Inc., under said agreement, and/or in the performance of the covenants contained therein on the part of said Exhibitor to be paid, and/or performed, that I will well and truly pay the said sums which may become due thereunder to said Electrical Research Products, Inc., or any arrears thereof, and also all damages which may arise in consequence of the nonperformance of the covenants of said agreement, or any of them, upon written notice of any such default being forwarded to me at the address above indicated.

As an additional inducement to Electrical Research Products, Inc., to furnish and lease the aforementioned equipment, I further agree that the foregoing obligations assumed by me shall not be affected or prejudiced by any extension of the time for payment of the obligations of the Exhibitor, or by waiver of any other provisions set forth in said agreement to be kept or performed by the Exhibitor, or by any other modification of said agreement whereby the obligations herein assumed by me would, but for this provision be discharged.

Witness my hand and seal this _____ day of _____, 193__.

_____(L. S.)

WAIVER

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named and of the payment by Electrical Research Products, Inc., of the sum of One Dollar ($1.00), receipt of which is hereby acknowledged, the undersigned parties having an interest in the Theatre referred to in said agreement as owner or lessor thereof, hereby consent(s) to the installation of said Equipment and waive(s) any and all rights or claims thereto of whatsoever kind or nature which I/we have or may hereafter acquire as landlord(s) of said Theatre, which might or could in any manner interfere with any rights of Electrical Research Products, Inc., in or to said Equipment.

Dated this _____ day of _____, 193__.

_____

Owner of Theatre.

_____

Lessor of Theatre (other than Owner.)

AGREEMENT FOR WESTERN ELECTRIC SOUND SYSTEM

PLAN D2-N.D.P.156W F.R.

315 T S

Contract No. _____

This Agreement made in triplicate in the City of New York, State of New York this _____ day of _____, 193__, by and between Electrical Research Products, Inc. (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation having its principal place of business in the City, County, and State of New York (hereinafter called "Products"), licensor, and _____, a _____ Corporation having its principal place of business at No. _____ Avenue/Street, in the City of _____, State of _____ (hereinafter called the "Exhibitor"), licensee, and operating the _____ _____ Theatre, at No. _____ Avenue/Street, in the City of _____, State of _____ (hereinafter called the "Theatre"):

Witnesseth that, for and in consideration of the covenants, stipulations, and representations herein set forth, the respective parties hereto agree as follows:

(Pars. 1–21, inclusive, same as Plan X.)

22. *Payments.*—In accordance with the provisions of Section 5 hereof, the Exhibitor agrees to pay to Products the charges provided for in the payment plan hereinafter set forth; said payments to be made at the time and in the

Digitized by Google

manner provided herein, which time and manner shall be of the essence of this agreement.

Payment Plan.—(1) The sum of _____ ($_____) Dollars, representing the first weekly payment hereunder, the receipt of which is hereby acknowledged.

(2) A promissory note in form satisfactory to Products made by the Exhibitor and delivered to Products upon the submission of this agreement for acceptance, and payable as follows:

The sum of _____ ($_____) Dollars on the Saturday next succeeding the day upon which the Equipment is first used for a public performance, or the day which Products certifies to the Exhibitor as the date that the Equipment was made available for a public performance, whichever date is the earlier and in no event later than thirty (30) days after the date of shipment, and a like amount on each and every Saturday thereafter for a period of One Hundred and Fifty-four (154) weeks.

The Exhibitor hereby expressly authorizes Products to enter upon the face of the note referred to herein the maturity date of the first payment thereunder as above defined.

(3) Thereafter and for the balance of the term of this license the Exhibitor agrees to pay to Products a weekly rental charge of _____ ($_____) Dollars, which shall be payable on each and every Saturday commencing with the Saturday next succeeding the final payment made in accordance with paragraph 2 above.

23. *Description of Equipment and Date of Shipment.—Item One.*—Description of Equipment:

Item Two.—The proposed date of shipment is _____, 193__.

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,

By _____

Vice-President, Treasurer.

(Products' witness signs here)

_____

By _____

Exhibitor.

(Exhibitor's witness signs here)

GUARANTY

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named and of the payment to me by Electrical Research Products, Inc., of the sum of One ($1.00) Dollar, I, _____, of the City of _____, State of _____, do hereby covenant and agree to and with the said Electrical Research Products, Inc., that if default shall at any time be made by said Exhibitor in the payment of any monies which shall become due to said Electrical Research Products, Inc., under said agreement and/or in the performance of the covenants contained therein on the part of said Exhibitor to be paid and/or performed, that I will well and truly pay the said sums which may become due thereunder to said Electrical Research Products, Inc., or any arrears thereof, and also all damages which may arise in consequence of the nonperformance of the covenants of said agreement, or any of them, upon written notice of any such default being forwarded to me at the address above indicated.

As an additional inducement to Electrical Research Products, Inc., to furnish and lease the aforementioned equipment I further agree that the foregoing obligations assumed by me shall not be affected or prejudiced by any extension of the time for payment of the obligations of the Exhibitor, or by waiver of any other provisions set forth in said agreement to be kept or performed by the Exhibitor, or by any other modification of said agreement whereby the obligations herein assumed by me would, but for this provision, be discharged.

Witness my hand and seal this _____ day of _____, 193__.

_____ (L. S.)

Digitized by Google

WAIVER

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named and of the payment by Electrical Research Products, Inc., of the sum of One Dollar ($1.00) receipt of which is hereby acknowledged, the undersigned parties having an interest in the Theatre referred to in said agreement as owner or lessor thereof, hereby consent(s) to the installation of said Equipment and waive(s) any and all rights or claims thereto of whatsoever kind or nature which I/we have or may hereafter acquire as landlord(s) of said Theatre, which might or could in any manner interfere with any rights of Electrical Research Products, Inc., in or to said Equipment.

Dated this _____ day of _____, 193__.

_____
Owner of Theatre.

_____
Lessor of Theatre (other than Owner).

AGREEMENT FOR WESTERN ELECTRIC SOUND SYSTEM

PLAN D2–N.D.P.–156W

315 TS

Contract No._____

This Agreement made in triplicate in the City of New York, State of New York, this _____ day of _____, 193__, by and between Electrical Research Products, Inc. (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation having its principal place of business in the City, County, and State of New York (hereinafter called "Products"), licensor, and _____ a _____ Corporation having its principal place of business at No. _____ Avenue/Street, in the City of _____ State of _____ (hereinafter called the "Exhibitor"), licensee, and operating the _____ _____ Theatre, at No. _____ Avenue/Street, in the City of _____ State of _____ (hereinafter called the "Theatre"):

Witnesseth that, for and in consideration of the covenants, stipulations, and representations herein set forth, the respective parties hereto agree as follows:

(Pars. 1–21, inclusive, same as Plan X.)

22. *Payments.*—In accordance with the provisions of Section 5 hereof, the Exhibitor agrees to pay to Products the charges provided for in the payment plan hereinafter set forth; said payments to be made at the time and in the manner provided herein, which time and manner shall be of the essence of this agreement.

Payment Plan.—(1) The sum of _____ ($_____) Dollars, representing the first weekly payment hereunder, the receipt of which is hereby acknowledged.

(2) A promissory note in form satisfactory to Products made by the Exhibitor and delivered to Products upon the submission of this agreement for acceptance, and payable as follows:

The sum of _____ ($_____) Dollars on the Saturday next succeeding the day upon which the Equipment is first used for a public performance, or the day which Products certifies to the Exhibitor as the date that the Equipment was made available for a public performance, whichever date is the earlier and in no event later than thirty (30) days after the date of shipment, and a like amount on each and every Saturday thereafter for a period of Twenty-four (24) weeks; the sum of _____ ($_____) Dollars on each and every Saturday thereafter for a period of Twenty-six (26) weeks; the sum of _____ ($_____) Dollars on each and every Saturday thereafter for a period of Fifty-two (52) weeks; and the sum of _____ ($_____) Dollars on each and every Saturday thereafter for a period of Fifty-two (52) weeks.

The Exhibitor hereby expressly authorizes Products to enter upon the face of the note referred to herein, the maturity date of the first payment thereunder as above defined.

Digitized by Google

(3) Thereafter and for the balance of the term of this license the Exhibitor agrees to pay to Products a weekly rental charge of _____ ($_____) Dollars, which shall be payable on each and every Saturday commencing with the Saturday next succeeding the final payment made in accordance with paragraph 2 above.

23. *Description of Equipment and Date of Shipment.—Item One.*—Description of Equipment:—

_____

Item Two.—The proposed date of shipment is _____, 193__.

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,

By _____

Vice-President, Treasurer.

_____

(Products' witness signs here)

_____

Exhibitor.

By _____

_____

(Exhibitor's witness signs here)

GUARANTY

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named and of the payment to me by Electrical Research Products, Inc., of the sum of One ($1.00) Dollar, I, _____, of the City of _____, State of _____, do hereby covenant and agree to and with the said Electrical Research Products, Inc., that if default shall at any time be made by said Exhibitor in the payment of any monies which shall become due to said Electrical Research Products, Inc., under said agreement and/or in the performance of the covenants contained therein on the part of said Exhibitor to be paid and/or performed, that I will well and truly pay the said sums which may become due thereunder to said Electrical Research Products, Inc., or any arrears thereof, and also all damages which may arise in consequence of the nonperformance of the covenants of said agreement, or any of them, upon written notice of any such default being forwarded to me at the address above indicated.

As an additional inducement to Electrical Research Products, Inc., to furnish and lease the aforementioned equipment I further agree that the foregoing obligations assumed by me shall not be affected or prejudiced by any extension of the time for payment of the obligations of the Exhibitor, or by waiver of any other provisions set forth in said agreement to be kept or performed by the Exhibitor, or by any other modification of said agreement whereby the obligations herein assumed by me would, but for this provision be discharged.

Witness my hand and seal this _____ day of _____, 193__.

_____(L. S.)

WAIVER

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named and of the payment by Electrical Research Products, Inc., of the sum of One Dollar ($1.00), receipt of which is hereby acknowledged, the undersigned parties having an interest in the Theatre referred to in said agreement as owner or lessor thereof, hereby consent(s) to the installation of said Equipment and waive(s) any and all rights or claims thereto of whatsoever kind or nature which I/we have or may hereafter acquire as landlord(s) of said Theatre, which might or could in any manner interfere with any rights of Electrical Research Products, Inc., in or to said Equipment.

Dated this _____ day of _____, 193__.

_____

Owner of Theatre.

_____

Lessor of Theatre (other than Owner).

Digitized by Google

AGREEMENT FOR WESTERN ELECTRIC SOUND SYSTEM

PLAN D1-10-15-156W

315 TS
Contract_____

This agreement made in triplicate in the City of New York, State of New York, this_____day of_____, 193__, by and between Electrical Research Products, Inc. (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation having its principal place of business in the City, County, and State of New York (hereinafter called "Products"), licensor, and_____ a _____ Corporation having its principal place of business at No. _____ Avenue/Street, in the City of_____, State of_____ (hereinafter called the "Exhibitor"), licensee, and operating the_____ _____ Theatre, at No._____ Avenue/Street, in the City of_____ _____, State of_____ (hereinafter called the "Theatre"):

Witnesseth that, for and in consideration of the covenants, stipulations, and representations herein set forth, the respective parties hereto agree as follows:

(Pars. 1-21, inclusive, same as Plan X.)

22. *Payments.*—In accordance with the provisions of Section 5 hereof, the Exhibitor agrees to pay to Products the charges provided for in the payment plan hereinafter set forth; said payments to be made at the time and in the manner provided herein, which time and manner shall be of the essence of this agreement.

Payment Plan.—(1) The sum of_____($_____) Dollars, due and payable upon submission of this agreement for acceptance.

(2) (*a*) A demand promissory note for the sum of_____ ($_____) Dollars in form satisfactory to Products made by the Exhibitor and delivered to Products upon the submission of this agreement for acceptance, which note shall bear no interest prior to the date of presentation. Products agrees not to present said note for payment prior to the day upon which the Equipment is first used for a public performance or the day which Products certifies to the Exhibitor as the date upon which the Equipment was made available for a public performance, whichever date is the earlier; provided, however, that Products may present said note at any time after thirty (30) days following the date of shipment.

(*b*) A promissory note in form satisfactory to Products made by the Exhibitor and delivered to Products upon the submission of this agreement for acceptance, and payable as follows:

The sum of_____($_____) Dollars on the Saturday next succeeding the day upon which the Equipment is first used for a public performance, or the day which Product certifies to the Exhibitor as the date that the Equipment was made available for a public performance, whichever date is the earlier, and in no event later than thirty (30) days after the date of shipment, and a like amount on each and every Saturday thereafter for a period of Twenty-five (25) weeks; the sum of_____($_____) Dollars on each and every Saturday thereafter for a period of twenty-six (26) weeks; the sum of_____($_____) Dollars on each and every Saturday thereafter for a period of Fifty-two (52) weeks; and the sum of_____ ($_____) on each and every Saturday thereafter for a period of Fifty-two (52) weeks.

The Exhibitor hereby expressly authorizes Products to enter upon the face of the note referred to herein, the maturity date of the first payment thereunder as above defined.

(3) Thereafter and for the balance of the term of this license the Exhibitor agrees to pay to Products a weekly rental charge of_____($_____) Dollars, which shall be payable on each and every Saturday commencing with the Saturday next succeeding the final payment made in accordance with paragraph 2(*b*) above.

23. *Description of Equipment and Date of Shipment.—Item One.*—Description of Equipment:

Item Two.—The proposed date of shipment is_____, 193__.

Digitized by Google

In witness whereof the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,
By _____,
Vice President, Treasurer.

_____
(Products' witness sign here.)

_____
Exhibitor.
By _____.

_____
(Exhibitor's witness sign here.)

GUARANTY

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named and of the payment to me by Electrical Research Products, Inc., of the sum of One ($1.00) Dollar, I, _____, of the City of_____, State of _____, do hereby covenant and agree to and with the said Electrical Research Products, Inc., that if default shall at any time be made by said Exhibitor in the payment of any monies which shall become due to said Electrical Research Products, Inc., under said agreement and/or in the performance of the covenants contained therein on the part of said Exhibitor to be paid and/or performed, that I will well and truly pay the said sums which may become due thereunder to said Electrical Research Products, Inc., or any arrears thereof, and also all damages which may arise in consequence of the non-performance of the covenants of said agreement, or any of them, upon written notice of any such default being forwarded to me at the address above indicated.

As an additional inducement to Electrical Research Products, Inc., to furnish and lease the aforementioned equipment, I further agree that the foregoing obligations assumed by me shall not be affected or prejudiced by any extension of the time for payment of the obligations of the Exhibitor, or by waiver of any other provisions set forth in said agreement to be kept or performed by the Exhibitor, or by any other modification of said agreement whereby the obligations herein assumed by me would, but for this provision, be discharged.

Witness my hand and seal this_____ day of_____, 193__.

_____(L. S.)

WAIVER

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named and of the payment by Electrical Research Products, Inc., of the sum of One Dollar ($1.00), receipt of which is hereby acknowledged, the undersigned parties having an interest in the Theatre referred to in said agreement as owner or lessor thereof, hereby consent(s) to the installation of said Equipment and waive(s) any and all rights or claims thereto of whatsoever kind or nature which I/we have or may hereafter acquire as landlord(s) of said Theatre, which might or could in any manner interfere with any rights of Electrical Research Products, Inc., in or to said Equipment.

Dated this_____ day of_____, 193__.

_____,
Owner of Theatre.

_____,
Lessor of Theatre (other than Owner).

AGREEMENT FOR WESTERN ELECTRIC SOUND SYSTEM

PLAN C2–N. D. P.–104W

315 T S
Contract No_____

This agreement made in triplicate in the City of New York, State of New York, this _____ day of _____, 193__, by and between Electrical Research Products, Inc. (subsidiary of Western Electric Company, Incor-

Digitized by Google

porated), a Delaware Corporation having its principal place of business in the City, County, and State of New York (hereinafter called "Products"), licensor, and _____, a _____ Corporation having its principal place of business at No. _____ Avenue/Street, in the City of _____, State of _____ (hereinafter called the "Exhibitor"), licensee, and operating the_____ _____ Theatre, at No. _____ Avenue/Street, in the City of _____, State of _____ (hereinafter called the "Theatre"):

Witnesseth that, for and in consideration of the covenants, stipulations, and representations herein set forth, the respective parties hereto agree as follows:

(Pars. 1–21, inclusive, same as Plan X.)

22. *Payments.*—In accordance with the provisions of Section 5 hereof, the Exhibitor agrees to pay to Products the charges provided for in the payment plan hereinafter set forth; said payments to be made at the time and in the manner provided herein, which time and manner shall be of the essence of this agreement.

Payment Plan.—(1) The sum of _____ ($_____) Dollars, representing the first weekly payment hereunder, the receipt of which is hereby acknowledged.

(2) A promissory note in form satisfactory to Products made by the Exhibitor and delivered to Products upon the submission of this agreement for acceptance, and payable as follows: The sum of _____ ($_____) Dollars on the Saturday next succeeding the day upon which the Equipment is first used for a public performance, or the day which Products certifies to the Exhibitor as the date that the Equipment was made available for a public performance, whichever date is the earlier and in no event later than thirty (30) days after the date of shipment and a like amount on each and every Saturday thereafter for a period of Twenty-four (24) weeks; the sum of _____ ($_____) Dollars on each and every Saturday thereafter for a period of Twenty-six (26) weeks; and the sum of _____ ($_____) Dollars on each and every Saturday thereafter for a period of Fifty-two (52) weeks. The Exhibitor hereby expressly authorizes Products to enter upon the face of the note referred to herein, the maturity date of the first payment thereunder as above defined.

(3) Thereafter and for the balance of the term of this license the Exhibitor agrees to pay to Products a weekly rental charge of _____ ($_____) Dollars, which shall be payable on each and every Saturday commencing with the Saturday next succeeding the final payment made in accordance with paragraph (2) above.

23. *Description of Equipment and Date of Shipment—Item one.*—Description of Equipment:

Item Two.—The proposed date of shipment is _____, 193__.

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,

By _____,
Vice President, Treasurer.

_____
(Products' witness signs here)

_____,
Exhibitor.

By _____,

_____
(Exhibitor's witness signs here)

GUARANTY

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named and of the payment to me by Electrical Research Products, Inc., of the sum of One ($1.00) Dollar, I, _____, of the City of _____, State of _____, do hereby covenant and agree to and with the said Electrical Research Products, Inc., that if default shall at any time be made by

Digitized by Google

said Exhibitor in the payment of any monies which shall become due to said Electrical Research Products, Inc., under said agreement and/or in the performance of the covenants contained therein on the part of said Exhibitor to be paid and/or performed, that I will well and truly pay the said sums which may become due thereunder to said Electrical Research Products, Inc., or any arrears thereof, and also all damages which may arise in consequence of the nonperformance of the covenants of said agreement, or any of them, upon written no ice of any such default being forwarded to me at the address above indicated.

As an additional inducement to Electrical Research Products, Inc., to furnish and lease the aforementioned equipment I further agree that the foregoing obligations assumed by me shall not be affected or prejudiced by any exension of the time for payment of the obligations of the Exhibitor, or by waiver of any other provisions set forth in said agreement to be kept or performed by the Exhibitor, or by any other modification of said agreement whereby the obligations herein assumed by me would, but for this provision, be discharged.

Witness my hand and seal this _____ day of _____, 193__.

_____ [L. S.]

WAIVER

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named and of the payment by Electrical Research Products, Inc., of the sum of One Dollar ($1.00), receipt of which is hereby acknowledged, the undersigned parties having an interest in the Theatre referred to in said agreement as owner or lessor thereof, hereby consent(s) to the installation of said Equipment and waive(s) any and all rights or claims thereto of whatsoever kind or nature which I/we have or may hereafter acquire as landlord(s) of said Theatre, which might or could in any manner interfere with any rights of Electrical Research Products, Inc., in or to said Equipment.

Dated this _____ day of _____, 193__.

_____,
Owner of Theatre.

_____,
Lessor of Theatre (other than Owner).

AGREEMENT FOR WESTERN ELECTRIC SOUND SYSTEM

PLAN C1-10-15-104W

315 T S

Contract No. _____

This Agreement made in triplicate in the City of New York, State of New York, this _____ day of _____, 193__, by and between Electrical Research Products, Inc. (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation having its principal place of business in the City, County, and State of New York (hereinafter called "Products"), licensor, and _____, a _____ Corporation having its principal place of business at No. _____ Avenue/Street, in the City of _____, State of _____ (hereinafter called the "Exhibitor"), licensee, and operating the _____ _____ Theatre, at No. _____ Avenue/Street, in the City of _____, State of _____ (hereinafter called the "Theatre"):

Witnesseth that, for and in consideration of the covenants, stipulation, and representations herein set forth, the respective parties hereto agree as follows:

(Pars. 1-21, inclusive, same as Plan X.)

22. *Payments.*—In accordance with the provisions of Section 5 hereof, the Exhibitor agrees to pay to Products the charges provided for in the payment plan hereinafter set forth; said payments to be made at the time and in the manner provided herein, which time and manner shall be of the essence of this agreement.

Payment Plan.—(1) The sum of _____ ($_____) Dollars, due and payable upon submission of this agreement for acceptance.

Digitized by Google

(2) (*a*) A demand promissory note for the sum of _____ ($_____) Dollars in form satisfactory to Products made by the Exhibitor and delivered to Products upon the submission of this agreement for acceptance, which note shall bear no interest prior to the date of presentation. Products agrees not to present said note for payment prior to the day upon which the Equipment is first used for a public performance or the day which Products certifies to the Exhibitor as the date upon which the Equipment was made available for a public performance, whichever date is the earlier; provided, however, that Products may present said note at any time after thirty (30) days following the date of shipment.

(*b*) A promissory note in form satisfactory to Products made by the Exhibitor and delivered to Products upon the submission of this agreement for acceptance, and payable as follows: The sum of _____ ($_____) Dollars on the Saturday next succeeding the day upon which the Equipment is first used for a public performance, or the day which products certifies to the Exhibitor as the date that the Equipment was made available for a public performance, whichever date is the earlier and in no event later than thirty (30) days after the date of shipment and a like amount on each and every Saturday thereafter for a period of Twenty-five (25) weeks; the sum of _____ ($_____) Dollars on each and every Saturday thereafter for a period of Twenty-six (26) weeks; and the sum of _____ _____ ($_____) Dollars on each and every Saturday thereafter for a period of Fifty-two (52) weeks. The Exhibitor hereby expressly authorizes Products to enter upon the face of the note referred to herein, the maturity date of the first payment thereunder as above defined.

(3) Thereafter and for the balance of the term of this License the Exhibitor agrees to pay to Products a weekly rental charge of _____ ($_____) Dollars, which shall be payable on each and every Saturday commencing with the Saturday next succeeding the final payment made in accordance with paragraph (2) (b) above.

23. *Description of Equipment and Date of Shipment—Item One.*—Description of Equipment:

_____

Item Two.—The proposed date of shipment is _____, 193__.

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,

By _____,
Vice-President, Treasurer.

_____
(Products' witness signs here)

_____
Exhibitor.

By _____,

_____
(Exhibitor's witness signs here)

GUARANTY

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named and of the payment to me by Electrical Research Products, Inc., of the sum of One ($1.00) Dollar, I, _____, of the City of _____, State of _____, do hereby covenant and agree to and with the said Electrical Research Products, Inc., that if default shall at any time be made by said Exhibitor in the payment of any monies which shall become due to said Electrical Research Products, Inc., under said agreement and/or in the performance of the covenants contained therein on the part of said Exhibitor to be paid and/or performed, that I will well and truly pay the said sums which may become due thereunder to said Electrical Research Products, Inc., or any arrears thereof, and also all damages which may arise in consequence of the nonperformance of the covenants of said agreement, or any of them, upon written notice of any such default being forwarded to me at the address above indicated.

As an additional inducement to Electrical Research Products, Inc., to furnish and lease the aforementioned equipment I further agree that the fore-

Digitized by Google

going obligations assumed by me shall not be affected or prejudiced by any extension of the time for payment of the obligations of the Exhibitor, or by waiver of any other provisions set forth in said agreement to be kept or performed by the Exhibitor, or by any other modification of said agreement whereby the obligations herein assumed by me would, but for this provision, be discharged.

Witness my hand and seal this _____ day of _____, 193__.

_____ [L. S.]

WAIVER

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named and of the payment by Electrical Research Products, Inc., of the sum of One Dollar ($1.00), receipt of which is hereby acknowledged, the undersigned parties having an interest in the Theatre referred to in said agreement as owner or lessor thereof, hereby consent(s) to the installation of said Equipment and waive(s) any and all rights or claims thereto of whatsoever kind or nature which I/we have or may hereafter acquire as landlord(s) of said Theatre, which might or could in any manner interfere with any rights of Electrical Research Products, Inc., in or to said Equipment.

Dated this _____ day of _____, 193__.

_____

Owner of Theatre.

_____

Lessor of Theatre (other than Owner).

AGREEMENT FOR WESTERN ELECTRIC SOUND SYSTEM

PLAN B2-N.D.P.-52W

315 T S

Contract No. _____

This agreement made in triplicate in the city of New York, State of New York, this _____ day of _____, 193__, by and between Electrical Research Products, Inc. (subsidiary of Western Electric Company, Incorporated), a Delaware corporation having its principal place of business in the City, County, and State of New York (hereinafter called "Products"), licensor, and _____ a _____ Corporation having its principal place of business at No. _____ Avenue/Street, in the City of _____ State of _____ (hereinafter called the "Exhibitor"), licensee, and operating the _____ Theatre, at No. _____ Avenue/Street, in the City of _____ State of _____ (hereinafter called the "Theatre"):

Witnesseth that, for and in consideration of the covenants, stipulations, and representations herein set forth, the respective parties hereto agree as follows:

(Pars. 1–21, inclusive, same as plan X.)

22. *Payments.*—In accordance with the provisions of Section 5 hereof, the Exhibitor agrees to pay to Products the charges provided for in the payment plan hereinafter set forth; said payments to be made at the time and in the manner provided herein, which time and manner shall be of the essence of this agreement.

Payment Plan.—(1) The sum of _____ ($ _____) Dollars, representing the first weekly payment hereunder, the receipt of which is hereby acknowledged.

(2) A promissory note in form satisfactory to Products made by the Exhibitor and delivered to Products upon the submission of this agreement for acceptance, and payable as follows:

The sum of _____ ($_____) Dollars, on the Saturday next succeeding the day upon which the Equipment is first used for a public performance, or the day which Products certifies to the Exhibitor as the date that the Equipment was made available for a public performance, whichever date is the earlier and in no event later than thirty (30) days after the date

Digitized by Google

of shipment and a like amount on each and every Saturday thereafter for a period of Twenty-four (24) weeks; and the sum of _____ ($_____) Dollars on each and every Saturday thereafter for a period of Twenty-six (26) weeks.

The Exhibitor hereby expressly authorizes Products to enter upon the face of the note referred to herein, the maturity date of the first payment thereunder as above defined.

(3) Thereafter and for the balance of the term of this license the Exhibitor agrees to pay to Products a weekly rental charge of _____ ($_____) Dollars, which shall be payable on each and every Saturday commencing with the Saturday next succeeding the final payment made in accordance with paragraph 2 above.

23. *Description of Equipment and Date of Shipment—Item One.*—Description of Equipment:

Item Two.—The proposed date of shipment is _____, 193__.

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,

By _____
Vice-President, Treasurer.

_____
(Products' witness signs here)

_____,
Exhibitor.

By _____

_____
(Exhibitor's witness signs here)

GUARANTY

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named and of the payment to me by Electrical Research Products, Inc., of the sum of One ($1.00) Dollar, I, _____, of the City of _____, State of _____, do hereby covenant and agree to and with the said Electrical Research Products, Inc., that if default shall at any time be made by said Exhibitor in the payment of any monies which shall become due to said Electrical Research Products, Inc., under said agreement and/or in the performance of the covenants contained therein on the part of said Exhibitor to be paid and/or performed, that I will well and truly pay the said sums which may become due thereunder to said Electrical Research Products, Inc., or any arrears thereof, and also all damages which may arise in consequence of the non-performance of the covenants of said agreement, or any of them, upon written notice of any such default being forwarded to me at the address above indicated.

As an additional inducement to Electrical Research Products, Inc., to furnish and lease the aforementioned equipment I further agree that the foregoing obligations assumed by me shall not be affected or prejudiced by any extension of the time for payment of the obligations of the Exhibitor, or by waiver of any other provisions set forth in said agreement to be kept or performed by the Exhibitor, or by any other modification of said agreement whereby the obligations herein assumed by me would, but for this provision, be discharged.

Witness my hand and seal this _____ day of _____, 193__.

_____ (L. S.)

WAIVER

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named and of the payment by Electrical Research Products, Inc., of the sum of One Dollar ($1.00), receipt of which is hereby acknowledged, the undersigned parties having an interest in the Theatre referred to in said agreement as owner or lessor thereof, hereby consent(s) to the installation of said Equipment and waive(s) any and all rights or claims thereto of whatsoever kind or nature which I/we have

Digitized by Google

or may hereafter acquire as landlord(s) of said Theatre, which might or could in any manner interfere with any rights of Electrical Research Products, Inc., in or to said Equipment.

Dated this _____ day of _____, 193__.

_____,
Owner of Theatre.

_____,
Lessor of Theatre (other than Owner).

AGREEMENT FOR WESTERN ELECTRIC SOUND SYSTEM

PLAN B1-10-15-52W

315TS

Contract No._____

This Agreement made in triplicate in the City of New York, State of New York, this_____day of_____, 193__, by and between Electrical Research Products, Inc. (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation having its principal place of business in the City, County and State of New York (hereinafter called "Products"), licensor, and_____a_____Corporation having its principal place of business at No._____Avenue/Street, in the City of_____State of_____(hereinafter called the "Exhibitor"), licensee, and operating the_____Theatre, at No._____Avenue/Street, in the City of_____State of_____(hereinafter called the "Theatre"):

Witnesseth that, for and in consideration of the covenants, stipulations, and representations herein set forth, the respective parties hereto agree as follows:

(Pars. 1-21, inclusive, same as plan X.)

22. *Payments.*—In accordance with the provisions of Section 5 hereof, the Exhibitor agrees to pay to Products the charges provided for in the payment plan hereinafter set forth; said payments to be made at the time and in the manner provided herein, which time and manner shall be of the essence of this agreement.

Payment Plan.—(1) The sum of_____($_____) Dollars, due and payable upon submission of this agreement for acceptance.

(2) (a) A demand promissory note for the sum of_____($_____) Dollars, in form satisfactory to Products made by the Exhibitor and delivered to Products upon the submission of this agreement for acceptance, which note shall bear no interest prior to the date of presentation. Products agrees not to present said note for payment prior to the day upon which the Equipment is first used for a public performance or the day which Products certifies to the Exhibitor as the date upon which the Equipment was made available for a public performance, whichever date is the earlier; provided, however, that Products may present said note at any time after thirty (30) days following the date of shipment.

(*b*) A promissory note in form satisfactory to Products made by the Exhibitor and delivered to Products upon the submission of this agreement for acceptance, and payable as follows:

The sum of_____($_____) Dollars, on the Saturday next succeeding the day upon which the Equipment is first used for a public performance, or the day which Products certifies to the Exhibitor as the date that the Equipment was made available for a public performance, whichever date is the earlier and in no event later than thirty (30) days after the date of shipment and a like amount on each and every Saturday thereafter for a period of Twenty-five (25) weeks; and the sum of_____($_____) Dollars on each and every Saturday thereafter for a period of Twenty-six (26) weeks.

The Exhibitor hereby expressly authorizes Products to enter upon the face of the note referred to herein, the maturity date of the first payment thereunder as above defined.

(3) Thereafter and for the balance of the term of this license the Exhibitor agrees to pay to Products a weekly rental charge of_____

Digitized by Google

($_____) Dollars, which shall be payable on each and every Saturday commencing with the Saturday next succeeding the final payment made in accordance with paragraph 2 (b) above.

23. *Description of Equipment and Date of Shipment—Item One.*—Description of Equipment:

Item Two.—The proposed date of shipment is_____, 193__.

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,
By_____
Vice President, Treasurer.

_____
(Products' witness signs here)

_____
Exhibitor.
By_____

_____
(Exhibitor's witness signs here)

GUARANTY

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named and of the payment to me by Electrical Research Products, Inc., of the sum of One ($1.00) Dollar, I, _____, of the City of_____, State of_____, do hereby covenant and agree to and with the said Electrical Research Products, Inc., that if default shall at any time be made by said Exhibitor in the payment of any monies which shall become due to said Electrical Research Products, Inc., under said agreement and/or in the performance of the covenants contained therein on the part of said Exhibitor to be paid and/or performed, that I will well and truly pay the said sums which may become due thereunder to said Electrical Research Products, Inc., or any arrears thereof, and also all damages which may arise in consequence of the nonperformance of the covenants of said agreement, or any of them, upon written notice of any such default being forwarded to me at the address above indicated.

As an additional inducement to Electrical Research Products, Inc., to furnish and lease the aforementioned equipment I further agree that the foregoing obligations assumed by me shall not be affected or prejudiced by any extension of the time for payment of the obligations of the Exhibitor, or by waiver of any other provisions set forth in said agreement to be kept or performed by the Exhibitor, or by any other modification of said agreement whereby the obligations herein assumed by me would, but for this provision, be discharged.

Witness my hand and seal this_____day of_____, 193__.

_____(L. S.)

WAIVER

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named and of the payment by Electrical Research Products, Inc., of the sum of One Dollar ($1.00), receipt of which is hereby acknowledged, the undersigned parties having an interest in the Theatre referred to in said agreement as owner or lessor thereof, hereby consent(s) to the installation of said Equipment and waive(s) any and all rights or claims thereto of whatsoever kind or nature which I/we have or may hereafter acquire as landlord(s) of said Theatre, which might or could in any manner interfere with any rights of Electrical Research Products, Inc., in or to said Equipment.

Dated this_____day of_____, 193__.

_____
Owner of Theatre.

_____
Lessor of Theatre (other than Owner).

Digitized by Google

AGREEMENT FOR WESTERN ELECTRIC SOUND SYSTEM

PLAN A-C-10-90

315 T S

Contract No. _____

This Agreement made in triplicate in the City of New York, State of New York, this _____ day of _____, 193__, by and between Electrical Research Products Inc., (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation having its principal place of business in the City, County and State of New York (hereinafter called "Products"), licensor, and _____ a _____ Corporation having its principal place of business at No. _____ Avenue/Street, in the City of _____ State of _____ (hereinafter called the "Exhibitor"), licensee, and operating the _____ Theatre, at No. _____ Avenue/Street, in the City of _____ State of _____ (hereinafter called the "Theatre"):

Witnesseth that, for and in consideration of the covenants, stipulations and representations herein set forth, the respective parties hereto agree as follows:

(Par. 1-21, inclusive, same as plan x.)

22. *Payments.*—In accordance with the provisions of Section 5 hereof, the Exhibitor agrees to pay to Products the charges provided for in the payment plan hereinafter set forth; said payments to be made at the time and in the manner provided herein, which time and manner shall be of the essence of this agreement.

Payment Plan.—(1) The sum of _____ ($_____) Dollars, due and payable upon submission of this agreement for acceptance.

(2) A demand promissory note for the sum of _____ ($_____) Dollars, in form satisfactory to Products made by the Exhibitor and delivered to Products upon the submission of this agreement for acceptance, which note shall bear no interest prior to the date of presentation. Products agrees not to present said note for payment prior to the day upon which the Equipment is first used for a public performance or the day which Products certifies to the Exhibitor as the date upon which the Equipment was made available for a public performance, whichever date is the earlier; provided, however, that Products may present said note at any time after thirty (30) days following the date of shipment.

(3) In addition to the foregoing charges the Exhibitor agrees to pay to Products throughout the term of this license, as fixed by the provisions of Section 18 hereof, a weekly rental charge which shall be payable on each and every Saturday during the term of said license as follows:

The sum of _____ ($_____) Dollars per week for the first twenty-six (26) weeks of the term of this agreement;

The sum of _____ ($_____) Dollars per week for the second twenty-six (26) weeks of said terms; and _____ The sum of _____ ($_____) Dollars per week for the balance of said term.

---

23. *Description of Equipment and Date of Shipment...Item One.*—Description of Equipment:—

Item Two.—The proposed date of shipment is _____, 193__.

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.

By _____

Vice President, Treasurer.

_____

(Products' witness signs here)

_____

Exhibitor.

By _____

_____

(Exhibitor's witness signs here)

Digitized by Google

GUARANTY

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named and of the payment to me by Electrical Research Products, Inc., of the sum of One ($1.00) Dollar, I, _____, of the City of _____, State of _____, do hereby covenant and agree to and with the said Electrical Research Products, Inc., that if default shall at any time be made by said exhibitor in the payment of any monies which shall become due to said Electrical Research Products, Inc., under said agreement and/or in the performance of the covenants contained thereon on the part of said Exhibitor to be paid and/or performed, that I will well and truly pay the said sums which may become due thereunder to said Electrical Research Products, Inc., or any arrears thereof, and also all damages which may arise in consequence of the nonperformance of the covenants of said agreement, or any of them, upon written notice of any such default being forwarded to me at the address above indicated.

As an additional inducement to Electrical Research Products, Inc., to furnish and lease the aforementioned equipment I further agree that the foregoing obligations assumed by me shall not be affected or prejudiced by any extension of the time for payment of the obligations of the Exhibitor, or by waiver of any other provisions set forth in said agreement to be kept or performed by the Exhibitor, or by any other modification of said agreement whereby the obligations herein assumed by me would, but for this provision be discharged.

Witness my hand and seal this _____ day of _____, 193__.

_____ (L. S.)

WAIVER

In consideration of the furnishing and leasing of the Equipment covered by the foregoing agreement to the Exhibitor therein named and of the payment by Electrical Research Products, Inc., of the sum of One Dollar ($1.00), receipt of which is hereby acknowledged, the undersigned parties having an interest in the Theatre referred to in said agreements as owner or lessor thereof, hereby consent (s) to the installation of said Equipment and waive(s) any and all rights or claims thereto whatsoever kind or nature which I/we have or may hereafter acquire as landlord(s) of said Theatre, which might or could in any manner interfere with any rights of Electrical Research Products, Inc., in or to said Equipment.

Dated this _____ day of _____, 193__.

_____,
Owner of Theatre.

_____,
Lessor of Theatre (other than Owner).

AGREEMENT FOR WESTERN ELECTRIC SOUND SYSTEM

PLAN X

3010 T S

Contract No. _____

This agreement made in triplicate in the City of New York, State of New York, this _____ day of _____, 193__, by and between Electrical Research Products, Inc., (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation having its principal place of business in the City, County and State of New York (hereinafter called "Products"), licensor, and _____ a _____ Corporation having its principal place of business at No. _____ Avenue/Street, in the City of _____, State of _____, (hereinafter called the "Exhibitor"), licensee, and operating the _____ Theatre, at No. _____ Avenue/Street, in the City of _____, State of _____ (hereinafter called the "Theatre"):

Witnesseth that, for and in consideration of the covenants, stipulations, and representations herein set forth, the respective parties hereto agree as follows:

Digitized by Google

1. (*a*) *Grant of License and Furnishing of Equipment.*—Products hereby agrees to furnish a Western Electric Sound System of the type set forth in Item One of Section 23 (hereinafter called the "Equipment"), and hereby grants to the Exhibitor, subject to all the terms, conditions, limitations, and agreements herein contained, a non-exclusive non-assignable license to use the Equipment in the Theatre for the electrical reproduction of sound in synchronism with, or as incidental to, the exhibition of motion pictures, or any performance given in conjunction therewith, and to employ to the extent necessarily involved in such use of said equipment the methods and/or systems of Products, under all United States patents and applications for United States patents, relating to said equipment or to such use thereof, which are now owned or controlled, or which may during the term of this agreement be owned or controlled by Products, or in respect of which it has or may hereafter during the term of this agreement have the right to grant such license.

(*b*) *Shipment of Equipment.*—Said Equipment shall be furnished f. o. b. Products' warehouse and Products will endeavor to ship the Equipment on or before the date set forth in Item Two of Section 23 hereof. Nothing herein contained shall be considered as a firm agreement on the part of Products to ship the Equipment on or before said date, it being understood that the extent of the obligation of Products in this respect is limited to using its best efforts to procure expeditiously the manufacture and shipment of the Equipment.

2. *Installation and Use of Equipment.*—(*a*) The Equipment shall be installed by the Exhibitor at its own expense in strict accordance with installation specifications which will be furnished by Products. All installation work done and material furnished by the Exhibitor or its agents or servants shall be subject to inspection and approval by Products and the Equipment shall not be used for public performances until the installation thereof shall have been approved by Products. Approval of installation work or material shall in no event subject Products to any responsibility or liability of any kind or nature not specifically assumed by it in this agreement. The Exhibitor shall provide and pay for all services, material and expenses, except as herein otherwise specifically provided, required in connection with the installation of the Equipment.

Products shall provide an engineer to inspect said installation work to be done by the Exhibitor and to supervise the installation of the Equipment. Notice from the Exhibitor that the Theatre will be ready for the installation of the Equipment on a definite date and that the Equipment has been received shall be delivered to Products not less than three (3) days prior to said date, and Products shall make every reasonable effort to have its engineer at the Theatre on said date. The services of said engineer will be furnished without additional cost to the Exhibitor for such continuous period as Products shall deem requisite, not to exceed one week. If the installation work to be done by the Exhibitor is not ready for inspection or said work is not sufficiently advanced to permit the installation of the Equipment upon the date that the engineer shall arrive at the Theatre, and/or in the event that his services shall be required for a continuous period in excess of one week, the Exhibitor shall pay to Products its standard per diem charges for any period in excess of said one week and any additional expenses incurred by Products by reason of said services being required for other than a continuous period or for more than one week.

(*b*) The Exhibitor agrees that it will use and employ the Equipment only in the Theatre, and that it will at all times during the period of this license keep, maintain, and operate the Equipment in the manner from time to time prescribed by Products and in no other manner. The Exhibitor recognizes the highly technical mechanism and art involved in the inventions and construction of the Equipment, and in the making of sound records (in any form) for use therewith, and that the prestige and business reputation of Products might be seriously affected by imperfect operation of the Equipment or by its use with sound records which are not suited to it or which produce interior results when used with the Equipment, and that use of said Equipment otherwise than as herein licensed may involve infringement of patent rights. Therefore, in order to secure and insure the functioning of the Equipment to the satisfaction of the parties hereto, the Exhibitor shall not, without the written consent of Products, move, alter, change, or modify the Equipment, nor add anything thereto nor take anything therefrom; nor break the seal upon any part or collection of parts which is or may be sealed by Products; nor operate, use, or employ the Equipment in any manner in conjunction with any sound record not made under license from Products for such use, unless such sound record is of

Digitized by Google

such character that the Equipment will operate, properly, reliably and efficiently to reproduce sound from such sound record with accuracy of quality and adequacy of volume. Also, in order further to secure proper functioning of the Equipment as aforesaid satisfactorily to the parties hereto, it is agreed that all additional and renewal parts and assembled parts for the Equipment shall be obtained from Products. Products may from time to time at the expense of the Exhibitor, supply and install such spare and renewal parts as may, in its opinion, be necessary to the satisfactory operation and maintenance of the Equipment. Nothing herein contained, however, shall be construed as prohibiting the Exhibitor from taking all reasonable steps, consistent with the general intent hereof, either alone or together with Products, to protect, correct, or repair the Equipment in the event of an accident or breakdown, but the Exhibitor agrees that in the event that it shall itself take any action with respect to the correction or repair of the Equipment, it shall immediately notify Products in writing, giving full details of the action taken to correct or remedy any unsatisfactory condition of the Equipment. The Exhibitor agrees that prior to the first public use in the Theatre of each film and/or sound record, it will cause such films and/or sound records to be run privately upon the Equipment for the purpose of ascertaining that the Equipment is in satisfactory condition and adjustment for the particular film and/or sound record. The Exhibitor expressly agrees that if at any time the Equipment fails to function satisfactorily, it will immediately notify Products by registered mail and telegraph, and the absence of such notification shall be conclusive as to satisfactory functioning of the Equipment.

3. *Change of Theatre or Management.*—In the event that the Exhibitor shall contemplate a sale of the Theatre or its interests therein, or shall contemplate ceasing to operate the Theatre, it shall notify Products in writing of such contemplated action not less than fourteen (14) days prior to the date upon which it will cease to own or operate the Theatre and shall make provision, satisfactory to Products, for the care and custody of the Equipment or for the assumption of this agreement by the successor operator of the Theatre, provided such successor operator is satisfactory to Products. If the notice hereinabove required shall have been given to Products, Products will supervise the removal of the Equipment and its installation in another theatre designated by the Exhibitor; provided, however, that Products' standard charge as from time to time established for removal of the Equipment shall first be paid by the Exhibitor, and that a new agreement on Products' then standard form for the unexpired term of this license shall first be executed by the exhibitor operating such other theatre; and provided further, that such exhibitor and the theatre designated shall be satisfactory to Products. The Exhibitor also agrees to pay to Products upon rendition of invoice therefor its standard per-diem charges for engineering or other services in connection with such removal and reinstallation, and the transportation charges of all employees of Products furnished in connection therewith. If the exhibitor operating such other theatre is not the Exhibitor hereunder, the latter shall become a guarantor to Products for the performance by the former of such new agreement. The exhibitor operating the theatre to which the Equipment may be removed shall at its own expense perform all of the work and provide all of the material set forth in Section 2 (*a*) hereof required for the installation of the Equipment in said theatre.

4. *Instruction of Operators and Inspection of Equipment.*—At the time of installation Products agrees, to the extent deemed necessary by it, and for a continuous period not exceeding one (1) week, to instruct the motion picture machine operators of the Exhibitor in the manner and method of operating the Equipment. Products also agrees to inspect the Equipment from time to time after it shall have been installed.

5. *Products' Charges.*—During the term of this license the Exhibitor agrees to pay to Products, as rental for the Equipment including an initial set of spare parts therefor in accordance with Products' standard list thereof (but exclusive of any additional or renewal parts or equipment) the charges more particularly hereinafter referred to in Section 22 hereof.

6. *Transportation Charges.*—The Exhibitor agrees to pay the cost of transporting all equipment or parts therefor which may be furnished hereunder from the place of shipment to the Theatre, and to accept delivery thereof from the common carrier and make payment directly to the common carrier of freight and express charges thereon. The Exhibitor will also arrange for any necessary loading, trucking, and unloading to put the Equipment down inside the Theatre, and will directly defray the cost thereof.

Digitized by Google

7. *Payment for Additional Parts, Special Service, etc.*—The Exhibitor agrees to pay to Products upon rendition of invoices therefor its standard charges as from time to time established for any additional equipment or spare or renewal parts, furnished or supplied by Products and to pay the transportation charges thereon. The Exhibitor also agrees upon rendition of invoices to pay for any services rendered and expenses incurred by Products in connection with the Equipment or its operation or for the benefit of the Exhibitor, other than the inspection of Equipment provided for in Section 4 hereof. The time of the payments herein shall be of the essence of this agreement.

8. *Facilities for Installation and Operation.*—The Exhibitor warrants that the Theatre is, or before said Equipment is installed will be, supplied with suitable electric current; electric power leads of suitable capacity with outlets conveniently located for power supply to the Equipment; suitable space, properly ventilated, for the installation of the storage batteries and charging equipment; a screen, satisfactory to Products as to its acoustic properties; drapes for acoustic purposes, and suitable supports for horns, and agrees to make such other reasonable changes, alterations, and modifications as may be necessary for the proper installation and accommodation of the Equipment, all at the expense of the Exhibitor and when and to the extent and in the manner prescribed by Products. The Exhibitor further agrees at its own expense to obtain all necessary permits and to comply with all local laws and ordinances in effect from the date hereof and throughout the term of this license relating to the installation, maintenance, use, and operation of the Equipment or any part thereof and with any Fire Insurance Underwriters' requirements relating thereto.

9. *Title to Equipment.*—Title to and ownership of all equipment, including spare or renewal parts, at any time furnished hereunder and also all tools of all kinds, drawings, prints, and written descriptions and instructions, shall at all times be and remain vested in Products. Any and all equipment furnished in accordance with the terms of this agreement, shall at all times be and remain personal property notwithstanding the manner or method of its attachment to any real property.

10. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all personal property taxes which may be charged or levied in connection with or which may apply to any equipment furnished hereunder, and the Exhibitor will reimburse Products for any such taxes which Products may be required to pay.

11. *Access to Equipment.*—The Exhibitor will provide access for Products' representatives, engineers, and mechanics to the Theatre and to all parts thereof where any of the Equipment may be, at all reasonable hours, for the purpose of supervising the installation and from time to time for the purpose of examining and inspecting the Equipment, and will grant to Products full opportunity to make such adjustments therein and repairs thereto as, in the opinion of Products, are necessary or desirable.

12. *Liability for Interruption, Injuries, etc.*—Products shall not be responsible in any manner for any interruption in the operation of the Theatre or of any equipment therein arising from any cause whatsoever or for any loss or damage to persons or property in or upon the said premises for any reason whatsoever. The Exhibitor agrees to indemnify Products for, and save it harmless from any liability or injury to workmen who shall assist in the handling, installing, or operation of the Equipment, and from any liability to any persons resulting from negligence of such workmen. The Exhibitor agrees to use every reasonable effort to prevent the filing of any liens for rent or material or for work, labor, or services which might in any manner affect equipment furnished hereunder and further covenants that if any such liens be filed it will promptly discharge the same.

13. *Default.*—This agreement and/or the rights of the Exhibitor hereunder and/or the license hereby granted shall, at the option of Products, terminate and come to an end in the event of any breach or default on the part of the Exhibitor with respect to any of the covenants and conditions herein contained on its part to be performed, or upon the insolvency of the Exhibitor or upon the filing of a voluntary or involuntary petition in bankruptcy or upon the voluntary or involuntary assignment of any of the Exhibitor's assets for the benefit of creditors or upon the application for the appointment of a receiver of the property and assets of the Exhibitor, or upon the commencement of any action, suit, or proceeding against the Exhibitor in the nature of ejectment, distress for rent, summary dispossession or any other action, suit, or proceeding

Digitized by Google

in respect of the title to or right to possession of the Theatre, or upon the issuing or levying of any attachment or the filing or attempting to assert or enforce any lien which might in any manner affect Products' title to or right to possession of any apparatus or equipment furnished hereunder.

In the event of a default under any of the provisions of this agreement at any time during the term of this license, and if Products does not elect to terminate this agreement and/or the rights granted and/or the license hereby granted, the rights and/or the license hereby granted shall thereupon be suspended, provided, however, that such suspension shall not operate in any way to void or restrict Products' right of termination on account of such default.

14. *Repossession of Equipment.*—Upon termination or expiration of this license by lapse of time or otherwise, the Exhibitor shall surrender the Equipment to Products in good order and condition, reasonable wear and tear and obsolescence due to proper use thereof in the manner and place and for the purposes set forth in this agreement only excepted, and Products may repossess the Equipment and may, for the purpose of reducing the same to possession, enter the Theatre or any other premises where said Equipment may be and without any legal proceedings whatever possess and remove said Equipment, and the Exhibitor agrees to cooperate in such removal. If this license shall be terminated by default, or if the Exhibitor permits any default hereunder to occur, whether or not Products shall exercise the option to terminate this agreement, Products shall thereupon have the right without notice and without any legal proceedings whatever to take immediate possession of said Equipment, or any part thereof, and for that purpose may pursue the same wherever it or any part thereof may be found and may enter, with the aid and assistance of any person or persons, the Theatre or other premises of the Exhibitor and such place or places whatsoever, whether belonging to the Exhibitor or not, in which the Equipment or any part thereof may be placed, and may take and seize the same to its own proper use forever, free from any right of the Exhibitor under this agreement. In the event of the suspension of the rights and/or license under the provisions of Section 13 hereof, Products shall also have the right in like manner to enter said premises and to render the Equipment inoperative by whatever means may, in the opinion of Products, be necessary or expedient. Products shall also have the right in like manner to enter the said premises and remove the Equipment in the event of the said premises being destroyed or damaged by fire or otherwise, to an extent which, in the opinion of Products, endangers the Equipment. The Exhibitor expressly covenants that in any of such events no claim will be made for damage on account of such action or otherwise, and the Exhibitor further agrees that it will hold and save harmless Products and its agents from and against any and all claims for damages by any parties whomsoever on account of such action. In the event of termination or expiration of this license by lapse of time, the occurrence of any default, or otherwise, and irrespective of whether Products shall remove and repossess the Equipment in accordance with the provisions contained in this section, Products shall retain and may enforce any and all claims or rights of action against the Exhibitor which it may then possess in respect of any sum or sums then due to Products in accordance with the terms and conditions of this agreement.

15. *Replacement of Equipment in the Event of Destruction.*—In the event of the partial or total destruction of the Equipment during the term of this license by extraneous fire, or act of God, without fault or neglect on the part of the Exhibitor, provided the Exhibitor shall not be in default in respect of any of the terms of this agreement and provided the Exhibitor shall continue to operate the Theatre or after any necessary repairs to the Theatre shall resume its operation, Products will, at its own expense, either repair the Equipment, or if in the sole judgment of Products, such destruction is so extensive as to render repair of the Equipment impracticable, furnish to the Exhibitor equipment then manufactured by or for Products as nearly similar as possible to the type of Equipment so destroyed. If replacing equipment be provided by Products in the manner hereinabove indicated the obligations of Products and the Exhibitor respecting the installation thereof shall be as set forth in Section 2 (*a*) hereof. The provisions of this section shall not apply to partial or total destruction of the Equipment while same is in the custody of a common carrier.

16. *Patent Protection.*—Products agrees that subject to the provisions hereof it will at its own expense defend any and all actions and suits which may during the term hereof be brought against the Exhibitor for infringement of any United States patent or patents relating to the apparatus or equipment

Digitized by Google

furnished by Products hereunder, on account of any use of said apparatus or equipment by the Exhibitor for the purpose and in the manner contemplated by this agreement and Products will pay or satisfy all judgments and decrees for profits, damages and/or costs which may be finally awarded against the Exhibitor by the Court of last resort in any such action or suit on account of any such infringement, provided that the Exhibitor shall give Products prompt notice (with written confirmation) of such action or suit, full information and all reasonable cooperation in connection therewith and full opportunity to defend the same, and provided further, that this agreement shall not extend to any infringement or claim of infringement on account of the use of any of said equipment in combination with any apparatus or thing not furnished by Products, except films and records produced under licenses from Products where the alleged infringement resides in characteristics thereof or in methods or apparatus for producing the same specifically prescribed by Products and that the liability of Products under this agreement shall in no case exceed the total amount paid hereunder by the Exhibitor to Products. To the end that Products may protect itself and the Exhibitor from claims for infringement of patents, it is agreed that Products may at any time substitute for any of the equipment or parts thereof which may have been furnished to the Exhibitor hereunder, other equipment or parts which Products shall determine to be suitable for performing the function required, such substitution to be made without additional expense to the Exhibitor and with the least possible inconvenience to it or interruption of its business.

17. *License Non-exclusive.*—Nothing in this agreement shall be construed as granting to the Exhibitor an exclusive right or license to operate the Equipment in any particular City, Town, zone, or neighborhood or as preventing or prohibiting Products from entering into similar agreements or granting licenses for the installation and use of similar equipment in competing theatres.

18. *Period of License.*—This license shall be for a term of ten (10) years from the day upon which the Equipment is first used for a public performance, or from the day which Products shall certify to the Exhibitor as the date that the Equipment was made available for public performance, whichever date be the earlier; provided, however, that the term hereof and the payments to Products hereunder (other than the payment tendered upon the submission of this agreement) shall begin not later than thirty (30) days after the date of shipment. It may, however, provided the Exhibitor shall not be in default in respect of any of the terms of this agreement, be terminated at the option of the Exhibitor at any time after the expiration of the first three (3) years of the term hereof upon not less than six (6) months written notice given by the Exhibitor to Products of its intention so to terminate.

19. *Liquidated Damages.*—It is recognized by the parties hereto that in the event that the Exhibitor makes default in any of the terms of this agreement it would be impracticable to prove and difficult to determine the exact damage to Products resulting from such default. It is therefore agreed that in the event the Exhibitor makes any default under the terms of this agreement and if this agreement be terminated by Products, Products shall retain all sums theretofore paid to it by the Exhibitor, and the Exhibitor shall pay to Products, not as a penalty but as agreed and/or liquidated damages, all sums accruing to Products hereunder to and including the date when Products renders the Equipment inoperative or removes same, and in addition thereto twenty percent (20%) of all sums set forth in Paragraph 2 of the payment plan indicated in Section 22 hereof, which would otherwise accrue thereafter, and any note or notes made by the Exhibitor and delivered to Products in accordance with the provisions of the aforementioned Plan, shall, to the extent necessary to enable Products to collect said twenty percent (20%) of the aforementioned unpaid balance, become immediately due and payable.

The rights of Products contained in this section shall be in addition to all other rights reserved to it under the terms of this agreement and shall apply whether or not it elects to or does repossess the said Equipment or any part thereof.

20. *General Provisions.*—(*a*) The sums to be paid by the Exhibitor are not subject to any reduction on account of any change which hereafter may be made in Products' charges for like licenses or equipment or on account of any change in the type, character, or quantity of equipment which Products may hereafter offer for installation in any theatre, or for any other reason.

(*b*) Products shall not be liable for consequential damages arising by reason of failure to make delivery of the Equipment at the time contemplated herein,

Digitized by Google

nor for consequential damages arising from any other cause whatsoever, whether or not similar to the foregoing.

(c) The parties hereto expressly stipulate that this agreement as herein set forth contains the entire understanding of the respective parties with reference to the subject matter hereof, and that there is no other understanding, agreement, or representation, express or implied, in any way limiting, extending, defining, or otherwise relating to the provisions hereof or any of the matters to which the present agreement relates. No agent or employee of Products is authorized to alter or modify this agreement in any way unless such alteration or modification shall be approved in writing by the President, a Vice-President, or the Treasurer of Products or by such representative as may from time to time be designated in writing by any of such officers. No waiver by either party, whether express or implied, of any of the provisions of this agreement shall be construed as constituting a waiver of any other provision or provisions of this agreement or as estopping either party from its right to enforce any provision or all provisions hereof, other than the provision or provisions specifically waived.

(d) This agreement shall not become binding upon Products by reason of the acceptance, use, or negotiation of any currency, check, draft, or other instrument for the payment of money.

21. *Assignment.*—This agreement shall not be assigned by the Exhibitor without the written consent of Products. It shall, however, subject to such restriction upon assignment by the Exhibitor, be binding upon the parties and their respective successors, assigns, and legal representatives and shall be construed according to the laws of the State of New York.

22. *Payments.*—In accordance with the provisions of Section 5 hereof, the Exhibitor agrees to pay to Products the charges provided for in the payment plan hereinafter set forth; said payments to be made at the time and in the manner provided herein, which time and manner shall be of the essence of this agreement.

Plan X.—_____

23. *Description of Equipment and Date of Shipment—Item One.*—Description of Equipment:_____

Item Two.—The proposed date of shipment is_____, 193__.

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,

By _____
Vice-President, Treasurer.

_____
(Exhibitor's witness signs here)

_____
Exhibitor.

By _____

_____
(Products' witness signs here)

GUARANTY

In consideration of the furnishing and leasing of the Equipment covered by the aforementioned agreement to the Exhibitor therein named and of the payment to me by Electrical Research Products, Inc., of the sum of One ($1.00) Dollar, I, _____ of the City of_____, State of _____, do hereby covenant and agree to and with the said Electrical Research Products, Inc., that if default shall at any time be made by said Exhibitor in the payment of any monies which shall become due to said Electrical Research Products, Inc., under said agreement and/or in the performance of the covenants contained therein on the part of said Exhibitor to be paid and/or performed, that I will well and truly pay the said sums which may become due thereunder to said Electrical Research Products, Inc., or any arrears thereof, and also all damages which may arise in consequence of the non-performance of the covenants of said agreement, or any of them, upon written notice of any such default being forwarded to me at the address above indicated.

Witness my hand and seal this _____ day of _____, 193__.

_____ [L. S.]

Digitized by Google

WAIVER

In consideration of the furnishing and leasing of the Equipment covered by the aforementioned agreement to the Exhibitor therein named and of the payment of the sum of One Dollar ($1.00) by Electrical Research Products, Inc., the undersigned owner or lessor of the Theatre referred to in said agreement, hereby consents to the installiation of said Equipment and waives any and all rights or claims thereto of whatsoever kind or nature which I or we have or may hereafter acquire as landlord of said Theatre.

Dated this _____ day of _____, 193__.

_____

Theatre Owner or Lessor.

AGREEMENT FOR WESTERN ELECTRIC SOUND SYSTEM

PLAN D2–N. D. P. 156 W F. R.

3010 T S

Contract No. _____

This agreement made in triplicate in the City of New York, State of New York, this _____ day of _____, 193__, by and between Electrical Research Products, Inc. (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation having its principal place of business in the City, County, and State of New York (hereinafter called "Products"), licensor, and_____, a Corporation having its principal place of business at No. _____ Avenue/Street, in the City of _____, State of _____ (hereinafter called the "Exhibitor"), licensee, and operating the _____ Theatre, at No. _____ Avenue/Street in the City of_____, State of _____ (hereinafter called the "Theatre"):

Witnesseth that, for and in consideration of the covenants, stipulations, and representations herein set forth, the respective parties hereto agree as follows:

(Pars. 1–21, inclusive, same as plan X.)

22. *Payments.*—In accordance with the provisions of Section 5 hereof, the Exhibitor agrees to pay to Products the charges provided for in the payment plan hereinafter set forth; said payments to be made at the time and in the manner provided herein, which time and manner shall be of the essence of this agreement.

Payment Plan.—(1) The sum of _____ ($_____) Dollars, representing the first weekly payment hereunder, the receipt of which is hereby acknowledged.

(2) A promissory note in form satisfactory to Products made by the Exhibitor and delivered to Products upon the submission of this agreement for acceptance, and payable as follows:

The sum of _____ ($_____) Dollars on the Saturday next succeeding the day upon which the Equipment is first used for a public performance, or the day which Products certifies to the Exhibitor as the date that the Equipment was made available for a public performance, whichever date is the earlier and in no event later than thirty (30) days after the date of shipment, and a like amount on each and every Saturday thereafter for a period of One Hundred and Fifty-four (154) weeks.

The Exhibitor hereby expressly authorizes Products to enter upon the face of the note referred to herein, the maturity date of the first payment thereunder as above defined.

(3) Thereafter and for the balance of the term of this license the Exhibitor agrees to pay to Products a weekly rental charge of _____ ($_____) Dollars, which shall be payable on each and every Saturday commencing with the Saturday next succeeding the final payment made in accordance with paragraph 2 above.

23. *Description of Equipment and Date of Shipment—Item One.*—Description of Equipment:

Item Two.—The proposed date of shipment is _____, 193__.

Digitized by Google

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,
By _____
Vice-President, Treasurer.

_____
(Products' witness signs here)

_____
Exhibitor.

_____
(Exhibitor's witness signs here)
By _____

GUARANTY

In consideration of the furnishing and leasing of the Equipment covered by the aforementioned agreement to the Exhibitor therein named and of the payment to me by Electrical Research Products, Inc., of the sum of One ($1.00) Dollar, I _____, of the City of _____, State of _____, do hereby covenant and agree to and with the said Electrical Research Products, Inc., that if default shall at any time be made by said Exhibitor in the payment of any monies which shall become due to said Electrical Research Products, Inc., under said agreement and/or in the performance of the covenants contained therein on the part of said Exhibitor to be paid and/or performed, that I will well and truly pay the said sums which may become due thereunder to said Electrical Research Products, Inc., or any arrears thereof, and also all damages which may arise in consequence of the nonperformance of the covenants of said agreement, or any of them, upon written notice of any such default being forwarded to me at the address above indicated.

Witness my hand and seal this _____ day of _____, 193__.
_____ (L. S.)

WAIVER

In consideration of the furnishing and leasing of the Equipment covered by the aforementioned agreement to the Exhibitor therein named and of the payment of the sum of One Dollar ($1.00) by Electrical Research Products, Inc., the undersigned owner or lessor of the Theatre referred to in said agreement, hereby consents to the installation of said Equipment and waives any and all rights or claims thereto of whatsoever kind or nature which I or we have or may hereafter acquire as landlord of said Theatre.

Dated this _____ day of _____, 193__.

_____
Theatre Owner or Lessor.

AGREEMENT FOR WESTERN ELECTRIC SOUND SYSTEM

PLAN D2—N. D. P. 156 W

3010 T S

Contract No. _____

This agreement made in triplicate in the City of New York, State of New York, this _____ day of _____, 193__, by and between Electrical Research Products, Inc. (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation having its principal place of business in the City, County, and State of New York (hereinafter called "Products"), licensor, and _____ a _____ Corporation having its principal place of business at No. _____ Avenue/Street, in the City of _____ State of _____ (hereinafter called the "Exhibitor"), licensee, and operating the _____ Theatre, at No. _____ Avenue/Street.

Digitized by Google

in the City of _____ State of _____ (hereinafter called the "Theatre"):

Witnesseth that, for and in consideration of the covenants, stipulations, and representations herein set forth, the respective parties hereto agree as follows:

(Pars. 1–21, inclusive, same as plan X.)

22. *Payments.*—In accordance with the provisions of Section 5 hereof, the Exhibitor agrees to pay to Products the charges provided for in the payment plan hereinafter set forth; said payments to be made at the time and in the manner provided herein, which time and manner shall be of the essence of this agreement.

Payment Plan.—(1) The sum of _____ ($_____) Dollars, representing the first weekly payment hereunder, the receipt of which is hereby acknowledged.

(2) A promissory note in form satisfactory to Products made by the Exhibitor and delivered to Products upon the submission of this agreement for acceptance, and payable as follows: The sum of _____ ($_____) Dollars on the Saturday next succeeding the day upon which the Equipment is first used for a public performance, or the day with which Products certifies to the Exhibitor as the date that the Equipment was made available for a public performance, whichever date is the earlier and in no event later than thirty (30) days after the date of shipment, and a like amount on each and every Saturday thereafter for a period of Twenty-four (24) weeks; the sum of _____ ($_____) Dollars on each and every Saturday thereafter for a period of Twenty-six (26) weeks; the sum of _____ ($_____) Dollars on each and every Saturday thereafter for a period of Fifty-two (52) weeks; and the sum of _____ ($_____) Dollars on each and every Saturday thereafter for a period of Fifty-two (52) weeks.

The Exhibitor hereby expressly authorizes Products to enter upon the face of the note referred to herein, the maturity date of the first payment thereunder as above defined.

(3) Thereafter and for the balance of the term of this license the Exhibitor agrees to pay to Products a weekly rental charge of _____ ($_____) Dollars, which shall be payable on each and every Saturday commencing with the Saturday next succeeding the final payment made in accordance with paargraph 2 above.

23. *Description of Equipment and Date of Shipment.—Item One.*—Description of Equipment:

Item Two.—The proposed date of shipment is _____, 193 .

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS INC.,
By _____,
Vice-President, Treasurer.

_____
(Products' witness signs here)

_____,
Exhibitor.
By _____,

_____
(Exhibitor's witness signs here)

GUARANTY

In consideration of the furnishing and leasing of the Equipment covered by the aforementioned agreement to the Exhibitor therein named and of the payment to me by Electrical Research Products Inc., of the sum of One ($1.00) Dollar, I, _____, of the City of _____, State of _____, do hereby covenant and agree to and with the said Electrical Research Products Inc., that if default shall at any time be made by said Exhibitor in the payment of any monies which shall become due to said Electrical Research Products Inc., under said agreement and/or in the

Digitized by Google

performance of the covenants contained therein on the part of said Exhibitor to be paid and/or performed, that I will well and truly pay the said sums which may become due thereunder to said Electrical Research Products Inc., or any arrears thereof, and also all damages which may arise in consequence of the nonperformance of the covenants of said agreement, or any of them, upon written notice of any such default being forwarded to me at the address above indicated.

Witness my hand and seal this _____ day of _____, 193__.

_____, (L. S.).

WAIVER

In consideration of the furnishing and leasing of the Equipment covered by the aforementioned agreement to the Exhibitor therein and of the payment of the sum of One Dollar ($1.00) by Electrical Research Products Inc., the undersigned owner or lessor of the Theatre referred to in said agreement, hereby consents to the installation of said Equipment and waives any and all rights or claims thereto of whatsoever kind or nature which I or we have or may hereafter acquire as landlord of said Theatre.

Dated this _____ day of _____, 193__.

_____,

Theatre Owner or Lessor.

AGREEMENT FOR WESTERN ELECTRIC SOUND SYSTEM

PLAN D1-10-15-156W

3010 T S

Contract No. _____

This agreement made in triplicate in the City of New York, State of New York, this _____ day of _____, 193__, by and between Electrical Research Products Inc. (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation having its principal place of business in the City, County, and State of New York (hereinafter called "Products"), licensor, and _____, a _____ Corporation having its principal place of business at No. _____ Avenue/Street, in the City of _____, State of _____ (hereinafter called the "Exhibitor"), licensee, and operating the _____ Theatre, at No. _____ Avenue/Street, in the City of _____, State of _____ (hereinafter called the "Theatre"):

Witnesseth that, for and in consideration of the covenants, stipulations, and representations herein set forth, the respective parties hereto agree as follows:

(Pars. 1-21, inclusive, same as plan X.)

22. *Payments.*—In accordance with the provisions of Section 5 hereof, the Exhibitor agrees to pay to Products the charges provided for in the payment plan hereinafter set forth; said payments to be made at the time and in the manner provided herein, which time and manner shall be of the essence of this agreement.

Payment plan.—(1) The sum of_____($_____) Dollars, due and payable upon submission of this agreement for acceptance.

(2) A demand promissory note for the sum of_____($_____) Dollars in form satisfactory to Products made by the Exhibitor and delivered to Products upon the submission of this agreement for acceptance, which note shall bear no interest prior to the date of presentation. Products agrees not to present said note for payment prior to the day upon which the Equipment is first used for a public performance or the day which Products certifies to the Exhibitor as the date upon which the Equipment was made available for a public performance, whichever date is the earlier; provided, however, that Products may present said note at any time after thirty (30) days following the date of shipment.

(3) A promissory note in form satisfactory to Products made by the Exhibitor and delivered to Products upon the submission of this agreement for acceptance, and payable as follows: The sum of_____($_____) Dollars on the Saturday next succeeding the day upon which the Equipment is

Digitized by Google

first used for a public performance, or the day which Products certifies to the Exhibitor as the date that the Equipment was made available for a public performance, whichever date is the earlier and in no event later than thirty (30 days after the date of shipment, and a like amount on each and every Saturday thereafter for a period of Twenty-five (25) weeks; the sum of_____($_____) Dollars on each and every Saturday thereafter for a period of Twenty-six (26) weeks; the sum of_____($_____) Dollars on each and every Saturday thereafter for a period of Fifty-two (52) weeks; and the sum of_____($_____) Dollars on each and every Saturday thereafter for a period of Fifty-two (52) weeks. The Exhibitor hereby expressly authorizes Products to enter upon the face of the note referred to herein the maturity date of the first payment thereunder as above defined.

(4) Thereafter and for the balance of the term of this license the Exhibitor agrees to pay to Products a weekly rental charge of_____($_____) Dollars, which shall be payable on each and every Saturday commencing with the Saturday next succeeding the final payment made in accordance with paragraph 3 above.

23. *Description of Equipment and Date of Shipment.—Item One.*—Description of Equipment:_____

_____

Item Two.—The proposed date of shipment is_____, 193__.

In witness whereof the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,

By_____
Vice-President, Treasurer.

_____
(Products' witness signs here)

_____
Exhibitor.

By_____

_____
(Exhibitors' witness signs here)

GUARANTY

In consideration of the furnishing and leasing of the Equipment covered by the aforementioned agreement to the Exhibitor therein named and of the payment to me by Electrical Research Products, Inc., of the sum of One ($1.00) Dollar, I, _____ of the City of_____, State of_____, do hereby covenant and agree to and with the said Electrical Research Products, Inc., that if default shall at any time be made by said Exhibitor in the payment of any monies which shall become due to said Electrical Research Products, Inc., under said agreement and/or in the performance of the covenants contained therein on the part of said Exhibitor to be paid and/or performed, that I will well and truly pay the said sums which may become due thereunder to said Electrical Research Products, Inc., or any arrears thereof, and also all damages which may arise in consequence of the nonperformance of the covenants of said agreement, or any of them, upon written notice of any such default being forwarded to me at the address above indicated.

Witness my hand and seal this_____day of_____, 193__.

_____(L. S.)

WAIVER

In consideration of the furnishing and leasing of the Equipment covered by the aforementioned agreement to the Exhibitor therein named and of the payment of the sum of One Dollar ($1.00) by Electrical Research Products, Inc., the undersigned owner or lessor of the Theatre referred to in said agreement, hereby consents to the installation of said Equipment and waives any and all rights or claims thereto of whatsoever kind or nature which I or we have or may hereafter acquire as landlord of said Theatre.

Dated this_____day of_____, 193__.

_____
Theatre Owner or Lessor.

Digitized by Google

AGREEMENT FOR WESTERN ELECTRIC SOUND SYSTEM

PLAN C2-N.D.P.104W

3010 T S

Contract No._____

This Agreement made in triplicate in the City of New York, State of New York, this_____day of_____, 193__, by and between Electrical Research Products, Inc. (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation having its principal place of business in the City, County, and State of New York (hereinafter called "Products"), licensor, and_____a_____Corporation having its principal place of business at No_____Avenue/Street, in the City of_____State of_____(hereinafter called the "Exhibitor"), licensee, and operating the_____Theatre, at No_____Avenue/Street, in the City of_____State of_____(hereinafter called the "Theatre"):

Witnesseth that, for and in consideration of the covenants, stipulations, and representations herein set forth, the respective parties hereto agree as follows:

(Pars. 1–21, inclusive, same as Plan X.)

22. *Payments.*—In accordance with the provisions of Section 5 hereof, the Exhibitor agrees to pay to Products the charges provided for in the payment plan hereinafter set forth; said payments to be made at the time and in the manner provided herein, which time and manner shall be of the essence of this agreement.

Payment Plan.—(1) The sum of _____ ($_____) Dollars, representing the first weekly payment hereunder, the receipt of which is hereby acknowledged.

(2) A promissory note in form satisfactory to Products made by the Exhibitor and delivered to Products upon the submission of this agreement for acceptance, and payable as follows:

The sum of _____ ($_____) Dollars on the Saturday next succeeding the day upon which the Equipment is first used for a public performance, or the day which Products certifies to the Exhibitor as the date that the Equipment was made available for a public performance, whichever date is the earlier and in no event later than thirty (30) days after the date of shipment and a like amount on each and every Saturday thereafter for a period of Twenty-four (24) weeks; the sum of _____ ($_____) Dollars on each and every Saturday thereafter for a period of Twenty-six (26) weeks; and the sum of _____ ($_____) Dollars on each and every Saturday thereafter for a period of Fifty-two (52) weeks.

The Exhibitor hereby expressly authorizes Products to enter upon the face of the note referred to herein, the maturity date of the first payment thereunder as above defined.

(3) Thereafter and for the balance of the term of this license the Exhibitor agrees to pay to Products a weekly rental charge of _____ ($_____) Dollars, which shall be payable on each and every Saturday commencing with the Saturday next succeeding the final payment made in accordance with paragraph 2 above.

23. *Description of Equipment and Date of Shipment.—Item One.*—Description of Equipment:

Item Two.—The proposed date of shipment is _____, 193__.

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,

By _____

Vice-President, Treasurer.

_____

(Products' witness signs here)

_____

Exhibitor.

By _____

_____

(Exhibitor's witness signs here)

Digitized by Google

GUARANTY

In consideration of the furnishing and leasing of the Equipment covered by the aforementioned agreement to the Exhibitor therein named and of the payment to me by Electrical Research Products, Inc., of the sum of One ($1.00) Dollar, I. _____, of the City of _____, State of _____, do hereby covenant and agree to and with the said Electrical Research Products, Inc., that if default shall at any time be made by said Exhibitor in the payment of any monies which shall become due to said Electrical Research Products, Inc., under said agreement and/or in the performance of the covenants contained therein on the part of said Exhibitor to be paid and/or performed, that I will well and truly pay the said sums which may become due thereunder to said Electrical Research Products, Inc., or any arrears thereof, and also all damages which may arise in consequence of the nonperformance of the covenants of said agreement, or any of them, upon written notice of any such default being forwarded to me at the address above indicated.

Witness my hand and seal this _____ day of _____, 193__.

_____ (L. S.)

WAIVER

In consideration of the furnishing and leasing of the Equipment covered by the aforementioned agreement to the Exhibitor therein named and of the payment of the sum of One Dollar ($1.00) by Electrical Research Products, Inc., the undersigned owner or lessor of the Theatre referred to in said agreement, hereby consents to the installation of said Equipment and waives any and all rights or claims thereto of whatsoever kind or nature which I or we have or may hereafter acquire as landlord of said Theatre.

Dated this _____ day of _____, 193__.

_____

Theatre Owner or Lessor.

AGREEMENT FOR WESTERN ELECTRIC SOUND SYSTEM

PLAN C1-10-15-104W

3010 T S

Contract No. _____

This agreement made in triplicate in the City of New York, State of New York, this _____ day of _____, 193__, by and between Electrical Research Products, Inc. (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation having its principal place of business in the City, County, and State of New York (hereinafter called "Products"), licensor, and _____, a _____ Corporation having its principal place of business at No. _____ Avenue/Street, in the City of _____, State of _____ (hereinafter called _____ (hereinafter called the "Exhibitor"), licensee, and operating the "Exhibitor"), licensee, and operating the _____ Theatre, at No. _____ Avenue/Street, in the City of _____, State of _____ (hereinafter called the "Theatre"):

Witnesseth that, for and in consideration of the covenants, stipulations, and representations herein set forth, the respective parties hereto agree as follows:

(Pars. 1–21, inclusive, same as Plan X.)

22. *Payments.*—In accordance with the provisions of Section 5 hereof, the Exhibitor agrees to pay to Products the charges provided for in the payment plan hereinafter set forth; said payments to be made at the time and in the manner provided herein, which time and manner shall be of the essence of this agreement.

Payment Plan.—(1) The sum of _____ ($_____) Dollars, due and payable upon submission of this agreement for acceptance.

(2) A demand promissory note for the sum of _____ ($_____) Dollars in form satisfactory to Products made by the Exhibitor

Digitized by Google

and delivered to Products upon the submission of this agreement for acceptance, which note shall bear no interest prior to the date of presentation. Products agrees not to present said note for payment prior to the day upon which the Equipment is first used for a public performance or the day which Products certifies to the Exhibitor as the date upon which the Equipment was made available for a public performance, whichever date is the earlier; provided, however, that Products may present said note at any time after thirty (30) days following the date of shipment.

(3) A promissory note in form satisfactory to Products made by the Exhibitor and delivered to Products upon the submission of this agreement for acceptance, and payable as follows:

The sum of _____ ($_____) Dollars on the Saturday next succeeding the day upon which the Equipment is first used for a public performance, or the day which Products certifies to the Exhibitor as the date that the Equipment was made available for a public performance, whichever date is the earlier and in no event later than thirty (30) days after the date of shipment and a like amount on each and every Saturday thereafter for a period of Twenty-five (25) weeks; the sum of _____ ($_____) Dollars on each and every Saturday thereafter for a period of Twenty-six (26) weeks; and the sum of _____ ($_____) Dollars on each and every Saturday thereafter for a period of Fifty-two (52) weeks.

The Exhibitor hereby expressly authorizes Products to enter upon the face of the note referred to herein, the maturity date of the first payment thereunder as above defined.

(4) Thereafter and for the balance of the term of this license the Exhibitor agrees to pay to Products a weekly rental charge of _____ ($_____) Dollars, which shall be payable on each and every Saturday commencing with the Saturday next succeeding the final payment made in accordance with paragraph 3 above.

23. *Description of Equipment and Date of Shipment—Item One.*—Description of Equipment:

Item Two.—The proposed date of shipment is _____, 193__.

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS INC.,

By _____,
Vice-President, Treasurer.

_____
(Products' witness signs here)

_____,
Exhibitor.

By _____

_____
(Exhibitors' witness signs here)

GUARANTY

In consideration of the furnishing and leasing of the Equipment covered by the aforementioned agreement to the Exhibitor therein named and of the payment to me by Electrical Research Products Inc. of the sum of One ($1.00) Dollar, I, _____ of the City of _____, State of _____, do hereby covenant and agree to and with the said Electrical Research Products Inc. that if default shall at any time be made by said Exhibitor in the payment of any monies which shall become due to said Electrical Research Products Inc. under said agreement and/or in the performance of the covenants contained therein on the part of said Exhibitor to be paid and/or performed, that I will well and truly pay the said sums which may become due thereunder to said Electrical Research Products Inc., or any arrears thereof, and also all damages which may arise in consequence of the nonperformance of the covenants of said agreement, or any of them, upon written notice of any such default being forwarded to me at the address above indicated.

Witness my hand and seal this _____ day of _____, 193__.

_____(L. S.)

Digitized by Google

WAIVER

In consideration of the furnishing and leasing of the Equipment covered by the aforementioned agreement to the Exhibitor therein named and of the payment of the sum of One Dollar ($1.00) by Electrical Research Products Inc., the undersigned owner or lessor of the Theatre referred to in said agreement, hereby consents to the installation of said Equipment and waives any and all rights or claims thereto of whatsoever kind or nature which I or we have or may hereafter acquire as landlord of said Theatre.

Dated this _____ day of _____, 193__.

_____,
Theatre Owner or Lessor.

AGREEMENT FOR WESTERN ELECTRIC SOUND SYSTEM

PLAN B2-N.D.P.52W

3010 T S

Contract No. _____

This agreement made in triplicate in the City of New York, State of New York, this _____ day of _____, 193__, by and between Electrical Research Products Inc., (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation having its principal place of business in the City, County, and State of New York (hereinafter called "Products"), licensor, and _____, a Corporation having its principal place of business at No. _____ Avenue/Street, in the City of_____ _____, State of _____ (hereinafter called the "Exhibitor"), licensee, and operating the _____ Theatre, at No. _____ Avenue/Street, in the City of _____ State of _____ (hereinafter called the "Theatre"):

Witnesseth that, for and in consideration of the covenants, stipulations, and representations herein set forth, the respective parties hereto agree as follows:

(Pars. 1–21, inclusive, same as Plan X.)

22. *Payments.*—In accordance with the provisions of Section 5 hereof, the Exhibitor agrees to pay to Products the charges provided for in the payment plan hereinafter set forth; said payments to be made at the time and in the manner provided herein, which time and manner shall be of the essence of this agreement.

Payment Plan.—(1) The sum of ($) Dollars, representing the first weekly payment hereunder, the receipt of which is hereby acknowledged.

(2) A promissory note in form satisfactory to Products made by the Exhibitor and delivered to Products upon the submission of this agreement for acceptance, and payable as follows:

The sum of ($) Dollars, on the Saturday next succeeding the day upon which the Equipment is first used for a public performance, or the day which Products certifies to the Exhibitor as the date that the Equipment was made available for a public performance, whichever date is the earlier and in no event later than thirty (30) days after the date of shipment and a like amount on each and every Saturday thereafter for a period of Twenty-four (24) weeks; and the sum of ($) Dollars on each and every Saturday thereafter for a period of Twenty-six (26) weeks.

The Exhibitor hereby expressly authorizes Products to enter upon the face of the note referred to herein, the maturity date of the first payment thereunder as above defined.

(3) Thereafter and for the balance of the term of this license the Exhibitor agrees to pay to Products a weekly rental charge of ($) Dollars, which shall be payable on each and every Saturday commencing with the Saturday next succeeding the final payment made in accordance with paragraph 2 above.

Digitized by Google

23. *Description of Equipment and Date of Shipment.—Item One.*—Description of Equipment:

Item Two.—The proposed date of shipment is , 193 .

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,

By _____,
Vice-President Treasurer.

_____
(Products' witness signs here)

_____,
Exhibitor.

By _____,

_____
(Exhibitor's witness signs here)

GUARANTY

In consideration of the furnishing and leasing of the Equipment covered by the aforementioned agreement to the Exhibitor therein named and of the payment to me by Electrical Research Products, Inc., of the sum of One ($1.00) Dollar, I, _____, of the City of _____, State of _____, do hereby covenant and agree to and with the said Electrical Research Products, Inc., that if default shall at any time be made by said Exhibitor in the payment of any monies which shall become due to said Electrical Research Products, Inc., under said agreement and/or in the performance of the covenants contained therein on the part of said Exhibitor to be paid and/or performed, that I will well and truly pay the said sums which may become due thereunder to said Electrical Research Products, Inc., or any arrears thereof, and also all damages which may arise in consequence of the nonperformance of the covenants of said agreement, or any of them, upon written notice of any such default being forwarded to me at the address above indicated.

Witness my hand and seal this _____ day of _____, 193__.

_____ (L. S.)

WAIVER

In consideration of the furnishing and leasing of the Equipment covered by the aforementioned agreement to the Exhibitor therein named and of the payment of the sum of One Dollar ($1.00) by Electrical Research Products, Inc., the undersigned owner or lessor of the Theatre referred to in said agreement, hereby consents to the installation of said Equipment and waives any and all rights or claims thereto of whatsoever kind or nature which I or we have or may hereafter acquire as landlord of said Theatre.

Dated this _____ day of _____, 193__.

_____,
Theatre Owner or Lessor.

AGREEMENT FOR WESTERN ELECTRIC SOUND SYSTEM

PLAN B–1–10–15–52W

3010 T S

Contract No. _____

This Agreement, made in triplicate in the City of New York, State of New York, this _____ day of _____, 193__, by and between Electrical Research Products, Inc. (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation having its principal place of business in the City, County, and State of New York (hereinafter called "Products"), licensor, and _____ a _____ Corporation having its principal place of business at No. _____ Avenue/Street, in the City of _____, State of _____ (hereinafter

Digitized by Google

called the "Exhibitor"), licensee, and operating the _____ Theatre, at No. _____ Avenue/Street, in the City of _____, State of _____ (hereinafter called the "Theatre"):

Witnesseth that, for and in consideration of the covenants, stipulations, and representations herein set forth, the respective parties hereto agree as follows:

(Pars. 1–21, inclusive, same as Plan X.)

22. *Payments.*—In accordance with the provisions of Section 5 hereof, the Exhibitor agrees to pay to Products the charges provided for in the payment plan hereinafter set forth; said payments to be made at the time and in the manner provided herein, which time and manner shall be of the essence of this agreement.

Payment Plan.—(1) The sum of _____ ($_____) Dollars, due and payable upon submission of this agreement for acceptance.

(2) A demand promissory note for the sum of _____ ($_____) Dollars, in form satisfactory to Products made by the Exhibitor and delivered to Products upon the submission of this agreement for acceptance, which note shall bear no interest prior to the date of presentation. Products agrees not to present said note for payment prior to the day upon which the Equipment is first used for a public performance or the day which Products certifies to the Exhibitor as the date upon which the Equipment was made available for a public performance, whichever date is the earlier; provided, however, that Products may present said note at any time after thirty (30) days following the date of shipment.

(3) A promissory note in form satisfactory to Products made by the Exhibitor and delivered to Products upon the submission of this agreement for acceptance and payable as follows: The sum of _____ ($_____) Dollars on the Saturday next succeeding the day upon which the Equipment is first used for a public performance, or the day which Products certifies to the Exhibitor as the date that the Equipment was made available for a public performance, whichever date is the earlier and in no event later than thirty (30) days after the date of shipment and a like amount on each and every Saturday thereafter for a period of Twenty-five (25) weeks; and the sum of _____ ($_____) Dollars on each and every Saturday thereafter for a period of Twenty-six (26) weeks. The Exhibitor hereby expressly authorizes Products to enter upon the face of the note referred to herein, the maturity date of the first payment thereunder as above defined.

(4) Thereafter and for the balance of the term of this license the Exhibitor agrees to pay to Products a weekly rental charge of _____ ($_____) Dollars, which shall be payable on each and every Saturday commencing with the Staturday next succeeding the final payment made in accordance with paragraph 3 above.

23. *Description of Equipment and Date of Shipment.—Item One.*—Description of Equipment:

Item Two.—The proposed date of shipment is _____, 193__.

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS INC.,

By_____

Vice-President, Treasurer.

_____

(Products' witness signs here)

_____

Exhibitor.

By_____

_____

(Exhibitor's witness signs here)

GUARANTY

In consideration of the furnishing and leasing of the Equipment covered by the aforementioned agreement to the Exhibitor therein named and of the payment to me by Electrical Research Products, Inc., of the sum of One ($1.00) Dollar

Digitized by Google

I, _____, of the City of _____, State of _____, do hereby covenant and gree to and with the said Electrical Research Products, Inc., that if default shall at any time be made by said Exhibitor in the payment of any monies which shall become due to said Electrical Research Products, Inc., under said agreement and/or in the performance of the covenants contained therein on the part of said Exhibitor to be paid and/or performed, that I will well and truly pay the said sums which may become due thereunder to said Electrical Research Products, Inc., or any arrears thereof, and also all damages which may arise in consequence of the nonperformance of the covenants of said agreement, or any of them, upon written notice of any such default being forwarded to me at the address above indicated.

Witness my hand and seal this _____ day of _____, 193__.

_____ (L. S.)

WAIVER

In consideration of the furnishing and leasing of the Equipment covered by the aforementioned agreement to the Exhibitor therein named and of the payment of the sum of One Dollar ($1.00) by Electrical Research Products, Inc., the undersigned owner or lessor of the Theatre referred to in said agreement, hereby consents to the installation of said Equipment and waives any and all rights or claims thereto of whatsoever kind or nature which I or we have or may hereafter acquire as landlord of said Theatre.

Dated this _____ day of _____, 193__.

_____

Theatre Owner or Lessor.

AGREEMENT FOR WESTERN ELECTRIC SOUND SYSTEM

PLAN A-C-10-90

3010 T S

Contract No. _____

This Agreement made in triplicate in the City of New York, State of New York, this _____ day of _____, 193__, by and between Electrical Research Products, Inc. (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation having its principal place of business in the City, County and State of New York (hereinafter called "Products"), licensor, and _____ a _____ Corporation having its principal place of business at No. _____ Avenue/Street, in the City of _____ State of _____ (hereinafter called the "Exhibitor"), licensee, and operating the _____ Theatre, at No. _____ Avenue/Street, in the City of _____ State of _____ (hereinafter caller the "Theatre"):

Witnesseth that, for and in consideration of the covenants, stipulations and representations herein set forth, the respective parties hereto agree as follows:

(Pars. 1–21, inclusive, same as Plan X.)

22. *Payments.*—In accordance with the provisions of Section 5 hereof, the Exhibitor agrees to pay to Products the charges provided for in the payment plan hereinafter set forth; said payments to be made at the time and in the manner provided herein, which time and manner shall be of the essence of this agreement.

Payment Plan.—(1) The sum of_____ ($_____) Dollars, due and payable upon submission of this agreement for acceptance.

(2) A demand promissory note for the sum of_____ ($_____) Dollars, in form satisfactory to Products made by the Exhibitor and delivered to Products upon the submission of this agreements for acceptance, which note shall bear no interest prior to the date of presentation. Products agrees not to present said note for payment prior to the day upon which the Equipment is first used for a public performance or the day which Products certifies to the Exhibitor as the date upon which the Equipment was made available for a public performance, whichever date is the earlier; pro-

Digitized by Google

vided, however, that Proudcts may present said note at any time after thirty (30) days following the date of shipment.

(3) In addition to the foregoing charges the Exhibitor agrees to pay to Products throughout the term of this license, as fixed by the provisions of Section 18 hereof, a weekly rental charge which shall be payable on each and every Saturday during the term of said license as follows:

The sum of_____ ($_____) Dollars per week for the first twenty-six (26) weeks of the term of this agreement;

The sum of_____ ($_____) Dollars per week for the second twenty-six (26) weeks of said term; and

The sum of_____ ($_____) Dollars per week for the balance of said term.

23. *Description of Equipment and Date of Shipment.—Item One.*—Description of Equipment:

Item Two.—The proposed date of shipment is_____, 193__.

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,

By _____

Vice-President, Treasurer.

_____

(Products' witness signs here)

_____

Exhibitor.

By _____

_____

(Exhibitor's witness signs here)

GUARANTY

In consideration of the furnishing and leasing of the Equipment covered by the aforementioned agreement to the Exhibitor therein named and of the payment to me by Electrical Research Products, Inc., of the sum of One ($1.00) Dollar, I, _____, of the City of_____, State of_____, do hereby covenant and agree to and with the said Electrical Research Products, Inc., that if default shall at any time be made by said Exhibitor in the payment of any monies which shall become due to said Electrical Research Products, Inc., under said agreement and/or in the performance of the covenants contained therein on the part of said Exhibitor to be paid and/or performed, that I will well and truly pay the said sums which may become due thereunder to said Electrical Research Products, Inc., or any arrears thereof, and also all damages which may arise in consequence of the nonperformance of the covenants of said agreement, or any of them, upon written notice of any such default being forwarded to me at the address above indicated.

Witness my hand and seal this_____day of_____, 193__.

_____(L. S.)

WAIVER

In consideration of the furnishing and leasing of the Equipment covered by the aforementioned agreement to the Exhibitor therein named and of the payment of the sum of One Dollar ($1.00) by Electrical Research Products, Inc., the undersigned owner or lessor of the Theatre referred to in said agreement, hereby consents to the installation of said Equipment and waives any and all rights or claims thereto of whatsoever kind or nature which I or we have or may hereafter acquire as landlord of said Theatre.

Dated this_____day of_____, 193__.

_____

Theatre Owner or Lessor.

7–30–30

Digitized by Google

AGREEMENT FOR WESTERN ELECTRIC SOUND SYSTEM IN———(PROJECTION ROOM), ———(LOCATION)

P. R.

307 M. S.

Contract No.____

This Agreement made in triplicate in the City of New York, State of New York, this____day of_____, 193__, by and between Electrical Research Products, Inc. (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation having its principal place of business in the City, County, and State of New York (hereinafter called "Products"), licensor, and_____a_____Corporation having its principal place of business at No._____Avenue/Street, in the City of_____State of_____(hereinafter called the "Licensee"), and operating a motion picture projection room at _____No._____Avenue/Street, in the City of _____State of_____(hereinafter called the "Projection Room"):

Witnesseth that, for, and in consideration of the covenants, stipulations, and representations herein set forth, the respective parties hereto agree as follows:

---

1. *Grant of License and Furnishing of Equipment.*—(a) Products hereby agrees to furnish a Western Electric Sound System of the type set forth in Item One of Section 23 (hereinafter called the "Equipment") and hereby grants to Licensee, subject to all the terms, conditions, limitations, and agreements herein contained, a non-exclusive, non-assignable license to use the Equipment in the Projection Room for the electrical reproduction of sound in synchronism with, or as incidental to, the projection of motion pictures for the purpose of testing motion picture film and/or sound records, and to employ to the extent necessarily involved in such use of said Equipment the methods and/or systems of Products under all United States patents and applications for United States patents, relating to said Equipment or to such use thereof, which are now owned or controlled, or which may during the term of this agreement be owned or controlled by Products, or in respect of which it has or may hereafter during the term of this agreement have the right to grant such license.

2. *Installation of Equipment.*—The Equipment shall be installed by Licensee at its own expense in strict accordance with installation specifications which will be furnished by Products. All installation work done and material furnished by Licensee or its agents or servants shall be subject to inspection and approval by Products and the Equipment shall not be used by Licensee until the installation thereof shall have been approved by Products. Approval of installation work or material shall in no event subject Products to any responsibility or liability of any kind or nature not specifically assumed by it in this agreement. Licensee shall provide and pay for all services, material, and expenses, except as herein otherwise specifically provided, required in connection with the installation of the Equipment.

Products shall provide an engineer to inspect said installation work to be done by Licensee and to supervise the installation of the Equipment. Notice from Licensee that the Projection Room will be ready for the installation of the Equipment on a definite date and that the Equipment has been received shall be delivered to Products not less than three (3) days prior to said date, and Products shall make every reasonable effort to have its engineer at the Projection Room on said date. The services of said engineer will be furnished without additional cost to Licensee for such continuous period as Products shall deem requisite, not to exceed one week. If the installation work to be done by Licensee is not ready for inspection or said work is not sufficiently advanced to permit the installation of the Equipment upon the date that the engineer shall arrive at the Projection Room, and/or in the event that his services shall be required for a continuous period in excess of one week, Licensee shall pay to Products its standard per diem charges for any period in excess of said one week and any additional expense incurred by Products by reason of said services being required for other than a continuous period or for more than one week.

Digitized by Google

3. *Use of Equipment.*—Licensee agrees that it will use and employ the Equipment only in the Projection Room, and that it will at all times during the period of this license keep, maintain, and operate the Equipment in the manner from time to time prescribed by Products and in no other manner. Licensee recognizes the highly technical mechanism and art involved in the inventions and construction of the Equipment, and that the prestige and business reputation of Products might be seriously affected by imperfect operation of the Equipment and that the use of said Equipment otherwise than as herein licensed may involve infringement of patent rights. Therefore, in order to secure and insure the functioning of the Equipment to the satisfaction of the parties hereto, Licensee shall not, without the written consent of Products, move, alter, change, or modify the Equipment, nor add anything thereto nor take anything therefrom, nor break the seal upon any part or collection of parts which is or may be sealed by Products. Also, in order further to secure proper functioning of the Equipment as aforesaid satisfactorily to the parties hereto, it is agreed that all additional and renewal parts and assembled parts for the Equipment shall be obtained from Products. Products may from time to time, at the expense of Licensee, supply and install such spare and renewal parts as may, in its opinion, be necessary to the satisfactory operation and maintenance of the Equipment. Nothing herein contained, however, shall be construed as prohibiting the Licensee from taking all reasonable steps, consistent with the general intent hereof, either alone or together with Products, to protect, correct, or repair the Equipment in the event of an accident or breakdown, but Licensee agrees that in the event that it shall itself take any action with respect to the correction or repair of the Equipment, it shall immediately notify Products in writing, giving full details of the action taken to correct or remedy any unsatisfactory condition of the Equipment. Licensee expressly agrees that if at any time the Equipment fails to function satisfactorily, it will immediately notify Products by registered mail and telegraph, and the absence of such notification shall be conclusive as to satisfactory functioning of the Equipment.

4. *Instruction of Operators and Inspection of Equipment.*—At the time of installation Products agrees, to the extent deemed necessary by it and for a continuous period not exceeding one (1) week, to instruct the motion picture machine operators of Licensee in the manner and method of operating the Equipment. Products also agrees to inspect the Equipment from time to time after it shall have been installed.

5. *Products' Charges.*—During the term of this license Licensee agrees to pay to Products, as rental for the Equipment including an initial set of spare parts therefor in accordance with Products' standard list thereof (but exclusive of any additional or renewal parts or equipment) the charges more particularly hereinafter referred to in Section 22 hereof.

6. *Transportation Charges.*—Licensee agrees to pay the cost of transporting all equipment or parts therefor which may be furnished hereunder from the place of shipment to the Projection Room, and to accept delivery thereof from the common carrier and make payment directly to the common carrier of freight and express charges thereon. Licensee will also arrange for any necessary loading, trucking, and unloading to put the Equipment down inside the Projection Room, and will directly defray the cost thereof.

7. *Payment for Additional Parts, Special Service, etc.*—Licensee agrees to pay to Products upon rendition of invoices therefor in standard charges as from time to time established for any additional equipment or spare or renewal parts, furnished or supplied by Products and to pay the transportation charges thereon. Licensee also agrees upon rendition of invoices to pay for any services rendered and expenses incurred by Products in connection with the Equipment or its operation or for the benefit of the Licensee, other than the inspection of Equipment provided for in Section 4 hereof. The time of the payments herein shall be of the essence of this agreement.

8. *Facilities for Installation and Operation.*—The Licensee warrants that the Projection Room is, or before said Equipment is installed will be, supplied with suitable electric current; electric power leads of suitable capacity, with outlets conveniently located for power supply to the Equipment; suitable space, properly ventilated, for the installation of the storage batteries and charging equipment; a screen, satisfactory to Products as to its acoustic properties; suitable supports for horns, and agrees to make such other reasonable changes, alterations and modifications as may be necessary for the proper installation and accommodation of the Equipment, all at the expense of Licensee and when and to the extent and in the manner prescribed by Products. Licensee fur-

Digitized by Google

ther agrees at its own expense to obtain all necessary permits and to comply with all local laws and ordinances in effect from the date hereof and throughout the term of this license relating to the installation, maintenance, use, and operation of the Equipment or any part thereof and with any Fire Insurance Underwriters' requirements relating thereto.

9. *Title to Equipment.*—Title to and ownership of all equipment, including spare or renewal parts, at any time furnished hereunder and also all tools of all kinds, drawings, prints, and written descriptions and instructions, shall at all times be and remain vested in Products. Any and all equipment furnished in accordance with the terms of this agreement, shall at all times be and remain personal property notwithstanding the manner or method of its attachment to any real property.

10. *Taxes.*—Licensee shall bear and discharge promptly any and all personal property taxes which may be charged or levied in connection with or which may apply to any equipment furnished hereunder, and Licensee will reimburse Products for any such taxes which Products may be required to pay.

11. *Access to Equipment.*—Licensee will provide access for Products' representatives, engineers, and mechanics to the Projection Room and to all parts thereof where any of the Equipment may be, at all reasonable hours, for the purpose of supervising the installation and from time to time for the purpose of examining and inspecting the Equipment, and will grant to Products full opportunity to make such adjustments therein and repairs thereto as, in the opinion of Products, are necessary or desirable.

12. *Liability for Interruption, Injuries, etc.*—Products shall not be responsible in any manner for any interruption in the operation of the Projection Room or of any equipment therein arising from any cause whatsoever, or for any loss or damage to persons or property in or upon the premises embracing the Projection Room for any reason whatsoever. Licensee agrees to indemnify Products for, and save it harmless from any liability or injury to workmen who shall assist in the handling, installing, or operation of the Equipment, and from any liability to any persons resulting from negligence of such workmen. Licensee agrees to use every reasonable effort to prevent the filing of any liens for rent or material or for work, labor, or services which might in any manner affect equipment furnished hereunder and further covenants that if any such liens be filed it will promptly discharge the same.

13. *Default.*—This agreement and/or the rights of Licensee hereunder and/or the license hereby granted shall, at the option of Products, terminate and come to an end in the event of any breach or default on the part of Licensee with respect to any of the covenants and conditions herein contained on its part to be performed, or upon the insolvency of Licensee or upon the filing of a voluntary or involuntary petition in bankruptcy, or upon the voluntary or involuntary assignment of any of Licensee's assets for the benefit of creditors or upon the application for the appointment of a receiver of the property and assets of Licensee, or upon the commencement of any action, suit, or proceeding against Licensee in the nature of ejectment, distress for rent, summary dispossession, or any other action, suit, or proceeding in respect of the title to or right to possession of the premises embracing the Projection Room upon the issuing or levying of any attachment or the filing or attempting to assert or enforce any lien which might in any manner affect Products' title to or right to possession of any apparatus or equipment furnished hereunder.

In the event of a default under any of the provisions of this agreement at any time during the term of this license, and if Products does not elect to terminate this agreement and/or the rights granted and/or the license hereby granted, the rights and/or the license hereby granted shall thereupon be suspended; provided, however, that such suspension shall not operate in any way to void or restrict Products' right of termination on account of such default.

14. *Repossession of Equipment.*—Upon termination or expiration of this license by lapse of time or otherwise, Licensee will surrender the Equipment to Products in good order and condition, reasonable wear and tear and obsolescence due to proper use thereof in the manner and place and for the purposes set forth in this agreement only excepted, and Products may repossess the Equipment and may, for the purpose of reducing the same to possession, enter the Projection Room or any other premises where said Equipment may be and without any legal proceedings whatever possess and remove said Equipment, and Licensee agrees to cooperate in such removal. If this license shall be terminated by default, or if Licensee permits any default hereunder to occur, whether or not Products shall exercise the option to terminate this agreement,

Digitized by Google

Products shall thereupon have the right without notice and without any legal proceedings whatever to take immediate possession of said Equipment, or any part thereof, and for that purpose may pursue the same wherever it or any part thereof may be found and may enter, with the aid and assistance of any person or persons, the Projection Room or other premises of Licensee and such place or places whatsoever, whether belonging to Licensee or not, in which the Equipment or any part thereof may be placed, and may take and seize the same to its own proper use forever, free from any right of Licensee under this agreement. In the event of the suspension of the rights and/or license under the provisions of Section 13 hereof, Products shall also have the right in like manner to enter said premises and to render the Equipment inoperative by whatever means may, in the opinion of Products, be necessary or expedient. Products shall also have the right in like manner to enter the said premises and remove the Equipment in the event of the said premises being destroyed or damaged by fire or otherwise, to an extent which, in the opinion of Products, endangers the Equipment. Licensee expressly covenants that in any of such events no claim will be made for damage on account of such action or otherwise, and Licensee further agrees that it will hold and save harmless Products and its agents from and against any and all claims for damages by any parties whatsoever on account of such action. In the event of termination or expiration of this license by lapse of time, the occurrence of any default, or otherwise, and irrespective of whether Products shall remove and repossess the Equipment in accordance with the provisions contained in this section, Products shall retain and may enforce any and all claims or rights of action against Licensee which it may then possess in respect of any sum or sums then due to Products in accordance with the terms and conditions of this agreement.

15. *Replacement of Equipment in the Event of Destruction.*—Licensee agrees to advise Products promptly of any injury or damage to the Equipment or to any parts thereof, and will permit Products, at Licensee's expense, to repair any such injury or damage, or to replace the Equipment if totally destroyed.

16. *Patent Protection.*—Products agrees that subject to the provisions hereof it will, at its own expense, defend any and all actions and suits which may during the term hereof be brought against Licensee for infringement of any United States patent or patents relating to the apparatus or equipment furnished by Products hereunder, on account of any use of said apparatus or equipment by Licensee for the purpose and in the manner contemplated by this agreement, and Products will pay or satisfy all judgments and decrees for profits, damages, and/or costs which may be finally awarded against Licensee by the court of last resort in any such action or suits on account of any such infringement, provided that Licensee shall give Products prompt notice (with written confirmation) of such action or suit, full information, and all reasonable cooperation in connection therewith and full opportunity to defend the same; and provided further, that this agreement shall not extend to any infringement or claim of infringement on account of the use of any of said equipment in combination with any apparatus or thing not furnished by Products, except films and records produced under licenses from Products where the alleged infringement resides in characteristics thereof or in methods or apparatus for producing the same specifically prescribed by Products, and that the liability of Products under this agreement shall in no case exceed the total amount paid hereunder by Licensee to Products. To the end that Products may protect itself and Licensee from claims for infringement of patents, it is agreed that Products may at any time substitute for any of the equipment or parts thereof which may have been furnished to Licensee hereunder, other equipment or parts which Products shall determine to be suitable for performing the function required, such substitution to be made without additional expense to Licensee and with the least possible inconvenience to it or interruption of its business.

17. *License Non-exclusive.*—Nothing in this agreement shall be construed as granting to Licensee an exclusive right or license to operate the Equipment or as preventing or prohibiting Products from entering into similar agreements or granting licenses for the installation and use of similar equipment in other projection rooms.

18. *Period of License.*—This license shall be for a term of ten (10) years from the day upon which the Equipment is first used by Licensee, or from the day which Products shall certify to Licensee as the date that the Equipment was made available for use, whichever date be the earlier; provided, however,

Digitized by Google

that the term hereof and the payments to Products hereunder (other than the payment tendered upon the submission of this agreement) shall begin not later than thirty (30) days after the date of shipment. It may, however, provided Licensee shall not be in default in respect of any of the terms of this agreement, be terminated at the option of Licensee at any time after the expiration of the first three (3) years of the term hereof upon not less than six (6) months written notice given by Licensee to Products of its intention so to terminate.

19. *Liquidated Damages.*—It is recognized by the parties hereto that in the event that Licensee makes default in any of the terms of this agreement it would be impracticable to prove and difficult to determine the exact damage to Products resulting from such default. It is therefore agreed that in the event Licensee makes any default under the terms of this agreement and if this agreement be terminated by Products, Products shall retain all sums theretofore paid to it by Licensee and Licensee shall pay to Products, not as a penalty, but as agreed and/or liquidated damages, all sums accruing to Products hereunder to and including the date when Products renders the Equipment inoperative or removes same, and in addition thereto twenty (20%) percent of all sums set forth in Paragraph 2 of Section 22 hereof, which would otherwise accrue thereafter, and any note or notes made by Licensee and delivered to Products in accordance with the provisions of the aforementioned Paragraph 2 of Section 22, shall, to the extent necessary to enable Products to collect said twenty (20%) percent of the aforementioned unpaid balance, become immediately due and payable.

The rights of Products contained in this section shall be in addition to all other rights reserved to it under the terms of this agreement and shall apply whether or not it elects to or does repossess the said Equipment, or any part thereof.

20. *General Provisions.*—(a) The sums to be paid by Licensee are not subject to any reduction on account of any change which hereafter may be made in Products' charges for like licenses or equipment or on account of any change in the type, character, or quantity of equipment which Products may hereafter offer for installation in any other projection room, or for any other reason.

(b) Products shall not be liable for consequential damages arising by reason of failure to make delivery of the Equipment at the time contemplated herein nor for consequential damages arising from any other cause whatsoever, whether or not similar to the foregoing.

(c) The parties hereto expressly stipulate that this agreement as herein set forth contains the entire understanding of the respective parties with reference to the subject matter hereof, and that there is no other understanding, agreement, or representation, express or implied, in any way limiting, extending, defining, or otherwise relating to the provisions hereof or any of the matters to which the present agreement relates. No agent or employee of Products is authorized to alter or modify this agreement in any way unless such alteration or modification shall be approved in writing by the President, a Vice-President or the Treasurer of Products or by such representative as may from time to time be designated in writing by any of such officers. No waiver by either party, whether express or implied, of any of the provisions of this agreement shall be construed as constituting a waiver of any other provision or provisions of this agreement or as estopping either party from its right to enforce any provision or all provisions hereof, other than the provision or provisions specifically waived.

(d) This agreement shall not become binding upon Products by reason of the acceptance, use, or negotiation of any currency, check, draft, or other instrument for the payment of money.

21. *Assignment.*—This agreement shall not be assigned by Licensee without the written consent of Products. It shall, however, subject to such restriction upon assignment by Licensee, be binding upon the parties and their respective successors, assigns, and legal representatives and shall be construed according to the laws of the State of New York.

22. *Payments.*—In accordance with the provisions of Section 5 hereof, Licensee agrees to pay to Products the charges provided for in the payment plan hereinafter set forth; said payments to be made at the time and in the manner provided herein, which time and manner shall be of the essence of this agreement.

Digitized by Google

(1) The sum of _____ ($_____) Dollars, due and payable upon submission of this agreement for acceptance.

(2) A demand promissory note for the sum of _____ ($_____) Dollars, in form satisfactory to Products made by Licensee and delivered to Products upon the submission of this agreement for acceptance, which note shall bear no interest prior to the date of presentation. Products agrees not to present said note for payment prior to the day upon which the Equipment is first used by Licensee or the day which Products certifies to Licensee as the date upon which the Equipment was made available for use, whichever date is the earlier; provided, however, that Products may present said note at any time after thirty (30) days following the date of shipment.

(3) In addition to the foregoing charges Licensee agrees to pay to Products throughout the term of this license, as fixed by the provisions of Section 18 hereof, a rental charge of Fifty ($50.00) Dollars per month, the first monthly payment thereof to be made upon the date of commencement of the term of this license, and thereafter through the balance of said term, monthly in advance.

23. *Description of Equipment and Date of Shipment.—Item One.*—Description of Equipment:—

_____

Item Two.—The proposed date of shipment is _____, 193__.

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,

By_____

Vice President, Treasurer.

_____

(Products' witness signs here)

_____

Licensee.

By_____

_____

(Licensee's witness signs here)

GUARANTY

In consideration of the furnishing and leasing of the Equipment covered by the aforementioned agreement to the Licensee therein named and of the payment to me by Electrical Research Products, Inc., of the sum of One ($1.00) Dollar, I, _____ of the City of_____, State of _____, do hereby covenant and agree to and with the said Electrical Research Products, Inc., that if default shall at any time be made by said Licensee in the payment of any monies which shall become due to said Electrical Research Products, Inc., under said agreement and/or in the performance of the covenants contained therein on the part of said Licensee to be paid and/or performed, that I will well and truly pay the said sums which may become due thereunder to said Electrical Research Products, Inc., or any arrears thereof, and also all damages which may arise in consequence of the nonperformance of the covenants of said agreement, or any of them, upon written notice of any such default being forwarded to me at the address above indicated.

Witness my hand and seal this _____ day of _____, 193__.

_____ (L. S.)

WAIVER

In consideration of the furnishing and leasing of the Equipment covered by the aforementioned agreement to the Licensee therein named and of the payment of the sum of One Dollar ($1.00) by Electrical Research Products, Inc., the undersigned owner or lessor of the premises embracing the Projection Room referred to in said agreement, hereby consents to the installation of said Equipment and waives any and all rights or claims thereto of whatsoever kind or nature which I or we have or may hereafter acquire as landlord of said premises.

Dated this _____ day of _____, 193__.

_____

Owner or Lessor.

Digitized by Google

304 T S—12 M–X W

Contract No. _____

This Agreement made in triplicate in the City of New York, State of New York, this _____ day of _____, 19__, by and between Electrical Research Products, Inc., (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation having its principal place of business in the City, County, and State of New York (hereinafter called "Products"), licensor, and _____, a _____ Corporation having its principal place of business at No. _____ Avenue/Street, in the City of _____, State of _____, (hereinafter called the "Exhibitor"), licensee, and operating the _____ Theatre, at No. _____ Avenue/Street, in the City of _____ _____, State of _____, (hereinafter called the "Theatre"):

Witnesseth that, for and in consideration of the covenants, stipulations, and representations herein set forth, the respective parties hereto agree as follows:

1.(a) *Grant of License and Furnishing of Equipment.*—Products hereby agrees to furnish a Western Electric Sound System of the type set forth in Item Three of Section 23 (hereinafter called the "Equipment"), and hereby grants to the Exhibitor, subject to all the terms, conditions, limitations, and agreements herein contained, a non-exclusive non-assignable license to use the Equipment in the Theatre for the electrical reproduction of sound in synchronism with, or as incidental to, the exhibition of motion pictures, or any performance given in conjunction therewith, and to employ to the extent necessarily involved in such use of said equipment the methods and/or systems of Products, under all United States patents and applications for United States patents, relating to said equipment or to such use thereof, which are now owned or controlled, or which may during the term of this agreement be owned or controlled by Products, or in respect of which it has or may hereafter during the term of this agreement have the right to grant such license.

(b) *Shipment of Equipment.*—Said Equipment shall be furnished f. o. b. Products' warehouse, consigned to the Exhibitor and Products will endeavor to ship the Equipment on or before the date set forth in Item Four of Section 23 hereof. Nothing herein contained shall be considered as a firm agreement on the part of Products to ship the Equipment on or before said date, it being understood that the extent of the obligation of Products in this respect is limited to using its best efforts to procure expeditiously the manufacture and shipment of the Equipment.

2. *Installation and Use of Equipment.*—2. (a) The Equipment shall be installed by the Exhibitor at its own expense in strict accordance with installation specifications which will be furnished by Products. All installation work done by the Exhibitor or its agent or servants shall be subject to inspection and approval by Products and the Equipment shall not be used for public performances until the installation thereof shall have been approved by Products. Approval of installation work shall in no event subject Products to any responsibility or liability of any kind or nature not specifically assumed by it in this agreement. The Exhibitor shall provide and pay for all services, material, and expenses, except as herein otherwise specifically provided, required in connection with the installation of the Equipment.

Products shall provide an engineer to inspect said installation work to be done by the Exhibitor and to supervise the installation of the Equipment. Notice from the Exhibitor that the Theatre is ready for the installation of the Equipment and that the equipment has been received shall be delivered to Products not less than three (3) days prior to the date when the Theatre will be ready for such installation, and Products shall make every reasonable effort to have its engineer at the Theatre on said date. The services of said engineer will be furnished without additional cost to the Exhibitor for such period as Products shall deem requisite, not to exceed one week. If the installation work to be done by the Exhibitor is not ready for inspection or said work is not sufficiently advanced to permit the installation of the Equipment upon the date that the engineer shall arrive at the Theatre, and/or in the event that his services shall be required for a period in excess of one week, the Exhibitor shall pay to Products its standard per diem charges for any period in excess of said one week and any additional expense incurred by Products by reason of said services being required for more than one week.

Digitized by Google

(b) The Exhibitor agrees that it will use and employ the Equipment only in the Theatre, and that it will at all times during the period of this license keep, maintain, and operate the Equipment in the manner from time to time prescribed by Products and in no other manner. The Exhibitor recognizes the highly technical mechanism and art involved in the inventions and construction of the Equipment, and in the making of sound record (in any form) for use therewith, and that the prestige and business reputation of Products might be seriously affected by imperfect operation of the Equipment or by its use with sound records which are not suited to it or which produce inferior results when used with the Equipment, and that use of said Equipment otherwise than as herein licensed may involve infringement of patent rights. Therefore, in order to secure and insure the functioning of the Equipment to the satisfaction of the parties hereto, the Exhibitor shall not, without the written consent of Products, move, alter, change or modify the Equipment, nor add anything thereto nor take anything therefrom; nor break the seal upon any part or collection of parts which is or may be sealed by Products; nor operate, use or employ the Equipment in any manner in conjunction with any sound record not made under license from Products for such use, unless such sound record is of such character that the Equipment will operate properly, reliably and efficiently to reproduce sound from such sound record with accuracy of quality and adequacy of volume. Also, in order further to secure proper functioning of the Equipment as aforesaid satisfactorily to the parties hereto, it is agreed that all additional and renewal parts and assembled parts for the Equipment shall be obtained from Products. Nothing herein contained, however, shall be construed as prohibiting the Exhibitor from taking all reasonable steps, consistent with the general intent hereof, either alone or together with Products, to protect, correct, or repair the Equipment in the event of an accident or breakdown, but the Exhibitor agrees that in the event that it shall itself take any action with respect to the correction or repair of the Equipment, it shall immediately notify Products in writing, giving full details of the action taken to correct or remedy any unsatisfactory condition of the Equipment. The Exhibitor agrees that prior to the first public use in the Theatre of each film and/or sound record, it will cause such films and/or sound records to be run privately upon the Equipment for the purpose of ascertaining that the Equipment is in satisfactory condition and adjustment for the particular film and/or sound record. The Exhibitor expressly agrees that if at any time the Equipment fails to function satisfactorily, it will immediately notify Products by registered mail and telegraph, and the absence of such notification shall be conclusive as to satisfactory functioning of the Equipment.

3. *Change of Theatre or Management.*—In the event that the Exhibitor shall contemplate a sale of the Theatre or its interest therein, or shall contemplate ceasing to operate the Theatre, it shall notify Products in writing of such contemplated action not less than fourteen (14) days prior to the date upon which it will cease to own or operate the Theatre and shall make provision, satisfactory to Products, for the care and custody of the Equipment or for the assumption of this agreement by the successor operator of the Theatre, provided such successor operator is satisfactory to Products. If the notice hereinabove required shall have been given to Products, Products will supervise the removal of the Equipment and its installation in another theatre designated by the Exhibitor; provided, however, that Products' standard charge as from time to time established for removal of the Equipment shall first be paid by the Exhibitor, and that a new agreement on Products' then standard form for the unexpired term of this license shall first be executed by the exhibitor operating such other theatre; and provided further, that such exhibitor and the theatre designated shall be satisfactory to Products. The Exhibitor also agrees to pay to Products upon rendition of invoice therefor its standard per diem charges for engineering or other services in connection with such removal and reinstallation, including the transportation charges of all employees of Products furnished in connection therewith. If the exhibitor operating such other theatre is not the Exhibitor hereunder, the latter shall become a guarantor to Products for the performance by the former of such new agreement. The exhibitor operating the theatre to which the Equipment may be removed shall at its own expense perform all of the work set forth in Section 2 (a) hereof required for the installation of the Equipment in said theatre.

4. *Instruction and Inspection Service.*—At the time of installation Products agrees, to the extent deemed necessary by it, and for a period, not exceeding

Digitized by Google

one (1) week, to instruct the motion picture machine operators of the Exhibitor in the manner and method of operating the Equipment. Products also agrees to make periodical inspection of the Equipment after it shall have been installed.

5. *Products' Charges.*—The Exhibitor agrees to pay to Products the sums set forth in Items One and Two of Section 23 hereof; said payments to be made at the time and in the manner provided therein, which time and manner shall be of the essence of this agreement. The payments above mentioned cover the furnishing of Equipment, an initial set of spare parts in accordance with Products' standard list thereof and Products' service, inspection, and rental charges. After the time limited for the completion of said payments and for the balance of the term of this license the Exhibitor agrees to pay to Products a weekly charge covering service, inspection, and rental, which shall be payable on each and every Saturday commencing with the Saturday next succeeding the time limited for the completion of the payments first mentioned in this Section 5, which charge shall be in accordance with Products' regular schedule of such charges as from time to time established. Under Products' present schedule the amount of such charge shall be in accordance with the sums set forth in Item Five of Section 23 and such charge to the Exhibitor shall not be increased during the term of this agreement. The time of such payments shall be of the essence of this agreement.

6. *Transportation Charges.*—The Exhibitor agrees to pay the cost of transporting the Equipment from the place of shipment to the Theatre, and to accept delivery thereof from the common carrier and make payment directly to the common carrier of freight and express charges thereon. The Exhibitor will also arrange for any necessary loading, trucking, and unloading to put the Equipment down inside the Theatre, and will directly defray the cost thereof.

7. *Payment for Additional Parts, Special Service, etc.*—Products may from time to time at the expense of the Exhibitor, supply and install such spare and renewal parts as may, in its opinion, be necessary to the satisfactory operation and maintenance of the Equipment. The Exhibitor agrees to pay to Products its standard installation charges as from time to time established for any additional equipment or spare or renewal parts, furnished or supplied by Products, upon delivery thereof and to pay the transportation charges thereon. The Exhibitor also agrees upon rendition of invoices to pay for any services rendered and expenses incurred by Products in connection with the Equipment or its operation or for the benefit of the Exhibitor, other than the regular periodical inspection service hereinbefore provided for. The time of the payments herein shall be of the essence of this agreement.

8. *Changes in Theatre.*—The Exhibitor warrants that the Theatre is, or before said Equipment is installed will be, supplied with suitable electric current; electric power leads of suitable capacity with outlets conveniently located for power supply to the Equipment; suitable space, properly ventilated, for the installation of the storage batteries and charging equipment; a screen, satisfactory to Products as to its acoustic properties, drapes for acoustic purposes, and suitable support for horns, and agrees to make such other reasonable changes, alterations, and modifications as may be necessary for the proper installation and accommodation of the Equipment, all at the expense of the Exhibitor and when and to the extent and in the manner prescribed by Products, and the Exhibitor further agrees at its own expense to obtain all necessary permits and to comply with all local laws and ordinances in effect from the date hereof and throughout the term of this license relating to the installation, maintenance, use, and operation of the Equipment or any part thereof and with any Fire Insurance Underwriters' requirements relating thereto.

9. *Title to Equipment.*—Title to and ownership of all equipment, including spare or renewal parts, at any time furnished hereunder and also all tools of all kinds, drawings, prints, and written descriptions and instructions, shall at all times be and remain vested in Products. Any and all equipment installed in the Theatre in accordance with the terms of this agreement, shall at all times be and remain personal property notwithstanding the manner or method of its attachment to any real property.

10. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all personal property taxes which may be charged or levied in connection with or which may apply to, any equipment furnished hereunder, and the Exhibitor

Digitized by Google

will reimburse Products for any such taxes which Products may be required to pay.

11. *Access to Equipment.*—The Exhibitor will permit Products, through its designated agents, engineers, and mechanics, to have access to the Theatre and all parts thereof where any of the Equipment may be, at all reasonable hours, for the purpose of supervising the installation and from time to time for the purpose of examining and inspecting the Equipment, and will grant to Products full opportunity to make such adjustments therein and repairs thereto as, in the opinion of Products, are necessary or desirable.

12. *Liability for Interruptions, Injuries, etc.*—Products shall not be responsible in any manner for any interruption in the operation of the Theatre or of any equipment therein arising from any cause whatsoever or for any loss or damage to persons or property in or upon the said premises for any reason whatsoever. The Exhibitor agrees to indemnify Products for, and save it harmless from any liability or injury to workmen whom the Exhibitor shall furnish to assist in the handling, installing, or operating of the Equipment, and from any liability to any persons resulting from negligence of such workmen. The Exhibitor agrees to use every reasonable effort to prevent the filing of any liens for material or for work, labor, or services which might in any manner affect equipment furnished hereunder and further covenants that if any such liens be filed it will promptly discharge the same.

13. *Default.*—This agreement and/or the rights of the Licensee hereunder and/or the license hereby granted shall, at the option of Products, terminate and come to an end in the event of any breach or default on the part of the Licensee with respect to any of the covenants and conditions herein contained on its part to be performed, or upon the insolvency of the License or upon the filing of a voluntary or involuntary petition in bankruptcy or upon the assignment of any of the Licensee's assets for the benefit of creditors or upon the application for the appointment of a receiver of the property and assets of the Licensee.

In the event of a default under any of the provisions of this agreement at any time during the term of this license, and if Products does not elect to terminate this agreement and/or the rights granted and/or the license hereby granted, the rights and/or the license hereby granted shall thereupon be suspended, provided however, that such suspension shall not operate in any way to void or restrict Products' right of termination on account of such default.

14. *Repossession of Equipment.*—Upon termination or expiration of this license by lapse of time or otherwise, the Exhibitor will surrender the Equipment to Products in good order and condition, reasonable wear and tear and obsolescence due to proper use thereof in the manner and place and for the purpose set forth in this agreement only excepted, and Products may repossess the Equipment and may, for the purpose of reducing the same to possession, enter the Theatre or any other premises where said Equipment may be and without any legal proceedings whatever possess and remove said Equipment, and the Exhibitor agrees to cooperate in such removal. If this license shall be terminated by default, or if the Exhibitor permits any default hereunder to occur, whether or not Products shall exercise the option to terminate this agreement, Products shall thereupon have the right without notice and without any legal proceedings whatever to take immediate possession of said Equipment, or any part thereof, and for that purpose may pursue the same wherever it or any part thereof may be found and may enter, with the aid and assistance of any person or persons, the Theatre or other premises of the Exhibitor and such place or places whatsoever, whether belonging to the Exhibitor or not, in which the Equipment or any part thereof may be placed, and may take and seize the same to its own proper use forever, free from any right of the Exhibitor under this agreement. In the event of the suspension of the rights and/or license under the provisions of Section 13 hereof, Products shall also have the right in like manner to enter the said premises and to render the Equipment inoperative by whatever means may, in the opinion of Products, be necessary or expedient. Products shall also have the right in like manner to enter the said premises and remove the Equipment in the event of the said premises being destroyed or damaged by fire or otherwise, to an extent which, in the opinion of Products, endangers the Equipment. The Exhibitor expressly covenants that in any of such events no claim will be made for damage on account of such action or otherwise, and the Exhibitor further agrees that it will hold and save harmless Products and its agents from and against any

Digitized by Google

and all claims for damages by any parties whatsoever on account of such action. In the event of termination or expiration of this license by lapse of time, the occurrence of any default, or otherwise, and irrespective of whether Products shall remove and repossess the Equipment in accordance with the provisions contained in this section, Products shall retain and may enforce any and all claims or rights of action against the Exhibitor which it may then possess in respect of any sum or sums then due to Products in accordance with the terms and conditions of this agreement.

15. *Replacement of Equipment in the Event of Destruction.*—In the event of the partial or total destruction of the Equipment during the term of this license by extraneous fire, or act of God, without fault or neglect on the part of the Exhibitor, provided the Exhibitor shall not be in default in respect of any of the terms of this agreement and provided the Exhibitor shall continue to operate the Theatre or after any necessary repairs to the Theatre shall resume its operation, Products will, at its own expense, either repair the Equipment, or if in the sole judgment of Products, such destruction is so extensive as to render repair of the Equipment impracticable, furnish to the Exhibitor equipment then manufactured by or for Products as nearly similar as possible to the type of Equipment so destroyed. If replacing equipment be provided by Products in the manner hereinabove indicated the obligations of Products and the Exhibitor respecting the installation thereof shall be as set forth in Paragraph 2 (a) hereof.

16. *Patent Protection.*—Products agrees that subject to the provisions hereof it will at its own expense defend any and all actions and suits which may during the term hereof be brought against the Exhibitor for infringement of patents relating to the apparatus or equipment furnished by Products hereunder, on account of any use of said apparatus or equipment by the Exhibitor for the purpose and in the manner contemplated by this agreement and Products will pay or satisfy all judgments and decrees for profits, damages, and/or costs which may be finally awarded against the Exhibitor by the Court of last resort in any such action or suit on account of any such infringement, provided that the Exhibitor shall give Products prompt notice (with written confirmation) of such action or suit, full information and all reasonable cooperation in connection therewith and full opportunity to defend the same, and provided further, that this agreement shall not extend to any infringement or claim of infringement on account of the use of any of said equipment in combination with any apparatus or thing not furnished by Products, except films and records produced under licenses from Products where the alleged infringement resides in characteristics thereof or in methods or apparatus for producing the same specifically prescribed by Products and that the liability of Products under this agreement shall in no case exceed the total amount paid hereunder by the Exhibitor to Products. To the end that Products may protect itself and the Exhibitor from claims for infringement of patents, it is agreed that Products may at any time substitute for any of the equipment or parts thereof which may have been furnished to the Exhibitor hereunder, other equipments or parts which Products shall determine to be suitable for performing the function required, such substitution to be made without additional expense to the Exhibitor and with the least possible inconvenience to it or interruption of its business.

17. *License Non-exclusive.*—Nothing in this agreement shall be construed as granting to the Exhibitor an exclusive right or license to operate the Equipment in any particular City, Town, zone, or neighborhood or as preventing or prohibiting Products from entering into similar agreements or granting licenses for the installation and use of similar equipment in competing theatres.

18. *Period of License.*—This license shall be for a term of ten (10) years from the day upon which the Equipment is first used for a public performance, or from the day which Products shall certify to the Exhibitor that the Equipment is available for public performance, whichever date be the earlier; provided, however, that the term hereof and the payments to Products hereunder shall begin not later than thirty (30) days after the date of shipment. It may, however, provided the Exhibitor shall not be in default in respect of any of the terms of this agreement, be terminated at the option of the Exhibitor at any time after the expiration of the first three (3) years of the term hereof upon not less than six (6) months' written notice given by the Exhibitor to Products of its intention so to terminate.

19. *Entire Understanding.*—The parties hereto expressly stipulate that this agreement as herein set forth contain the entire understanding of the respective

Digitized by Google

parties with reference to the subject matter hereof, and that there is no other understanding, agreement, or representation, express or implied, in any way limiting, extending, defining, or otherwise relating to the provisions hereof or of any of the matters to which the present agreement relates. No agent or employee of Products is authorized to alter or modify this agreement in any way unless such alteration or modification shall be approved in writing by the President or a Vice President of Products or by such representative as may from time to time be designated in writing by either of such officers. No waiver by either party, whether express or implied, of any of the provisions of this agreement shall be construed as constituting a waiver of any other provision or provisions of this agreement or as estopping either party from its rights to enforce any provision or all provisions hereof.

20. *Liquidated Damages.*—It is recognized by the parties hereto that in the event that the Exhibitor makes default in any of the terms of this agreement it would be impracticable to prove and difficult to determine the exact damage to Products resulting from such default. It is therefore agreed that in the event that the Exhibitor makes any default under the terms of this agreement, Products shall retain all sums theretofore paid to it by the Exhibitor and the Exhibitor shall pay to Products, not as a penalty but as agreed and/or liquidated damages, the note mentioned in subdivision B of Item One of Section 23 hereof, if unpaid, and all sums accruing to Products hereunder up to the date Products renders the Equipment inoperative, and in addition thereto twenty (20%) percent of all sums set forth in subdivisions A or B of Item Two thereof, whichever is applicable, accruing thereafter, and any note or notes made by the Exhibitor and delivered to Products in accordance with the provisions of said Item Two of Section 23 shall, to the extent necessary to enable Products to collect said twenty (20%) percent of the aforementioned unpaid balance, become immediately due and payable.

The rights of Products contained in this section shall be in addition to all other rights reserved to it under the terms of this agreement and whether or not it elects to or does repossess the said Equipment, or any part thereof, under the terms of Section 14.

21. Except as otherwise expressly provided in this agreement, any and all sums to be paid by the Exhibitor are not subject to any reduction on account of any change which hereafter may be made in Products' charges for like installations or on account of any change in the type, character or quantity of equipment which Products may hereafter offer for installation in any theatre, nor for any other reason.

22. *Not Assignable.*—This agreement shall not be assigned by the Exhibitor without the written consent of Products. It shall, however, subject to such restriction upon assignment by the Exhibitor, be binding upon the parties and their respective successors, assigns, and legal representatives and shall be construed according to the laws of the State of New York.

23. *Item One.*

A. The sum of _____ ($_____) Dollars, due and payable upon submission of this agreement for acceptance.

B. A demand promissory note for the sum of _____ ($_____) Dollars, in form satisfactory to Products made by the Exhibitor and delivered to Products upon the submission of this agreement for acceptance, which note shall bear no interest prior to the date of presentation. Products agrees not to present said note for payment prior to the day upon which the Equipment is first used for public performance or the day which Products certifies to the Exhibitor as being the day upon which the Equipment is available for public performance, whichever date is the earlier, provided, however, that Products may present said note at any time after thirty (30) days following the date of shipment.

Item Two. (A or B—strike out whichever is inapplicable.)

A. A series of _____ promissory notes, each in the principal amount of _____($_____) Dollars in form satisfactory to Products, made by the Exhibitor and delivered to Products upon the submission of this agreement for acceptance, the first of said notes maturing one month after the day upon which the Equipment is first used for public performance or the day which Products certifies to the Exhibitor as being the day upon which the Equipment is available for public performance, whichever date is earlier, but in no event later than thirty (30) days after the date of shipment, and the remaining notes at monthly intervals thereafter, and bearing

Digitized by Google

interest at the rate of six (6%) percent per annum from and after one month prior to the maturity date of said first note.

B. A promissory note in form satisfactory to Products, made by the Exhibitor and delivered to Products upon the submission of this agreement for acceptance, and payable as follows:

The sum of _____ ($_____) Dollars, on the Saturday next succeeding the day upon which the Equipment is first used for public performance or the day which Products certifies to the Exhibitor as being the day upon which the Equipment is available for public performance, whichever date is the earlier and in no event later than thirty (30) days after the date of shipment and a like amount on each and every Saturday thereafter for a period of twenty-five (25) weeks; the sum of _____ ($_____) Dollars on each and every Saturday thereafter for a period of twenty-six (26) weeks; the sum of _____ ($_____) Dollars on each and every Saturday thereafter for a period of fifty-two (52) weeks; and the sum of _____ ($_____) Dollars on each and every Saturday thereafter for a period of fifty-two (52) weeks.

The Exhibitor hereby expressly authorizes Products to enter upon the face of the note or notes delivered as herein provided, the maturity date of the first payment thereunder as above defined.

Item Three.—Description of Equipment:

Item Four.—The proposed date of shipment is_____, 19__.

Item Five.—Present schedule of service, inspection, and rental charge, pursuant to Section 5 is as follows:

The sum of _____ ($_____) Dollars per week for the first twenty-six (26) weeks of the term of this agreement;

The sum of _____ ($_____) Dollars per week for the second twenty-six (26) weeks of said term; and,

The sum of _____ ($_____) Dollars per week for the balance of said term.

In witness where of, the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,

By _____
Vice-President, Treasurer.

In Presence of—

_____
(as to E. R. P. I.)

_____
Exhibitor.

By _____

_____
(as to Exhibitor)

---

303 TS—N. D. P.
Contract No. _____

This agreement made in triplicate in the City of New York, State of New York, this _____ day of _____, 19____, by and between Electrical Research Products Inc., (subsidiary of Western Electric Company, Incorporated), a Delaware Coporation having its principal place of business in the City, County, and State of New York (hereinafter called "Products"), licensor, and _____ Corporation having its principal place of business at No. _____ Avenue/Street, in the City of _____ _____ State of _____ (hereinafter called the "Exhibitor"), licensee, and operating the _____ Theatre, at No. _____ _____ Avenue/Street, in the City of _____ State of _____ _____ (hereinafter called the "Theatre"):

Witnesseth that, for and in consideration of the covenants, stipulations, and representations herein set forth, the respective parties hereto agree as follows:

---

1. (a) *Grant of License and Furnishing of Equipment.*—Products hereby agrees to furnish a Western Electric Sound System of the type set forth in Item Three of Section 23 (hereinafter called the "Equipment"), and hereby grants to the Exhibitor, subject to all the terms, conditions, limitations, and agreements herein contained, a non-exclusive, non-assignable license to use the Equipment in the Theatre for the electrical reproduction of sound in synchronism with, or as incidental to, the exhibition of motion pictures, or any

Digitized by Google

performance given in conjunction therewith, and to employ to the extent necessarily involved in such use of said equipment the methods and/or systems of Products, under all United States patents and applications for United States patents, relating to said equipment or to such use thereof, which are now owned or controlled, or which may during the term of this agreement be owned or controlled by Products, or in respect of which it has or may hereafter during the term of this agreement have the right to grant such license.

(b) *Shipment of Equipment.*—Said Equipment shall be furnished f. o. b. Products' warehouse, consigned to the Exhibitor and Products will endeavor to ship the Equipment on or before the date set forth in Item Four of Section 23 hereof. Nothing herein contained shall be considered as a firm agreement on the part of Products to ship the Equipment on or before said date, it being understood that the extent of the obligation of Products in this respect is limited to using its best efforts to procure expeditiously the manufacture and shipment of the Equipment.

2. *Installation and Use of Equipment.*—(a) The Equipment shall be installed by the Exhibitor at its own expense in strict accordance with installation specifications which will be furnished by Products. All installation work done by the Exhibitor or its agents or servants shall be subject to inspection and approval by Products, and the Equipment shall not be used for public performances until the installation thereof shall have been approved by Products. Approval of installation work shall in no event subject Products to any responsibility or liability of any kind or nature, not specifically assumed by it in this agreement. The Exhibitor shall provide and pay for all services, material, and expenses, except as herein otherwise specifically provided, required in connection with the installation of the Equipment.

Products shall provide an engineer to inspect said installation work to be done by the Exhibitor and to supervise the installation of the Equipment. Notice from the Exhibitor that the Theatre is ready for the installation of the Equipment and that the Equipment has been received shall be delivered to Products not less than three (3) days prior to the date when the Theatre will be ready for such installation, and Products shall make every reasonable effort to have its engineer at the Theatre on said date. The services of said engineer will be furnished without additional cost to the Exhibitor for such period as Products shall deem requisite, not to exceed one week. If the installation work to be done by the Exhibitor is not ready for inspection or said work is not sufficiently advanced to permit the installation of the Equipment upon the date that the engineer shall arrive at the Theatre, and/or in the event that his services shall be required for a period in excess of one week, the Exhibitor shall pay to Products its standard per diem charges for any period in excess of said one week and any additional expense incurred by Products by reason of said services being required for more than one week.

(b) The Exhibitor agrees that it will use and employ the Equipment only in the Theatre, and that it will at all times during the period of this license keep, maintain, and operate the Equipment in the manner from time to time prescribed by Products and in no other manner. The Exhibitor recognizes the highly technical mechanism and art involved in the inventions and construction of the Equipment, and in the making of sound record (in any form) for use therewith, and that the prestige and business reputation of Products might be seriously affected by imperfect operation of the Equipment or by its use with sound records which are not suited to it or which produce inferior results when used with the Equipment, and that use of said Equipment otherwise than as herein licensed may involve infringement of patent rights. Therefore, in order to secure and insure the functioning of the Equipment to the satisfaction of the parties hereto, the Exhibitor shall not, without the written consent of Products, move, alter, change, or modify the Equipment, nor add anything thereto nor take anything therefrom; nor break the seal upon any part or collection of parts which is or may be sealed by Products; nor operate, use, or employ the Equipment in any manner in conjunction with any sound record not made under license from Products for such use, unless such sound record is of such character that the Equipment will operate properly, reliably, and efficiently to reproduce sound from such sound record with accuracy of quality and adequacy of volume. Also, in order further to secure proper functioning of the Equipment as aforesaid satisfactorily to the parties hereto, it is agreed that all additional and renewal parts and assembled parts for the Equipment shall be obtained from Products. Nothing herein contained, however, shall be construed as prohibiting the Exhibitor from taking all reasonable steps, consistent with the general intent

Digitized by Google

hereof, either alone or together with Products, to protect, correct, or repair the Equipment in the event of an accident or breakdown, but the Exhibitor agrees that in the event that it shall itself take any action with respect to the correction or repair of the Equipment, it shall immediately notify Products in writing, giving full details of the action taken to correct or remedy any unsatisfactory condition of the Equipment. The Exhibitor agrees that prior to the first public use in the Theatre of each film and/or sound record, it will cause such films and/or sound records to be run privately upon the Equipment for the purpose of ascertaining that the Equipment is in satisfactory condition and adjustment for the particular film and/or sound record. The Exhibitor expressly agrees that if at any time the Equipment fails to function satisfactorily, it will immediately notify Products by registered mail and telegraph, and the absence of such notification shall be conclusive as to satisfactory functioning of the Equipment.

3. *Change of Theatre or Management.*—In the event that the Exhibitor shall contemplate a sale of the Theatre or its interest therein, or shall contemplate ceasing to operate the Theatre, it shall notify Products in writing of such contemplated action not less than fourteen (14) days prior to the date upon which it will cease to own or operate the Theatre, and shall make provision, satisfactory to Products, for the care and custody of the Equipment or for the assumption of this agreement by the successor operator of the Theatre, provided such successor operator is satisfactory to Products. If the notice hereinabove required shall have been given to Products, Products will supervise the removal of the Equipment, and its installation in another theatre designated by the Exhibitor; provided, however, that Products' standard charge as from time to time established for removal of the Equipment shall first be paid by the Exhibitor, and that a new agreement on Products' then standard form for the unexpired term of this license shall first be executed by the exhibitor operating such other theatre; and provided further, that such exhibitor and the theatre designated shall be satisfactory to Products. The Exhibitor also agrees to pay to Products upon rendition of invoice therefor its standard per diem charges for engineering or other services in connection with such removal and reinstallation, including the transportation charges of all employees of Products furnished in connection therewith. If the exhibitor operating such other theatre is not the Exhibitor hereunder, the latter shall become a guarantor to Products for the performance by the former of such new agreement. The exhibitor operating the theatre to which the Equipment may be removed shall at its own expense perform all of the work set forth in Section 2 (a) hereof required for the installation of the Equipment in said theatre.

4. *Instruction and Inspection Service.*—At the time of installation Products agrees, to the extent deemed necessary by it, and for a period not exceeding (1) week, to instruct the motion picture machine operators of the Exhibitor in the manner and method of operating the Equipment. Products also agrees to make periodical inspection of the Equipment after it shall have been installed.

5. *Products' Charges.*—During the first three (3) years of the term of this license the Exhibitor agrees to pay to Products the sums set forth in Items One and Two of Section 23 hereof; said payments to be made at the time and in the manner provided therein, which time and manner shall be of the essence of this agreement. The payments above mentioned cover the furnishing of Equipment, an initial set of spare parts in accordance with Products' standard list thereof, and Products' service, inspection, and rental charges. Thereafter and for the balance of the term of this license the Exhibitor agrees to pay to Products a weekly charge covering service, inspection, and rental, which shall be payable on each and every Saturday commencing with the Saturday next succeeding the expiration of the first three (3) years of the term of said license, which charge shall be in accordance with Products' regular schedule of such charges as from time to time established. Under Products' present schedule the amount of such charge shall be the sum set forth in Item Five of Section 23, and such weekly charge to the Exhibitor shall not be increased during the term of this agreement. The time of such payments shall be of the essence of this agreement.

6. *Transportation Charges.*—The Exhibitor agrees to pay the cost of transporting the Equipment from the place of shipment to the Theatre, and to accept delivery thereof from the common carrier and make payment directly to the common carrier of freight and express charges thereon. The Exhibitor will also arrange for any necessary loading, trucking, and unloading to put the Equipment down inside the Theatre, and will directly defray the cost thereof.

Digitized by Google

7. *Payment for Additional Parts, Special Service, etc.*—Products may from time to time, at the expense of the Exhibitor, supply and install such spare and renewal parts as may, in its opinion, be necessary to the satisfactory operation and maintenance of the Equipment. The Exhibitor agrees to pay Products its standard installation charges as from time to time established for any additional equipment or spare or renewal parts furnished or supplied by Products, upon delivery thereof, and to pay the transportation charges thereon. The Exhibitor also agrees upon rendition of invoices to pay for any services rendered and any expenses incurred by Products in connection with the Equipment or its operation or for the benefit of the Exhibitor, other than the regular periodical inspection service hereinbefore provided for. The time of the payments herein shall be of the essence of this agreement.

8. *Changes in Theatre.*—The Exhibitor warrants that the Theatre is, or before said Equipment is installed will be, supplied with suitable current; electric power leads of suitable capacity with outlets conveniently located for power supply to the Equipment; suitable space, properly ventilated, for the installation of the storage batteries and charging equipment; a screen satisfactory to Products as to its acoustic properties; drapes for acoustic purposes; and suitable support for horns; and agrees to make such other reasonable changes, alterations, and modifications as may be necessary for the proper installation and accommodation of the Equipment, all at the expense of the Exhibitor, and when and to the extent and in the manner prescribed by Products, and the Exhibitor further agrees at its own expense to obtain all necessary permits and to comply with all local laws and ordinances in effect from the date hereof and throughout the terms of this license relating to installation, maintenance, use, and operation of the Equipment, or any part thereof, and with any Fire Insurance Underwriters' requirements relating thereto.

9. *Title to Equipment.*—Title to and ownership of all equipment, including spare or renewal parts, at any time furnished hereunder, and also all tools of all kinds, drawings, prints, and written descriptions and instructions, shall at all times be and remain vested in Products. Any and all equipment installed in the Theatre in accordance with the terms of this agreement shall at all times be and remain personal property notwithstanding the manner or method of its attachment to any real property.

10. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all personal-property taxes which may be charged or levied in connection with or which may apply to any equipment furnished hereunder, and the Exhibitor will reimburse Products for any such taxes which Products may be required to pay.

11. *Access to Equipment.*—The Exhibitor will permit Products, through its designated agents, engineers, and mechanics, to have access to the Theatre and to all parts thereof where any of the Equipment may be, at all reasonable hours, for the purpose of supervising the installation and from time to time for the purpose of examining and inspecting the Equipment, and will grant to Products full opportunity to make such adjustments therein and repairs thereto as, in the opinion of Products, are necessary or desirable.

12. *Liability for Interruptions, Injuries, etc.*—Products shall not be responsible in any manner for any interruption in the operation of the Theatre or of any equipment therein arising from any cause whatsoever or for any loss or damage to persons or property in or upon the said premises for any reason whatsoever. The Exhibitor agrees to indemnify Products for and save it harmless from any liability or injury to workmen whom the Exhibitor shall furnish to assist in the handling, installing, or operating of the Equipment, and from any liability to any persons resulting from negligence of such workmen. The Exhibitor agrees to use every reasonable effort to prevent the filing of any liens for material or for work, labor, or services which might in any manner affect equipment furnished hereunder and further covenants that if any such liens be filed it will promptly discharge the same.

13. *Default.*—This agreement and/or the rights of the Licensee hereunder and/or the license hereby granted shall, at the option of Products, terminate and come to an end in the event of any breach or default on the part of the Licensee with respect to any of the covenants and conditions herein contained on its part to be performed, or upon the insolvency of the Licensee or upon the filing of a voluntary or involuntary petition in bankruptcy or upon the assignment of any of the Licensee's assets for the benefit of creditors or upon the application for the appointment of a receiver of the property and assets of the Licensee.

In the event of a default under any of the provisions of this agreement at any time during the term of this license, and if Products does not elect to terminate

Digitized by Google

this agreement and/or the rights granted and/or the license hereby granted, the rights and/or the license hereby granted shall thereupon be suspended, provided, however, that such suspension shall not operate in any way to void or restrict Products' right of termination on account of such default.

14. *Repossession of Equipment.*—Upon termination or expiration of this license by lapse of time or otherwise, the Exhibitor will surrender the Equipment to Products in good order and condition, reasonable wear and tear and obsolescene due to proper use thereof in the manner and place and for the purpose set forth in this agreement only excepted, and Products may repossess the Equipment and may, for the purpose of reducing the same to possession, enter the Theatre or any other premises where said Equipment may be and without any legal proceedings whatever, possess and remove said Equipment, and the Exhibitor agrees to cooperate in such removal. If this license shall be terminated by default, or if the Exhibitor permits any default hereunder to occur, whether or not Products shall exercise the option to terminate this agreement, Products shall thereupon have the right without notice and without any legal proceedings whatever to take immediate possession of said Equipment, or any part thereof, and for that purpose may pursue the same wherever it or any part thereof may be found and may enter, with the aid and assistance of any person or persons, the Theatre or other premises of the Exhibitor and/ such place or places whatsoever, whether belonging to the Exhibitor or not, in which the Equipment or any part thereof may be placed, and may take and seize the same to its own proper use forever, free from any right of the Exhibitor under this agreement. In the event of the suspension of the rights and/or license under the provisions of Section 13 hereof, Products shall also have the right in like manner to enter said premises and to render the Equipment inoperative by whatever means may, in the opinion of Products, be necessary or expedient. Products shall also have the right in like manner to enter the said premises and remove the Equipment in the event of the said premises being destroyed or damaged by fire or otherwise, to an extent which, in the opinion of Products, endangers the Equipment. The Exhibitor expressly covenants that in any of such events no claim will be made for damage on account of such action or otherwise, and the Exhibitor further agrees that it will hold and save harmless Products and its agents from and against any and all claims for damages by any parties whtsoever on account of such action. In the event of termination or expiration of this license by lapse of time, the occurrrence of any default, or otherwise, and irrespective of whether Products shall remove and repossess the Equipment in accordance with the provisions contained in this section, Products shall retain and may enforce any and all claims or rights of action against the Exhibitor which it may then possess in respect of any sum or sums then due to Products in accordance with the terms and conditions of this agreement.

15. *Replacement of Equipment in the Event of Destruction.*—In the event of the partial or total destruction of the Equipment during the term of this license by extraneous fire, or act of God, without fault or neglect on the part of the Exhibitor, provided the Exhibitor shall not be in default in respect of any of the terms of this agreement and provided the Exhibitor shall continue to operate the Theatre or after any necessary repairs to the Theatre shall resume its operation, Products will, at its own expense, either repair the Equipment, or if in the sole judgment of Products, such destruction is so extensive as to render repair of the Equipment impracticable, furnish to the Exhibitor equipment then manufactured by or for Products as nearly similar as possible to the type of Equipment so destroyed. If replacing equipment be provided by Products in the manner hereinabove indicated the obligations of Products and the Exhibitor respecting the installation thereof shall be as set forth in Paragarph 2 (a) hereof.

16. *Patent Protection.*—Products agrees that subject to the provisions hereof it will at its own expense defend any and all actions and suits which may during the term hereof be brought against the Exhibitor for infringement of patents relating to the apparatus or equipment furnished by Products hereunder, on account of any use of said apparatus or equipment by the Exhibitor for the purpose and in the manner contemplated by this agreement and Products will pay or satisfy all judgments and decrees for profits, damages, and/or costs which may be finally awarded against the Exhibitor by the Court of last resort in any such action or suit on account of any such infringement, provided that the Exhibitor shall give Products prompt notice (with written confirmation) of such action or suit, full information, and all reasonable cooperation

Digitized by Google

in connection therewith and full opportunity to defend the same, and provided further, that this agreement shall not extend to any infringement or claim of infringement on account of the use of any of said equipment in combination with any apparatus or thing not furnished by Products, except films and records produced under licenses from Products where the alleged infringement resides in characteristics thereof or in methods or apparatus for producing the same specifically prescribed by Products and that the liability of Products under this agreement shall in no case exceed the total amount paid hereunder by the Exhibitor to Products. To the end that Products may protect itself and the Exhibitor from claims for infringement of patents, it is agreed that Products may at any time substitute for any of the equipment or parts thereof which may have been furnished to the Exhibitor hereunder, other equipment or parts which Products shall determine to be suitable for performing the function required, such substitution to be made without additional expense to the Exhibitor and with the least possible inconvenience to it or interruption of its business.

17. *License Non-exclusive.*—Nothing in this agreement shall be construed as granting to the Exhibitor an exclusive right or license to operate the Equipment in any particular City, Town, zone, or neighborhood or as preventing or prohibiting Products from entering into similar agreements or granting licenses for the installation and use of similar equipment in competing theatres.

18. *Period of License.*—This license shall be for a term of ten (10) years from the day upon which the Equipment is first used for a public performance, or from the day which Products shall certify to the Exhibitor that the Equipment is available for public performance, whichever date be the earlier; provided, however, that the term hereof and the payments to Products hereunder shall begin not later than thirty (30) days after the date of shipment. It may, however, provided the Exhibitor shall not be in default in respect of any of the terms of this agreement, be terminated at the option of the Exhibitor at any time after the expiration of the first three (3) years of the term hereof upon not less than six (6) months' written notice given by the Exhibitor to Products of its intention so to terminate.

19. *Entire Understanding.*—The parties hereto expressly stipulate that this agreement as herein set forth contains the entire understanding of the respective parties with reference to the subject matter hereof, and that there is no other understanding, agreement, or representation, express or implied, in any way limiting, extending, defining, or otherwise relating to the provisions hereof or any of the matters to which the present agreement relates. No agent or employee of Products is authorized to alter or modify this agreement in any way unless such alteration or modification shall be approved in writing by the President or a Vice President of Products or by such representative as may from time to time be designated in writing by either of such officers. No waiver by either party, whether express or implied, of any of the provisions of this agreement shall be construed as constituting a waiver of any other provision or provisions of this agreement or as estopping either party from its rights to enforce any provision or all provisions hereof.

20. *Liquidated Damages.*—It is recognized by the parties hereto that in the event that the Exhibitor makes default in any of the terms of this agreement it would be impracticable to prove and difficult to determine the exact damage to Products resulting from such default. It is therefore agreed that in the event that the Exhibitor makes any default under the terms of this agreement, the Exhibitor shall pay to Products, not as a penalty, but as agreed and/or liquidated damages all sums accruing to Products hereunder up to the date when Products renders the Equipment inoperative, and in addition thereto twenty (20%) per cent of all sums set forth in Item 2 of Section 23 accruing thereafter, and any note or notes made by the Exhibitor and delivered to Products in accordance with the provisions of said Item Two of Section 23 shall, to the extent necessary to enable Products to collect said twenty (20%) per cent of the aforementioned unpaid balance, become immediately due and payable, and Products shall retain all sums theretofore paid to it by the Exhibitor.

The rights of Products contained in this section shall be in addition to all other rights reserved to it under the terms of this agreement and whether or not it elects to or does repossess the said Equipment, or any part thereof, under the terms of Section 14.

21. Except as otherwise expressly provided in this agreement, any and all sums to be paid by the Exhibitor are not subject to any reduction on account of any change which hereafter may be made in Products' charges for like

Digitized by Google

installations or on account of any change in the type, character or quantity of equipment which Products may hereafter offer for installation in any theatre, nor for any other reason.

22. *Not Assignable.*—This agreement shall not be assigned by the Exhibitor without the written consent of Products. It shall, however, subject to such restrictions upon assignment by the Exhibitor, be binding upon the parties and their respective successors, assigns, and legal representatives, and shall be construed according to the laws of the State of New York.

23. *Item One.*—The sum of _____ ($_____) Dollars, representing the first weekly payment hereunder, the receipt of which is hereby acknowledged.

Item Two.—A promissory note in form satisfactory to Products, made by the Exhibitor and delivered to Products upon the submission of this agreement for acceptance, and payable as follows:

The sum of _____($_____) Dollars, on the Saturday next succeeding the day upon which the Equipment is first used for public performance or the day which Products certifies to the Exhibitor as being the day upon which the Equipment is available for public performance, whichever date is the earlier and in no event later than thirty (30) days after the date of shipment, and a like amount on each and every Saturday thereafter for a period of twenty-four (24) weeks; the sum of _____ ($_____) Dollars on each and every Saturday thereafter for a period of twenty-six (26) weeks; the sum of _____($_____) Dollars on each and every Saturday thereafter for a period of fifty-two (52) weeks; and the sum of _____ ($_____) Dollars on each and every Saturday thereafter for a period of fifty-two (52) weeks.

The Exhibitor hereby expressly authorizes Products to enter upon the face of the note referred to herein, the maturity date of the first payment thereunder as above defined.

Item Three.—Description of Equipment:—

Item Four.—The proposed date of shipment is _____, 19____.

Item Five.—Present schedule of service, inspection, and rental charge for the term of the license hereof after the first three (3) years, pursuant to Section 5 is the sum of _____ ($_____) Dollars per week.

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,

By _____

Vice-President, Treasurer,

_____

Exhibitor.

By _____

In Presence of—

_____

(As to E. R. P. I.)

_____

(As to Exhibitor)

---

302 T S—N.D.P.

Contract No._____

This agreement made in triplicate in the City of New York, State of New York, this_____day of_____, 19__, by and between Electrical Research Products, Inc. (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation, having its principal place of business in the City, County, and State of New York (hereinafter called "Products"), licensor, and_____, a_____Corporation having its principal place of business at No._____Avenue/Street, in the City of_____State of_____(hereinafter called the "Exhibitor"), licensee, and operating the_____Theatre, at No._____Avenue/Street, in the City of_____ State of_____(hereinafter called the "Theatre"):

Witnesseth, that for and in consideration of the covenants, stipulations, and representations herein set forth, the respective parties hereto agree as follows:

1. (*a*) *Grant of License and Furnishing of Equipment.*—Products hereby agrees to furnish a Western Electric Sound System of the type set forth in

Digitized by Google

Item Three of Section 23 (hereinafter called the "Equipment"), and hereby grants to the Exhibitor a nonexclusive non-assignable license to use (subject to all the terms, conditions, limitations, and agreements herein contained) the Equipment in the Theatre for the electrical reproduction of sound in synchronism with, or as incidental to, the exhibition of motion pictures, or any performance given in conjunction therewith, and to employ (to the extent necessarily involved in such use of said equipment) the methods and/or systems of Products, under all United States patents and applications for United States patents, relating to said equipment or to such use thereof, which are now owned or controlled, or which may during the term of this agreement be owned or controlled by Products, or in respect of which it has or may hereafter during the term of this agreement have the right to grant such license.

(*b*) *Shipment of Equipment.*—Said Equipment shall be furnished f. o. b. Products' warehouse, consigned to the Exhibitor and Products will endeavor to ship the Equipment on or before the date set forth in Item Four of Section 23 hereof. Nothing herein contained shall be considered as a firm agreement on the part of Products to ship the Equipment on or before said date, it being understood that the extent of the obligation of Products in this respect is limited to using its best efforts to procure expeditiously the manufacture and shipment of the Equipment.

2. *Installation and Use of Equipment.*—(*a*) The Equipment shall be installed by the Exhibitor at its own expense in strict accordance with installation specifications which will be furnished by Products. All installation work done by the Exhibitor or its agents or servants shall be subject to inspection and approval by Products and the Equipment shall not be used for public performances until the installation thereof shall have been approved by Products. Approval of installation work shall in no event subject Products to any responsibility or liability of any kind or nature not specifically assumed by it in this agreement. The Exhibitor shall provide and pay for all labor, material, and expenses, except as herein otherwise specifically provided, required in connection with the installation of the Equipment, and will also provide and pay for the services of one or more projectionists during the installation period, or any part thereof, if the services of projectionists shall be required by Products.

Products shall provide an engineer to inspect said installation work to be done by the Exhibitor and to supervise the installation of the Equipment. Notice from the Exhibitor that the Theatre is ready for the installation of the Equipment shall be delivered to Products not less than three (3) days prior to the date when the Theatre will be ready for such installation, and Products shall make every reasonable effort to have its engineer at the Theatre on said date. The services of said engineer will be furnished without additional cost to the Exhibitor for such period as Products shall deem requisite, not to exceed one week. If the installation work to be done by the Exhibitor is not ready for inspection or said work is not sufficiently advanced to permit the installation of the Equipment upon the date that the engineer shall arrive at the Theatre, and/or in the event that his services shall be required for a period in excess of one week, the Exhibitor shall pay to Products its standard per diem charges for any period in excess of said one week and any additional expense incurred by Products by reason of said services being required for more than one week.

(*b*) The Exhibitor agrees that it will use and employ the Equipment only in the Theatre, and that it will at all times during the period of this license keep, maintain, and operate the Equipment in the manner from time to time prescribed by Products and in no other manner. The Exhibitor recognizes the highly technical mechanism and art involved in the invention and construction of the Equipment, and in the making of sound record (in any form) for use therewith, and that the prestige and business reputation of Products might be seriously affected by imperfect operation of the Equipment or by its use with sound records which are not suited to it or which produce inferior results when used with the Equipment, and that use of said Equipment otherwise than as herein licensed may involve infringement of patent rights. Therefore, in order to secure and insure the functioning of the Equipment to the satisfaction of the parties hereto, the Exhibitor shall not, without the written consent of Products, move, alter, change, or modify the Equipment, nor add anything thereto nor take anything therefrom; nor break the seal upon any part or collection of parts which is or may be sealed by Products; nor operate, use, or employ the Equipment in any manner in conjunction with any sound rec-

Digitized by Google

ord not made under license from Products for such use, unless such sound record is of such character that the Equipment will operate properly, reliably and efficiently to reproduce sound from such sound record with accuracy of quality and adequacy of volume. Also, in order further to secure proper functioning of the Equipment as aforesaid satisfactorily to the parties hereto, it is agreed that all additional and renewal parts and assembled parts for the Equipment shall be obtained from Products. Nothing herein contained, however, shall be construed as prohibiting the Exhibitor from taking all reasonable steps, consistent with the general intent hereof, either alone or together with Products, to protect, correct, or repair the Equipment in the event of an accident or breakdown, but the Exhibitor agrees that in the event that it shall itself take any action with respect to the correction or repair of the Equipment, it shall immediately notify Products in writing, giving full details of the action taken to correct or remedy any unsatisfactory condition of the Equipment. The Exhibitor agrees that prior to the first public use in the Theatre of each film and/or sound record, it will cause such film and/or sound record to be run privately upon the Equipment for the purpose of ascertaining that the Equipment is in satisfactory condition and adjustment for the particular film and/or sound record. The Exhibitor expressly agrees that if at any time the Equipment fails to function satisfactorily, it will immediately notify Products by registered mail and telegraph, and the absence of such notification shall be conclusive as to satisfactory function of the Equipment.

3. *Change of Theatre or Management.*—In the event that the Exhibitor shall contemplate a sale of the Theatre or its interest therein, or shall contemplate ceasing to operate the Theatre, it shall notify Products in writing of such contemplated action not less than fourteen (14) days prior to the date upon which it will cease to own or operate the Theatre and shall make provision, satisfactory to Products, for the care and custody of the Equipment or for the assumption of this agreement by the successor operator of the Theatre, provided such successor operator is satisfactory to Products. If the notice hereinabove required shall have been given to Products, Products will supervise the removal of the Equipment and its installation in another theatre designated by the Exhibitor; provided, however, that Products' standard charge as from time to time established for removal of the Equipment shall first be paid by the Exhibitor, and that a new agreement on Products' then standard form for the unexpired term of this license shall first be executed by the exhibitor operating such other theatre; and provided further, that such exhibitor and the theatre designated shall be satisfactory to Products. The Exhibitor also agrees to pay to Products upon rendition of invoice therefor its standard per diem charges for engineering or other services in connection with such removal and reinstallation, including the transportation charges of all employees of Products furnished in connection therewith. If the exhibitor operating such other theatre is not the Exhibitor hereunder, the latter shall become a guarantor to Products for the performance by the former of such new agreement. The exhibitor operating the theatre to which the Equipment may be removed shall at its own expense perform all of the work set forth in Section 2 (*a*) hereof required for the installation of the Equipment in said theatre.

4. *Instruction and Inspection Service.*—At the time of installation Products agrees, to the extent deemed necessary by it, and for a period, not exceeding one (1) week, to instruct the motion picture machine operators of the Exhibitor in the manner and method of operating the Equipment. Products also agrees to make periodical inspection of the Equipment after it shall have been installed. Products may from time to time install such spare and renewal parts as may, in its opinion, be necessary to the satisfactory operation and maintenance of the Equipment.

5. *Products' Charges.*—During the first three (3) years of the term of this license, the Exhibitor agrees to pay to Products the sums set forth in Items One and Two of Section 23 hereof; said payments to be made at the time and in the manner provided therein, which time and manner shall be of the essence of this agreement. The payments above mentioned cover the furnishing of Equipment, an initial set of such spare parts therefor as shall be deemed necessary by Products and Products' service, inspection, and rental charges. Thereafter and for the balance of the term of this license the Exhibitor agrees to pay to Products a weekly charge covering service, inspection, and rental, which shall be payable on each and every Saturday commencing with the Saturday next succeeding the expiration of the first three (3) years of the term of said

Digitized by Google

license, which charge shall be in accordance with Products' regular schedule of such charges as from time to time established. Under Products' present schedule the amount of such charge shall be the sum set forth in Item Five of Section 23 and such weekly charge to the Exhibitor shall not be increased during the term of this agreement. The time of such payments shall be of the essence of this agreement.

6. *Transportation Charges.*—The Exhibitor agrees to pay the cost of transporting the Equipment from the place of shipment to the Theatre, and to accept delivery thereof from the common carrier and make payment directly to the common carrier of freight and express charges thereon. The Exhibitor will also arrange for any necessary loading, trucking, and unloading to put the Equipment down inside the Theatre, and will directly defray the cost thereof.

7. *Payment for Additional Parts, Special Service, etc.*—The Exhibitor agrees to pay to Products its standard installation charges as from time to time established for any additional equipment or spare or renewal parts, furnished or supplied by Products, upon delivery thereof and to pay the transportation charges thereon. The Exhibitor also agrees upon rendition of invoices to pay for any services rendered and expenses incurred by Products in connection with the Equipment or its operation or for the benefit of the Exhibitor, other than the regular periodical inspection service hereinbefore provided for. The time of the payments herein shall be of the essence of this agreement.

8. *Changes in Theatre.*—The Exhibitor warrants that the Theatre is, or before said Equipment is installed will be, supplied with suitable electric current; electric power leads of suitable capacity with outlets conveniently located for power supply to the Equipment; suitable space, properly ventilated, for the installation of the storage batteries and charging equipment; drapes for acoustic purposes, and suitable support for horns, and agrees to make such other reasonable changes, alterations, and modifications as may be necessary for the proper installation and accommodation of the Equipment, all at the expense of the Exhibitor and when and to the extent and in the manner prescribed by Products, and the Exhibitor further agrees at its own expense to obtain all necessary permits and to comply with all local laws and ordinances in effect from the date hereof and throughout the term of this license relating to the installation, maintenance, use, and operation of the Equipment or any part thereof and with any Fire Insurance Underwriters' requirements relating thereto.

9. *Title to Equipment.*—Title to and ownership of all equipment, including spare or renewal parts, at any time furnished hereunder and also all tools of all kinds, drawings, prints, and written descriptions and instructions, shall at all times be and remain vested in Products. Any and all equipment installed in the Theatre in accordance with the terms of this agreement, shall at all times be and remain personal property notwithstanding the manner or method of its attachment to any real property.

10. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all personal property taxes which may be charged or levied in connection with or which may apply to any equipment furnished hereunder.

11. *Access to Equipment.*—The Exhibitor will permit Products, through its designated agents, engineers, and mechanics, to have access to the Theatre and to all parts thereof where any of the Equipment may be, at all reasonable hours, for the purpose of supervising the installation and from time to time for the purpose of examining and inspecting the Equipment, and will grant to Products full opportunity to make such adjustments therein and repairs thereto as, in the opinion of Products, are necessary or desirable.

12. *Liability for Interruptions, Injuries, etc.*—Products shall not be responsible in any manner for any interruption in the operation of the Theatre or of any equipment therein arising from any cause whatsoever or for any loss or damage to persons or property in or upon the said premises for any reason whatsoever. The Exhibitor agrees to indemnify Products for, and save it harmless from any liability or injury to workmen whom the Exhibitor shall furnish to assist in the handling, installing, or operating of the Equipment, and from any liability to any persons resulting from negligence of such workmen. The Exhibitor agrees to use every reasonable effort to prevent the filing of any liens for material or for work, labor, or services which might in any manner affect equipment furnished hereunder and further covenants that if any such liens be filed it will promptly discharge the same.

13. *Default.*—This agreement and/or the rights of the Licensee hereunder and/or the license hereby granted shall, at the option of Products, terminate

Digitized by Google

and come to an end in the event of any breach or default on the part of the Licensee with respect to any of the covenants and conditions herein contained on its part to be performed, or upon the insolvency of the Licensee or upon the filing of a voluntary or involuntary petition in bankruptcy or upon the assignment of any of the Licensee's assets for the benefit of creditors or upon the application for the appointment of a receiver of the property and assets of the Licensee.

In the event of a default under any of the provisions of this agreement at any time during the term of this license, and if Products does not elect to terminate this agreement and/or the rights granted and/or the license hereby granted, the rights and/or the license hereby granted shall thereupon be suspended, provided however, that such suspension shall not operate in any way to void or restrict Products' right of termination on account of such default.

14. *Repossession of Equipment.*—Upon termination or expiration of this license by lapse of time or otherwise, the Exhibitor will surrender the Equipment to Products in good order and condition, reasonable wear and tear and obsolescence due to proper use thereof in the manner and place and for the purpose set forth in this agreement only excepted, and Products may repossess the Equipment and may, for the purpose of reducing the same to possession, enter the Theatre or any other premises where said Equipment may be and without any legal proceedings whatever possess and remove said Equipment, and the Exhibitor agrees to coperate in such removal. If this license shall be terminated by default, or if the Exhibitor permits any default hereunder to occur, whether or not Products shall exercise the option to terminate this agreement, Products shall thereupon have the right without notice and without any legal proceedings whatever to take immediate possession of said Equipment, or any part thereof, and for that purpose may pursue the same wherever it or any part thereof may be found and may enter, with the aid and assistance of any person or persons, the Theatre or other premises of the Exhibitor and such place or places whatsoever, whether belonging to the Exhibitor or not, in which the Equipment or any part thereof may be placed, and may take and seize the same to its own proper use forever, free from any right of the Exhibitor under this agreement. In the event of the suspension of the rights and/or license under the provisions of Section 13 hereof, Products shall also have the right in like manner to enter said premises and to render the Equipment inoperative by whatever means may, in the opinion of Products, be necessary or expedient. Products shall also have the right in like manner to enter the said premises and remove the Equipment in the event of the said premises being destroyed or damaged by fire or otherwise, to an extent which, in the opinion of Products, endangers the Equipment. The Exhibitor expressly covenants that in any of such events no claim will be made for damage on account of such action or otherwise, and the Exhibitor further agrees that it will hold and save harmless Products and its agents from and against any and all claims for damages by any parties whatsoever on account of such action. In the event of termination or expiration of this license by lapse of time, the occurrence of any default, or otherwise, and irrespective of whether Products shall remove and repossess the Equipment in accordance with the provisions contained in this section, Products shall retain and may enforce any and all claims or rights of action against the Exhibitor which it may then possess in respect of any sum or sums then due to Products in accordance with the terms and conditions of this agreement.

15. *Replacement of Equipment in the Event of Destruction.*—In the event of the partial or total destruction of the Equipment during the term of this license by extraneous fire, or act of God, without fault or neglect on the part of the Exhibitor, provided the Exhibitor shall not be in default in respect of any of the terms of this agreement and provided the Exhibitor shall continue to operate the Theatre or after any necessary repairs to the Theatre shall resume its operation, Products will, at its own expense, either repair the Equipment, or if, in the sole judgment of Products, such destruction is so extensive as to render repair of the Equipment impracticable, furnish to the Exhibitor equipment then manufactured by or for Products as nearly similar as possible to the type of Equipment so destroyed. If replacing equipment be provided by Products in the manner hereinabove indicated the obligations of Products and the Exhibitor respecting the installation thereof shall be as set forth in Paragraph 2 (*a*) hereof.

16. *Patent Protection.*—Products agrees that subject to the provisions hereof it will at its own expense defend any and all actions and suits which may,

Digitized by Google

during the term hereof be brought against the Exhibitor for infringement of patents relating to the apparatus or equipment furnished by Products hereunder, on account of any use of said apparatus or equipment by the Exhibitor for the purpose and in the manner contemplated by this agreement and Produts will pay or satisfy all judgments and decrees for profits, damages, and/or costs which may be finally awarded against the Exhibitor by the Court of last resort in any such action or suit on account of any such infringement, provided that the Exhibitor shall give Products prompt notice (with written confirmation) of such action or suit, full information and all reasonable cooperation in connection therewith, and full opportunity to defend the same; and provided further, that this agreement shall not extend to any infringement or claim of infringement on account of the use of any of said equipment in combination with any apparatus or thing not furnished by Products, except films and records produced under licenses from Products where the alleged infringement resides in characteristics thereof or in methods or apparatus for producing the same specifically prescribed by Products and that the liability of Products under this agreement shall in no case exceed the total amount paid hereunder by the Exhibitor to Products. To the end that Products may protect itself and the Exhibitor from claims for infringement of patents, it is agreed that Products may at any time substitute for any of the equipment or parts thereof which may have been furnished to the Exhibitor hereunder, other equipment or parts which Products shall determine to be suitable for performing the function required, such substitution to be made without additional expense to the Exhibitor and with the least possible inconvenience to it or interruption of its business.

17. *License Non-exclusive.*—Nothing in this agreement shall be construed as granting to the Exhibitor an exclusive right or license to operate the Equipment in any particular City, Town, zone, or neighborhood, or as preventing or prohibiting Products from entering into similar agreements or granting licenses for the installation and use of similar equipment in competing theatres.

18. *Period of License.*—This license shall be for a term of ten (10) years from the day upon which the Equipment is first used for a public performance, or from the day which Products shall certify to the Exhibitor that the Equipment is available for public performance, whichever date be the earlier; provided, however, that the term hereof and the payments to Products hereunder shall begin not later than thirty (30) days after the date of shipment. It may, however, provided the Exhibitor shall not be in default in respect of any of the terms of this agreement, be terminated at the option of the Exhibitor at any time after the expiration of the first three (3) years of the term hereof upon not less than six (6) months' written notice given by the Exhibitor to Products of its intention so to terminate.

19. *Entire Understanding.*—The parties hereto expressly stipulate that this agreement as herein set forth contains the entire understanding of the respective parties with reference to the subject matter hereof, and that there is no other understanding, agreement, or representation, express or implied, in any way limiting, extending, defining, or otherwise relating to the provisions hereof or any of the matters to which the present agreement relates. No agent or employee of Products is authorized to alter or modify this agreement in any way unless such alteration or modification shall be approved in writing by the President or a Vice President of Products or by such representative as may from time to time be designated in writing by either of such officers. No waiver by either party, whether express or implied, of any of the provisions of this agreement shall be construed as constituting a waiver of any other provision or provisions of this agreement or as estopping either party from its rights to enforce any provision or all provisions hereof.

20. *Liquidated Damages.*—It is recognized by the parties hereto that in the event that the Exhibitor makes default in any of the terms of this agreement it would be impracticable to prove and difficult to determine the exact damage to Products resulting from such default. It is therefore agreed that in the event that the Exhibitor makes any default under the terms of this agreement, the Exhibitor shall pay to Products, not as a penalty, but as agreed and/or liquidated damages all sums accruing to Products hereunder up to the date when Products renders the Equipment inoperative, and in addition thereto twenty (20%) per cent of all sums set forth in Item 2 of Section 23 accruing thereafter, and any note or notes made by the Exhibitor and delivered to Products in accordance with the provisions of said Item Two of Section 23 shall, to the extent necessary to enable Products to collect said twenty (20%) per cent

Digitized by Google

of the aforementioned unpaid balance, become immediately due and payable, and Products shall retain all sums theretofore paid to it by the Exhibitor.

The rights of Products contained in this section shall be in addition to all other rights reserved to it under the terms of this agreement and whether or not it elects to or does repossess the said Equipment, or any part thereof, under the terms of Section 14.

21. Except as otherwise expressly provided in this agreement, any and all sums to be paid by the Exhibitor are not subject to any reduction on account of any change which hereafter may be made in Products' charges for like installations or on account of any change in the type, character, or quantity of equipment which Products may hereafter offer for installation in any theatre, nor for any other reason.

22. *Not Assignable.*—This agreement shall not be assigned by the Exhibitor without the written consent of Products. It shall, however, subject to such restriction upon assignment by the Exhibitor, be binding upon the parties and their respective successors, assigns, and legal representatives and shall be construed according to the laws of the State of New York.

23. *Item One.*—The sum of_____($_____) Dollars, representing the first weekly payment hereunder, the receipt of which is hereby acknowledged.

Item Two.—A promissory note in form satisfactory to Products, made by the Exhibitor and delivered to Products upon the submission of this agreement for acceptance, and payable as follows:

The sum of_____($_____) Dollars, on the Saturday next succeeding the day upon which the Equipment is first used for public performance or the day upon which Products certifies to the Exhibitor that the Equipment is available for public performance, whichever date is the earlier and in no event later than thirty (30) days after the date of shipment, and a like amount on each and every Saturday thereafter for a period of twenty-four (24) weeks; the sum of_____($_____) Dollars on each and every Saturday thereafter for a period of twenty-six (26) weeks; the sum of_____($_____) Dollars on each and every Saturday thereafter for a period of fifty-two (52) weeks; and the sum of_____($_____) Dollars on each and every Saturday thereafter for a period of fifty-two (52) weeks.

The Exhibitor hereby expressly authorizes Products to enter upon the face of the note referred to herein, the maturity date of the first payment thereunder as above defined.

Item Three.—Description of Equipment:—

Item Four.—The proposed date of shipment is _____, 19__.

Item Five.—Present schedule of service, inspection, and rental charge for the term of the license hereof after the first three (3) years, pursuant to Section 5, is the sum of _____ ($_____) Dollars per week.

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,

By _____,
Vice-President, Treasurer.

In Presence of—

_____
(as to E. R. P. I.)

_____,
Exhibitor.

By _____,

_____
(as to Exhibitor)

---

295 T S—ERC

PROPOSAL FOR INSTALLATION OF WESTERN ELECTRIC SOUND SYSTEM

Whereas Electrical Research Products, Inc. (a subsidiary of Western Electric Company, Incorporated), a Delaware corporation, having its principal place of business in the City, County, and State of New York (hereinafter called "Products") is engaged in the business of leasing and installing in theatres, Western Electric Sound System (hereinafter called the "Equipment"); and,

Digitized by Google

Whereas _____, a _____ corporation having its principal place of business at No. _____ Street, in the City of _____, State of _____ (hereinafter called the "Exhibitor") and operating the _____ Theatre at No. _____ Street in the City of _____, State of _____ (hereinafter called the "Theatre") is desirous of installing in said Theatre a Western Electric Sound System; and

Whereas the Exhibitor proposes to make arrangements with Exhibitor's Reliance Corporation (hereinafter called "Reliance"), whereby Reliance will extend its credit facilities to the Exhibitor for the purpose of enabling the Exhibitor to have installed a Western Electric Sound System;

Now, therefore, the Exhibitor proposes to enter into an agreement with Products in the manner and form hereinafter fully set forth covering the installation in the Theatre of said Equipment, and in consideration therefor, Products agrees to make a survey of the Theatre, to the extent deemed necessary by Products, for the purpose of determining the type and character of equipment suitable for proper reproduction of sound in the Theatre.

It is understood and agreed between the Exhibitor and Products that this proposal is submitted for the consideration of Products and that Products may, at its sole option within a period of thirty (30) days from the date hereof, either accept or reject the same and that within such period, the Exhibitor may not withdraw or cancel this proposal but in the event of rejection thereof by Products, Products shall be under no obligation to assign any reason for such rejection. In the event of Products declining to accept this proposal, the initial charge paid by the Exhibitor to Products upon the execution of this proposal shall be promptly refunded to the Exhibitor but without interest; however, it is understood and agreed that Products, in making a survey of the Theatre and in preparing otherwise to install the Equipment and grant the Exhibitor a license to use the same, will incur various expenses, and in the event of the failure or refusal of the Exhibitor, prior to the acceptance of this proposal by Products, to carry out the terms hereof, it is hereby agreed that Products shall retain as reimbursement for such expenses so much of the amount referred to in Item One of Section 22 hereinafter set forth as shall constitute such reimbursement. It is further understood and agreed that the banking, negotiation, or other use by Products of any cash, check, draft, or other negotiable instrument delivered to Products in payment of the initial charges, shall in no event be construed to constitute an acceptance of this proposal by Products.

The agreement between Products and the Exhibitor relating to the installation of said Equipment in said Theatre, shall, upon acceptance of this proposal by Products, as hereinafter provided, be as follows:

1. *Grant of License and Installation of Equipment.*—(a) Products, in consideration of the mutual agreements herein contained and of the payment by the Exhibitor to Products of the sums referred to at the time and in the manner prescribed in Section 22 hereof, and of the procuring by the Exhibitor of an agreement between Reliance and Products, wherein Reliance shall agree to pay to Products on the day on which the Equipment is made available for public exhibition in the Theatre (hereinafter referred to as the "Service Day"), the balance of Products' standard installation charge in effect on the date of the above proposal for the Equipment set forth in Item Three of Section 22, hereby agrees to install a Western Electric Sound System of the type set forth herein and hereby grants to the Exhibitor a non-exclusive non-assignable license to use in the Theatre (subject to all the terms, conditions, limitations, and agreements herein contained) the equipment hereinafter described for the electrical reproduction of sound in synchronism with, or as incidental to, the exhibition of motion pictures, or any performance given in conjunction therewith, and to employ (to the extent necessarily involved in such use of said equipment) the methods and/or systems of Products, under all United States patents and applications for United States patents, relating to said equipment or to such use thereof, which are now owned or controlled, or which may during the term of this agreement be owned or controlled by Products, or in respect of which it has or may hereafter during the term of this agreement have the right to grant such license.

(b) Products agrees to install the Equipment as specified in Item Three of Section 22 hereof and will endeavor to complete such installation on or before the Service Day set forth in Item Four of Section 22 hereof. Nothing herein

Digitized by Google

contained shall be considered as a firm agreement on the part of Products to complete the installation of the Equipment on or before the Service Day, it being understood that the extent of the obligation of Products in this respect is limited to using its best efforts to procure the manufacture and delivery of the Equipment and to installing the same expeditiously.

2. *Use of Equipment.*—The Exhibitor agrees that it will use and employ the Equipment only in the Theatre, and that it will at all times during the period of this license keep, maintain, and operate the Equipment in the manner from time to time prescribed by Products and in no other manner. The Exhibitor recognizes the highly technical mechanism and art involved in the inventions and construction of the Equipment, and in the making of sound records (in any form) for use therewith, and that the prestige and business reputation of Products might be seriously affected by imperfect operation of the Equipment or by its use with sound records which are not suited to it or which produce inferior results when used with the Equipment, and that use of said Equipment otherwise than as herein licensed may involve infringement of patent rights. Therefore, in order to secure and insure the functioning of the Equipment to the satisfaction of the parties hereto, the Exhibitor shall not, without the written consent of Products, move, alter, change, or modify the Equipment, nor add anything thereto nor take anything therefrom; nor break the seal upon any part or collection of parts which is or may be sealed by Products; nor operate, use, or employ the Equipment in any manner in conjunction with any sound record not made under license from Products for such use, unless such sound record is of such character that the Equipment will operate properly, reliably, and efficiently to reproduce sound from such sound record with accuracy of quality and adequacy of volume. Also, in order further to secure proper functioning of the Equipment as aforesaid satisfactorily to the parties hereto, it is agreed that all additional and renewal parts and assembled parts for the Equipment shall be obtained only from Products. Nothing herein contained, however, shall be construed as prohibiting the Exhibitor from taking all reasonable steps, consistent with the general intent hereof, either alone or together with Products, to protect, correct, or repair the Equipment in the event of an accident or breakdown. The Exhibitor agrees that in the event that it shall itself take any action with respect to the correction or repair of the Equipment, it shall immediately notify Products in writing, giving full details of the action taken to correct or remedy any unsatisfactory condition of the Equipment. The Exhibitor agrees that prior to the first public use in the Theatre of each film and/or sound record, it will cause such films and/or sound records to be run privately upon the Equipment for the purpose of ascertaining that the Equipment is in satisfactory condition and adjustment for the particular film and/or sound record. The Exhibitor expressly agrees that if at any time the Equipment fails to function satisfactorily, it will immediately notify Products by registered mail and telegraph, and the absence of such notification shall be conclusive as to satisfactory functioning of the Equipment.

3. *Removal to Another Theatre.*—In the event that the Exhibitor shall for any reason cease to manage or to operate the Theatre, Products will, at the request of the Exhibitor, remove the Equipment to and install the same in another theatre designated by the Exhibitor and satisfactory to Products, provided, however, that the cost of such removal and installation shall be borne by the Exhibitor and that a new agreement for the unexpired term of this license shall be executed by the Exhibitor operating such theatre (the Exhibitor hereunder thereupon becoming guarantor to Products of the performance of such new agreement).

4. *Instruction and Inspection Service.*—Products agrees, to the extent deemed necessary by it, to instruct the motion picture machine operators of the Exhibitor in the manner and method of operating the Equipment, and, in order to perfect such instruction, and also in order to superintend the initial operation of the Equipment, to keep in attendance at the Theatre during the hours of performance and at such additional hours and for such period, not exceeding one (1) week, as it may deem necessary, an engineer or other person skilled in such operation. Products also agrees to make periodical inspection of the Equipment after it shall have been installed. Products may from time to time install such spare and renewal parts as may, in its opinion, be necessary to the satisfactory operation and maintenance of the Equipment.

5. *Service, Inspection, and Rental Charge.*—In addition to all other payments herein required to be made, the Exhibitor also agrees to pay to Products

Digitized by Google

throughout the term of the license hereby granted, a service, inspection, and rental charge, payable weekly, the first payment thereof to be due and payable on the Saturday next succeeding the Service Day, and thereafter throughout the balance of the term on each and every Saturday. The amount of such charge shall be in accordance with Products' regular schedule of such charges as from time to time established.

6. *Present Schedule.*—Under Products' present schedule, the amount of the weekly charge referred to in Section 5 hereof shall be the sums set forth in Item Five of Section 22 hereof and such weekly charge to the Exhibitor shall not be increased during the term of this agreement.

7. *Transportation Charges.*—The Exhibitor agrees to pay the cost of transporting the Equipment from the place of shipment to the Theatre, and to accept delivery thereof from the common carrier and make payment directly to the common carrier of freight and express charges thereon. The Exhibitor will also arrange for any necessary loading, trucking, and unloading to put the Equipment down inside the Theatre, and will directly defray the cost thereof.

8. *Payment for parts, etc.*—The Exhibitor agrees to pay to Products its standard installation charges as from time to time established for any additional equipment or spare or renewal parts, furnished or supplied by Products, upon delivery theerof and to pay the transportation charges thereon. The Exhibitor also agrees upon rendition of invoices to pay for any services rendered and expenses incurred by Products' employees in connection with and for the benefit of the Exhibitor, except for the regular periodical inspection service hereinbefore provided for.

9. *Changes in Theatre.*—The Exhibitor warrants that the Theatre is or before said Equipment is installed will be supplied with suitable electric current; electric power leads of suitable capacity with outlets conveniently located for power supply to the Equipment; suitable space, properly ventilated, for the installation of storage batteries and charging equipment; drapes for acoustic purposes, and suitable support for horns, and agrees to make such other reasonable changes, alterations, and modifications as may be necessary for the proper installation and accommodation of the Equipment, all at the expense of the Exhibitor and when and to the extent and in the manner prescribed by Products or its engineers, and agrees to comply with all local laws and ordinances relating to the use and operation of the Equipment and with any Fire Insurance Underwriters' requirements.

10. *Title to Equipment.*—Title to and ownership of all Equipment at any time furnished hereunder and also all tools of all kinds, drawings, prints, and written descriptions and instructions, shall at all times be and remain vested in Products. Any and all Equipment installed in the Theatre in accordance with the terms of this agreement, shall at all times be and remain personal property notwithstanding the manner or method of its attachment to any real property.

11. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all personal property taxes which may be charged or levied in connection with the Equipment.

12. *Access to Equipment.*—The Exhibitor will permit Products, through its designated agents, engineers, and mechanics, to have access to the Theatre at all reasonable hours, for the purpose of installing and from time to time for the purpose of examining and inspecting the Equipment, and will grant to Products full opportunity to make such adjustments therein and repairs thereto as, in the opinion of Products, are necessary or desirable.

13. *Liability for Interruptions, Injuries, etc.*—Products shall not be responsible in any manner for any interruption of service arising from any cause or for any defect or change of condition in the Theatre or in the equipment thereof or in the electric current supplied thereto or for any loss or damage to persons or property in or upon the said premises for any reason whatsoever. The Exhibitor agrees to indemnify Products for and save it harmless from any liability or injury to workmen whom the Exhibitor shall furnish to assist in the handling, installing, or operating of the Equipment, and from any liability to any persons resulting from negligence of such workmen.

14. *Events of Default.*—This agreement and/or the rights of the Exhibitor hereunder and/or the license hereby granted shall, at the option of Products, terminate and come to an end upon the happening of any of the following events, hereby designated to be events of default, to wit:

(a) Upon the bankruptcy or insolvency of the Exhibitor or the assignment of any of its assets for the benefit of creditors, or in the event of the appointment of a Receiver of the property and asse'ts of the Exhibitor.

Digitized by Google

(b) Upon the failure or refusal of the Exhibitor for any reason to pay any of the items or sums herein agreed to be paid by it, including the payment of the note hereinabove provided for when presented for payment.

(c) Upon the Exhibitor's ceasing to own or operate the Theatre, unless the Exhibitor shall previous to its ceasing to own or operate the Theatre have notified Products in writing of the date it will cease to own or operate the Theatre and shall have made provision, satisfactory to Products, for the care and custody of the Equipment or for the assumption of this agreement by the successor operator of the Theatre.

(d) Upon a breach by the Exhibitor of any of the covenants herein contained relative to the use or maintenance of the Equipment, continued for more than fourteen (14) days after mailing notice thereof to the Exhibitor by Products by registered United States mail.

(e) Upon the removal of the Equipment or any part thereof, without the consent of Products from the location and position in which it was installed by Products.

(f) Upon the failure of the Exhibitor to accept delivery of the Equipment from the transportation company or common carrier, or to facilitate the work of Products in installing the Equipment.

In the event of a default under any of the provisions of this section at any time during the term of this license, the license hereby granted and all obligations imposed upon Products by virtue of this agreement shall, at the option of Products and whether or not it removes the Equipment as hereinafter provided, be suspended during the continuance of such default.

15. *Repossession of Equipment.*—(a) Upon termination or expiration of this license by lapse of time or otherwise, the Exhibitor will surrender up and deliver possession of the Equipment to Products in good order and condition, reasonable wear and tear and obsolescence due to proper use thereof in the manner and place and for the purpose set forth in this agreement only excepted, and Products may repossess the Equipment and may, for the purpose of reducing the same to possession, enter the Theatre or any other premises where said Equipment may be and without any legal proceedings whatever possess and remove said Equipment, and the Exhibitor agrees to cooperate in such removal. If this license shall be terminated by default, or if the Exhibitor permits any of the events of default, hereinbefore enumerated, to occur, whether or not Products shall exercise the option to terminate this agreement, Products shall thereupon have the right without notice to take immediate possession of said Equipment, or any part thereof, and for that purpose may pursue the same wherever it or any part thereof may be found and may enter, with the aid and assistance of any person or persons, the Theatre or other premises of the Exhibitor and such place or places whatsoever, whether belonging to the Exhibitor or not in which the Equipment or any part thereof may be placed, and may take and seize the same of its own proper use forever, free from any right of the Exhibitor under this agreement. Products shall also have the right in like manner to enter the said premises and remove the Equipment in the event of the said premises being destroyed or damaged by fire or otherwise, to an extent which, in the opinion of Products, endangers the Equipment. The Exhibitor expressly covenants that in any such event no claim will be made for damage on account of such removal or otherwise, and the Exhibitor further agrees that it will hold and save harmless Products from and against any and all claims for damages by any parties whatsoever on account of such removal. In the event of termination or expiration of this license by lapse of time, the happening of any event of default, or otherwise, and irrespective of whether Products shall remove and repossess the Equipment in accordance with the provisions contained in this section, Products shall retain and may enforce any and all claims or rights of action against the Exhibitor which it may then possess in respect of any sum or sums then due to Products in accordance with the terms and conditions of this agreement.

(b) The Exhibitor agrees that if in accordance with the terms of the agreement between the Exhibitor and Reliance, Reliance shall take action to gain possession of the Equipment installed in the Theatre, the possession thereof may be accomplished by persons whose services are supplied to Reliance by Products. In such event any such person or persons shall be deemed to be solely the agent or employee of Reliance and the Exhibitor agrees to make no claim or claims of any nature whatsoever, legal or otherwise, against Products by reason of any act or thing done by any person or persons who shall thus be engaged in work for and on behalf of Reliance, and the Exhibitor further agrees to hold Products harmless from any claim, cost, damage, or expense arising

Digitized by Google

from the performance of any work or of any act by any such person or persons thus acting on behalf of Reliance.

(c) It is agreed that the obligations herein assumed by Products shall cease and terminate in the event that Reliance shall take any action with respect to removal of the Equipment from the Theatre, in accordance with the terms of its agreement with the Exhibitor but such removal of said Equipment by Reliance shall not affect any rights of Products to enforce its rights against the Exhibitor with respect to any sum or sums which may then be owing to Products.

16. *Replacement of Equipment in the Event of Destruction.*—In the event of the partial or total destruction of the Equipment during the term of this license by fire or act of God, without fault or neglect on the part of the Exhibitor, provided the Exhibitor shall not be in default in respect to any of the terms of this agreement and provided the Exhibitor shall continue to operate the Theatre or after any necessary repairs to the Theatre shall resume its operation, Products will, at its own expense, either repair the Equipment, or if in the sole judgment of Products, such destruction is so extensive as to render repair of the Equipment impracticable, install in the Theatre equipment then manufactured by or for Products as nearly similar as possible to the type of Equipment so destroyed.

17. *Patent Protection.*—Products agrees that, subject to the provisions hereof, it will at its own expense defend any and all actions and suits which may during the term hereof be brought against the Exhibitor for infringement of patents by reason of the use by the Exhibitor, for the purpose and in the manner contemplated by this agreement, of apparatus and equipment furnished by Products hereunder, and will pay or satisfy all judgments and decrees for profits, damages, and/or costs which may be finally awarded against the Exhibitor by the Court of last resort in any such action or suit on account of any such infringement, provided that the Exhibitor shall give Products immediate written notice of such action or suit, full information, and all reasonable cooperation in connection therewith and full opportunity to defend the same, and provided further, that this agreement shall not extend to any infringement or claim of infringement arising from any use of any of said equipment in combination with any apparatus or thing (not including films or records of Products' licensees) not furnished by Products, and that the liability of Products on account of any such infringement or claim of infringement shall be limited to its agreements in this paragraph contained and shall in no case exceed the total amount paid hereunder to Products. To the end that Products may protect itself and the Exhibitor from claims for infringement of patents, it is agreed that Products may at any time substitute for any of the Equipment or parts thereof which may have been furnished to the Exhibitor hereunder, other equipment or parts which Products shall after test determine to be equally suitable for performing the function required, such substitution to be made without additional expense to the Exhibitor and with the least possible inconvenience to it or interruption of its business.

18. *License Non Exclusive.*—Nothing in this agreement shall be construed as granting to the Exhibitor an exclusive right or license to operate the Equipment in any particular City, Town, zone, or neighborhood or as preventing or prohibiting Products from entering into similar agreements or granting licenses for the installation and use of similar equipment in competing theatres.

19. *Period of License.*—This license shall be for a term of ten (10) years from the Service Day. It may, however, provided the Exhibitor shall not be in default in respect of any of the terms of this agreement, be terminated at the option of the Exhibitor at any time after the expiration of the first three (3) years of the term hereof upon not less than six (6) months' written notice given by the Exhibitor to Products of its intention so to terminate.

20. *Entire Understanding.*—The parties hereto expressly stipulate that this agreement as herein set forth contains the entire understanding of the respective parties with reference to the subject matter hereof, and that there is no other understanding, agreement, or representation, express or implied, in any way limiting, extending, defining, or otherwise relating to the provisions hereof or any of the matters to which the present agreement relates. No agent or employee of Products is authorized to alter or modify this agreement in any way unless such alteration or modification shall be approved in writing by the President or a Vice-President of Products or by such representative as may from time to time be designated in writing by either of such officers. No

Digitized by Google

waiver by either party, whether express or implied, of any of the provisions of this agreement shall be construed as constituting a waiver of any other provision or provisions of this agreement or as estopping either party from its rights to enforce any provision or all provisions hereof.

21. *Not Assignable.*—This agreement shall not be assigned by the Exhibitor without the written consent of Products; provided, however, that the Exhibitor may assign to Reliance all rights to the license herein granted to it to possess and use the Equipment, but such assignment by the Exhibitor shall not be valid until Products shall have given its consent thereto in writing, which consent shall be forwarded to Reliance by Products, and such consent shall be deemed to have been given upon the acceptance of this proposal by Products. It shall, however, subject to such restriction upon assignment by the Exhibitor, be binding upon the parties and their respective successors, assigns, and legal representatives and shall be construed according to the laws of the State of New York.

22. *Item One.*—The sum of _____ ($_____) Dollars shall be due and payable upon the submission of the proposal.

Item Two.—A demand promissory note for the sum of _____ ($_____) Dollars shall be executed by the Exhibitor and delivered to Products upon the submission of the proposal. Such note shall be in form satisfactory to Products and shall bear no interest prior to the date of presentation. Such note shall not be presented by Products for payment prior to the Service Day.

Item Three.—Description of Equipment:

Item Four.—The Service Day upon which Products expects to have the Equipment available for public exhibition is _____, 19__.

Item Five.—Present schedule of service, inspection, and rental charge, pursuant to Section 6: The sum of _____ ($_____) Dollars per week for the first twenty-six (26) weeks of the term of this agreement; the sum of _____ ($_____) Dollars per week for the second twenty-six (26) weeks of said term; and the sum of _____ ($_____) Dollars per week for the balance of said term.

This agreement shall become binding upon Products upon its acceptance thereof at its office in New York City, New York.

Submitted this _____ day of _____, 19__.

_____,
Exhibitor.

By _____.

Witness:

_____.

Accepted at New York City, New York, this _____ day of _____, 19__.

ELECTRICAL RESEARCH PRODUCTS, INC.,

By _____,
Vice-President, Comptroller.

---

294 T S—N. D. P.
Contract No_____

This Agreement made in triplicate in the City of New York, State of New York, this _____ day of _____, 19__, by and between Electrical Research Products, Inc. (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation having its principal place of business in the City, County, and State of New York (hereinafter called "Products"), licensor, and _____ a _____ Corporation having its principal place of business at No. _____ Avenue/Street, in the City of _____, State of _____ (hereinafter called the "Exhibitor"), licensee, and operating the _____ Theatre, at No. _____ Avenue/Street, in the City of_____ _____, State of _____ (hereinafter called the "Theatre"):

Witnesseth that, for and in consideration of the covenants, stipulations, and representations herein set forth, the respective parties hereto agree as follows:

1. (*a*) *Grant of License and Installation of Equipment.*—Products hereby agrees to install a Western Electric Sound System of the type set forth in Item Three of Section 22 (hereinafter called the "Equipment"), and hereby grants to the Exhibitor a non-exclusive non-assignable license to use in the

Digitized by Google

Theatre (subject to all the terms, conditions, limitations, and agreements herein contained) the Equipment for the electrical reproduction of sound in synchronism with, or as incidental to, the exhibition of motion pictures, or any performance given in conjunction therewith, and to employ (to the extent necessarily involved in such use of said equipment) the methods and/or systems of Products, under all United States patents and applications for United States patents, relating to said equipment or to such use thereof, which are now owned or controlled, or which may during the term of this agreement be owned or controlled by Products, or in respect of which it has or may hereafter during the term of this agreement have the right to grant such license.

(*b*) *Service Day.*—Products will endeavor to make the Equipment available for use in the Theatre on or before the date set forth in Item Four of Section 22 hereof. Nothing herein contained shall be considered as a firm agreement on the part of Products to complete the installation of the Equipment on or before said date, it being understood that the extent of the obligation of Products in this respect is limited to using its best efforts to procure the manufacture and delivery of the Equipment and to installing the same expeditiously. The day on which the Equipment is made available for use in the Theatre is hereinafter referred to as the "Service Day."

2. *Use of Equipment.*—The Exhibitor agrees that it will use and employ the Equipment only in the Theatre, and that it will at all times during the period of this license keep, maintain, and operate the Equipment in the manner from time to time prescribed by Products and in no other manner. The Exhibitor recognizes the highly technical mechanism and art involved in the inventions and construction of the Equipment, and in the making of sound record (in any form) for use therewith, and that the prestige and business reputation of Products might be seriously affected by imperfect operation of the Equipment or by its use with sound records which are not suited to it or which produce inferior results when used with the Equipment, and that use of said Equipment otherwise than as herein licensed may involve infringement of patent rights. Therefore, in order to secure and insure the functioning of the Equipment to the satisfaction of the parties hereto, the Exhibitor shall not, without the written consent of Products, move, alter, change, or modify the Equipment, nor add anything thereto nor take anything therefrom; nor break the seal upon any part or collection of parts which is or may be sealed by Products; nor operate, use, or employ the Equipment in any manner in conjunction with any sound record not made under license from Products for such use, unless such sound record is of such character that the Equipment will operate properly, reliably, and efficiently to reproduce sound from such sound record with accuracy of quality and adequacy of volume. Also, in order further to secure proper functioning of the Equipment as aforesaid satisfactorily to the parties hereto, it is agreed that all additional and renewal parts and assembled parts for the Equipment shall be obtained from Products. Nothing herein contained, however, shall be construed as prohibiting the Exhibitor from taking all reasonable steps, consistent with the general intent hereof, either alone or together with Products, to protect, correct, or repair the Equipment in the event of an accident or breakdown, but the Exhibitor agrees that in the event that it shall itself take any action with respect to the correction or repair of the Equipment, it shall immediately notify Products in writing, giving full details of the action taken to correct or remedy any unsatisfactory condition of the Equipment. The Exhibitor agrees that prior to the first public use in the Theatre of each film and/or sound record, it will cause such films and/or sound records to be run privately upon the Equipment for the purpose of ascertaining that the Equipment is in satisfactory condition and adjustment for the particular film and/or sound record. The Exhibitor expressly agrees that if at any time the equipment fails to function satisfactorily, it will immediately notify Products by registered mail and telegraph, and the absence of such notification shall be conclusive as to satisfactory functioning of the Equipment.

3. *Change of Theatre or Management.*—In the event that the Exhibitor shall contemplate a sale of the Theatre or its interest therein, or shall contemplate ceasing to operate the Theatre, it shall notify Products in writing of such contemplated action not less than fourteen (14) days prior to the date upon which it will cease to own or operate the Theatre and shall make provision, satisfactory to Products, for the care and custody of the Equipment or for the assumption of this agreement by the successor operator of the Theatre, provided

Digitized by Google

such successor operator is satisfactory to Products. If the notice hereinabove required shall have been given to Products, Products will, at the request of the Exhibitor, remove the Equipment to and install the same in another theatre designated by the Exhibitor; provided however, that Products' standard charges as from time to time established for such removal and installation shall first be paid by the Exhibitor and that a new agreement on Products' then standard form for the unexpired term of this license shall first be executed by the exhibitor operating such other theatre; and provided further, that such exhibitor and the theatre designated shall be satisfactory to Products. If the exhibitor operating such other theatre is not the Exhibitor hereunder, the latter shall become a guarantor to Products for the performance by the former of such new agreement.

4. *Instruction and Inspection Service.*—Products agrees, to the extent deemed necessary by it, to instruct the motion picture machine operators of the Exhibitor in the manner and method of operating the Equipment for a period, not exceeding one (1) week, immediately following the Service Day. Products also agrees to make periodical inspection of the Equipment after it shall have been installed. Products may from time to time install such spare and renewal parts as may, in its opinion, be necessary to the satisfactory operation and maintenance of the Equipment.

5. *Installation Charge.*—The Exhibitor agrees to pay to Products in New York Exchange the sums set forth in Items One and Two of Section 22 hereof at the time and in the manner provided therein (which time and manner shall be of the essence of this agreement).

6. *Service, Inspection, and Rental Charge.*—In addition to all other payments herein required to be made, the Exhibitor also agrees to pay to Products throughout the term of the license hereby granted, a service, inspection, and rental charge which, for the first three (3) years of the term of the license hereby granted is included in the sums set forth in Items One and Two of Section 22 hereof. Thereafter and for the balance of said term, said weekly charge, which shall be payable on each and every Saturday commencing with the Saturday next succeeding the expiration of the first three (3) years of the term of said license, shall be in accordance with Products' regular schedule of such charges as from time to time established. Under Products' present schedule, the amount of such charge shall be the sum set forth in Item Five of Section 22 hereof and such weekly charge to the Exhibitor shall not be increased during the term of this agreement. The time of such payment shall be of the essence of this agreement.

7. *Transportation Charges.*—The Exhibitor agrees to pay the cost of transporting the Equipment from the place of shipment to the Theatre, and to accept delivery thereof from the common carrier and make payment directly to the common carrier of freight and express charges thereon. The Exhibitor will also arrange for any necessary loading, trucking, and unloading to put the Equipment down inside the Theatre, and will directly defray the cost thereof.

8. *Payment for Parts, Special Service, etc.*—The Exhibitor agrees to pay to Products its standard installation charges as from time to time established for any additional equipment or spare or renewal parts, furnished or supplied by Products, upon delivery thereof and to pay the transportation charges thereon. The Exhibitor also agrees upon rendition of invoices to pay for any services rendered and expenses incurred by Products in connection with the Equipment or its operation or for the benefit of the Exhibitor, except for the regular periodical inspection service hereinbefore provided for. The time of the payments herein shall be of the essence of this agreement.

9. *Changes in Theatre.*—The Exhibitor warrants that the Theatre is, or before said Equipment is installed will be, supplied with suitable electric current; electric power leads of suitable capacity with outlets conveniently located for power supply to the Equipment; suitable space, properly ventilated, for the installation of the storage batteries and charging equipment; drapes for acoustic purposes, and suitable support for horns, and agrees to make such other reasonable changes, alterations, and modifications as may be necessary for the proper installation and accommodation of the Equipment, all at the expense of the Exhibitor and when and to the extent and in the manner prescribed by Products, and agrees to comply with all local laws and ordinances relating to the

Digitized by Google

use and operation of the Equipment and with any Fire Insurance Underwriters' requirements.

10. *Title to Equipment.*—Title to and ownership of all Equipment at any time furnished hereunder and also all tools of all kinds, drawings, prints, and written descriptions and instructions, shall at all times be and remain vested in Products. Any and all Equipment installed in the Theatre in accordance with the terms of this agreement, shall at all times be and remain personal property notwithstanding the manner or method of its attachment to any real property.

11. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all personal-property taxes which may be charged or levied in connection with the Equipment.

12. *Access to Equipment.*—The Exhibitor will permit Products, through its designated agents, engineers, and mechanics, to have access to the Theatre at all reasonable hours, for the purpose of installing and from time to time for the purpose of examining and inspecting the Equipment, and will grant to Products full opportunity to make such adjustments therein and repairs thereto as, in the opinion of Products, are necessary or desirable.

13. *Liability for Interruptions, Injuries, etc.*—Products shall not be responsible in any manner for any interruption in the operation of the Theatre or of any equipment therein arising from any cause whatsoever or for any loss or damage to persons or property in or upon the said premises for any reason whatsoever. The Exhibitor agrees to indemnify Products for, and save it harmless from any liability or injury to workmen whom the Exhibitor shall furnish to assist in the handling, installing, or operating of the Equipment, and from any liability to any persons resulting from negligence of such workmen.

14. *Default.*—This agreement and/or the rights of the Licensee hereunder and/or the license hereby granted shall, at the option of Products, terminate and come to an end in the event of any breach or default on the part of the Licensee with respect to any of the covenants and conditions herein contained on its part to be performed, or upon the insolvency of the Licensee or upon the filing of a voluntary or involuntary petition in bankruptcy or upon the assignment of any of the Licensee's assets for the benefit of creditors or upon the application for the appointment of a receiver of the property and assets of the Licensee.

In the event of a default under any of the provisions of this agreement at any time during the term of this license, and if Products does not elect to terminate this agreement and/or the rights granted and/or the license hereby granted, the rights and/or the license hereby granted shall thereupon be suspended, provided however, that such suspension shall not operate in any way to void or restrict Products' right of termination on account of such default.

15. *Repossession of Equipment.*—Upon termination or expiration of this license by lapse of time or otherwise, the Exhibitor will surrender the Equipment to Products in good order and condition, reasonable wear and tear and obsolescence due to proper use thereof in the manner and place and for the purpose set forth in this agreement only excepted, and Products may repossess the Equipment and may, for the purpose of reducing the same to possession, enter the Theatre or any other premises where said Equipment may be and without any legal proceedings whatever possess and remove said Equipment, and the Exhibitor agrees to cooperate in such removal. If this license shall be terminated by default, or if the Exhibitor permits any default hereunder to occur, whether or not Products shall exercise the option to terminate this agreement, Products shall thereupon have the right without notice and without any legal proceedings whatever to take immediate possession of said Equipment, or any part thereof, and for that purpose may pursue the same wherever it or any part thereof may be found and may enter, with the aid and assistance of any person or persons, the Theatre or other premises of the Exhibitor and such place or places whatsoever, whether belonging to the Exhibitor or not, in which the Equipment or any part thereof may be placed, and may take and seize the same to its own proper use forever, free from any right of the Exhibitor under this agreement. In the event of the suspension of the rights and/or license under the provisions of Section 14 hereof, Products shall also have the right in like manner to enter said premises and to render the Equipment inoperative by whatever means may, in the opinion of Products, be necessary or expedient. Products shall also have the right in like manner to enter the said premises

Digitized by Google

and remove the Equipment in the event of the said premises being destroyed or damaged by fire or otherwise, to an extent which, in the opinion of Products, endangers the Equipment. The Exhibitor expressly covenants that in any of such events no claim will be made for damage on account of such action or otherwise, and the Exhibitor further agrees that it will hold and save harmless Products and its agents from and against any and all claims for damages by any parties whatsoever on account of such action. In the event of termination or expiration of this license by lapse of time, the occurance of any default, or otherwise, and irrespective of whether Products shall remove and repossess the Equipment in accordance with the provisions contained in this section, Products shall retain and may enforce any and all claims or rights of action against the Exhibitor which it may then possess in respect of any sum or sums then due to Products in accordance with the terms and conditions of this agreement.

16. *Replacement of Equipment in the Event of Destruction.*—In the event of the partial or total destruction of the Equipment during the term of this license by extraneous fire, or act of God, without fault or neglect on the part of the Exhibitor, provided the Exhibitor shall not be in default in respect of any of the terms of this agreement and provided the Exhibitor shall continue to operate the Theatre or after any necessary repairs to the Theatre shall resume its operation, Products will, at its own expense, either repair the Equipment, or if in the sole judgment of Products, such destruction is so extensive as to render repair of the Equipment impracticable, install in the Theatre equipment then manufactured by or for Products as nearly similar as possible to the type of Equipment so destroyed.

17. *Patent Protection.*—Products argees that subject to the provisions hereof it will at its own expense defend any and all actions and suits which may during the term hereof be brought against the Exhibitor for infringement of patents relating to the apparatus or equipment furnished by Products hereunder, on account of any use of said apparatus or equipment by the Exhibitor for the purpose and in the manner contemplated by this agreement and Products will pay or satisfy all judgments and decrees for profits, damages, and/or costs which may be finally awarded against the Exhibitor by the Court of last resort in any such action or suit on account of any such infringement, provided that the Exhibitor shall give Products prompt notice (with written confirmation) of such action or suit, full information and all reasonable cooperation in connection therewith and full opportunity to defend the same, and provided further, that this agreement shall not extend to any infringement or claim of infringement on account of the use of any of said equipment in combination with any apparatus or thing not furnished by Products, except films and records produced under licenses from Products where the alleged infringement resides in characteristics thereof or in methods or apparatus for producing the same specifically prescribed by Products and that the liability of Products under this agreement shall in no case exceed the total amount paid hereunder by the Exhibitor to Products. To the end that Products may protect itself and the Exhibitor from claims for infringement of patents, it is agreed that Products may at any time substitute for any of the equipment or parts thereof which may have been furnished to the Exhibitor hereunder, other equipment or parts which Products shall determine to be suitable for performing the function required, such substitution to be made without additional expense to the Exhibitor and with the least possible inconvenience to it or interruption of its business.

18. *License Non-exclusive.*—Nothing in this agreement shall be construed as granting to the Exhibitor an exclusive right or license to operate the Equipment in any particular City, Town, zone or neighborhood or as preventing or prohibiting Products from entering into similar agreements or granting licenses for the installation and use of similar equipment in competing theatres.

19. *Period of License.*—This license shall be for a term of ten (10) years from the Service Day. It may, however, provided the Exhibitor shall not be in default in respect of any of the terms of this agreement, be terminated at the option of the Exhibitor at any time after the expiration of the first three (3) years of the term hereof upon not less than six (6) months' written notice given by the Exhibitor to Products of its intention so to terminate.

20–A. *Entire Understanding.*—The parties hereto expressly stipulate that this agreement as herein set forth contains the entire understanding of the respective parties with reference to the subject matter hereof, and that there is

Digitized by Google

no other understanding, agreement, or representation, express or implied, in any way limiting, extending, defining or otherwise relating to the provisions hereof or any of the matters to which the present agreement relates. No agent or employee of Products is authorized to alter or modify this agreement in any way unless such alteration or modification shall be approved in writing by the President or a Vice President of Products or by such representative as may from time to time be designated in writing by either of such officers. No waiver by either party, whether express or implied, of any of the provisions of this agreement shall be construed as constituting a waiver of any other provision or provisions of this agreement or as estopping either party from its rights to enforce any provision or all provisions hereof.

20–B. *Liquidated Damages.*—It is recognized by the parties hereto that in the event that the Exhibitor makes default in any of the terms of this agreement it would be impracticable to prove and difficult to determine the exact damage to Products resulting from such default. It is therefore agreed that in the event that the Exhibitor makes any default under the terms of this agreement, the Exhibitor shall pay to Products, not as a penalty, but as agreed and/or liquidated damages, twenty percent (20%) of the existing unpaid balance of the total amount required to be paid in accordance with Item Two of Section 22, which would otherwise become due and payable after the date of said default and any note or notes made by the Exhibitor and delivered to Products in accordance with the provisions of said Item Two of Section 22 shall, to the extent necessary to enable Products to collect said twenty percent (20%) of the aforementioned unpaid balance, become immediately due and payable, and Products shall retain all sums theretofore paid to it by the Exhibitor.

The rights of Products contained in this section shall be in addition to all other rights reserved to it under the terms of this agreement and whether or not it elects to or does repossess the said Equipment, or any part thereof, under the terms of Section 15.

20–C. Except as otherwise expressly provided in this agreement, any and all sums to be paid by the Exhibitor are not subject to any reduction on account of any change which hereafter may be made in Products' charges for like installations or on account of any change in the type, character, or quantity of equipment which Products may hereafter offer for installation in any theatre, nor for any other reason.

21. *Not assignable.*—This agreement shall not be assigned by the Exhibitor without the written consent of Products. It shall, however, subject to such restriction upon assignment by the Exhibitor, be binding upon the parties and their respective successors, assigns, and legal representatives, and shall be construed according to the laws of the State of New York.

22. *Item One.*—The sum of _____ Dollars ($_____), representing the first weekly payment hereunder, the receipt of which is hereby acknowledged.

Item Two.—A promissory note in form satisfactory to Products, made by the Exhibitor and delivered to Products upon the submission of this agreement for acceptance, and payable as follows:

The sum of _____ Dollars ($_____) on the Saturday next succeeding the Service Day, and a like amount on each and every Saturday thereafter for a period of twenty-four (24) weeks; the sum of _____ Dollars ($_____) on each and every Saturday thereafter for a period of twenty-six (26) weeks; the sum of _____ Dollars ($_____), on each and every Saturady thereafter for a period of fifty-two (52) weeks; and the sum of _____ Dollars ($_____) on each and every Saturday thereafter for a period of fifty-two (52) weeks, which payments include the regular service, inspection, and rental charge, referred to in Section 6 hereof, for the first three (3) years of the term of the license.

The Exhibitor hereby expressly authorizes Products to enter upon the face of the note referred to herein the maturity date of the first payment thereunder, when the Service Day has been determined by Products.

Item Three.—Description of Equipment:

_____

Item Four.—The Service Day is expected to be _____, 19__.

Item Five.—Present schedule of service, inspection, and rental charge for the term of the license hereof after the first three (3) years, pursuant to Section 6, is the sum of _____ Dollars ($_____) per week.

Digitized by Google

In witness whereof the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,
By _____,
Vice-President, Comptroller.

_____,
Exhibitor.
By _____,

In presence of—

_____
_____
(As to E. R. P. I.)
_____
(As to Exhibitor)

---

294 T S—12M–X W
Contract No. _____

This Agreement made in triplicate in the City of New York, State of New York, this _____ day of _____, 19__, by and between Electrical Research Products, Inc. (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation having its principal place of business in the City, County, and State of New York (hereinafter called "Products"), licensor, and _____ a _____ Corporation having its principal place of business at No. _____ Avenue/Street, in the City of _____, State of _____ (hereinafter called the "Exhibitor"), licensee, and operating the _____ Theatre, at No. _____ Avenue/Street, in the City of _____, State of _____ (hereinafter called the "Theatre"):

Witnesseth that, for and in consideration of the covenants, stipulations, and representations herein set forth, the respective parties hereto agree as follows:

1. (a) *Grant of License and Installation of Equipment.*—Products hereby agrees to install a Western Electric Sound System of the type set forth in Item Three of Section 22 (hereinafter called the "Equipment"), and hereby grants to the Exhibitor a non-exclusive, non-assignable license to use in the Theatre (subject to all the terms, conditions, limitations, and agreements herein contained), the Equipment for the electrical reproduction of sound in synchronism with, or as incidental to, the exhibition of motion pictures, or any performance given in conjunction therewith, and to employ (to the extent necessarily involved in such use of said equipment) the methods and/or systems of Products, under all United States patents and applications for United States patents, relating to said equipment or to such use thereof, which are now owned or controlled, or which may during the term of this agreement be owned or controlled by Products, or in respect of which it has or may hereafter during the term of this agreement have the right to grant such license.

(b) *Sevice Day.*—Products will endeavor to make the Equipment available for use in the Theatre on or before the date set forth in Item Four of Section 22 hereof. Nothing herein contained shall be considered as a firm agreement on the part of Products to complete the installation of the Equipment on or before said date, it being understood that the extent of the obligation of Products in this respect is limited to using its best efforts to procure the manufacture and delivery of the Equipment and to installing the same expeditiously. The day on which the Equipment is made available for use in the Theatre is hereinafter referred to as the "Service Day."

2. *Use of Equipment.*—The Exhibitor agrees that it will use and employ the Equipment only in the Theatre, and that it will at all times during the period of this license keep, maintain, and operate the Equipment in the manner from time to time prescribed by Products and in no other manner. The Exhibitor recognizes the highly technical mechanism and art involved in the inventions and construction of the Equipment, and in the making of sound record (in any form) for use therewith, and that the prestige and business reputation of Products might be seriously affected by imperfect operation of the Equipment or by its use with sound records which are not suited to it or which produce inferior results when used with the Equipment, and that use of said Equipment otherwise than as herein licensed may involve infringement of patent rights.

Digitized by Google

Therefore, in order to secure and insure the functioning of the Equipment to the satisfaction of the parties hereto, the Exhibitor shall not, without the written consent of Products, move, alter, change, or modify the Equipment, nor add anything thereto nor take anything therefrom; nor break the seal upon any part or collection of parts which is or may be sealed by Products; nor operate, use, or employ the Equipment in any manner in conjunction with any sound record not made under license from Products for such use, unless such sound record is of such character that the Equipment will operate properly, reliably, and efficiently to reproduce sound from such sound record with accuracy of quality and adequacy of volume. Also, in order further to secure proper functioning of the Equipment as aforesaid satisfactorily to the parties hereto, it is agreed that all additional and renewal parts and assembled parts for the Equipment shall be obtained from Products. Nothing herein contained, however, shall be construed as prohibiting the Exhibitor from taking all reasonable steps, consistent with the general intent hereof, either alone or together with Products, to protect, correct, or repair the Equipment in the event of an accident or breakdown, but the Exhibitor agrees that in the event that it shall itself take any action with respect to the correction or repair of the Equipment, it shall immediately notify Products in writing, giving full details of the action taken to correct or remedy any unsatisfactory condition of the Equipment. The Exhibitor agrees that prior to the first public use in the Theatre of each film and/or sound record, it will cause such films and/or sound records to be run privately upon the Equipment for the purpose of ascertaining that the Equipment is in satisfactory condition and adjustment for the particular film and/or sound record. The Exhibitor expressly agrees that if at any time the equipment fails to function satisfactorily, it will immediately notify Products by registered mail and telegraph, and the absence of such notification shall be conclusive as to satisfactory functioning of the Equipment.

3. *Change of Theatre or Management.*—In the event that the Exhibitor shall contemplate a sale of the Theatre or its interest therein, or shall contemplate ceasing to operate the Theatre, it shall notify Products in writing of such contemplated action not less than fourteen (14) days prior to the date upon which it will cease to own or operate the Theatre and shall make provision, satisfactory to Products, for the care and custody of the Equipment or for the assumption of this agreement by the successor operator of the Theatre, provided such successor operator is satisfactory to Products. If the notice hereinabove required shall have been given to Products, Products will, at the request of the Exhibitor, remove the Equipment to and install the same in another theatre designated by the Exhibitor; provided however, that Products' standard charges as from time to time established for such removal and installation shall first be paid by the Exhibitor and that a new agreement on Products' then standard form for the unexpired term of this license shall first be executed by the Exhibitor operating such other theatre; and provided further, that such exhibitor and the theatre designated shall be satisfactory to Products. If the exhibitor operating such other theatre is not the Exhibitor hereunder, the latter shall become a guarantor to Products for the performance by the former of such new agreement.

4. *Instruction and Inspection Service.*—Products agrees, to the extent deemed necessary by it, to instruct the motion picture machine operators of the Exhibitor in the manner and method of operating the Equipment for a period, not exceeding one (1) week, immediately following the Service Day. Products also agrees to make periodical inspection of the Equipment after it shall have been installed. Products may from time to time install such spare and renewal parts as may, in its opinion, be necessary to the satisfactory operation and maintenance of the Equipment.

5. *Installation Charge.*—The Exhibitor agrees to pay to Products in New York Exchange the sums set forth in Items One and Two of Section 22 hereof at the time and in the manner provided therein (which time and manner shall be of the essence of this agreement).

6. *Service Inspection and Rental Charge.*—In addition to all other payments herein required to be made, the Exhibitor also agrees to pay to Products throughout the term of the license hereby granted, a service, inspection, and rental charge, payable weekly, the first payment thereof to be due and payable on the Saturday next succeeding the Service Day, and thereafter throughout the balance of the term on each and every Saturday. The amount of such charge shall be in accordance with Products' regular schedule of such charges as from time to time established. Under Products' present schedule, the amount

Digitized by Google

of such charge shall be the sums set forth in Item Five of Section 22 hereof and such weekly charge to the Exhibitor shall not be increased during the term of this agreement. The time of such payment shall be of the essence of this agreement.

7. *Transportation Charges.*—The Exhibitor agrees to pay the cost of transporting the Equipment from the place of shipment to the Theatre, and to accept delivery thereof from the common carrier and make payment directly to the common carrier of freight and express charges thereon. The Exhibitor will also arrange for any necessary loading, trucking, and unloading to put the Equipment down inside the Theatre, and will directly defray the cost thereof.

8. *Payment for Parts, Special Service, etc.*—The Exhibitor agrees to pay to Products its standard installation charges as from time to time established for any additional equipment or spare or renewal parts, furnished or supplied by Products, upon delivery thereof and to pay the transportation charges thereon. The Exhibitor also agrees upon rendition of invoices to pay for any services rendered and expenses incurred by Products in connection with the Equipment or its operation or for the benefit of the Exhibitor, except for the regular periodical inspection service hereinbefore provided for. The time of the payments herein shall be of the essence of this agreement.

9. *Changes in Theatre.*—The Exhibitor warrants that the Theatre is, or before said Equipment is installed will be, supplied with suitable electric current; electric power leads of suitable capacity with outlets conveniently located for power supply to the Equipment; suitable space, properly ventilated, for the installation of the storage batteries and charging equipment; drapes for acoustic purposes, and suitable support for horns, and agrees to make such other reasonable changes, alterations, and modifications as may be necessary for the proper installation and accommodation of the Equipment, all at the expense of the Exhibitor and when and to the extent and in the manner prescribed by Products, and agrees to comply with all local laws and ordances relating to the use and operation of the Equipment and with any Fire Insurance Underwriters' requirements.

10. *Title to Equipment.*—Title to and ownership of all Equipment at any time furnished hereunder and also all tools of all kinds, drawing, prints, and written descriptions and instructions, shall at all times be and remain vested in Products. Any and all Equipment installed in the Theatre in accordance with the terms of this agreement, shall at all times be and remain personal property notwithstanding the manner or method of its attachment to any real property.

11. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all personal property taxes which may be charged or levied in connection with the Equipment.

12. *Access to Equipment.*—The Exhibitor will permit Products, through its designated agents, engineers, and mechanics, to have access to the Theatre at all reasonable hours, for the purpose of installing and from time to time for the purpose of examining and inspecting the Equipment, and will grant to Products full opportunity to make such adjustments therein and repairs thereto as, in the opinion of Products, are necessary or desirable.

13. *Liability for Interruptions, Injuries, etc.*—Products shall not be responsible in any manner for any interruption in the operation of the Theatre or of any equipment therein arising from any cause whatsoever or for any loss or damage to persons or property in or upon the said premises for any reason whatsoever. The Exhibitor agrees to indemnify Products for, and save it harmless from any liability or injury to workmen whom the Exhibitor shall furnish to assist in the handling, installing, or operating of the Equipment, and from any liability to any persons resulting from negligence of such workmen.

14. *Default.*—This agreement and/or the rights of the Licensee hereunder and/or the license hereby granted shall, at the option of Products, terminate and come to an end in the event of any breach or default on the part of the Licensee with respect to any of the covenants and conditions herein contained on its part to be performed, or upon the insolvency of the Licensee or upon the filing of a voluntary or involuntary petition in bankruptcy or upon the assignment of any of the Licensee's assets for the benefit of creditors or upon the application for the appointment of a receiver of the property and assets of the Licensee.

In the event of a default under any of the provisions of this agreement at any time during the term of this license, and if Products does not elect to terminate this agreement and/or the rights granted and/or the license hereby

Digitized by Google

granted, the rights and/or the license hereby granted shall thereupon be suspended, provided however, that such suspension shall not operate in any way to void or restrict Products' right of termination on account of such default.

15. *Repossession of Equipment.*—Upon termination or expiration of this license by lapse of time or otherwise, the Exhibitor will surrender the Equipment to Products in good order and condition, reasonable wear and tear and obsolescence due to proper use thereof in the manner and place and for the purpose set forth in this agreement only excepted, and Products may repossess the Equipment and may, for the purpose of reducing the same to possession, enter the Theatre or any other premises where said Equipment may be and without any legal proceedings whatever possess and remove said Equipment, and the Exhibitor agrees to cooperate in such removal. If this license shall be terminated by default, or if the Exhibitor permits any default hereunder to occur, whether or not Products shall exercise the option to terminate this agreement, Products shall thereupon have the right without notice and without any legal proceedings whatever to take immediate possession of said Equipment, or any part thereof, and for that purpose may pursue the same wherever it or any part thereof may be found and may enter, with the aid and assistance of any person or persons, the Theatre or other premises of the Exhibitor and such place or places whatsoever, whether belonging to the Exhibitor or not, in which the Equipment or any part thereof may be placed, and may take and seize the same to its own proper use forever, free from any right of the Exhibitor under this agreement. In the event of the suspension of the rights and/or license under the provisions of Section 14 hereof, Products shall also have the right in like manner to enter said premises and to render the Equipment inoperative by whatever means may, in the opinion of Products, be necessary or expedient. Products shall also have the right in like manner to enter the said premises and remove the Equipment in the event of the said premises being destroyed or damaged by fire or otherwise, to an extent which, in the opinion of Products, endangers the Equipment. The Exhibitor expressly covenants that in any of such events no claim will be made for damage on account of such action or otherwise, and the Exhibitor further agrees that it will hold and save harmless Products and its agents from and against any and all claims for damages by any parties whatsoever on account of such action. In the event of termination or expiration of this license by lapse of time, the occurance of any default, or otherwise, and irrespective of whether Products shall remove and repossess the Equipment in accordance with the provisions contained in this section, Products shall retain and may enforce any and all claims or rights of action against the Exhibitor which it may then possess in respect of any sum or sums then due to Products in accordance with the terms and conditions of this agreement.

16. *Replacement of Equipment in the Event of Destruction.*—In the event of the partial or total destruction of the Equipment during the term of this license by extraneous fire, or act of God, without fault or neglect on the part of the Exhibitor, provided the Exhibitor shall not be in default in respect of any of the terms of this agreement and provided the Exhibitor shall continue to operate the Theatre or after any necessary repairs to the Theatre shall resume its operation, Products will, at its own expense, either repair the Equipment, or if in the sole judgment of Products, such destruction is so extensive as to render repair of the Equipment impracticable, install in the Theatre equipment then manufactured by or for Products as nearly similar as possible to the type of Equipment so destroyed.

17. *Patent Protection.*—Products agrees that subject to the provisions hereof it will at its own expense defend any and all actions and suits which may during the term hereof be brought against the Exhibitor for infringement of patents relating to the apparatus or equipment furnished by Products hereunder, on account of any use of said apparatus or equipment by the Exhibitor for the purpose and in the manner contemplated by this agreement and Products will pay or satisfy all judgments and decrees for profits, damages and/or costs which may be finally awarded against the Exhibitor by the Court of last resort in any such action or suit on account of any such infringement, provided that the Exhibitor shall give Products prompt notice (with written confirmation) of such action or suit, full information and all reasonable cooperation in connection therewith and full opportunity to defend the same, and provided further, that this agreement shall not extend to any infringement or claim of infringement on account of the use of any of said equipment in combination with any apparatus

Digitized by Google

or thing not furnished by Products, except films and records produced under licenses from Products where the alleged infringement resides in characteristics thereof or in methods or apparatus for producing the same specifically prescribed by Products and that the liability of Products under this agreement shall in no case exceed the total amount paid hereunder by the Exhibitor to Products. To the end that Products may protect itself and the Exhibitor from claims for infringement of patents, it is agreed that Products may at any time substitute for any of the equipment or parts thereof which may have been furnished to the Exhibitor hereunder, other equipment or parts which Products shall determine to be suitable for performing the function required, such substitution to be made without additional expense to the Exhibitor and with the least possible inconvenience to it or interruption of its business.

18. *License Non-exclusive.*—Nothing in this agreement shall be construed as granting to the Exhibitor an exclusive right or license to operate the Equipment in any particular City, Town, zone or neighborhood or as preventing or prohibiting Products from entering into similar agreements or granting licenses for the installation and use of similar equipment in competing theatres.

19. *Period of License.*—This license shall be for a term of ten (10) years from the Service Day. It may, however, provided the Exhibitor shall not be in default in respect of any of the terms of this agreement, be terminated at the option of the Exhibitor at any time after the expiration of the first three (3) years of the term hereof upon not less than six (6) months' written notice given by the Exhibitor to Products of its intention so to terminate.

20–A. *Entire Understanding.*—The parties hereto expressly stipulate that this agreement as herein set forth contains the entire understanding of the respective parties with reference to the subject matter hereof, and that there is no other understanding, agreement, or representation, express or implied, in any way limiting, extending, defining, or otherwise relating to the provisions hereof or any of the matters to which the present agreement relates. No agent or employee of Products is authorized to alter or modify this agreement in any way unless such alteration or modification shall be approved in writing by the President or a Vice President of Products or by such representative as may from time to time be designated in writing by either of such officers. No waiver by either party, whether express or implied, of any of the provisions of this agreement shall be construed as constituting a waiver of any other provision or provisions of this agreement or as estopping either party from its rights to enforce any provision or all provisions hereof.

20–B. *Liquidated Damages.*—It is recognized by the parties hereto that in the event that the Exhibitor makes default in any of the terms of this agreement it would be impracticable to prove and difficult to determine the exact damage to Products resulting from such default. It is therefore agreed that in the event that the Exhibitor makes any default under the terms of this agreement, Products shall retain, and the Exhibitor shall pay to Products, not as a penalty, but as agreed and/or liquidated damages, the following amounts:

1. If such default occurs prior to the date on which installation shall have begun, Products shall retain the down payment designated in Item One of Section 22 and the demand note referred to in paragraph A, Item Two, Section 22 shall thereupon immediately become due and payable.

2. If such default occurs subsequent to the date on which installation shall have begun, Products shall retain all payments theretofore made to it by the Exhibitor; the demand note designated in paragraph A of Item Two of Section 22, if unpaid, shall thereupon immediately become due and payable; and the Exhibitor shall pay to Products a sum equal to twenty (20%) per cent. of the existing unpaid balance of all sums designated in paragraphs B or C (whichever is applicable) of Item Two of Section 22, which would otherwise become due and payable after the date of said default and any note or notes made by the Exhibitor and delivered to Products in accordance with the provisions of said paragraph B of Item Two of Section 22 shall, to the extent necessary to enable Products to collect said twenty (20%) per cent. of the aforementioned unpaid balance, become immediately due and payable.

The day upon which installation of the Equipment shall have begun is hereby defined to be the day on which Products' installation representative appears at the Theatre for the purpose of beginning said installation or the day upon which Products shall have entered into any commitment with an independent contractor for the performance of any work deemed necessary by Products in connection with such installation, whichever day is the earlier. It is agreed that a

Digitized by Google

duly certified statement from one of Products' officers of either of the above facts shall be accepted for all purposes hereunder as conclusive evidence of the day on which installation shall have begun, as herein defined. The rights of Products contained in this section shall be in addition to all other rights reserved to it under the terms of this agreement and whether or not it elects to or does repossess the said Equipment, or any part thereof, under the terms of Section 15.

20–C. Except as otherwise expressly provided in this agreement, any and all sums to be paid by the Exhibitor are not subject to any reduction on account of any change which hereafter may be made in Products' charges for like installations or on account of any change in the type, character, or quantity of equipment which Products may hereafter offer for installation in any theatre, nor for any other reason.

21. This agreement shall not be assigned by the Exhibitor without the written consent of Products. It shall, however, subject to such restriction upon assignment by the Exhibitor, be binding upon the parties and their respective successors, assigns, and legal representatives, and shall be construed according to the laws of the State of New York.

22. *Not Assignable.—Item One.*—The sum of _____ ($_____) Dollars, due and payable upon submission of this agreement for acceptance.

Item Two.—A. A demand promissory note for the sum of _____ ($_____) Dollars in form satisfactory to Products, made by the Exhibitor and delivered to Products upon the submission of this agreement for acceptance, which note shall bear no interest prior to the date of presentation, and in the absence of default by the Exhibitor shall not be presented by Products for payment prior to the Service Day.

(B or C—strike out whichever is inapplicable.)

B. A series of _____ promissory notes, each in the principal amount of _____ ($_____) Dollars in form satisfactory to Products, made by the Exhibitor and delivered to Products upon the submission of this agreement for acceptance, the first of said notes maturing one month after the Service Day and the remaining notes at monthly intervals thereafter, and bearing interest at the rate of six percent (6%) per annum from the Service Day. Products is hereby authorized by the Exhibitor to enter upon the face of any notes given hereunder, when the Service Day is determined by Products, the respective maturity dates thereof and the dates from which interest shall run.

C. The sum of _____ ($_____) Dollars weekly throughout a period of _____ weeks of the license herein granted, which sum shall be first due and payable on the Saturday next succeeding the Service Day, and thereafter, throughout the balance of said period, a like amount on each and every Saturday.

Item Three.—Description of Equipment:

_____

Item Four.—The Service Day is expected to be _____, 19__

Item Five.—Present schedule of service, inspection, and rental charge, pursuant to Section 6, is as follows:

The sum of _____ ($_____) Dollars per week for the first twenty-six (26) weeks of the term of this agreement; the sum of _____ ($_____) Dollars per week for the second twenty-six (26) weeks of said term; and the sum of _____ ($_____) Dollars per week for the balance of said term.

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,

By_____

Vice-President, Comptroller.

In Presence of—

_____
(as to E. R. P. I.)

_____

Exhibitor.

By_____

_____
(as to Exhibitor)

Digitized by Google

293 M S—12 M

Contract No. ------

This Agreement made in triplicate in the City of New York, State of New York, this -------- day of ---------- 192--, by and between Electrical Research Products, Inc. (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation having its principal place of business in the City, County, and State of New York (hereinafter called "Products"), licensor, and ---------- a ---------- Corporation having its principal place of business at No. ---------- Street, in the City of ----------, State of ---------- (hereinafter called the "Exhibitor"), licensee, and operating a motion picture projection room at No. ---------- Street, in the City of ----------, State of ---------- (hereinafter called the "projection room"):

Witnesseth that, for and in consideration of the covenants, stipulations, and representations herein set forth, the respective parties hereto agree as follows:

1. (a) *Grant of License and Installation of Equipment.*—Products hereby grants to the Exhibitor a non-exclusive non-assignable license to use in the Projection Room and for the purpose of testing motion picture film (subject to all the terms, conditions, limitations, and agreements herein contained) the equipment hereinafter described for the electrical reproduction of sound from sound records intended to be reproduced in synchronism with, or as incidental to the projection of motion pictures, and to employ (to the extent necessarily involved in such use of said equipment) the methods and/or systems of Products, under all United States patents and applications for United States patents, relating to said equipment or to such use thereof, which are now owned or controlled, or which may during the term of this agreement be owned or controlled by Products, or in respect of which it has or may hereafter during the term of this agreement have the right to grant such license.

(b) *Service Day.*—Products agrees to install in the Projection Room sound reproducing equipment (herein referred to as "Equipment"), as follows:

---

and will endeavor to complete such installation on or before ---------- 192--, which shall be known as the "Tentative Service Day." Nothing herein contained shall be considered as a firm agreement on the part of Products to complete the installation of the Equipment on or before the said date, it being understood that the extent of the obligation of Products in this respect is limited to using its best efforts to procure the manufacture and delivery of the Equipment and to installing the same expeditiously. The day on which installation of the Equipment shall be made available to the Exhibitor as ready for use whether prior or subsequent to the "Tentative Service Day", shall be known as the "Service Day."

2. *Use of Equipment.*—The Exhibitor agrees that it will use and employ the Equipment only in the projection room, and that it will at all times during the period of this license keep, maintain, and operate the Equipment in the manner from time to time prescribed by Products and in no other manner. The Exhibitor recognizes the highly technical mechanism and art involved in the inventions and construction of the Equipment, and in the making of sound record (in any form) for use therewith, and that the prestige and business reputation of Products might be seriously affected by imperfect operation of the Equipment or by its use with sound records which are not suited to it or which produce inferior results when used with the Equipment, and that use of said Equipment otherwise than as herein licensed may involve infringement of patent rights. Therefore, in order to secure and insure the functioning of the Equipment to the satisfaction of the parties hereto, the Exhibitor shall not, without the written consent of Products, move, alter, change, or modify the Equipment, nor add anything thereto nor take anything therefrom; nor break the seal upon any part or collection of parts which is or may be sealed by Products; nor operate, use, or employ the Equipment in any manner in conjunction with any sound record not made under license from Products for such use, unless such sound record is of such character that the Equipment will operate properly, reliably, and efficiently to reproduce sound from such sound record with accuracy of quality and adequacy of volume. Also, in order further to secure proper functioning of the Equipment as aforesaid satisfactorily to

Digitized by Google

the parties hereto, it is agreed that all additional and renewal parts and assembled parts for the Equipment shall be obtained from Products. Nothing herein contained, however, shall be construed as prohibiting the Exhibitor from taking all reasonable steps, consistent with the general intent hereof, either alone or together with Products, to protect, correct, or repair the Equipment in the event of an accident or breakdown. The Exhibitor expressly agrees that if at any time the Equipment fails to function satisfactorily, it will immediately notify Products by registered mail and telegraph, and the absence of such notification shall be conclusive as to satisfactory functioning of the Equipment.

3. *Instruction and Inspection Service.*—Products agrees to instruct the motion picture machine operators of the Exhibitor in the manner and method of operating the Equipment. Products further agrees, in order to perfect such instruction, and also in order to superintend the operation of the Equipment, to keep in attendance at the projection room at such hours as may be necessary an engineer or other person skilled in such operation for a period of one week following the day upon which the installation is made available for use. Products also agrees to make necessary inspection and minor adjustments in the Equipment after it shall have been installed. Products may from time to time install such spare and renewal parts as may, in its opinion, be necessary to the satisfactory operation and maintenance of the Equipment.

4. *Installation Charge.*—The Exhibitor agrees to pay to Products in New York Exchange an installation charge of _____ Dollars ($_____), payable as follows:

The sum of _____ Dollars ($_____) on or before the execution of this instrument, receipt of which is hereby acknowledged, and the sum of _____ Dollars ($_____) upon the day the Equipment is made available for use.

5. *Transportation Charges.*—The Exhibitor agrees to pay the cost of transporting the Equipment from the place of shipment to the projection room and to accept delivery thereof from the common carrier and make payment directly to the common carrier of freight and express charges thereon. The Exhibitor will also arrange for any necessary loading, trucking, and unloading to put the Equipment down inside the projection room, and will directly defray the cost thereof.

6. *Payment for Parts, etc.*—The Exhibitor agrees to pay to Products its list installation charges as from time to time established for any additional equipment or spare or renewal parts, furnished or supplied by Products, upon delivery thereof and to pay the transportation charges thereon. The Exhibitor also agrees upon rendition of invoices to pay for any services rendered and expenses incurred by Products' employees in connection with and for the benefit of the Exhibitor, including the inspection and minor adjustment service hereinbefore provided for.

7. *Projection Room Changes.*—The Exhibitor warrants that the projection room is or before said Equipment is installed will be supplied with suitable electric current; electric power leads of suitable capacity with outlets conveniently located for power supply to the Equipment; suitable space, properly ventilated, for the installation of the storage batteries and charging equipment; drapes for acoustic purposes, and suitable support for horns, and agrees to make such other reasonable changes, alterations, and modifications as may be necessary for the proper installation and accommodation of the Equipment, all at the expense of the Exhibitor and when and to the extent and in the manner prescribed by Products or its engineers, and agrees to comply with all local laws and ordinances relating to the use and operation of the Equipment and with any Fire Insurance Underwriters' requirements.

8. *Title to Equipment.*—Title to and ownership of all equipment at any time furnished hereunder and also all tools of all kinds, drawings, prints, and written descriptions and instructions remains vested in Products.

9. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all personal property taxes which may be charged or levied in connection with the Equipment.

10. *Access to Equipment.*—The Exhibitor will permit Products, through its designated agents, engineers, and mechanics, to have access to the projection room at all reasonable hours, for the purpose of installing and from time to time for the purpose of examining and inspecting the Equipment, and will grant to Products full opportunity to make such adjustments therein and repairs thereto as, in the opinion of Products, are necessary or desirable.

Digitized by Google

11. *Liability for Interruptions, Injuries, etc.*—Products shall not be responsible in any manner for any interruption of service arising from any cause or for any defect or change of condition in the projection room or in the equipment thereof or in the electric current supplied thereto or for any loss or damage to persons or property in or upon the said premises for any reason whatsoever. The Exhibitor agrees to indemnify Products for, and save it harmless from, any liability or injury to workers whom the Exhibitor shall furnish to assist in the handling, installing, or operating of the Equipment, and from any liability to any persons resulting from negligence of such workmen.

12. This agreement and the license hereby granted shall, at the option of Products, terminate and come to an end upon the happening of any of the following events, hereby designated to be events of default, to wit:

(*a*) *Events of Default.*—Upon the bankruptcy or insolvency of the Exhibitor or the assignment of any of its assets for the benefit of creditors.

(*b*) Upon the failure or refusal of the Exhibitor for any reason to pay any of the items or sums herein agreed to be paid by it, within five days after such item or sum is or may become due, and as to this provision time shall be of the essence.

(*c*) Upon a breach by the Exhibitor of any of the covenants herein contained relative to the use or maintenance of the Equipment continued for more than fourteen (14) days after notice thereof by registered mail from Products.

(*d*) Upon the removal of the Equipment or any part thereof without the consent of Products from the location and position in which it was installed by Products.

(*e*) Upon the failure of the Exhibitor to accept delivery of the Equipment from the transportation company or common carrier, or to facilitate the work of Products in installing the Equipment.

In the event of a default under any of the provisions of this section at any time during the term of this license the license hereby granted, and all obligations imposed upon Products by virtue of this agreement, shall, at the option of Products, and whether or not it terminates this license or removes the Equipment as hereinafter provided, be suspended during the continuance of such default.

13. *Repossession of Equipment.*—Upon termination or expiration of this license by lapse of time or otherwise, the Exhibitor will surrender up and deliver possession of the Equipment to Products in good order and condition, reasonable wear and tear and obsolescence due to proper use thereof in the manner and place and for the purpose set forth in this agreement only excepted, and Products may repossess the Equipment and may, for the purpose of reducing the same to possession, enter any premises where said Equipment may be and, without any legal proceedings whatever, possess and remove said Equipment, and the Exhibitor agrees to cooperate in such removal. If this license shall be terminated by default, or if the Exhibitor permits any of the events of default hereinbefore enumerated to occur, whether or not Products shall exercise the option to terminate this agreement, Products shall thereupon have the right, without notice, to take immediate possession of said Equipment, or any part thereof, and for that purpose may pursue the same wherever it or any part thereof may be found, and may enter, with the aid and assistance of any person or persons, the premises of the Exhibitor and such place or places whatsoever, whether belonging to the Exhibitor or not, in which the Equipment or any part thereof may be placed, and may take and seize the same to its own proper use forever, free from any right of the Exhibitor under this agreement. Products shall also have the right in like manner to enter the said premises and remove the Equipment in the event of the said premises being destroyed or damaged by fire or otherwise to an extent which, in the opinion of Products, endangers the Equipment. The Exhibitor expressly covenants that in any such event no claim will be made for damage on account of such removal or otherwise, and the Exhibitor further agrees that it will hold and save harmless Products from and against any and all claims for damages by any parties whatsoever on account of such removal.

14. *Replacement of Equipment in the Event of Destruction.*—The Exhibitor agrees to advise Products promptly of any injury or damage to the Equipment or to any parts thereof, and will permit Products, at the Exhibitor's expense, to repair any such injury or damage or to replace the Equipment if totally destroyed.

15. *Patent Protection.*—Products agrees that, subject to the provisions hereof, it will at its own expense defend any and all actions and suits which may during

Digitized by Google

the term hereof be brought against the Exhibitor for infringement of patents by reason of the use by the Exhibitor, for the purpose and in the manner contemplated by this agreement, of apparatus and equipment furnished by Products hereunder, and will pay or satisfy all judgments and decrees for profits, damages, and/or costs which may be finally awarded against the Exhibitor by the Court of last resort in any such action or suit on account of any such infringement, provided that the Exhibitor shall give Products immediate written notice of such action or suit, full information and all reasonable cooperation in connection therewith and full opportunity to defend the same, and provided further, that this agreement shall not extend to any infringement or claim of infringement arising from any use of any of said equipment in combination with any apparatus or thing (not including films or records of Products' licensees) not furnished by Products, and that the liability of Products on account of any such infringement or claim of infringement shall be limited to its agreements in this paragraph contained and shall in no case exceed the total amount paid hereunder by the Exhibitor to Products. To the end that Products may protect itself and the Exhibitor from claims for infringement of patents, it is agreed that Products may at any time substitute for any of the Equipment or parts thereof which may have been furnished to the Exhibitor hereunder, other equipment or parts which Products shall after test determine to be equally suitable for performing the function required, such substitution to be made without additional expense to the Exhibitor and with the least possible inconvenience to it or interruption of its business.

16. *Period of License.*—This license shall be for a term of ten years from the day upon which the Equipment is made available to the Exhibitor as ready for use. It may, however, provided the Exhibitor shall not be in default in respect of any of the terms of this agreement, be terminated at the option of the Exhibitor at any time after the expiration of the first two years of the term hereof upon not less than six months' written notice given by the Exhibitor to Products of its intention so to terminate.

17. *Entire Understanding.*—The parties hereto expressly stipulate that this agreement as herein set forth contains the entire understanding of the respective parties with reference to the subject matter hereof, and that there is no other understanding, agreement, or representation, express or implied, in any way limiting, extending, defining, or otherwise relating to the provisions hereof or any of the matters to which the present agreement relates. No agent or employee of Products is authorized to alter or modify this agreement in any way unless such alteration or modification shall be approved in writing by the President or a Vice President of Products, or by such representative as may from time to time be designated in writing by either of such officers. No waiver by either party, whether express or implied, of any of the provisions of this agreement shall be construed as constituting a waiver of any other provision or provisions of this agreement or as estopping either party from its right to enforce any provision or all provisions hereof.

18. *Not Assignable.*—This agreement shall not be assigned by the Exhibitor without the written consent of Products. It shall, however, subject to such restriction upon assignment by the Exhibitor, be binding upon the parties and their respective successors, assigns, and legal representatives, and shall be construed according to the laws of the State of New York.

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,
By _____

In presence of—

_____
(as to E. R. P. I.)

_____
By _____

_____
(as to Exhibitor)

---

292 T S—12 M
Contract No. _____

This agreement made in triplicate in the City of New York, State of New York, this _____ day of _____ 192__, by and between Electrical Research Products, Inc. (subsidiary of Western Electric Co., Inc.), a Delaware Corporation having its principal place of business in the city, county, and State of New

Digitized by Google

York (hereinafter called "Products", licensor; and a _____ Corporation having its principal place of business at No. _____ Street, in the City of _____, State of _____ (hereinafter called the "Exhibitor"), licensee, and operating the _____ Theatre at No. _____ Street, in the City of _____, State of _____ (hereinafter called the "Theatre"):

Witnesseth, that for and in consideration of the covenants, stipulations, and representations herein set forth the respective parties hereto agree as follows:

1. (a) *Grant of License and Installation of Equipment.*—Products hereby grants to the Exhibitor a nonexclusive nonassignable license to use in the Theatre (subject to all the terms, conditions, limitations, and agreements herein contained) the equipment hereinafter described for the electrical reproduction of sound in synchronism with or as incidental to the exhibition of motion pictures or any performance given in conjunction therewith, and to employ (to the extent necessarily involved in such use of said equipment) the methods and/or systems of Products, under all United States patents and applications for United States patents relating to said equipment or to such use thereof which are now owned or controlled or which may during the term of this agreement be owned or controlled by Products, or in respect of which it has or may hereafter during the term of this agreement have the right to grant such license.

(b) *Service Day.*—Products agrees to install in the Theatre sound-reproducing equipment (herein referred to as "Equipment"), as follows:

_____

and will endeavor to complete such installation on or before _____ 19__, which shall be known as the "Tentative Service Day." Nothing herein contained shall be considered as a firm agreement on the part of Products to complete the installation of the Equipment on or before the said date, it being understood that the extent of the obligation of Products in this respect is limited to using its best efforts to procure the manufacture and delivery of the Equipment and to installing the same expeditiously. The day on which installation of the Equipment shall be completed and the Equipment made available to the Exhibitor as ready for public exhibition, whether prior or subsequent to the "Tentative Service Day", shall be known as the "Service Day."

2. *Use of Equipment.*—The Exhibitor agrees that it will use and employ the Equipment only in the Theatre, and that it will at all times during the period of this license keep, maintain, and operate the Equipment in the manner from time to time prescribed by Products and in no other manner. The Exhibitor recognizes the highly technical mechanism and art involved in the inventions and construction of the Equipment, and in the making of sound record (in any form) for use therewith, and that the prestige and business reputation of Products might be seriously affected by imperfect operation of the Equipment or by its use with sound records which are not suited to it or which produce inferior results when used with the Equipment, and that use of said Equipment otherwise than as herein licensed may involve infringement of patent rights. Therefore, in order to secure and insure the functioning of the Equipment to the satisfaction of the parties hereto, the Exhibitor shall not, without the written consent of Products, move, alter, change, or modify the Equipment, nor add anything thereto nor take anything therefrom; nor break the seal upon any part or collection of parts which is or may be sealed by Products; nor operate, use, or employ the Equipment in any manner in conjunction with any sound record not made under license from Products for such use, unless such sound record is of such character that the Equipment will operate properly, reliably, and efficiently to reproduce sound from such sound record with accuracy of quality and adequacy of volume. Also, in order further to secure proper functioning of the Equipment as aforesaid satisfactorily to the parties hereto, it is agreed that all additional and renewal parts and assembled parts for the Equipment shall be obtained from Products. Nothing herein contained, however, shall be construed as prohibiting the Exhibitor from taking all reasonable steps, consistent with the general intent hereof, either alone or together with Products, to protect, correct, or repair the Equipment in the event of an accident or breakdown. The Exhibitor agrees that prior to the first public use in the Theatre of each film and/or sound record, it will cause such films and/or sound records to be run privately upon the Equipment for the purpose of ascertaining that the Equipment is in satisfactory condition and adjustment for the particular film and/or sound record. The Exhibitor expressly agrees that if at any time the equipment fails to function satisfactorily, it will immediately notify Products by registered mail and telegraph,

Digitized by Google

and the absence of such notification shall be conclusive as to satisfactory functioning of the Equipment.

3. *Removal to another Theatre.*—In the event that the Exhibitor shall for any reason cease to manage or to operate the Theatre, Products will, at the request of the Exhibitor, remove the Equipment to and install the same in another theatre designated by the Exhibitor and satisfactory to Products, provided, however, that the cost of such removal and installation shall be borne by the Exhibitor and that a new agreement for the unexpired term of this license shall be executed by the Exhibitor operating such theatre (the Exhibitor hereunder thereupon becoming guarantor to Products of the performance of such new agreement).

4. *Instruction and Inspection Service.*—Products agrees to instruct the motion picture machine operators of the Exhibitor in the manner and method of operating the Equipment, and will issue to each operator who has, in its opinion, satisfactorily completed a course of instruction in the operation of the Equipment, a certificate to that effect. Products further agrees, in order to perfect such instruction, and also in order to superintend the operation of the Equipment, to keep in attendance at the Theatre during the hours of performance and at such additional hours as may be necessary, an engineer or other person skilled in such operation for a period of one week following the day upon which the installation is completed and the Equipment made available to the Exhibitor as ready for public exhibition. Products also agrees to make periodical inspection and minor adjustments in the Equipment after it shall have been installed. Products may from time to time install such spare and renewal parts as may, in its opinion, be necessary to the satisfactory operation and maintenance of the Equipment.

5. *Installation Charge.*—The Exhibitor agrees to pay to Products in New York Exchange an initial charge of _____ Dollars ($_____), payable as follows:

The sum of _____ Dollars ($_____) on or before the execution of this instrument, receipt of which is hereby acknowledged, and the sum of _____ Dollars ($_____) by a demand promissory note satisfactory to Products in the amount last mentioned, made by the Exhibitor and delivered to Products on or before the execution of this agreement and bearing no interest prior to presentation, which demand note Products agrees not to present for payment prior to the "Service Day", and the balance by a Series of _____ (___) promissory notes, each in the principal amount of _____ Dollars ($_____) satisfactory to Products made by the Exhibitor and delivered to Products on or before the execution of this instrument, the first of said notes maturing one month after the "Service Day" and the remaining notes at monthly intervals thereafter, and all bearing interest at the rate of 6% per annum from the "Service Day." Products is hereby authorized by the Exhibitor to enter upon the face of any notes given hereunder, when the "Service Day" is determined by it the respective maturity dates thereof and the date from which interest shall run. Upon the failure of the Exhibitor to pay any of the said notes as and when the same become due all of the said notes shall forthwith become due and payable.

6. *Service Inspection Charge.*—In addition to any other payments required to be made by the Exhibitor hereunder, the Exhibitor agrees to pay to Products throughout the term of the license hereby granted a service and inspection payment, payable weekly, which for the first two weeks of said term shall be payable on the Saturday next succeeding the day upon which the installation shall have been made available to the Exhibitor as ready for use, and thereafter throughout the balance of the term on each and every Saturday in advance. The amount of such payment shall be in accordance with Products' regular schedule of such charges as from time to time established. Under Products' present schedule which shall not be exceeded during the term of this agreement the amount of such weekly payment shall be the sum of $_____ per week for the first twenty-six weeks of the term of said license, the sum of $_____ per week for the second twenty-six weeks of said term, and the sum $_____ per week for the balance of said term.

7. *Transportation Charges.*—The Exhibitor agrees to pay the cost of transporting the Equipment from the place of shipment to the Theatre, and to accept delivery thereof from the common carrier and make payment directly to the common carrier of freight and express charges thereon. The Exhibitor

Digitized by Google

will also arrange for any necessary loading, trucking, and unloading to put the Equipment down inside the Theatre, and will directly defray the cost thereof.

8. *Payment for Parts, etc.*—The Exhibitor agrees to pay to Products its list installation charges as from time to time established for any additional equipment or spare or renewal parts, furnished or supplied by Products, upon delivery thereof and to pay the transportation charges thereon. The Exhibitor also agrees upon rendition of invoices to pay for any services rendered and expenses incurred by Products' employees in connection with and for the benefit of the Exhibitor, except for the regular periodical inspection and minor adjustment service hereinbefore provided for.

9. *Changes in Theatre.*—The Exhibitor warrants that the Theatre is, or before said Equipment is installed will be, supplied with suitable electric current; electric power leads of suitable capacity with outlets conveniently located for power supply to the Equipment; suitable space, properly ventilated, for the installation of the storage batteries and charging equipment; drapes for acoustic purposes; and suitable support for horns, and agrees to make such other reasonable changes, alterations, and modifications as may be necessary for the proper installation and accommodation of the Equipment, all at the expense of the Exhibitor, and when and to the extent and in the manner prescribed by Products or its engineers, and agrees to comply with all local laws and ordinances relating to the use and operation of the Equipment and with any Fire Insurance Underwriters' requirements.

10. *Title to Equipment.*—Title to and ownership of all equipment at any time furnished hereunder and also all tools of all kinds, drawings, prints, and written descriptions and instructions remains vested in Products.

11. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all personal property taxes which may be charged or levied in connection with the Equipment.

12. *Access to Equipment.*—The Exhibitor will permit Products, through its designated agents, engineers, and mechanics, to have access to the Theatre at all reasonable hours for the purpose of installing and from time to time for the purpose of examining and inspecting the Equipment, and will grant to Products full opportunity to make such adjustments therein and repairs thereto as, in the opinion of Products, are necessary or desirable.

13. *Liability for Interruptions, Injuries, etc.*—Products shall not be responsible in any manner for any interruption of service arising from any cause or for any defect or change of condition in the Theatre or in the equipment thereof or in the electric current supplied thereto or for any loss or damage to persons or property in or upon the said premises for any reason whatsoever. The Exhibitor agrees to indemnify Products for and save it harmless from any liability or injury to workmen whom the Exhibitor shall furnish to assist in the handling, installing, or operating of the Equipment, and from any liability to any persons resulting from negligence of such workmen.

14. *Events of Default.*—This agreement and the license hereby granted shall, at the option of Products, terminate and come to an end upon the happening of any of the following events, hereby designated to be events of default, to wit:

(a) Upon the bankruptcy or insolvency of the Exhibitor or the assignment of any of its assets for the benefit of creditors.

(b) Upon the failure or refusal of the Exhibitor for any reason to pay any of the items or sums herein agreed to be paid by it, including the payment of any of the notes provided for in Section 5 hereof, within five days after such item or sum is or may become due, and as to this provision time shall be of the essence.

(c) Upon the Exhibitor's ceasing to own or operate the Theatre, unless the Exhibitor shall previous to its ceasing to own or operate the Theatre have notified Products in writing of the date it will cease to own or operate the Theatre and shall have made provision, satisfactory to Products, for the care and custody of the Equipment or for the assumption of this agreement by the successor operator of the Theatre.

(d) Upon a breach by the Exhibitor of any of the covenants herein contained relative to the use or maintenance of the equipment, continued for more than fourteen (14) days after notice thereof by registered mail from Products.

(e) Upon the removal of the Equipment or any part thereof without the consent of Products from the location and position in which it was installed by Products.

Digitized by Google

(f) Upon the failure of the Exhibitor to accept delivery of the Equipment from the transportation company or common carrier, or to facilitate the work of Products in installing the Equipment.

In the event of a default under any of the provisions of this section at any time during the term of this license, the license hereby granted and all obligations imposed upon Products by virtue of this Agreement shall, at the option of Products and whether or not it terminates this license or removes the Equipment as hereinafter provided, be suspended during the continuance of such default.

15. *Repossession of Equipment.*—Upon termination or expiration of this license by lapse of time or otherwise, the Exhibitor will surrender up and deliver possession of the Equipment to Products in good order and condition, reasonable wear and tear and obsolescence due to proper use thereof in the manner and place and for the purpose set forth in this agreement only excepted, and Products may repossess the Equipment and may, for the purpose of reducing the same to possession, enter the Theatre or any other premises where said Equipment may be and without any legal proceedings whatever possess and remove said Equipment, and the Exhibitor agrees to cooperate in such removal. If this license shall be terminated by default, or if the Exhibitor permits any of the events of default, hereinbefore enumerated, to occur, whether or not Products shall exercise the option to terminate this agreement, Products shall thereupon have the right without notice to take immediate possession of said Equipment, or any part thereof, and for that purpose may pursue the same wherever it or any part thereof may be found and may enter, with the aid and assistance of any person or persons, the Theatre or other premises of the Exhibitor, and such place or places whatsoever, whether belonging to the Exhibitor or not in which the Equipment or any part thereof may be placed, and may take and seize the same to its own proper use forever, free from any right of the Exhibitor under this agreement. Products shall also have the right in like manner to enter the said premises and remove the Equipment in the event of the said premises being destroyed or damaged by fire or otherwise, to an extent which, in the opinion of Products, endangers the Equipment. The Exhibitor expressly covenants that in any such event no claim will be made for damage on account of such removal or otherwise, and the Exhibitor further agrees that it will hold and save harmless Products from and against any and all claims for damages by any parties whatsoever on account of such removal.

16. *Replacement of Equipment in the Event of Destruction.*—In the event of the partial or total destruction of the Equipment during the term of this license by fire or any other cause, without fault or neglect on the part of the Exhibitor, provided the Exhibitor shall not be in default in respect to any of the terms of this agreement and provided the Exhibitor shall continue to operate the Theatre or after any necessary repairs to the Theatre shall resume its operation, Products will, at its own expense, either repair the Equipment, or if in the sole judgment of Products, such destruction is so extensive as to render repair of the Equipment impracticable, install in the Theatre equipment then manufactured by or for Products as nearly similar as possible to the type of Equipment so destroyed.

17. *Patent Protection.*—Products agrees that subject to the provisions hereof it will at its own expense defend any and all actions and suits which may during the term hereof be brought against the Exhibitor for infringement of patents by reason of the use by the Exhibitor, for the purpose and in the manner contemplated by this agreement, of apparatus and equipment furnished by Products hereunder, and will pay or satisfy all judgments and decrees for profits, damages and/or costs which may be finally awarded against the Exhibitor by the Court of last resort in any such action or suit on account of any such infringement, provided that the Exhibitor shall give Products immediate written notice of such action or suit, full information and all reasonable cooperation in connection therewith and full opportunity to defend the same, and provided further; that this agreement shall not extend to any infringement or claim of infringement arising from any use of any of said equipment in combination with any apparatus or thing (not including films or records of Products' licensees) not furnished by Products, and that the liability of Products on account of any such infringement or claim of infringement shall be limited to its agreements in this paragraph contained and shall in no case exceed the total amount paid hereunder by the Exhibitor to Products. To the end that Products may protect itself and the Exhibitor from claims for infringement of patents, it is agreed

Digitized by Google

that Products may at any time substitute for any of the Equipment or parts thereof which may have been furnished to the Exhibitor hereunder, other equipment or parts which Products shall after test determine to be equally suitable for performing the function required, such substitution to be made without additional expense to the Exhibitor and with the least possible inconvenience to it or interruption of its business.

18. *License Nonexclusive.*—Nothing in this agreement shall be construed as granting to the Exhibitor an exclusive right or license to operate the Equipment in any particular City, Town, zone or neighborhood or as preventing or prohibiting Products from entering into similar agreements or granting licenses for the installation and use of similar equipment in competing theatres.

19. *Period of License.*—This license shall be for a term of ten years from the day upon which the installation shall have been completed and the Equipment made available to the Exhibitor as ready for use. It may, however, provided the Exhibitor shall not be in default in respect of any of the terms of this agreement, be terminated at the option of the Exhibitor at any time after the expiration of the first two years of the term hereof upon not less than six months' written notice given by the Exhibitor to Products of its intention so to terminate.

20. *Entire Understanding.*—The parties hereto expressly stipulate that this agreement as herein set forth contains the entire understanding of the respective parties with reference to the subject matter hereof, and that there is no other understanding, agreement or representation, express or implied, in any way limiting, extending, defining or otherwise relating to the provisions hereof or any of the matters to which the present agreement relates. No agent or employee of Products is authorized to alter or modify this agreement in any way unless such alteration or modification shall be approved in writing by the President or a Vice President of Products or by such representative as may from time to time be designated in writing by either of such officers. No waiver by either party, whether express or implied, of any of the provisions of this agreement shall be construed as constituting a waiver of any other provision or provisions of this agreement or as estopping either party from its rights to enforce any provision or all provisions hereof.

21. *Not Assignable.*—This agreement shall not be assigned by the Exhibitor without the written consent of Products. It shall, however, subject to such restriction upon assignment by the Exhibitor, be binding upon the parties and their respective successors, assigns, and legal representatives and shall be construed according to the laws of the State of New York.

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,
By _____

In presence of—

_____
(as to E. R. P. I.)

_____
By _____

_____
(as to Exhibitor)

---

291 T S—X W
Contract No. _____

This agreement made in triplicate in the City of New York, State of New York, this _____ day of _____ 192__, by and between Electrical Research Products, Inc. (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation having its principal place of business in the City, County, and State of New York (hereinafter called "Products"), licensor, and _____, a _____ Corporation having its principal place of business at No. _____ Street, in the City of _____, State of _____ (hereinafter called the "Exhibitor"), licensee, and operating the _____ Theatre at No. _____ Street, in the City of _____, State of _____ (hereinafter called the "Theatre"):

Witnesseth, that for and in consideration of the covenants, stipulations, and representations herein set forth, the respective parties hereto agree as follows:

1. (*a*) *Grant of License and Installation of Equipment.*—Products hereby grants to the Exhibitor a non-exclusive non-assignable license to use in the

Digitized by Google

Theatre (subject to all the terms, conditions, limitations, and agreements herein contained) the equipment hereinafter described for the electrical reproduction of sound in synchronism with, or as incidental to, the exhibition of motion pictures, or any performance given in conjunction therewith, and to employ (to the extent necessarily involved in such use of said equipment) the methods and/or systems of Products, under all United States patents and applications for United States patents, relating to said equipment or to such use thereof, which are now owned or controlled, or which may during the term of this agreement be owned or controlled by Products, or in respect of which it has or may hereafter during the term of this agreement have the right to grant such license.

(*b*) *Service Day.*—Products agrees to install in the Theatre sound reproducing equipment (herein referred to as "Equipment"), as follows:

---

and will endeavor to complete such installation on or before _____ 192__. Nothing herein contained shall be considered as a firm agreement on the part of Products to complete the installation of the Equipment on or before the said date, it being understood that the extent of the obligation of Products in this respect is limited to using its best efforts to procure the manufacture and delivery of the Equipment and to installing the same expeditiously.

2. *Use of Equipment.*—The Exhibitor agrees that it will use and employ the Equipment only in the Theatre, and that it will at all times during the period of this license keep, maintain, and operate the Equipment in the manner from time to time prescribed by Products and in no other manner. The Exhibitor recognizes the highly technical mechanism and art involved in the inventions and construction of the Equipment, and in the making of sound record (in any form) for use therewith, and that the prestige and business reputation of Products might be seriously affected by imperfect operation of the Equipment or by its use with sound records which are not suited to it or which produce inferior results when used with the Equipment, and that use of said Equipment otherwise than as herein licensed may involve infringement of patent rights. Therefore, in order to secure and insure the functioning of the Equipment to the satisfaction of the parties hereto, the Exhibitor shall not, without the written consent of Products, move, alter, change, or modify the Equipment, nor add anything thereto nor take anything therefrom; nor break the seal upon any part or collection of parts which is or may be sealed by Products; nor operate, use, or employ the Equipment in any manner in conjunction with any sound record not made under license from Products for such use, unless such sound record is of such character that the Equipment will operate properly, reliably, and efficiently to reproduce sound from such sound record with accuracy of quality and adequacy of volume. Also, in order further to secure proper functioning of the Equipment as aforesaid satisfactorily to the parties hereto, it is agreed that all additional and renewal parts and assembled parts for the Equipment shall be obtained from Products. Nothing herein contained, however, shall be construed as prohibiting the Exhibitor from taking all reasonable steps, consistent with the general intent hereof, either alone or together with Products, to protect, correct, or repair the Equipment in the event of an accident or breakdown. The Exhibitor agrees that prior to the first public use in the Theatre of each film and/or sound record, it will cause such films and/or sound records to be run privately upon the Equipment for the purpose of ascertaining that the Equipment is in satisfactory condition and adjustment for the particular film and/or sound record. The Exhibitor expressly agrees that if at any time the equipment fails to function satisfactorily, it will immediately notify Products by registered mail and telegraph, and the absence of such notification shall be conclusive as to satisfactory functioning of the Equipment.

3. *Removal to another Theatre.*—In the event that the Exhibitor shall for any reason cease to manage or to operate the Theatre, Products will, at the request of the Exhibitor, remove the Equipment to and install the same in another theatre designated by the Exhibitor and satisfactory to Products, provided, however, that the cost of such removal and installation shall be borne by the Exhibitor and that a new agreement for the unexpired term of this license shall be executed by the Exhibitor operating such theatre (the Exhibitor hereunder thereupon becoming guarantor to Products of the performance of such new agreement).

4. *Instruction and Inspection Service.*—Products agrees to instruct the motion-picture-machine operators of the Exhibitor in the manner and method of oper-

Digitized by Google

ating the Equipment, and will issue to each operator who has, in its opinion, satisfactorily completed a course of instruction in the operation of the Equipment, a certificate to that effect. Products further agrees, in order to perfect such instruction, and also in order to superintend the operation of the Equipment, to keep in attendance at the Theatre during the hours of performance and at such additional hours as may be necessary, an engineer or other person skilled in such operation for a period of one week following the day upon which the installation is completed and the Equipment made available to the Exhibitor as ready for public exhibition. Products also agrees to make periodical inspection and minor adjustments in the Equipment after it shall have been installed. Products may from time to time install such spare and renewal parts as may, in its opinion, be necessary to the satisfactory operation and maintenance of the Equipment.

5. *Installation Charge.*—The Exhibitor agrees to pay to Products in New York Exchange an initial charge of _____ Dollars ($_____), payable as follows:

The sum of _____ Dollars ($_____) on or before the execution of this instrument, receipt of which is hereby acknowledged, and the balance, namely, _____ Dollars ($_____) by a demand promissory note satisfactory to Products in the amount last mentioned, made by the Exhibitor and delivered to Products on or before the execution of this agreement, and bearing no interest prior to presentation, which demand note Products agrees not to present for payment prior to the date on which the installation of the Equipment is completed and the Equipment made available to the Exhibitor as ready for public exhibition.

6A. *Weekly Payments.*—The Exhibitor further agrees to pay to Products throughout the first period of _____ weeks of the license hereby granted a weekly payment which, for the first two weeks of said term, shall be payable on the Saturday next succeeding the day upon which the installation shall have been made available to the Exhibitor as ready for use, and throughout the balance of said _____ weeks on each and every Saturday in advance. The amount of such weekly payment shall be the sum of _____ Dollars ($_____).

6B. *Service Inspection Charge.*—In addition to the weekly payments required to be made by the Exhibitor under the terms of Section 6A hereof, the Exhibitor also agrees to pay to Products throughout the term of the license hereby granted a service and inspection payment, payable weekly, which for the first two weeks of said term shall be payable on the Saturday next succeeding the day upon which the installation shall have been made available to the Exhibitor as ready for use, and thereafter throughout the balance of the term on each and every Saturday in advance. The amount of such payment shall be in accordance with Products' regular schedule of such charges as from time to time established. Under Products' present schedule, which shall not be exceeded during the term of this agreement, the amount of such weekly payment shall be the sum of $_____ per week for the first twenty-six weeks of the term of said license, the sum of $_____ per week for the second twenty-six weeks of said term, and the sum of $_____ per week for the balance of said term.

7. *Transportation Charges.*—The Exhibitor agrees to pay the cost of transporting the Equipment from the place of shipment to the Theatre, and to accept delivery thereof from the common carrier and make payment directly to the common carrier of freight and express charges thereon. The Exhibitor will also arrange for any necessary loading, trucking, and unloading to put the Equipment down inside the Theatre, and will directly defray the cost thereof.

8. *Payment for Parts, etc.*—The Exhibitor agrees to pay to Products its list installation charges as from time to time established for any additional equipment or spare or renewal parts, furnished or supplied by Products, upon delivery thereof, and to pay the transportation charges thereon. The Exhibitor also agrees, upon rendition of invoices, to pay for any services rendered and expenses incurred by Products' employees in connection with and for the benefit of the Exhibitor, except for the regular periodical inspection and minor adjustment service hereinbefore provided for.

9. *Changes in Theatre.*—The Exhibitor warrants that the Theatre is or before said Equipment is installed will be supplied with suitable electric current; electric power leads of suitable capacity with outlets conveniently located for power supply to the Equipment; suitable space, properly ventilated, for the installation of the storage batteries and charging equipment; drapes for acoustic purposes,

Digitized by Google

and suitable support for horns, and agrees to make such other reasonable changes, alterations, and modifications as may be necessary for the proper installation and accommodation of the Equipment, all at the expense of the Exhibitor and when and to the extent and in the manner prescribed by Products or its engineers, and agrees to comply with all local laws and ordinances relating to the use and operation of the Equipment and with any Fire Insurance Underwriters' requirements.

10. *Title to Equipment.*—Title to and ownership of all equipment at any time furnished hereunder and also all tools of all kinds, drawings, prints, and written descriptions and instructions, remains vested in Products.

11. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all personal property taxes which may be charged or levied in connection with the Equipment.

12. *Access to Equipment.*—The Exhibitor will permit Products, through its designated agents, engineers, and mechanics, to have access to the Theatre at all reasonable hours, for the purpose of installing and from time to time for the purpose of examining and inspecting the Equipment, and will grant to Products full opportunity to make such adjustments therein and repairs thereto as, in the opinion of Products, are necessary or desirable.

13. *Liability for Interruptions, Injuries, etc.*—Products shall not be responsible in any manner for any interruption of service arising from any cause or for any defect or change of condition in the Theatre or in the equipment thereof or in the electric current supplied thereto or for any loss or damage to persons or property in or upon the said premises for any reason whatsoever. The Exhibitor agrees to indemnify Products for, and save it harmless from any liability or injury to workmen whom the Exhibitor shall furnish to assist in the handling, installing, or operating of the Equipment, and from any liability to any persons resulting from negligence of such workmen.

14. *Events of Default.*—This agreement and the license hereby granted shall, at the option of Products, terminate and come to an end upon the happening of any of the following events, hereby designated to be events of default, to wit:

(*a*) Upon the bankruptcy or insolvency of the Exhibitor or the assignment of any of its assets for the benefit of creditors.

(*b*) Upon the failure or refusal of the Exhibitor for any reason to pay any of the items or sums herein agreed to be paid by it, including the payment of the note provided for in Section 5 hereof, within five days after such item or sum is or may become due, and as to this provision time shall be of the essence.

(*c*) Upon the Exhibitor's ceasing to own or operate the Theatre, unless the Exhibitor shall previous to its ceasing to own or operate the Theatre have notified Products in writing of the date it will cease to own or operate the Theatre and shall have made provision, satisfactory to Products, for the care and custody of the Equipment or for the assumption of this agreement by the successor operator of the Theatre.

(*d*) Upon a breach by the Exhibitor of any of the covenants herein contained relative to the use or maintenance of the equipment continued for more than fourteen (14) days after notice thereof by registered mail from Products.

(*e*) Upon the removal of the Equipment or any part thereof without the consent of Products from the location and position in which it was installed by Products.

(*f*) Upon the failure of the Exhibitor to accept delivery of the Equipment from the transportation company or common carrier, or to facilitate the work of Products in installing the Equipment.

In the event of a default under any of the provisions of this section at any time during the first period of _____ weeks of the term of this license, the entire balance of weekly payments for the said period shall be due and payable forthwith at the option of Products and whether or not it terminates this license or removes the Equipment as hereinafter provided. The license hereby granted and all obligations imposed upon Products by virtue of this agreement shall be suspended during the continuance of any event default.

15. *Repossession of Equipment.*—Upon termination or expiration of this license by lapse of time or otherwise, the Exhibitor will surrender up and deliver possession of the Equipment to Products in good order and condition, reasonable wear and tear and obsolescence due to proper use thereof in the manner and place and for the purpose set forth in this agreement only excepted, and Products may repossess the Equipment, and may, for the purpose of reducing the same to possession, enter the Theatre or any other premises where said

Digitized by Google

Equipment may be and without any legal proceedings whatever possess and remove said Equipment, and the Exhibitor agrees to cooperate in such removal. If this license shall be terminated by default, or if the Exhibitor permits any of the events of default, hereinbefore enumerated, to occur, whether or not Products shall exercise the option to terminate this agreement, Products shall thereupon have the right without notice to take immediate possession of said Equipment, or any part thereof, and for that purpose may pursue the same wherever it or any part thereof may be found and may enter, with the aid and assistance of any person or persons, the Theatre or other premises of the Exhibitor, and such place or places whatsoever, whether belonging to the Exhibitor or not, in which the Equipment or any part thereof may be placed, and may take and seize the same to its own proper use forever, free from any right of the Exhibitor under this agreement. Products shall also have the right in like manner to enter the said premises and remove the Equipment in the event of the said premises being destroyed or damaged by fire or otherwise, to an extent which, in the opinion of Products, endangers the Equipment. The Exhibitor expressly covenants that in any such event no claim will be made for damage on account of such removal or otherwise, and the Exhibitor further agrees that it will hold and save harmless Products from and against any and all claims for damages by any parties whatsoever on account of such removal.

16. *Replacement of Equipment in the Event of Destruction.*—In the event of the partial or total destruction of the Equipment during the term of this license by fire or any other cause, without fault or neglect on the part of the Exhibitor, provided the Exhibitor shall not be in default in respect to any of the terms of this agreement, and provided the Exhibitor shall continue to operate the Theatre or after any necessary repairs to the Theatre shall resume its operation, Products will, at its own expense, either repair the Equipment or, if in the sole judgment of Products such destruction is so extensive as to render repair of the Equipment impracticable, install in the Theatre equipment then manufactured by or for Products as nearly similar as possible to the type of Equipment so destroyed.

17. *Patent Protection.*—Products agrees that subject to the provisions hereof it will at its own expense defend any and all actions and suits which may during the term hereof be brought against the Exhibitor for infringement of patents by reason of the use by the Exhibitor, for the purpose and in the manner contemplated by this agreement, of apparatus and equipment furnished by Products hereunder, and will pay or satisfy all judgments and decrees for profits, damages, and/or costs which may be finally awarded against the Exhibitor by the Court of last resort in any such action or suit on account of any such infringement, provided that the Exhibitor shall give Products immediate written notice of such action or suit, full information, and all reasonable cooperation in connection therewith and full opportunity to defend the same; and provided further, that this agreement shall not extend to any infringement or claim of infringement arising from any use of any of said equipment in combination with any apparatus or thing (not including films or records of Products' licensees) not furnished by Products, and that the liability of Products on account of any such infringement or claim of infringement shall be limited to its agreements in this paragraph contained and shall in no case exceed the total amount paid hereunder by the Exhibitor to Products. To the end that Products may protect itself and the Exhibitor from claims for infringement of patents, it is agreed that Products may at any time substitute for any of the Equipment or parts thereof which may have been furnished to the Exhibitor hereunder, other equipment or parts which Products shall after test determine to be equally suitable for performing the function required, such substitution to be made without additional expense to the Exhibitor and with the least possible inconvenience to it or interruption of its business.

18. *License Non-exclusive.*—Nothing in this agreement shall be construed as granting to the Exhibitor an exclusive right or license to operate the Equipment in any particular City, Town, zone, or neighborhood or as preventing or prohibiting Products from entering into similar agreements or granting licenses for the installation and use of similar equipment in competing theatres.

19. *Period of License.*—This license shall be for a term of ten years from the day upon which the installation shall have been completed and the Equipment made available to the Exhibitor as ready for use. It may, however, provided the Exhibitor shall not be in default in respect of any of the terms of this agreement,

Digitized by Google

be terminated at the option of the Exhibitor at any time after the expiration of the first two years of the term hereof upon not less than six months' written notice given by the Exhibitor to Products of its intention so to terminate.

20. *Entire Understanding.*—The parties hereto expressly stipulate that this agreement as herein set forth contains the entire understanding of the respective parties with reference to the subject matter hereof, and that there is no other understanding, agreement, or representation, express or implied, in any way limiting, extending, defining, or otherwise relating to the provisions hereof, or any of the matters to which the present agreement relates. No agent or employee of Products is authorized to alter or modify this agreement in any way unless such alteration or modification shall be approved in writing by the President or a Vice President of Products or by such representative as may from time to time be designated in writing by either of such officers. No waiver by either party, whether express or implied, of any of the provisions of this agreement shall be construed as constituting a waiver of any other provision or provisions of this agreement or as estopping either party from its rights to enforce any provision or all provisions hereof.

21. *Not Assignable.*—This agreement shall not be assigned by the Exhibitor without the written consent of Products. It shall, however, subject to such restriction upon assignment by the Exhibitor, be binding upon the parties and their respective successors, assigns, and legal representatives and shall be construed according to the laws of the State of New York.

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,
By _____

In presence of—

_____
(as to E. R. P. I.)

By _____

_____
(as to Exhibitor)

_____

---

290 T N–24W
Contract No. _____

This agreement made in triplicate in the City of New York, State of New York, this _____ day of _____ 192__, by and between Electrical Research Products, Inc. (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation having its principal place of business in the City, County, and State of New York (hereinafter called "Products"), licensor, and _____, a _____ Corporation having its principal place of business at No. _____ Street, in the City of _____, State of _____ (hereinafter called the "Exhibitor"), licensee, and operating the _____ Theatre, at No. _____ Street, in the City of _____, State of _____ (hereinafter called the "Theatre"):

Witnesseth, that, for and in consideration of the covenants, stipulations, and representations herein set forth, the respective parties hereto agree as follows:

1. (a) *Grant of License and Installation of Equipment.*—Products hereby grants to the Exhibitor a non-exclusive non-assignable license to use in the Theatre (subject to all the terms, conditions, limitations, and agreements herein contained) the equipment hereinafter described for the unsynchronized electrical reproduction of sound incidental to the exhibition of motion pictures, or any performance given in conjunction therewith, and to employ (to the extent necessarily involved in such use of said equipment) the methods and/or systems of Products, under all United States patents and applications for United States patents, relating to said equipment or to such use thereof, which are now owned or controlled, or which may during the term of this agreement be owned or controlled by Products, or in respect of which it has or may hereafter during the term of this agreement have the right to grant such license.

(b) *Service Day.*—Products agrees to install in the Theatre sound-reproducing equipment (herein referred as "Equipment"), as follows: Non-synchronous Western Electric Sound Projector System Type _____ for reproduction from disc records and will use its best endeavor to complete such installation on or before _____, 192__. Nothing herein contained shall be considered

Digitized by Google

as a firm agreement on the part of Products to complete the installation of the Equipment on or before the said date, it being understood that the extent of the obligation of Products in this respect is limited to using its best efforts to procure the manufacture and delivery of the Equipment and to installing the same expeditiously.

2. *Use of Equipment.*—The Exhibitor agrees that it will use and employ the Equipment only in the Theatre, and that it will at all times during the period of this license keep, maintain, and operate the Equipment in the manner from time to time prescribed by Products and in no other manner. The Exhibitor recognizes the highly technical mechanism and art involved in the inventions and construction of the Equipment, and in the making of sound record (in any form) for use therewith, and that the prestige and business reputation of Products might be seriously affected by imperfect operation of the Equipment or by its use with sound records which are not suited to it or which produce inferior results when used with the Equipment, and that use of said Equipment otherwise than as herein licensed may involve infringement of patent rights. Therefore, in order to secure and insure the functioning of the Equipment to the satisfaction of the parties hereto, the Exhibitor shall not, without the written consent of Products, move, alter, change or modify the Equipment, nor add anything thereto nor take anything therefrom; nor break the seal upon any part or collection of parts which is or may be sealed by Products; nor operate, use or employ the Equipment in any manner in conjunction with any sound record not made under license from Products for such use, unless such sound record is of such character that the Equipment will operate properly, reliably, and efficiently to reproduce sound from such sound record with accuracy of quality and adequacy of volume. Also, in order further to secure proper functioning of the Equipment as aforesaid satisfactorily to the parties hereto, it is agreed that all additional and renewal parts and assembled parts for the Equipment shall be obtained from Products. Nothing herein contained, however, shall be construed as prohibiting the Exhibitor from taking all reasonable steps, consistent with the general intent hereof, either alone or together with Products, to protect, correct, or repair the Equipment in the event of an accident or breakdown. The Exhibitor expressly agrees that if at any time the Equipment fails to function satisfactorily, it will immediately notify Products by registered mail and telegraph, and the absence of such notification shall be conclusive as to satisfactory functioning of the Equipment.

3. *Removal to Another Theatre.*—In the event that the Exhibitor shall for any reason cease to manage or to operate the Theatre, Products will, at the request of the Exhibitor, remove the Equipment to and install the same in another theatre designated by the Exhibitor and satisfactory to Products, provided, however, that the cost of such removal and installation shall be borne by the Exhibitor and that a new agreement for the unexpired term of this license shall be executed by the exhibitor operating such theatre (the Exhibitor hereunder thereupon becoming guarantor to Products of the performance of such new agreement).

4. *Instruction and Inspection Service.*—Products agrees to instruct the operators of the Exhibitor in the manner and method of operating the Equipment and to make periodical inspection of and minor adjustments in the Equipment after it shall have been installed. Products may from time to time install such spare and renewal parts as may, in its opinion, be necessary to the satisfactory operation and maintenance of the Equipment.

5. *Installation Charge.*—The Exhibitor agrees to pay to Products in New York Exchange an initial charge of _____ Dollars ($_____) payable as follows:

The sum of_____ Dollars ($_____) on or before the execution of this instrument, receipt of which is hereby acknowledged, and the balance, namely, _____ Dollars ($_____) by a demand promissory note satisfactory to Products in the amount last mentioned, made by the Exhibitor and delivered to products on or before the execution of this agreement and bearing no interest prior to presentation, which demand note Products agrees not to present for payment prior to the date on which the installation of the Equipment is completed and the Equipment made available to the Exhibitor as ready for public exhibition.

6. *Weekly Payment.*—In addition to any other payments required to be made by the Exhibitor hereunder, the Exhibitor agrees to pay to Products throughout the term of the license hereby granted, a weekly payment which, for the

Digitized by Google

first two weeks of said term, shall be payable on the Saturday next succeeding the day upon which the installation shall have been completed and the Equipment made available to the Exhibitor as ready for use, and thereafter throughout the balance of said term on each and every Saturday in advance. The amount of such payment shall be _____ Dollars ($_____) per week for the first two years (104 weeks), and thereafter for the balance of the term of said license such weekly payment shall be in accordance with Product's then current schedule of weekly payments for similar licenses, but not exceeding one-fourth of the weekly payment hereinabove agreed upon to be paid for the first two years. The Exhibitor agrees, however, that the payment for the twenty-four weeks' period, inclusive of the eighty-first to the one hundred and fourth week, in the amount of $_____ shall be paid by it to Products in advance upon arrival of the Equipment at the town of destination and presentation of Bill of Lading therefor.

7. *Transportation Charges.*—The Exhibitor agrees to pay the cost of transporting the Equipment from the place of shipment to the Theatre, and to accept delivery thereof from the common carrier and make payment directly to the common carrier of freight and express charges thereon. The Exhibitor will also arrange for any necessary loading, trucking, and unloading to put the Equipment down inside the Theatre, and will directly defray the cost thereof.

8. *Payment for Spare Parts, etc.*—The Exhibitor agrees to pay to Products its list installation charges as from time to time established for any additional equipment or spare or renewal parts, furnished or supplied by Products, upon delivery thereof and to pay the transportation charges thereon. The Exhibitor also agrees upon rendition of invoices to pay for any services rendered and expenses incurred by Products' employees in connection with and for the benefit of the Exhibitor, except for the regular periodical inspection and minor adjustment service hereinbefore provided for.

9. *Changes in Theatre.*—The Exhibitor warrants that the Theatre is, or before said Equipment is installed will be, supplied with suitable electric current; electric-power leads of suitable capacity with outlets conveniently located for power supply to the Equipment; suitable space, properly ventilated, for the installation of the storage batteries and charging equipment; drapes for acoustic purposes, and suitable support for horns, and agrees to make such other reasonable changes, alterations, and modifications as may be necessary for the proper installation and accommodation of the Equipment, all at the expense of the Exhibitor, and when and to the extent and in the manner prescribed by Products or its engineers, and agrees to comply with all local laws and ordinances relating to the use and operation of the Equipment and with any Fire Insurance Underwriters' requirements.

10. *Title to Equipment.*—Title to and ownership of all equipment at any time furnished hereunder and also all tools of all kinds, drawings, prints, and written descriptions and instructions, remains vested in Products.

11. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all personal property taxes which may be charged or levied in connection with the Equipment.

12. *Access to Equipment.*—The Exhibitor will permit Products, through its designated agents, engineers, and mechanics, to have access to the Theatre at all reasonable hours, for the purpose of installing and from time to time for the purpose of examining and inspecting the Equipment, and will grant to Products full opportunity to make such adjustments therein and repairs thereto as, in the opinion of Products, are necessary or desirable.

13. *Liability for Interruptions, Injuries, etc.*—Products shall not be responsible in any manner for any interruption of service arising from any cause or for any defect or change of condition in the Theatre or in the equipment thereof or in the electric current supplied thereto or for any loss or damage to persons or property in or upon the said premises for any reason whatsoever. The Exhibitor agrees to indemnify Products for, and save it harmless from any liability or injury to workmen whom the Exhibitor shall furnish to assist in the handling, installing, or operating of the Equipment, and from any liability to any persons resulting from negligence of such workmen.

14. *Events of Default.*—This agreement and the license hereby granted shall, at the option of Products, terminate and come to an end upon the happening of any of the following events, hereby designated to be events of default, to wit:

Digitized by Google

(a) Upon the bankruptcy or insolvency of the Exhibitor or the assignment of any of its assets for the benefit of creditors.

(b) Upon the failure or refusal of the Exhibitor for any reason to pay any of the items or sums herein agreed to be paid by it, including the payment of the note provided for in Section 5 hereof, within five days after such item or sum is or may become due, and as to this provision time shall be of the essence.

(c) Upon the Exhibitor's ceasing to own or operate the Theatre, unless the Exhibitor shall previous to its ceasing to own or operate the Theatre have notified Products in writing of the date it will cease to own or operate the Theatre and shall have made provision, satisfactory to Products, for the care and custody of the Equipment or for the assumption of this agreement by the successor operator of the Theatre.

(d) Upon a breach by the Exhibitor of any of the covenants herein contained relative to the use or maintenance of the Equipment, continued for more than fourteen (14) days after notice thereof by registered mail from Products.

(e) Upon the removal of the Equipment or any part thereof without the consent of Products from the location and position in which it was installed by Products.

(f) Upon the failure of the Exhibitor to accept delivery of the Equipment from the transportation company or common carrier, or to facilitate the work of Products in installing the Equipment.

In the event of a default under any of the provisions of this section at any time during the first two years of the term of this license, the entire balance of weekly payments for the first two years shall be due and payable forthwith at the option of Products and whether or not it terminates this license or removes the Equipment as hereinafter provided. The license hereby granted and all obligations imposed upon Products by virtue of this agreement shall be suspended during the continuance of any event of default.

15. *Repossession of Equipment.*—Upon termination or expiration of this license by lapse of time or otherwise, the Exhibitor will surrender up and deliver possession of the Equipment to Products in good order and condition, reasonable wear and tear and obsolescence due to proper use thereof in the manner and place and for the purpose set forth in this agreement only excepted, and Products may repossess the Equipment and may, for the purpose of reducing the same to possession, enter the Theatre or any other premise where said Equipment may be and without any legal proceedings whatever possess and remove said Equipment, and the Exhibitor agrees to cooperate in such removal. If this license shall be terminated by default, or if the Exhibitor permits any of the events of default, hereinbefore enumerated, to occur, whether or not Products shall exercise the option to terminate this agreement, Products shall thereupon have the right without notice to take immediate possession of said Equipment, or any part thereof, and for that purpose may pursue the same wherever it or any part thereof may be found and may enter, with the aid and assistance of any person or persons, the Theatre or other premises of the Exhibitor and such place or places whatsoever, whether belonging to the Exhibitor or not in which the Equipment or any part thereof may be placed, and may take and seize the same to its own proper use forever, free from any right of the Exhibitor under this agreement. Products shall also have the right in like manner to enter the said premises and remove the Equipment in the event of the said premises being destroyed or damaged by fire or otherwise, to an extent which, in the opinion of Products, endangers the Equipment. The Exhibitor expressly covenants that in any such event no claim will be made for damage on account of such removal or otherwise, and the Exhibitor further agrees that it will hold and save harmless Products from and against any and all claims for damages by any parties whatsoever on account of such removal.

16. *Replacement of Equipment in the Event of Destruction.*—In the event of the partial or total destruction of the Equipment during the term of this license by fire or any other cause, without fault or neglect on the part of the Exhibitor, provided the Exhibitor shall not be in default in respect to any of the terms of this agreement and provided the Exhibitor shall continue to operate the Theatre of after any necessary repairs to the Theatre shall resume its operation, Products will, at its own expense, repair the Equipment, or if in the sole judgment of Products, such destruction is so extensive as to render repair of the Equipment impracticable, install in the Theatre equipment then manufactured by or for Products as nearly similar as possible to the type of Equipment so destroyed.

Digitized by Google

17. *Patent Protection.*—Products agrees that subject to the provisions hereof it will at its own expense defend any and all actions and suits which may during the term hereof be brought against the Exhibitor for infringement of patents by reason of the use by the Exhibitor, for the purpose and in the manner contemplated by this agreement, of apparatus and equipment furnished by Products hereunder, and will pay or satisfy all judgments and decrees for profits, damages and/or costs which may be finally awarded against the Exhibitor by the Court of last resort in any such action or suit on account of any such infringement, provided that the Exhibitor shall give Products immediate written notice of such action or suit, full information and all reasonable cooperation in connection therewith and full opportunity to defend the same, and provided further, that this agreement shall not extend to any infringement or claim of infringement arising from any use of any of said equipment in combination with any apparatus or thing (not including records of Products' licensees) not furnished by Products, and that the liability of Products on account of any such infringement or claim of infringement shall be limited to its agreements in this paragraph contained and shall in no case exceed the total amount paid hereunder by he Exhibitor to Products. To the end that Products may protect itself and the Exhibitor from claims for infringement of patents it is agreed that Products may at any time substitute for any of the Equipment or parts thereof which may have been furnished to the Exhibitor hereunder, other equipment or parts which Products shall after test determine to be equally suitable for performing the function required, such substitution to be made without additional expense to the Exhibitor and with the least possible inconvenience to it or interruption of its business.

18. *License Non-exclusive.*—Nothing in this agreement shall be construed as granting to the Exhibitor an exclusive right or license to operate the Equipment in any particular City, Town, zone, or neighborhood or as preventing or prohibiting Products from entering into similar agreements or granting licenses for the installation and use of similar equipment in competing theatres.

19. *Period of License.*—This license shall be for a term of ten years from the day upon which the installation shall have been completed and the Equipment made available to the Exhibitor as ready for use. It may, however, provided the Exhibitor shall not be in default in respect of any of the terms of this agreement, be terminated at the option of the Exhibitor at any time after the expiration of the first two years of the term hereof upon not less than six months' written notice given by the Exhibitor to Products of its intention so to terminate.

20. *Extension.*—Products agrees that it will, if called upon to do so by the Exhibitor and provided the Exhibitor shall not be in default in respect of any of the terms of this agreement, extend the license hereby granted to include the right to use and employ in the Theatre the methods, systems, and equipment of Products for the electrical reproduction of sound in synchronism with motion pictures, and will convert the Equipment to a type suitable for synchronized reproduction in the Theatre. The Exhibitor agrees that if it shall exercise this option it will enter into the standard form of license agreement then used by Products embodying the terms then obtaining for the type of Equipment to be installed, and in that event Products agrees that it will credit upon the installation charge for such new equipment the amount then regularly allowed by it for the type of Equipment hereby leased.

21. *Entire Understanding.*—The parties hereto expressly stipulate that this agreement as herein set forth contains the entire understanding of the respective parties with reference to the subject matter hereof, and that there is no other understanding, agreement, or representation, express or implied, in any way limiting, extending, defining, or otherwise relating to the provisions hereof or any of the matters to which the present agreement relates. No agent or employee of Products is authorized to alter or modify this agreement in any way unless such alteration or modification shall be approved in writing by the President or a Vice-President of Products or by such representative as may from time to time be designated in writing by either of such officers. No waiver by either party, whether express or implied, of any of the provisions of this agreement shall be construed as constituting a waiver of any other provision or provisions of this agreement or as estopping either party from its right to enforce any provision or all provisions hereof.

22. *Not Assignable.*—This agreement shall not be assigned by the Exhibitor without the written consent of Products. It shall, however, subject to such restriction upon assignment by the Exhibitor, be binding upon the parties and

Digitized by Google

their respective successors, assigns, and legal representatives and shall be interpreted according to the laws of the State of New York.

In witness whereof the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,
By _____

In presence of—

_____
(as to E. R. P. I.)

_____
By _____

_____
(as to Exhibitor)

289 T N
Contract No. _____

This agreement made in triplicate in the City of New York, State of New York, this _____ day of _____ 192__, by and between Electrical Research Products, Inc. (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation having its principal place of business in the City, County, and State of New York (hereinafter called "Products"), licensor, and _____ a Corporation having its principal place of business at No. _____ Street, in the City of _____, State of _____ (hereinafter called the "Exhibitor"), licensee, and operating the _____ Theatre, at No. _____ Street, in the City of _____, State of _____ (hereinafter called the "Theatre"):

Witnesseth that, for and in consideration of the covenants, stipulations, and representations herein set forth, the respective parties hereto agree as follows:

1. (*a*) *Grant of License and Installation of Equipment.*—Products hereby grants to the Exhibitor a non-exclusive non-assignable license to use in the Theatre (subject to all the terms, conditions, limitation, and agreements herein contained) the equipment hereinafter described for the unsynchronized electrical reproduction of sound incidental to the exhibition of motion pictures, or any performance given in conjunction therewith, and to employ (to the extent necessarily involved in such use of said equipment) the methods and/or systems of Products, under all United States patents and applications for United States patents, relating to said equipment or to such use thereof, which are now owned or controlled, or which may during the term of this agreement be owned or controlled by Products, or in respect of which it has or may hereafter during the term of this agreement have the right to grant such license.

(*b*) *Service Day.*—Products agrees to install in the Theatre sound reproducing equipment (herein referred to as "Equipment"), as follows: Non-synchronous Western Electric Sound Projector System Type _____ for reproduction from disc records and will use its best endeavor to complete such installation on or before _____ 192__. Nothing herein contained shall be considered as a firm agreement on the part of Products to complete the installation of the Equipment on or before the said date, it being understood that the extent of the obligation of Products in this respect is limited to using its best efforts to procure the manufacture and delivery of the Equipment and to installing the same expeditiously.

2. *Use of Equipment.*—The Exhibitor agrees that it will use and employ the Equipment only in the Theatre, and that it will at all times during the period of this license keep, maintain, and operate the Equipment in the manner from time to time prescribed by Products and in no other manner. The Exhibitor recognizes the highly technical mechanism and art involved in the inventions and construction of the Equipment, and in the making of sound record (in any form) for use therewith, and that the prestige and business reputation of Products might be seriously affected by imperfect operation of the Equipment or by its use with sound records which are not suited to it or which produce inferior results when used with the Equipment, and that use of said Equipment otherwise than as herein licensed may involve infringement of patent rights. Therefore, in order to secure and insure the functioning of the Equipment to the satisfaction of the parties hereto, the Exhibitor shall not, without the written consent of Products, move, alter, change, or modify the Equipment, nor add anything thereto nor take anything therefrom; nor break the seal

Digitized by Google

upon any part or collection of parts which is or may be sealed by Products; nor operate, use, or employ the Equipment in any manner in conjunction with any sound record not made under license from Products for such use, unless such sound record is of such character that the Equipment will operate properly, reliably, and efficiently to reproduce sound from such sound record with accuracy of quality and adequacy of volume. Also, in order further to secure proper functioning of the Equipment as aforesaid satisfactorily to the parties hereto, it is agreed that all additional and renewal parts and assembled parts for the Equipment shall be obtained from Products. Nothing herein contained, however, shall be construed as prohibiting the Exhibitor from taking all reasonable steps, consistent with the general intent hereof, either alone or together with Products, to protect, correct, or repair the Equipment in the event of an accident or breakdown. The Exhibitor expressly agrees that if at any time the Equipment fails to function satisfactorily, it will immediately notify Products by registered mail and telegraph, and the absence of such notification shall be conclusive as to satisfactory functioning of the Equipment.

3. *Removal to Another Theatre.*—In the event that the Exhibitor shall for any reason cease to manage or to operate the Theatre, Products will, at the request of the Exhibitor, remove the Equipment to and install the same in another theatre designated by the Exhibitor and satisfactory to Products, provided, however, that the cost of such removal and installation shall be borne by the Exhibitor and that a new agreement for the unexpired term of this license shall be executed by the exhibitor operating such theatre (the Exhibitor hereunder thereupon becoming guarantor to Products of the performance of such new agreement).

4. *Instruction and Inspection Service.*—Products agrees to instruct the operators of the Exhibitor in the manner and method of operating the Equipment and to make periodical inspection of and minor adjustments in the Equipment after it shall have been installed. Products may from time to time install such spare and renewal parts as may, in its opinion, be necessary to the satisfactory operation and maintenance of the Equipment.

5. *Installation Charge.*—The Exhibitor agrees to pay to Products in New York Exchange an initial charge of _____ Dollars ($_____), payable as follows:

The sum of _____ Dollars ($_____) on or before the execution of this instrument, receipt of which is hereby acknowledged, and the balance, namely, _____ Dollars ($_____) by a demand promissory note satisfactory to Products in the amount last mentioned, made by the Exhibitor and delivered to Products on or before the execution of this agreement and bearing no interest prior to presentation, which demand note Products agrees not to present for payment prior to the date on which the installation of the Equipment is completed and the Equipment made available to the Exhibitor as ready for public exhibition.

6. *Weekly Payment.*—In addition to any other payments required to be made by the Exhibitor hereunder, the Exhibitor agrees to pay to Products throughout the term of the license hereby granted, a weekly payment which, for the first two weeks of said term, shall be payable on the Saturday next succeeding the day upon which the installation shall have been completed and the Equipment made available to the Exhibitor as ready for use, and thereafter throughout the balance of said term on each and every Saturday in advance. The amount of such payment shall be _____ Dollars ($_____) per week for the first two years (104 weeks), and thereafter for the balance of the term of said license such weekly payments shall be in accordance with Product's then current schedule of weekly payments for similar licenses, but not exceeding one-fourth of the weekly payment hereinabove agreed upon to be paid for the first two years.

7. *Transportation Charges.*—The Exhibitor agrees to pay the cost of transporting the Equipment from the place of shipment to the Theatre, and to accept delivery thereof from the common carrier, and make payment directly to the common carrier of freight and express charges thereon. The Exhibitor will also arrange for any necessary loading, trucking, and unloading to put the Equipment down inside the Theatre, and will directly defray the cost thereof.

8. *Payment for Spare Parts, etc.*—The Exhibitor agrees to pay to Products its list installation charges as from time to time established for any additional equipment or spare or renewal parts, furnished or supplied by Products, upon delivery thereof and to pay the transportation charges thereon. The Exhibitor

Digitized by Google

also agrees upon rendition of invoices to pay for any services rendered and expenses incurred by Products' employees in connection with and for the benefit of the Exhibitor, except for the regular periodical inspection and minor adjustment service hereinbefore provided for.

9. *Changes in Theatre.*—The Exhibitor warrants that the Theatre is, or before said Equipment is installed will be, supplied with suitable electric current; electric power leads of suitable capacity with outlets conveniently located for power supply to the Equipment; suitable space, properly ventilated, for the installation of the storage batteries and charging equipment; drapes for acoustic purposes, and suitable support for horns, and agrees to make such other reasonable changes, alterations, and modifications as may be necessary for the proper installation and accommodation of the Equipment, all at the expense of the Exhibitor, and when and to the extent and in the manner prescribed by Products or its engineers, and agrees to comply with all local laws and ordinances relating to the use and operation of the Equipment, and with any Fire Insurance Underwriters' requirements.

10. *Title to Equipment.*—Title to and ownership of all equipment at any time furnished hereunder and also all tools of all kinds, drawings, prints, and written descriptions and instructions, remains vested in Products.

11. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all personal property taxes which may be charged or levied in connection with the Equipment.

12. *Access to Equipment.*—The Exhibitor will permit Products, through its designated agents, engineers, and mechanics, to have access to the Theatre at all reasonable hours, for the purpose of installing, and from time to time for the purpose of examining and inspecting the Equipment, and will grant to Products full opportunity to make such adjustments therein and repairs thereto as, in the opinion of Products, are necessary or desirable.

13. *Liability for Interruptions, Injuries, etc.*—Products shall not be responsible in any manner for any interruption of service arising from any cause or for any defect or change of condition in the Theatre or in the equipment thereof or in the electric current supplied thereto or for any loss or damage to persons or property in or upon the said premises for any reason whatsoever. The Exhibitor agrees to indemnify Products for, and save it harmless from any liability or injury to workmen whom the Exhibitor shall furnish to assist in the handling, installing, or opeating of the Equipment, and from any liability to any persons resulting from negligence of such workmen.

14. *Events of Default.*—This agreement and the license hereby granted shall, at the option of Products, terminate and come to an end upon the happening of any of the following events, hereby designated to be events of default, to wit:

(a) Upon the bankruptcy or insolvency of the Exhibitor or the assignment of any of its assets for the benefit of creditors.

(b) Upon the failure or refusal of the Exhibitor for any reason to pay any of the items or sums herein agreed to be paid by it, including the payment of the note provided for in Section 5 hereof, within five days after such item or sum is or may become due, and as to this provision time shall be of the essence.

(c) Upon the Exhibitor's ceasing to own or operate the Theatre, unless the Exhibitor shall previous to its ceasing to own or operate the Theatre have notified Products in writing of the date it will cease to own or operate the Theatre and shall have made provision, satisfactory to Products, for the care and custody of the Equipment or for the assumption of this agreement by the successor operator of the Theatre.

(d) Upon a breach by the Exhibitor of any of the covenants herein contained relative to the use or maintenance of the Equipment, continued for more than fourteen (14) days after notice thereof by registered mail from Products.

(e) Upon the removal of the Equipment or any part thereof without the consent of Products from the location and position in which it was installed by Products.

(f) Upon the failure of the Exhibitor to accept delivery of the Equipment from the transportation company or common carrier, or to facilitate the work of Products in installing the Equipment.

In the event of a default under any of the provisions of this section at any time during the first two years of the term of this license, the entire balance of weekly payments for the first two years shall be due and payable forthwith at the option of Products and whether or not it terminates this license or removes the Equipment as hereinafter provided. The license hereby granted

Digitized by Google

and all obligations imposed upon Products by virtue of this agreement shall be suspended during the continuance of any event of default.

15. *Repossession of Equipment.*—Upon termination or expiration of this license by lapse of time or otherwise, the Exhibitor will surrender up and deliver possession of the Equipment to Products in good order and condition, reasonable wear and tear and obsolescence due to proper use thereof in the manner and place and for the purpose set forth in this agreement only excepted, and Products may repossess the Equipment and may, for the purpose of reducing the same to possession, enter the Theatre or any other premises where said Equipment may be and without any legal proceedings whatever possess and remove said Equipment, and the Exhibitor agrees to cooperate in such removal. If this license shall be terminated by default, or if the Exhibitor permits any of the events of default, hereinbefore enumerated, to occur, whether or not Products shall exercise the option to terminate this agreement, Products shall thereupon have the right without notice to take immediae possession of said Equipment, or any part thereof, and for that purpose may pursue the same wherever it or any part thereof may be found and may enter, with the aid and assistance of any person or persons, the Theatre or other premises of the Exhibitor and such place or places whatsoever, whether belonging to the Exhibitor or not in which the Equipment or any part thereof may be placed, and may take and seize the same to its own proper use forever, free from any right of the Exhibitor under this agreement. Products shall also have the right in like manner to enter the said premises and remove the Equipment in the event of the said premises being destroyed or damaged by fire or otherwise, to an extent which, in opinion of Products, endangers the Equipment. The Exhibitor expressly covenants that in any such event no claim will be made for damage on account of such removal or otherwise, and the Exhibitor further agrees that it will hold and save harmless Products from and against any and all claims for damages by any parties whatsoever on account of such removal.

16. *Replacement of Equipment in the Event of Destruction.*—In the event of the partial or total destruction of the Equipment during the term of this license by fire or any other cause, without fault or neglect on the part of the Exhibitor, provided the Exhibitor shall not be in default in respect to any of the terms of this agreement and provided the Exhibitor shall continue to operate the Theatre or after any necessary repairs to the Theatre shall resume its operation, Products will, at its own expense, repair the Equipment, or if in the sole judgment of Products, such destruction is so extensive as to render repair of the Equipment impracticable, install in the Theatre equipment then manufactured by or for Products as nearly similar as possible to the type of Equipment so destroyed.

17. *Patent Protection.*—Products agrees that subject to the provisions hereof it will at its own expense defend any and all actions and suits which may during the term hereof be brought against the Exhibitor for infringement of patents by reason of the use by the Exhibitor, for the purpose and in the manner contemplated by this agreement, of apparatus and equipment furnished by Products hereunder, and will pay or satisfy all judgments and decrees for profits, damages and/or costs which may be finally awarded against the Exhibitor by the Court of last resort in any such action or suit on account of any such infringement, provided that the Exhibitor shall give Products immediate written notice of such action or suit, full information and all reasonable cooperation in connection therewith and full opportunity to defend the same, and provided further, that this agreement shall not extend to any infringement or claim of infringement arising from any use of any of said equipment in combination with any apparatus or thing (not including records of Products' licensees) not furnished by Products, and that the liability of Products on account of any such infringement or claim of infringement shall be limited to its agreements in this paragraph contained and shall in no case exceed the total amount paid hereunder by the Exhibitor to Products. To the end that Products may protect itself and the Exhibitor from claims for infringement of patents, it is agreed that Products may at any time substitute for any of the Equipment or parts thereof which may have been furnished to the Exhibitor hereunder, other equipment or parts which Products shall after test determine to be equally suitable for performing the function required, such substitution to be made without additional expense to the Exhibitor and with the least possible inconvenience to it or interruption of its business.

18. *License Nonexclusive.*—Nothing in this agreement shall be construed as granting to the Exhibitor an exclusive right or license to operate the Equipment

Digitized by Google

in any particular City, Town, zone, or neighborhood, or as preventing or prohibiting Products from entering into similar agreements or granting licenses for the installation and use of similar equipment in competing theatres.

19. *Period of License.*—This license shall be for a term of ten years from the day upon which the installation shall have been completed and the Equipment made available to the Exhibitor as ready for use. It may, however, provided the Exhibitor shall not be in default in respect of any of the terms of this agreement, be terminated at the option of the Exhibitor at any time after the expiration of the first two years of the term hereof upon not less than six months' written notice given by the Exhibitor to Products of its intention so to terminate.

20. *Extension.*—Products agrees that it will, if called upon to do so by the Exhibitor, and provided the Exhibitor shall not be in default in respect of any of the terms of this agreement, extend the license hereby granted to include the right to use and employ in the Theatre the methods, systems, and equipment of Products for the electrical reproduction of sound in synchronism with motion pictures, and will convert the Equipment to a type suitable for synchronized reproduction in the Theatre. The Exhibitor agrees that if it shall exercise this option it will enter into the standard form of license agreement then used by Products embodying the terms then obtaining for the type of Equipment to be installed, and in that event Products agrees that it will credit upon the installation charge for such new equipment the amount then regularly allowed by it for the type of Equipment hereby leased.

21. *Entire Understanding.*—The parties hereto expressly stipulate that this agreement as herein set forth contains the entire understanding of the respective parties with reference to the subject matter hereof, and that there is no other understanding, agreement, or representation, express or implied, in any way limiting, extending, defining, or otherwise relating to the provisions hereof or any of the matters to which the present agreement relates. No agent or employee of Products is authorized to alter or modify this agreement in any way unless such alteration or modification shall be approved in writing by the President or Vice-President of Products or by such representative as may from time to time be designated in writing by either of such officers. No waiver by either party, whether express or implied, of any of the provisions of this agreement shall be construed as constituting a waiver of any other provision or provisions of this agreement or as estopping either party from its right to enforce any provision or all provisions hereof.

22. *Not Assignable.*—This agreement shall not be assigned by the Exhibitor without the written consent of Products. It shall, however, subject to such restriction upon assignment by the Exhibitor, be binding upon the parties and their respective successors, assigns, and legal representatives, and shall be interpreted according to the laws of the State of New York.

In witness whereof the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,
By_____
_____
By_____

In presence of—

_____
(as to E. R. P. I.)

_____
(as to Exhibitor)

---

288 TS—104 W 24
Contract No. _____

This Agreement made in triplicate in the City of New York, State of New York, this _____ day of _____, 192__, by and between Electrical Research Products, Inc. (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation having its principal place of business in the City, County, and State of New York (hereinafter called "Products"), licensor, and _____, a _____ Corporation having its principal place of business at No. _____ Street, in the City of _____, State of _____ (hereinafter called the "Exhibitor"), licensee, and operating the _____ Theatre, at No. _____ Street, in the City of _____, State of _____ (hereinafter called the "Theatre"):

Digitized by Google

Witnesseth that, for and in consideration of the covenants, stipulations, and representations herein set forth, the respective parties hereto agree as follows:

1. (*a*) *Grant of License and Installation of Equipment.*—Products hereby grants to the Exhibitor a non-exclusive, non-assignable license to use in the Theatre (subject to all the terms, conditions, limitations, and agreements herein contained) the equipment hereinafter described for the electrical reproduction of sound in synchronism with, or as incidental to, the exhibition of motion pictures, or any performance given in conjunction therewith, and to employ (to the extent necessarily involved in such use of said equipment) the methods and/or systems of Products, under all United States patents and applications for United States patents, relating to said equipment or to such use thereof, which are now owned or controlled, or which may during the term of this agreement be owned or controlled by Products, or in respect of which it has or may hereafter during the term of this agreement have the right to grant such license.

(*b*) *Service Day.*—Products agrees to install in the Theatre sound reproducing equipment (herein referred to as "Equipment"), as follows:

---

and will endeavor to complete such installation on or before _____, 192__. Nothing herein contained shall be considered as a firm agreement on the part of Products to complete the installation of the Equipment on or before the said date, it being understood that the extent of the obligation of Products in this respect is limited to using its best efforts to procure the manufacture and delivery of the Equipment and to installing the same expeditiously.

2. *Use of Equipment.*—The Exhibitor agrees that it will use and employ the Equipment only in the Theatre, and that it will at all times during the period of this license keep, maintain, and operate the Equipment in the manner from time to time prescribed by Products and in no other manner. The Exhibitor recognizes the highly technical mechanism and art involved in the inventions and construction of the Equipment, and in the making of sound record (in any form) for use therewith, and that the prestige and business reputation of Products might be seriously affected by imperfect operation of the Equipment or by its use with sound records which are not suited to it or which produce inferior results when used with the Equipment, and that use of said Equipment otherwise than as herein licensed may involve infringement of patent rights. Therefore, in order to secure and insure the functioning of the Equipment to the satisfaction of the parties hereto, the Exhibitor shall not, without the written consent of Products, move, alter, change, or modify the Equipment, nor add anything thereto nor take anything therefrom; nor break the seal upon any part or collection of parts which is or may be sealed by Products; nor operate, use, or employ the Equipment in any manner in conjunction with any sound record not made under license from Products for such use, unless such sound record is of such character that the Equipment will operate properly, reliably, and efficiently to reproduce sound from such sound record with accuracy of quality and adequacy of volume. Also, in order further to secure proper functioning of the Equipment as aforesaid satisfactorily to the parties hereto, it is agreed that all additional and renewal parts and assembled parts for the Equipment shall be obtained from Products. Nothing herein contained, however, shall be construed as prohibiting the Exhibitor from taking all reasonable steps, consistent with the general intent hereof, either alone or together with Products, to protect, correct, or repair the Equipment in the event of an accident or breakdown. The Exhibitor agrees that prior to the first public use in the Theatre of each film and/or sound record, it will cause such films and/or sound records to be run privately upon the Equipment for the purpose of ascertaining that the Equipment is in satisfactory condition and adjustment for the particular film and/or sound record. The Exhibitor expressly agrees that if at any time the Equipment fails to function satisfactorily, it will immediately notify Products by registered mail and telegraph, and the absence of such notification shall be conclusive as to satisfactory functioning of the Equipment.

3. *Removal to another Theatre.*—In the event that the Exhibitor shall for any reason cease to manage or to operate the Theatre, Products will, at the request of the Exhibitor, remove the Equipment to and install the same in another theatre designated by the Exhibitor and satisfactory to Products, provided, however, that the cost of such removal and installation shall be borne by the Exhibitor in that a new agreement for the unexpired term of this license shall be executed by the exhibitor operating such theatre (the Exhibitor

Digitized by Google

hereunder thereupon becoming guarantor to Products of the performance of such new agreement).

4. *Instruction and Inspection Service.*—Products agrees to instruct the motion picture machine operators of the Exhibitor in the manner and method of operating the Equipment, and will issue to each operator who has, in its opinion, satisfactorily completed a course of instruction in the operation of the Equipment, a certificate to that effect. Products further agrees, in order to perfect such instruction, and also in order to superintend the operation of the Equipment, to keep in attendance at the Theatre during the hours of performance and at such additional hours as may be necessary, an engineer or other person skilled in such operation for a period of one week following the day upon which the installation is completed and the Equipment made available to the Exhibitor as ready for public exhibition. Products also agrees to make periodical inspection and minor adjustments in the Equipment after it shall have been installed. Products may from time to time install such spare and renewal parts as may, in its opinion, be necessary to the satisfactory operation and maintenance of the Equipment.

5. *Installation Charge.*—The Exhibitor agrees to pay to Products in New York Exchange an initial charge of _____ Dollars ($_____), payable as follows:

The sum of _____ Dollars ($_____) on or before the execution of this instrument, receipt of which is hereby acknowledged, and the balance, namely, _____ Dollars ($_____), by a demand promissory note satisfactory to Products in the amount last mentioned, made by the Exhibitor and delivered to Products on or before the execution of this agreement and bearing no interest prior to presentation, which demand note Products agrees not to present for payment prior to the date on which the installation of the Equipment is completed and the Equipment made available to the Exhibitor as ready for public exhibition.

6. *Weekly Payment.*—In addition to any other payments required to be made by the Exhibitor hereunder, the Exhibitor agrees to pay to Products throughout the term of the license hereby granted, a weekly payment which, for the first two weeks of said term, shall be payable on the Saturday next succeeding the day upon which the installation shall have been completed and the Equipment made available to the Exhibitor as ready for use, and thereafter throughout the balance of said term on each and every Saturday in advance. The amount of such payment shall be _____ Dollars ($_____) per week for the first two years (104 weeks), and thereafter for the balance of the term of said license such weekly payment shall be in accordance with Products' then current schedule of weekly payments for similar licenses, but not exceeding one-fourth of the weekly payment hereinabove agreed upon to be paid for the first two years. The Exhibitor agrees, however, that the payment for the twenty-four weeks' period inclusive of the eighty-first to the one hundred and fourth week, in the amount of $_____, shall be paid by it to Products in advance upon arrival of the Equipment at the town of destination and presentation of Bill of Lading therefore.

7. *Transportation Charges.*—The Exhibitor agrees to pay the cost of transporting the Equipment from the place of shipment to the Theatre, and to accept delivery thereof from the common carrier and make payment directly to the common carrier of freight and express charges thereon. The Exhibitor will also arrange for any necessary loading, trucking, and unloading to put the Equipment down inside the Theatre, and will directly defray the cost thereof.

8. *Payment for Parts, etc.*—The Exhibitor agrees to pay to Products its list installation charges as from time to time established for any additional equipment or spare or renewal parts, furnished or supplied by Products, upon delivery thereof, and to pay the transportation charges thereon. The Exhibitor also agrees upon rendition of invoices to pay for any services rendered and expenses incurred by Products' employees in connection with and for the benefit of the Exhibitor, except for the regular periodical inspection and minor adjustments service hereinbefore provided for.

9. *Changes in Theatre.*—The Exhibitor warrants that the Theatre is or before said Equipment is installed, will be, supplied with suitable electric current; electric power leads of suitable capacity with outlets conveniently located for power supply to the Equipment; suitable space, properly ventilated, for the installation of the storage batteries and charging equipment; drapes for acoustic purposes, and suitable support for horns, and agrees to make such other reasonable changes, alterations, and modifications as may be necessary for the

Digitized by Google

proper installation and accommodation of the Equipment, all at the expense of the Exhibitor and when and to the extent and in the manner prescribed by Products or its engineers, and agrees to comply with all local laws and ordinances relating to the use and operation of the Equipment and with any Fire Insurance Underwriters' requirements.

10. *Title to Equipment.*—Title to and ownership of all equipment at any time furnished hereunder and also all tools of all kinds, drawings, prints, and written descriptions and instructions, remains vested in Products.

11. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all personal-property taxes which may be charged or levied in connection with the Equipment.

12. *Access to Equipment.*—The Exhibitor will permit Products, through its designated agents, engineers, and mechanics, to have access to the Theatre at all reasonable hours, for the purpose of installing and from time to time for the purpose of examining and inspecting the Equipment, and will grant to Products full opportunity to make such adjustments therein and repairs thereto as. in the opinion of Products, are necessary or desirable.

13. *Liability for Interruptions, Injuries, etc.*—Products shall not be responsible in any manner for any interruption of service arising from any cause or for any defect or change of condition in the Theatre or in the equipment thereof or in the electric current supplied thereto or for any loss or damage to persons or property in or upon the said premises for any reason whatsoever. The Exhibitor agrees to indemnify Products for, and save it harmless from any liability or injury to workmen whom the Exhibitor shall furnish to assist in the handling, installing, or operating of the Equipment, and from any liability to any persons resulting from negligence of such workmen.

14. *Events of Default.*—This agreement and the license hereby granted shall, at the option of Products, terminate and come to an end upon the happening of any of the following events, hereby designated to be events of default, to wit:

(*a*) Upon the bankruptcy or insolvency of the Exhibitor or the assignment of any of its assets for the benefit of creditors.

(*b*) Upon the failure or refusal of the Exhibitor for any reason to pay any of the items or sums herein agreed to be paid by it, including the payment of the note provided for in Section 5 hereof, within five days after such item or sum is or may become due, and as to this provision time shall be of the essence.

(*c*) Upon the Exhibitor's ceasing to own or operate the Theatre, unless the Exhibitor shall, previous to its ceasing to own or operate the Theatre, have notified Products in writing of the date it will cease to own or operate the Theatre and shall have made provision, satisfactory to Products, for the care and custody of the Equipment or for the assumption of this agreement by the successor operator of the Theatre.

(*d*) Upon a breach by the Exhibitor of any of the covenants herein contained relative to the use or maintenance of the Equipment, continued for more than fourteen (14) days after notice thereof by registered mail from Products.

(*e*) Upon the removal of the Equipment or any part thereof without the consent of Products from the location and position in which it was installed by Products.

(*f*) Upon the failure of the Exhibitor to accept delivery of the Equipment from the transportation company or common carrier, or to facilitate the work of Products in installing the Equipment.

In the event of a default under any of the provisions of this section at any time during the first two years of the term of this license, the entire balance of weekly payments for the first two years shall be due and payable forthwith at the option of Products and whether or not it terminates this license or removes the Equipment as hereinafter provided. The license hereby granted and all obligations imposed upon Products by virtue of this agreement shall be suspended during the continuance of any event of default.

15. *Repossession of Equipment.*—Upon termination or expiration of this license by lapse of time or otherwise, the Exhibitor will surrender up and deliver possession of the Equipment to Products in good order and condition, reasonable wear and tear and obsolescence due to proper use thereof in the manner and place and for the purpose set forth in this agreement only excepted, and Products may repossess the Equipment and may, for the purpose

Digitized by Google

of reducing the same to possession, enter the Theatre or any other premises where said Equipment may be and without any legal proceedings whatever possess and remove said Equipment, and the Exhibitor agrees to cooperate in such removal. If this license shall be terminated by default, or if the Exhibitor permits any of the events of default, hereinbefore enumerated, to occur, whether or not Products shall exercise the option to terminate this agreement, Products shall thereupon have the right without notice to take immediate possession of said Equipment, or any part thereof, and for that purpose may pursue the same wherever it or any part thereof may be found and may enter, with the aid and assistance of any person or persons, the Theatre or other premises of the Exhibitor and such place or places whatsoever, whether belonging to the Exhibitor or not in which the Equipment or any part thereof may be placed, and may take and seize the same to its own proper use forever, free from any right of the Exhibitor under this agreement. Products shall also have the right in like manner to enter the said premises and remove the Equipment in the event of the said premises being destroyed or damaged by fire or otherwise, to an extent which, in the opinion of Products, endangers the Equipment. The Exhibitor expressly covenants that in any such event no claim will be made for damage on account of such removal or otherwise, and the Exhibitor further agrees that it will hold and save harmless Products from and against any and all claims for damages by any parties whatsoever on account of such removal.

16. *Replacement of Equipment in the Event of Destruction.*—In the event of the partial or total destruction of the Equipment during the term of this license by fire or any other cause, without fault or neglect on the part of the Exhibitor provided the Exhibitor shall not be in default in respect to any of the terms of this agreement and provided the Exhibitor shall continue to operate the Theatre or after any necessary repairs to the Theatre shall resume its operation, Products will, at its own expense, either repair the Equipment, or if in the sole judgment of Products, such destruction is so extensive as to render repair of the Equipment impracticable, install in the Theatre equipment then manufactured by or for Products as nearly similar as possible to the type of Equipment so destroyed.

17. *Patent Protection.*—Products agrees that subject to the provisions hereof it will at its own expense defend any and all actions and suits which may during the term hereof be brought against the Exhibitor for infringement of patents by reason of the use by the Exhibitor, for the purpose and in the manner contemplated by this agreement, of apparatus and equipment furnished by Products hereunder, and will pay or satisfy all judgments and decrees for profits, damages and/or costs which may be finally awarded against the Exhibitor by the Court of last resort in any such action or suit on account of any such infringement, provided that the Exhibitor shall give Products immediate written notice of such action or suit, full information and all reasonable cooperation in connection therewith and full opportunity to defend the same, and provided further, that this agreement shall not extend to any infringement or claim of infringement arising from any use of any of said equipment in combination with any apparatus or thing (not including films or records of Products' licensees) not furnished by Products, and that the liability of Products on account of any such infringement or claim of infringement shall be limited to its agreements in this paragraph contained and shall in no case exceed the total amount paid hereunder by the Exhibitor to Products. To the end that Products may protect itself and the Exhibitor from claims for infringement of patents, it is agreed that Products may at any time substitute for any of the Equipment or parts thereof which may have been furnished to the Exhibitor hereunder, other equipment or parts which Products shall after test determine to be equally suitable for performing the function required, such substitution to be made without additional expense to the Exhibitor and with the least possible inconvenience to it or interruption of its business.

18. *License Nonexclusive.*—Nothing in this agreement shall be construed as granting to the Exhibitor an exclusive right or license to operate the Equipment in any particular City, Town, zone or neighborhood or as preventing or prohibiting Products from entering into similar agreements or granting licenses for the installation and use of similar equipment in competing theatres.

19. *Period of License.*—This license shall be for a term of ten years from the day upon which the installation shall have been completed and the Equipment made available to the Exhibitor as ready for use. It may, however, provided

Digitized by Google

the Exhibitor shall not be in default in respect of any of the terms of this agreement, be terminated at the option of the Exhibitor at any time after the expiration of the first two years of the term hereof upon not less than six months' written notice given by the Exhibitor to Products of its intention so to terminate.

20. *Entire Understanding.*—The parties hereto expressly stipulate that this agreement as herein set forth contains the entire understanding of the respective parties with reference to the subject matter hereof, and that there is no other understanding, agreement or representation, express or implied, in any way limiting, extending, defining or otherwise relating to the provisions hereof or any of the matters to which the present agreement relates. No agent or employee of Products is authorized to alter or modify this agreement in any way unless such alteration or modification shall be approved in writing by the President or a Vice President of Products or by such representative as may from time to time be designated in writing by either of such officers. No waiver by either party, whether express or implied, of any of the provisions of this agreement shall be construed as constituting a waiver of any other provision or provisions of this agreement or as estopping either party from its right to enforce any provision or all provisions hereof.

21. *Not Assignable.*—This agreement shall not be assigned by the Exhibitor without the written consent of Products. It shall, however, subject to such restriction upon assignment by the Exhibitor, be binding upon the parties and their respective successors, assigns, and legal representatives and shall be interpreted according to the laws of the State of New York.

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,
By _____

In presence of—

_____
(as to E. R. P. I.)

_____
By _____

_____
(as to Exhibitor)

287 T S—12 M
Contract No_____

This Agreement made in triplicate in the City of New York, State of New York, this _____ day of _____ 192__, by and between ELECTRICAL RESEARCH PRODUCTS, INC. (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation having its principal place of business in the City, County, and State of New York (hereinafter called "Products"), licensor, and _____ a _____ Corporation having its principal place of business at No _____ Street, in the City of _____, State of _____ (hereinafter called the "Exhibitor"), licensee, and operating the _____ _____ Theatre, at No _____ Street, in the City of _____ _____, State of _____ (hereinafter called the "Theatre"):

Witnesseth that for and in consideration of the covenants, stipulations, and representations herein set for, the respective parties hereto agree as follows:

1. (*a*) *Grant of License and Installation of Equipment.*—Products hereby grants to the Exhibitor a non-exclusive, non-assignable license to use in the Theatre (subject to all the terms, conditions, limitations, and agreements herein contained) the equipment hereinafter described for the electrical reproduction of sound in synchronism with, or as incidental to, the exhibition of motion pictures, or any performance given in conjunction therewith, and to employ (to the extent necessarily involved in such use of said equipment) the method and/or systems of Products, under all United States patents and applications for United States patents, relating to said equipment or to such use thereof, which are now owned or controlled, or which may during the term of this agreement be owned or controlled by Products, or in respect of which it has or may hereafter during the term of this agreement have the right to grant such license.

Digitized by Google

(*b*) *Service Day.*—Products agrees to install in the Theatre sound reproducing equipment (herein referred to as "Equipment"), as follows:

---

and will endeavor to complete such installation on or before _____ 192__, which shall be known as the "Tentative Service Day." Nothing herein contained shall be considered as a firm agreement on the part of Products to complete the installation of the Equipment on or before the said date, it being understood that the extent of the obligation of Products in this respect is limited to using its best efforts to procure the manufacture and delivery of the Equipment and to installing the same expeditiously. The day on which installation of the Equipment shall be completed and the Equipment made available to the Exhibitor as ready for public exhibition, whether prior or subsequent to the "Tentative Service Day", shall be known as the "Service Day."

2. *Use of Equipment.*—The Exhibitor agrees that it will use and employ the Equipment only in the Theatre, and that it will at all times during the period of this license keep, maintain, and operate the Equipment in the manner from time to time prescribed by Products, and in no other manner. The Exhibitor recognizes the highly technical mechanism and art involved in the inventions and construction of the Equipment, and in the making of sound record (in any form) for use therewith, and that the prestige and business reputation of Products might be seriously affected by imperfect operation of the Equipment or by its use with sound records which are not suited to it or which produce inferior results when used with the Equipment, and that use of said Equipment otherwise than as herein licensed may involve infringement of patent rights. Therefore, in order to secure and insure the functioning of the Equipment to the satisfaction of the parties hereto, the Exhibitor shall not, without the written consent of Products, move, alter, change, or modify the Equipment, nor add anything thereto nor take anything therefrom; nor break the seal upon any part or collection of parts which is or may be sealed by Products; nor operate, use, or employ the Equipment in any manner in conjunction with any sound record not made under license from Products for such use, unless such sound record is of such character that the Equipment will operate properly, reliably, and efficiently to reproduce sound from such sound record with accuracy of quality and adequacy of volume. Also, in order further to secure proper functioning of the Equipment as aforesaid satisfactorily to the parties hereto, it is agreed that all additional and renewal parts and assembled parts for the Equipment shall be obtained from Products. Nothing herein contained, however, shall be construed as prohibiting the Exhibitor from taking all reasonable steps, consistent with the general intent hereof, either alone or together with Products, to protect, correct, or repair the Equipment in the event of an acciden or breakdown. The Exhibitor agrees that prior to the first public use in the Theatre of each film and/or sound record, it will cause such films and/or sound records to be run privately upon the Equipment for the purpose of ascertaining that the Equipment is in satisfactory condition and adjustment for the particular film and/or sound record. The Exhibitor expressly agrees that if at any time the equipment fails to function satisfactorily it will immediately notify Products by registered mail and telegraph, and the absence of such notification shall be conclusive as to satisfactory functioning of the Equipment.

3. *Removal to another Theatre.*—In the event that the Exhibitor shall for any reason cease to manage or to operate the Theatre, Products will, at the request of the Exhibitor, remove the Equipment to and install the same in another theatre designated by the Exhibitor and satisfactory to Products; provided, however, that the cost of such removal and installation shall be borne by the Exhibitor and that a new agreement for the unexpired term of this license shall be executed by the Exhibitor operating such theatre (the Exhibitor hereunder thereupon becoming guarantor to Products of the performance of such new agreement).

4. *Instruction and Inspection Service.*—Products agrees to instruct the motion picture machine operators of the Exhibitor in the manner and method of operating the Equipment, and will issue to each operator who has, in its opinion, satisfactorily completed a course of instruction in the operation of the Equipment, a certificate to that effect. Products further agrees, in order to perfect such instruction, and also in order to superintend the operation of the Equipment, to keep in attendance at the Theatre during the hours of performance

Digitized by Google

and at such additional hours as may be necessary, an engineer or other person skilled in such operation for a period of one week following the day upon which installation is completed and the Equipment made available to the Exhibitor as ready for public exhibition. Products also agrees to make periodical inspection and minor adjustments in the Equipment after it shall have been installed. Products may from time to time install such spare and renewal parts as may, in its opinion, be necessary to the satisfactory operation and maintenance of the Equipment.

5. *Installation Charge.*—The Exhibitor agrees to pay to Products in New York Exchange an Installation charge of _____ Dollars ($_____) payable as follows:

The sum of _____ Dollars ($_____) on or before the execution of this instrument, receipt of which is hereby acknowledged, and the sum of _____ Dollars ($_____) by a demand promissory note satisfactory to Products in the amount last mentioned, made by the Exhibitor and delivered to Products on or before the execution of this agreement and bearing no interest prior to presentation, which demand note Products agrees not to present for payment prior to the "Service Day", and the balance by a Series of _____(__) promissory notes, each in the principal amount of _____ Dollars ($_____) satisfactory to Products made by the Exhibitor and delivered to Products on or before the execution of this instrument, the first of said notes maturing one month after the "Service Day" and the remaining notes at monthly intervals thereafter, and all bearing interest at the rate of 6% per annum from the "Service Day." Products is hereby authorized by the Exhibitor to enter upon the face of any notes given hereunder, when the "Service Day" is determined by it the respective maturity dates thereof and the date from which interest shall run. Upon the failure of the Exhibitor to pay any of the said notes as and when the same become due all of the said notes shall forthwith become due and payable.

6. *Service Inspection Charge.*—In addition to any other payments required to be made by the Exhibitor hereunder, the Exhibitor agrees to pay Products throughout the term of the license hereby granted a service and inspection payment, payable weekly, which, for the first two weeks of said term, shall be payable on the Saturday next succeeding the "Service Day" and thereafter throughout the balance of said term on each and every Saturday in advance. The amount of such payment shall be in accordance with Products' regular schedule of such charges as from time to time established. Under Products' present schedule, the service and inspection payment shall be $_____ per week, which charge shall not be exceeded during the first two years of the period of said license and thereafter for the balance of the term of said license shall not exceed the sum of $_____ per week.

7. *Transportation Charges.*—The Exhibitor agrees to pay the cost of transporting the Equipment from the place of shipment to the Theatre, and to accept delivery thereof from the common carrier and make payment directly to the common carrier of freight and express charges thereon. The Exhibitor will also arrange for any necessary loading, trucking, and unloading to put the Equipment down inside the Theatre, and will directly defray the cost thereof.

8. *Payment for Parts, etc.*—The Exhibitor agrees to pay to Products its list installation charges as from time to time established for any additional equipment or spare or renewal parts, furnished or supplied by Products, upon delivery thereof and to pay the transportation charges thereon. The Exhibitor also agrees upon rendition of invoices to pay for any services rendered and expenses incurred by Products' employees in connection with and for the benefit of the Exhibitor, except for the regular periodical inspection and minor adjustment service hereinbefore provided for.

9. *Changes in Theatre.*—The Exhibitor warrants that the Theatre is or before said Equipment is installed will be supplied with suitable electric current; electric power leads of suitable capacity with outlets conveniently located for power supply to the Equipment; suitable space, properly ventilated, for the installation of the storage batteries and charging equipment; drapes for acoustic purposes, and suitable support for horns, and agrees to make such other reasonable changes, alterations, and modifications as may be necessary for the proper installation and accommodation of the Equipment, all at the expense of the Exhibitor and when and to the extent and in the manner prescribed by Products or its engineers, and agrees to comply with all local laws and ordinances

Digitized by Google

relating to the use and operation of the Equipment and with any Fire Insurance Underwriters' requirements.

10. *Title to Equipment.*—Title to and ownership of all equipment at any time furnished hereunder and also all tools of all kinds, drawings, prints, and written descriptions and instructions, remains vested in Products.

11. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all personal property taxes which may be charged or levied in connection with the Equipment.

12. *Access to Equipment.*—The Exhibitor will permit Products, through its designated agents, engineers, and mechanics, to have access to the Theatre at all reasonable hours, for the purpose of installing and from time to time for the purpose of examining and inspecting the Equipment, and will grant to Products full opportunity to make such adjustments therein and repairs thereto as, in the opinion of Products, are necessary or desirable.

13. *Liability for Interruptions, Injuries, etc.*—Products shall not be responsible in any manner for any interruption of service arising from any cause or for any defect or change of condition in the Theatre or in the equipment thereof or in the electric current supplied thereto or for any loss or damage to persons or property in or upon the said premises for any reason whatsoever. The Exhibitor agrees to indemnify Products for, and save it harmless from any liability or injury to workmen whom the Exhibitor shall furnish to assist in the handling, installing, or operating of the Equipment, and from any liability to any persons resulting from negligence of such workmen.

14. *Events of Default.*—This agreement and the license hereby granted shall, at the option of Products, terminate and come to an end upon the happening of any of the following events, hereby designated to be events of default, to wit:

(*a*) Upon the bankruptcy or insolvency of the Exhibitor or the assignment of any of its assets for the benefit of creditors.

(*b*) Upon the failure or refusal of the Exhibitor for any reason to pay any of the items or sums herein agreed to be paid by it, including the payment of any of the notes provided for in Section 5 hereof, within five days after such item or sum is or may become due, and as to this provision time shall be of the essence.

(*c*) Upon the Exhibitor's ceasing to own or operate the Theatre, unless the Exhibitor shall, previous to its ceasing to own or operate the Theatre, have notified Products in writing of the date it will cease to own or operate the Theatre and shall have made provision, satisfactory to Products, for the care and custody of the Equipment or for the assumption of this agreement by the successor operator of the Theatre.

(*d*) Upon a breach by the Exhibitor of any of the covenants herein contained relative to the use or maintenance of the equipment, continued for more than fourteen (14) days after notice thereof by registered mail from Products.

(*e*) Upon the removal of the Equipment or any part thereof without the consent of Products from the location and position in which it was installed by Products.

(*f*) Upon the failure of the Exhibitor to accept delivery of the Equipment from the transportation company or common carrier, or to facilitate the work of Products in installing the Equipment.

In the event of a default under any of the provisions of this section at any time during the term of this license, the license hereby granted and all obligations imposed upon Products by virtue of this Agreement shall, at the option of Products and whether or not it terminates this license or removes the Equipment as hereinafter provided, be suspended during the continuance of such default.

15. *Repossession of Equipment.*—Upon termination or expiration of this license by lapse of time or otherwise, the Exhibitor will surrender up and deliver possession of the Equipment to Products in good order and condition, reasonable wear and tear and obsolescence due to proper use thereof in the manner and place and for the purpose set forth in this agreement only excepted, and Products may repossess the Equipment and may, for the purpose of reducing the same to possession, enter the Theatre or any other premises where said Equipment may be and without any legal proceedings whatever possess and remove said Equipment, and the Exhibitor agrees to cooperate in such removal. If this license shall be terminated by default, or if the Exhibitor permits any of the events of default, hereinbefore enumerated, to occur, whether or not Products shall exercise the option to terminate this agreement,

Digitized by Google

Products shall thereupon have the right without notice to take immediate possession of said Equipment, or any part thereof, and for that purpose may pursue the same wherever it or any part thereof may be found and may enter, with the aid and assistance of any person or persons, the Theatre or other premises of the Exhibitor and such place or places whatsoever, whether belonging to the Exhibitor or not in which the Equipment or any part thereof may be placed, and may take and seize the same to its own proper use forever, free from any right of the Exhibitor under this agreement. Products shall also have the right in like manner to enter the said premises and remove the Equipment in the event of the said premises being destroyed or damaged by fire or otherwise, to an extent which, in the opinion of Products, endangers the Equipment. The Exhibitor expressly covenants that in any such event no claim will be made for damage on account of such removal or otherwise, and the Exhibitor further agrees that it will hold and save harmless Products from and against any and all claims for damages by any parties whatsoever on account of such removal.

16. *Replacement of Equipment in the Event of Destruction.*—In the event of the partial or total destruction of the Equipment during the term of this license by fire or any other cause, without fault or neglect on the part of the Exhibitor, provided the Exhibitor shall not be in default in respect to any of the terms of this agreement and provided the Exhibitor shall continue to operate the Theatre or after any necessary repairs to the Theatre shall resume its operation, Products will, at its own expense, either repair the Equipment, or if in the sole judgment of Products, such destruction is so extensive as to render repair of the Equipment impracticable, install in the Theatre equipment then manufactured by or for Products as nearly similar as possible to the type of Equipment so destroyed.

17. *Patent Protection.*—Products agrees that subject to the provisions hereof it will at its own expense defend any and all actions and suits which may during the term hereof be brought against the Exhibitor for infringement of patents by reason of the use by the Exhibitor, for the purpose and in the manner contemplated by this agreement, of apparatus and equipment furnished by Products hereunder, and will pay or satisfy all judgments and decrees for profits, damages, and/or costs which may be finally awarded against the Exhibitor by the Court of last resort in any such action or suit on account of any such infringement, provided that the Exhibitor shall give Products immediate written notice of such action or suit, full information and all reasonable cooperation in connection therewith and full opportunity to defend the same, and provided further, that this agreement shall not extend to any infringement or claim of infringement arising from any use of any of said equipment in combination with any apparatus or thing (not including films or records of Products' licensees) not furnished by Products, and that the liability of Products on account of any such infringement or claim of infringement shall be limited to its agreements in this paragraph contained and shall in no case exceed the total amount paid hereunder by the Exhibitor to Products. To the end that Products may protect itself and the Exhibitor from claims for infringement of patents, it is agreed that Products may at any time substitute for any of the Equipment or parts thereof which may have been furnished to the Exhibitor hereunder, other equipment or parts which Products shall after test determine to be equally suitable for performing the function required, such substitution to be made without additional expense to the Exhibitor and with the least possible inconvenience to it or interruption of its business.

18. *License Non-exclusive.*—Nothing in this agreement shall be construed as granting to the Exhibitor an exclusive right or license to operate the Equipment in any particular City, Town, zone, or neighborhood or as preventing or prohibiting Products from entering into similar agreements or granting licenses for the installation and use of similar equipment in competing theatres.

19. *Period of License.*—This license shall be for a term of ten years from the day upon which the installation shall have been completed and the Equipment made available to the Exhibitor as ready for use. It may, however, provided the Exhibitor shall not be in default in respect of any of the terms of this agreement, be terminated at the option of the Exhibitor at any time after the expiration of the first two years of the term hereof upon not less than six months' written notice given by the Exhibitor to Products of its intention so to terminate.

20. *Entire Understanding.*—The parties hereto expressly stipulate that this agreement as herein set forth contains the entire understanding of the respective

Digitized by Google

parties with reference to the subject matter hereof, and that there is no other understanding, agreement, or representation, express or implied, in any way limiting, extending, defining, or otherwise relating to the provisions hereof or any of the matters to which the present agreement relates. No agent or employee of Products is authorized to alter or modify this agreement in any way unless such alteration or modification shall be approved in writing by the President or a Vice President of Products or by such representative as may from time to time be designated in writing by either of such officers. No waiver by either party, whether express or implied, of any of the provisions of this agreement shall be construed as constituting a waiver of any other provision or provisions of this agreement or as estopping either party from its rights to enforce any provision or all provisions hereof.

21. *Not Assignable.*—This agreement shall not be assigned by the Exhibitor without the written consent of Products. It shall, however, subject to such restriction upon assignment by the Exhibitor, be binding upon the parties and their respective successors, assigns, and legal representatives, and shall be interpreted according to the laws of the State of New York.

In witness whereof the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,
By _____.

In presence of—

_____
(as to E. R. P. I.)

_____
By _____.

_____
(as to Exhibitor)

EXHIBIT C—METRO GOLDWYN PICTURES CORPORATION

EQUIPMENT TO BE INSTALLED

5. The Exhibitor agrees to pay to Products in New York Exchange an installation charge of _____ Dollars ($_____), payable as follows:

The sum of _____ Dollars ($_____), on or before the execution of this instrument, receipt of which (with interest) is hereby acknowledged.

The sum of _____ Dollars ($_____), on the "Service Day."

The balance of the installation charge shall be evidenced by a series of thirteen (13) promissory notes made by the Exhibitor and delivered to Products on or before the execution of this instrument, which said notes are to be dated as hereinafter provided as of the fifteenth day of the month during which the "Service Day" occurs and are to bear interest at the rate of 6% per annum from said date. One-half of said balance shall be evidenced by twelve of said notes of equal principal amount which shall mature monthly beginning one month after the date thereof; the remaining half of said balance shall be evidenced by the thirteenth note which shall bear even maturity date with the twelfth note of the series. Products is hereby authorized by the Exhibitor to enter upon the face of any notes given hereunder, when the "Service Day" is determined by it, the date of the said notes, and the date from which interest shall run. Upon the failure of the Exhibitor to pay any of the said notes as and when the same become due, all of the said notes shall forthwith become due and payable.

6. In addition to any other payments required to be made by the Exhibitor hereunder, the Exhibitor agrees to pay Products throughout the term of the license hereby granted a service and inspection payment, payable weekly, which, for the first two weeks of said term, shall be payable on the Saturday next succeeding the "Service Day" and thereafter throughout the balance of said term on each and every Saturday in advance. The amount of such payment shall be in accordance with Products' regular schedule of such charges as from time to time established. Under Products' present schedule, the service and inspection payment shall be _____ Dollars ($_____) per week which charge shall not be exceeded during the first two years of the period of said license and thereafter for the balance of the term of said license shall not exceed the sum of _____ Dollars ($_____) per week.

Digitized by Google

286 TS–104W
Contract No. _____

This agreement made in trplicate in the City of New York, State of New York, this _____ day of _____ 19__, by and between Electrical Research Products, Inc. (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation having its principal place of business in the City, County, and State of New York (hereinafter called "Products"), licensor, and _____ _____ a _____ Corporation having its principal place of business at No. _____ Street, in the City of _____, State of _____ (hereinafter called the "Exhibitor"), licensee, and operating the _____ Theatre, at No. _____, in the City of _____, State of _____ (hereinafter called the "Theatre"):

Witnesseth, that for and in consideration of the covenants, stipulations, and representations herein set forth, the respective parties hereto agree as follows:

1.(*a*) *Grant of License and Installation of Equipment.*—Products hereby grants to the Exhibitor a non-exclusive, non-assignable license to use in the Theatre (subject to all the terms, conditions, limitations, and agreements herein contained) the equipment hereinafter described for the electrical reproduction of sound in synchronism with, or as incidental to, the exhibition of motion pictures, or any performance given in conjunction therewith, and to employ (to the extent necessarily involved in such use of said equipment) the methods and/or systems of Products, under all United States patents and applications for United States patents, relating to said equipment or to such use thereof, which are now owned or controlled, or which may during the term of this agreement be owned or controlled by Products, or in respect of which it has or may hereafter during the term of this agreement have the right to grant such license.

(*b*) *Service Day.*—Products agrees to install in the Theatre sound-reproducing equipment (herein referred to as "Equipment") as follows:

_____

and will endeavor to complete such installation on or before _____, 193__. Nothing herein contained shall be considered as a firm agreement on the part of Products to complete the installation of the Equipment on or before the said date, it being understood that the extent of the obligation of Products in this respect is limited to using its best efforts to procure the manufacture and delivery of the Equipment and to installing the same expeditiously.

2. *Use of Equipment.*—The Exhibitor agrees that it will use and employ the Equipment only in the Theatre, and that it will at all times during the period of this license keep, maintain, and operate the Equipment in the manner from time to time prescribed by Products and in no other manner. The Exhibitor recognizes the highly technical mechanism and art involved in the inventions and construction of the Equipment, and in the making of sound record (in any form) for use therewith, and that the prestige and business reputation of Products might be seriously affected by imperfect operation of the Equipment or by its use with sound records which are not suited to it or which produce inferior results when used with the Equipment, and that use of said Equipment otherwise than as herein licensed may involve infringement of patent rights. Therefore, in order to secure and insure the functioning of the Equipment to the satisfaction of the parties hereto, the Exhibitor shall not, without the written consent of Products, move, alter, change, or modify the Equipment, nor add anything thereto nor take anything therefrom, nor break the seal upon any part or collection of parts which is or may be sealed by Products; nor operate, use, or employ the Equipment in any manner in conjunction with any sound record not made under license from Products for such use, unless such sound record is of such character that the Equipment will operate properly, reliably, and efficiently to reproduce sound from such sound record with accuracy of quality and adequacy of volume. Also, in order further to secure proper functioning of the Equipment as aforesaid satisfactorily to the parties hereto, it is agreed that all additional and renewal parts and assembled parts for the Equipment shall be obtained from Products. Nothing herein contained, however, shall be construed as prohibiting the Exhibitor from taking all reasonable steps, consistent with the general intent hereof, either alone or together with Products, to protect, correct, or repair the Equipment in the event of an accident or breakdown. The Exhibitor agrees that prior to the first public use in the Theatre of each film and/or sound record it will cause such films and/or sound records to be run privately upon the Equip-

Digitized by Google

ment for the purpose of ascertaining that the Equipment is in satisfactory condition and adjustment for the particular film and/or sound record. The Exhibitor expressly agrees that if at any time the Equipment fails to function satisfactorily it will immediately notify Products by registered mail and telegraph, and the absence of such notification shall be conclusive as to satisfactory functioning of the Equipment.

3. *Removal to another Theatre.*—In the event that the Exhibitor shall for any reason cease to manage or to operate the Theatre, Products will, at the request of the Exhibitor, remove the Equipment to and install the same in another theatre designated by the Exhibitor and satisfactory to Products; provided, however, that the cost of such removal and installation shall be borne by the Exhibitor and that a new agreement for the unexpired term of this license shall be executed by the exhibitor operating such theatre (the Exhibitor hereunder thereupon becoming guarantor to Products of the performance of such new agreement).

4. *Instruction and Inspection Service.*—Products agrees to instruct the motion-picture machine operators of the Exhibitor in the manner and method of operating the Equipment, and will issue to each operator who has, in its opinion, satsfactorily completed a course of instruction in the operation of the Equipment a certificate to that effect. Products further agrees, in order to perfect such instruction, and also in order to superintend the operation of the Equipment, to keep in attendance at the Theatre during the hours of performance and at such additional hours as may be necessary an engineer or other person skilled in such operation for a period of one week following the day upon which the installation is completed and the Equipment made available to the Exhibitor as ready for public exhibition. Products also agrees to make periodical inspection and minor adjustments in the Equipment after it shall have been installed. Products may from time to time install such spare and renewal parts as may, in its opinion, be necessary to the satisfactory operation and maintenance of the Equipment.

5. *Installation Charge.*—The Exhibitor agrees to pay to Products in New York Exchange an initial charge of _____ Dollars ($_____) payable as follows:

The sum of _____ Dollars ($_____) on or before the execution of this instrument, receipt of which is hereby acknowledged, and the balance, namely, _____ Dollars ($_____) by a demand promissory note satisfactory to Products in the amount last mentioned, made by the Exhibitor and delivered to Products on or before the execution of this agreement and bearing no interest prior to presentation, which demand note Products agrees not to present for payment prior to the date on which the installation of the Equipment is completed and the Equipment made available to the Exhibitor as ready for public exhibition.

6. *Weekly Payment.*—In addition to any other payments required to be made by the Exhibitor hereunder, the Exhibitor agrees to pay to Products throughout the term of the license hereby granted, a weekly payment which, for the first two weeks of said term, shall be payable on the Saturday next succeeding the day upon which the installation shall have been completed and the Equipment made available to the Exhibitor as ready for use, and thereafter throughout the balance of said term on each and every Saturday in advance. The amount of such payment shall be _____ Dollars ($_____) per week for the first two years (104 weeks), and thereafter for the balance of the term of said license such weekly payment shall be in accordance with Product's then current schedule of weekly payments for similar licenses, but not exceeding one-fourth of the weekly payment hereinabove agreed upon to be paid for the first two years.

7. *Transportation Charges.*—The Exhibitor agrees to pay the cost of transporting the Equipment from the place of shipment to the Theatre, and to accept delivery thereof from the common carrier and make payment directly to the common carrier of freight and express charges thereon. The Exhibitor will also arrange for any necessary loading, trucking, and unloading to put the Equipment down inside the Theatre, and will directly defray the cost thereof.

8. *Payment for Parts, etc.*—The Exhibitor agrees to pay to Products its list installation charges as from time to time established for any additional equipment or spare or renewal parts, furnished or supplied by Products, upon delivery thereof and to pay the transportation charges thereon. The Exhibitor also agrees upon rendition of invoices to pay for any services rendered and expenses incurred

Digitized by Google

by Products' employees in connection with and for the benefit of the Exhibitor, except for the regular periodical inspection and minor adjustment service hereinbefore provided for.

9. *Changes in Theatre.*—The Exhibitor warrants that the Theatre is or before said Equipment is installed will be supplied with suitable electric current; electric power leads of suitable capacity with outlets conveniently located for power supply to the Equipment; suitable space, properly ventilated, for the installation of the storage batteries and charging equipment; drapes for acoustic purposes, and suitable support for horns, and agrees to make such other reasonable changes, alterations, and modifications as may be necessary for the proper installation and accommodation of the Equipment, all at the expense of the Exhibitor and when and to the extent and in the manner prescribed by Products or its engineers, and agrees to comply with all local laws and ordinances relating to the use and operation of the Equipment and with any Fire Insurance Underwriters' requirements.

10. *Title to Equipment.*—Title to and ownership of all equipment at any time furnished hereunder and also all tools of all kinds, drawings, prints, and written descriptions and instructions remains vested in Products.

11. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all personal property taxes which may be charged or levied in connection with the Equipment.

12. *Access to Equipment.*—The Exhibitor will permit Products, through its designated agents, engineers, and mechanics, to have access to the Theatre at all reasonable hours for the purpose of installing and from time to time for the purpose of examining and inspecting the Equipment, and will grant to Products full opportunity to make such adjustments therein and repairs thereto as, in the opinion of Products, are necessary or desirable.

13. *Liability for Interruptions, Injuries, etc.*—Products shall not be responsible in any manner for any interruption of service arising from any cause or for any defect or change of condition in the Theatre or in the equipment thereof or in the electric current supplied thereto or for any loss or damage to persons or property in or upon the said premises for any reason whatsoever. The Exhibitor agrees to indemnify Products for, and save it harmless from any liability or injury to workmen whom the Exhibitor shall furnish to assist in the handling, installing, or operating of the Equipment, and from any liability to any persons resulting from negligence of such workmen.

14. *Events of Default.*—This agreement and the license hereby granted shall, at the option of Products, terminate and come to an end upon the happening of any of the following events, hereby designated to be events of default, to wit:

(*a*) Upon the bankruptcy or insolvency of the Exhibitor or the assignment of any of its assets for the benefit of creditors.

(*b*) Upon the failure or refusal of the Exhibitor for any reason to pay any of the items or sums herein agreed to be paid by it, including the payment of the note provided for in Section 5 hereof, within five days after such item or sum is or may become due, and as to this provision time shall be of the essence.

(*c*) Upon the Exhibitor's ceasing to own or operate the Theatre, unless the Exhibitor shall, previous to its ceasing to own or operate the Theatre, have notified Products in writing of the date it will cease to own or operate the Theatre and shall have made provision, satisfactory to Products, for the care and custody of the Equipment or for the assumption of this agreement by the successor operator of the Theatre.

(*d*) Upon a breach by the Exhibitor of any of the covenants herein contained relative to the use or maintenance of the Equipment, continued for more than fourteen (14) days after notice thereof by registered mail from Products.

(*e*) Upon the removal of the Equipment or any part thereof without the consent of Products from the location and position in which it was installed by Products.

(*f*) Upon the failure of the Exhibitor to accept delivery of the Equipment from the transportation company or common carrier, or to facilitate the work of Products in installing the Equipment.

In the event of a default under any of the provisions of this section at any time during the first two years of the term of this license, the entire balance of weekly payments for the first two years shall be due and payable forthwith at the option of Products and whether or not it terminates this license or removes the Equipment as hereinafter provided. The license hereby granted and all obligations imposed upon Products by virtue of this agreement shall be suspended during the continuance of any event of default.

Digitized by Google

15. *Repossession of Equipment.*—Upon termination or expiration of this license by lapse of time or otherwise, the Exhibitor will surrender up and deliver possession of the Equipment to Products in good order and condition, reasonable wear and tear and obsolescence due to proper use thereof in the manner and place and for the purpose set forth in this agreement only excepted, and Products may repossess the Equipment and may, for the purpose of reducing the same to possession, enter the Theatre or any other premises where said Equipment may be, and without any legal proceedings whatever, possess and remove said Equipment, and the Exhibitor agrees to cooperate in such removal. If this license shall be terminated by default, or if the Exhibitor permits any of the events of default, hereinbefore enumerated, to occur, whether or not Products shall exercise the option to terminate this agreement, Products shall thereupon have the right without notice to take immediate possession of said Equipment, or any part thereof, and for that purpose may pursue the same wherever it or any part thereof may be found and may enter, with the aid and assistance of any person or persons, the Theatre or other premises of the Exhibitor and such place or places whasoever, whether belonging to the Exhibitor or not in which the Equipment or any part thereof may be placed, and may take and seize the same to its own proper use forever, free from any right of the Exhibitor under this agreement. Products shall also have the right in like manner to enter the said premises and remove the Equipment in the event of the said premises being destroyed or damaged by fire or otherwise, to an extent which, in the opinion of Products, endangers the Equipment. The Exhibitor expressly covenants that in any such event no claim will be made for damage on account of such removal or otherwise, and the Exhibitor further agrees that it will hold and save harmless Products from and against any and all claims for damages by any parties whatsoever on account of such removal.

16. *Replacement of Equipment in the Event of Destruction.*—In the event of the partial or total destruction of the Equipment during the term of this license by fire or any other cause, without fault or neglect on the part of the Exhibitor, provided the Exhibitor shall not be in default in respect to any of the terms of this agreement and provided the Exhibitor shall continue to operate the Theatre or after any necessary repairs to the Theatre shall resume its operation, Products will, at its own expense, either repair the Equipment, or if in the sole judgment of Products, such destruction is so extensive as to render repair of the Equipment impracticable, install in the Theatre equipment then manufactured by or for Products as nearly similar as possible to the type of Equipment so destroyed.

17. *Patent Protection.*—Products agrees that subject to the provisions hereof it will at its own expense defend any and all actions and suits which may, during the term hereof, be brought against the Exhibitor for infringement of patents by reason of the use by the Exhibitor, for the purpose and in the manner contemplated by this agreement, of apparatus and equipment furnished by Products hereunder, and will pay or satisfy all judgments and decrees for profits, damages, and/or costs which may be finally awarded against the Exhibitor by the Court of last resort in any such action or suit on account of any such infringement; provided, that the Exhibitor shall give Products immediate written notice of such action or suit, full information and all reasonable cooperation in connection therewith and full opportunity to defend the same, and provided further, that this agreement shall not extend to any infringement or claim of infringement arisng from any use of any of said equipment in combination with any apparatus or thing (not including films or records of Products' licensees) not furnished by Products, and that the liability of Products on account of any such infringement or claim of infringement shall be limited to its agreements in this paragraph contained and shall in no case exceed the total amount paid hereunder by the Exhibitor to Products. To the end that Products may protect itself and the Exhibitor from claims for infringement of patents, it is agreed that Products may at any time substitute for any of the Equipment or parts thereof which may have been furnished to the Exhibitor hereunder, other equipment or parts which Products shall after test determine to be equally suitable for performing the function required, such substitution to be made without additional expense to the Exhibitor and with the least possible inconvenience to it or interruption of its business.

18. *License Non-exclusive.*—Nothing in this agreement shall be construed as granting to the Exhibitor an exclusive right or license to operate the Equipment in any particular City, Town, zone, or neighborhood or as preventing or pro-

Digitized by Google

hibiting Products from entering into similar agreements or granting licenses for the installation and use of similar equipment in competing theatres.

19. *Period of License.*—This license shall be for a term of _____ years from the day upon which the installation shall have been completed and the Equipment made available to the Exhibitor as ready for use. It may, however, provided the Exhibitor shall not be in default in respect of any of the terms of this agreement, be terminated at the option of the Exhibitor at any time after the expiration of the first two years of the term hereof upon not less than six months' written notice given by the Exhibitor to Products of its intention so to terminate.

20. *Entire Understanding.*—The parties hereto expressly stipulate that this agreement as herein set forth contains the entire understanding of the respective parties with reference to the subject matter hereof, and that there is no other understanding, agreement, or representation, express or implied, in any way limiting, extending, defining, or otherwise relating to the provisions hereof or any of the matters to which the present agreement relates. No agent or employee of Products is authorized to alter or modify this agreement in any way unless such alteration or modification shall be approved in writing by the President or a Vice President of Products or by such representative as may from time to time be designated in writing by either of such officers. No waiver by either party, whether express or implied, of any of the provisions of this agreement shall be construed as constituting a waiver of any other provision or provisions of this agreement or as estopping either party from its right to enforce any provision or all provisions hereof.

21. *Not Assignable.*—This agreement shall not be assigned by the Exhibitor without the written consent of Products. It shall, however, subject to such restrictions upon assignment by the Exhibitor, be binding upon the parties and their respective successors, assigns, and legal representatives and shall be interpreted according to the laws of the State of New York.

In witness whereof the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,
By_____

In presence of—

_____
(as to E. R. P. I.)

_____
By_____

_____
(as to Exhibitor)

---

286 T S–X W
Contract No. _____

This Agreement made in triplicate in the City of New York, State of New York, this _____ day of _____ 192__, by and between Electrical Research Products, Inc. (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation having its principal place of business in the City, County, and State of New York (hereinafter called "Products"), licensor, and _____ a _____ Corporation having its principal place of business at No. _____ Street, in the City of _____ State of _____ (hereinafter called the "Exhibitor"), licensee, and operating the _____ Theatre, at No. _____ Street, in the City of _____, State of _____ (hereinafter called the "Theatre"):

Witnesseth that, for and in consideration of the covenants, stipulations, and representations herein set forth, the respective parties hereto agree as follows:

1. (a) *Grant of License and Installation of Equipment.*—Products hereby grants to the Exhibitor a non-exclusive, non-assignable license to use in the Theatre (subject to all the terms, conditions, limitations, and agreements herein contained), the equipment hereinafter described for the electrical reproduction of sound in synchronism with, or as incidental to, the exhibition of motion pictures, or any performance given in conjunction therewith, and to employ (to the extent necessarily involved in such use of said equipment) the methods and/or systems of Products, under all United States patents and applications for United States patents, relating to said equipment or to such use thereof, which are now owned or controlled, or which may, during the term of this

Digitized by Google

agreement, be owned or controlled by Products, or in respect of which it has or may hereafter during the term of this agreement have the right to grant such license.

(b) *Service Day.*—Products agrees to install in the Theatre sound reproducing equipment (herein referred to as "Equipment"), as follows:

---

and will endeavor to complete such installation on or before _____ 192__. Nothing herein contained shall be considered as a firm agreement on the part of Products to complete the installation of the Equipment on or before the said date, it being understood that the extent of the obligation of Products in this respect is limited to using its best efforts to procure the manufacture and delivery of the Equipment and to installing the same expeditiously.

2. *Use of Equipment.*—The exhibitor agrees that it will use and employ the Equipment only in the Theatre, and that it will at all times during the period of this license keep, maintain, and operate the Equipment in the manner from time to time prescribed by Products and in no other manner. The Exhibitor recognizes the highly technical mechanism and art involved in the inventions and construction of the Equipment, and in the making of sound record (in any form) for use therewith, and that the prestige and business reputation of Products might be seriously affected by imperfect operation of the Equipment or by its use with sound records which are not suited to it or which produce inferior results when used with the Equipment, and that use of said Equipment otherwise than as herein licensed may involve infringement of patent rights. Therefore, in order to secure and insure the functioning of the Equipment to the satisfaction of the parties hereto, the Exhibitor shall not, without the written consent of Products, move, alter, change, or modify the Equipment, nor add anything thereto nor take anything therefrom; nor break the seal upon any part or collection of parts which is or may be sealed by Products; nor operate, use, or employ the Equipment in any manner in conjunction with any sound record not made under license from Products for such use, unless such sound record is of such character that the Equipment will operate properly, reliably, and efficiently to reproduce sound from such sound record with accuracy of quality and adequacy of volume. Also, in order further to secure proper functioning of the Equipment as aforesaid satisfactorily to the parties hereto, it is agreed that all additional and renewal parts and assembled parts for the Equipment shall be obtained from Products. Nothing herein contained, however, shall be construed as prohibiting the Exhibitor from taking all reasonable steps, consistent with the general intent hereof, either alone or together with Products, to protect, correct, or repair the Equipment in the event of an accident or breakdown. The Exhibitor agrees that prior to the first public use in the Theatre of each film and/or sound record, it will cause such films and/or sound records to be run privately upon the Equipment for the purpose of ascertaining that the Equipment is in satisfactory condition and adjustment for the particular film and/or sound record. The Exhibitor expressly agrees that if at any time the equipment fails to function satisfactorily, it will immediately notify Products by registered mail and telegraph, and the absence of such notification shall be conclusive as to satisfactory functioning of the Equipment.

3. *Removal to another Theatre.*—In the event that the Exhibitor shall for any reason cease to manage or to operate the Theatre, Products will, at the request of the Exhibitor, remove the Equipment to and install the same in another theatre designated by the Exhibitor and satisfactory to Products, provided, however, that the cost of such removal and installation shall be borne by the Exhibitor and that a new agreement for the unexpired term of this license shall be executed by the Exhibitor operating such theatre (the Exhibitor hereunder thereupon becoming guarantor to Products of the performance of such new agreement).

4. *Instructions and Inspection Service.*—Products agrees to instruct the motion picture machine operators of the Exhibitor in the manner and method of operating the Equipment, and will issue to each operator who has, in its opinion, satisfactorily completed a course of instruction in the operation of the Equipment, a certificate to that effect. Products further agrees, in order to perfect such instruction, and also in order to superintend the operation of the Equipment, to keep in attendance at the Theatre during the hours of performance and at such additional hours as may be necessary, an engineer or other person skilled in such operation for a period of one week following the day upon which the installation is completed and the Equipment made available

Digitized by Google

to the Exhibitor as ready for public exhibition. Products also agrees to make periodical inspection and minor adjustments in the Equipment after it shall have been installed. Products may from time to time install such spare and renewal parts as may, in its opinion, be necessary to the satisfactory operation and maintenance of the Equipment.

5. *Installation Charge.*—The Exhibitor agrees to pay to Products in New York Exchange an initial charge of _____ Dollars ($_____) payable as follows:

The sum of _____ Dollars ($_____) on or before the execution of this instrument, receipt of which is hereby acknowledged, and the balance, namely, _____ Dollars ($_____) by a demand promissory note satisfactory to Products in the amount last mentioned, made by the Exhibitor and delivered to Products on or before the execution of this agreement and bearing no interest prior to presentation, which demand note Products agrees not to present for payment prior to the date on which the installation of the Equipment is completed and the Equipment made available to the Exhibitor as ready for public exhibition.

6. *Weekly Payment.*—In addition to any other payments required to be made by the Exhibitor hereunder, the Exhibitor agrees to pay to Products throughout the term of the license hereby granted, a weekly payment which, for the first two weeks of said term, shall be payable on the Saturday next succeeding the day upon which the installation shall have been completed and the Equipment made available to the Exhibitor as ready for use, and thereafter throughout the balance of said term on each and every Saturday in advance. The amount of such payment shall be _____ Dollars ($_____) per week for the first _____ weeks, and thereafter for the balance of the term of said license such weekly payment shall be in accordance with Products' then current schedule of weekly payments for similar licenses, but not exceeding _____ Dollars ($_____) per week.

7. *Transportation Charges.*—The Exhibitor agrees to pay the cost of transporting the Equipment from the place of shipment to the Theatre and to accept delivery thereof from the common carrier and make payment directly to the common carrier of freight and express charges thereon. The Exhibitor will also arrange for any necessary loading, trucking, and unloading to put the Equipment down inside the Theatre, and will directly defray the cost thereof.

8. *Payment for Parts, etc.*—The Exhibitor agrees to pay to Products its list installation charges as from time to time established for any additional equipment or spare or renewal parts, furnished, or supplied by Products, upon delivery thereof and to pay the transportation charges thereon. The Exhibitor also agrees upon rendition of invoices to pay for any services rendered and expenses incurred by Products' employees in connection with and for the benefit of the Exhibitor, except for the regular periodical inspection and minor adjustment service hereinbefore provided for.

9. *Changes in Theatre.*—The Exhibitor warrants that the Theatre is or before said Equipment is installed will be supplied with suitable electric current; electric power leads of suitable capacity with outlets conveniently located for power supply to the Equipment; suitable space, properly ventilated, for the installation of the storage batteries and charging equipment; drapes for acoustic purposes, and suitable support for horns, and agrees to make such other reasonable changes, alterations, and modifications as may be necessary for the proper installation and accommodation of the Equipment, all at the expense of the Exhibitor and when and to the extent and in the manner prescribed by Products or its engineers, and agrees to comply with all local laws and ordinances relating to the use and operation of the Equipment and with any Fire Insurance Underwriters' requirements.

10. *Title to Equipment.*—Title to and ownership of all equipment at any time furnished hereunder and also all tools of all kinds, drawings, prints, and written descriptions and instructions, remains vested in Products.

11. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all personal property taxes which may be charged or levied in connection with the Equipment.

12. *Access to Equipment.*—The Exhibitor will permit Products, through its designated agents, engineers, and mechanics, to have access to the Theatre at all reasonable hours, for the purpose of installing and from time to time for the purpose of examining and inspecting the Equipment, and will grant to Products full opportunity to make such adjustments therein and repairs thereto as, in the opinion of Products, are necessary, or desirable.

Digitized by Google

13. *Liability for Interruptions, Injuries, etc.*—Products shall not be responsible in any manner for any interruption of service arising from any cause or for any defect or change of condition in the Theatre or in the equipment thereof or in the electric current supplied thereto or for any loss or damage to persons or property in or upon the said premises for any reason whatsoever. The Exhibitor agrees to indemnify Products for, and save it harmless from any liability or injury to workmen whom the Exhibitor shall furnish to assist in the handling, installing, or operating of the Equipment, and from any liability to any persons resulting from negligence of such workmen.

14. *Events of Default.*—This agreement and the license hereby granted shall, at the option of Products, terminate and come to an end upon the happening of any of the following events, hereby designated to be events of default, to wit:

(a) Upon the bankruptcy or insolvency of the Exhibitor or the assignment of any of its assets for the benefit of creditors.

(b) Upon the failure or refusal of the Exhibitor for any reason to pay any of the items or sums herein agreed to be paid by it, including the payment of the note provided for in Section 5 hereof, within five days after such item or sum is or may become due, and as to this provision time shall be of the essence.

(c) Upon the Exhibitor's ceasing to own or operate the Theatre, unless the Exhibitor shall, previous to its ceasing to own or operate the Theatre, have notified Products in writing of the date it will cease to own or operate the Theatre and shall have made provision, satisfactory to Products, for the care and custody of the Equipment or for the assumption of this agreement by the successor operator of the Theatre.

(d) Upon a breach by the Exhibitor of any of the covenants herein contained relative to the use or maintenance of the equipment, continued for more than fourteen (14) days after notice thereof by registered mail from Products.

(e) Upon the removal of the Equipment or any part thereof without the consent of Products from the location and position in which it was installed by Products.

(f) Upon the failure of the Exhibitor to accept delivery of the Equipment from the transportation company or common carrier, or to facilitate the work of Products in installing the Equipment.

In the event of a default under any of the provisions of this section at any time during the first period of _____ weeks of the terms of this license, the entire balance of weekly payments for the said period shall be due and payable forthwith at the option of Products and whether or not it terminates this license or removes the Equipment as hereinafter provided. The license hereby granted and all obligations imposed upon Products by virtue of this agreement shall be suspended during the continuance of any event of default.

15. *Repossession of Equipment.*—Upon termination or expiration of this license by lapse of time or otherwise, the Exhibitor will surrender up and deliver possession of the Equipment to Products in good order and condition, reasonable wear and tear and obsolescence due to proper use thereof in the manner and place and for the purpose set forth in this agreement only excepted, and Products may repossess the Equipment and may, for the purpose of reducing the same to possession, enter the Theatre or any other premises where said Equipment may be and without any legal proceedings whatever possess and remove said Equipment, and the Exhibitor agrees to cooperate in such removal. If this license shall be terminated by default, or if the Exhibitor permits any of the events of default, hereinbefore enumerated, to occur, whether or not Products shall exercise the option to terminate this agreement, Products shall thereupon have the right without notice to take immediate possession of said Equipment, or any part thereof, and for that purpose may pursue the same wherever it or any part thereof may be found and may enter, with the aid and assistance of any person or persons, the Theatre or other premises of the Exhibitor and such place or places whatsoever, whether belonging to the Exhibitor or not in which the Equipment or any part thereof may be placed, and may take and seize the same to its own proper use forever, free from any right of the Exhibitor under this agreement. Products shall also have the right in like manner to enter the said premises and remove the Equipment in the event of the said premises being destroyed or damaged by fire or otherwise, to an extent which, in the opinion of Products, endangers the Equipment. The Exhibitor expressly covenants that in any such event no claim will be made for damage on account of such removal or otherwise, and

Digitized by Google

the Exhibitor further agrees that it will hold and save harmless Products from and against any and all claims for damages by any parties whatsoever on account of such removal.

16. *Replacement of Equipment in the Event of Destruction.*—In the event of the partial or total destruction of the Equipment during the term of this license by fire or any other cause, without fault or neglect on the part of the Exhibitor, provided the Exhibitor shall not be in default in respect to any of the terms of this agreement and provided the Exhibitor shall continue to operate the Theatre or after any necessary repairs to the Theatre shall resume its operation, Products will, at its own expense, either repair the Equipment, or if in the sole judgment of Products, such destruction is so extensive as to render repair of the Equipment impracticable, install in the Theatre equipment then manufactured by or for Products as nearly similar as possible to the type of Equipment so destroyed.

17. *Patent Protection.*—Products agrees that subject to the provisions hereof it will at its own expense defend any and all actions and suits which may during the term hereof be brought against the Exhibitor for infringement of patents by reason of the use by the Exhibitor, for the purpose and in the manner contemplated by this agreement, of apparatus and equipment furnished by Products hereunder, and will pay or satisfy all judgments and decrees for profits, damages, and/or costs which may be finally awarded against the Exhibitor by the Court of last resort in any such action or suit on account of any such infringement, provided that the Exhibitor shall give Products immediate written notice of such action or suit, full information and all reasonable cooperation in connection therewith and full opportunity to defend the same, and provided further, that this agreement shall not extend to any infringement or claim of infringement arising from any use of any said equipment in combination with any apparatus or thing (not including films or records of Products' licensees) not furnished by Products, and that the liability of Products on account of any such infringement or claim of infringement shall be limited to its agreements in this paragraph contained and shall in no case exceed the total amount paid hereunder by the Exhibitor to Products. To the end that Products may protect itself and the Exhibitor from claims for infringement of patents, it is agreed that Products may at any time substitute for any of the Equipment or parts thereof which may have been furnished to the Exhibitor hereunder, other equipment or parts which Products shall after test determine to be equally suitable for performing the function required, such substitution to be made without additional expense to the Exhibitor and with the least possible inconvenience to it or interruption of its business.

18. *Licensee Nonexclusive.*—Nothing in this agreement shall be construed as granting to the Exhibitor an exclusive right or license to operate the Equipment in any particular City, Town, zone, or neighborhood or as preventing or prohibiting Products from entering into similar agreements or granting licenses for the installation and use of similar equipment in competing theatres.

19. *Period of License.*—This license shall be for a term of ten years from the day upon which the installation shall have been completed and the Equipment made available to the Exhibitor as ready for use. It may, however, provided the Exhibitor shall not be in default in respect of any of the terms of this agreement, be terminated at the option of the Exhibitor at any time after the expiration of the first two years of the term hereof upon not less than six months' written notice given by the Exhibitor to Products of its intention so to terminate.

20. *Entire Understanding.*—The parties hereto expressly stipulate that this agreement as herein set forth contains the entire understanding of the respective parties with reference to the subject matter hereof, and that there is no other understanding, agreement, or representation, express or implied, in any way limiting, extending, defining, or otherwise relating to the provisions hereof or any of the matters to which the present agreement relates. No agent or employee of Products is authorized to alter or modify this agreement in any way unless such alteration or modification shall be approved in writing by the President or a Vice President of Products or by such representative as may from time to time be designated in writing by either of such officers. No waiver by either party, whether express or implied, of any of the provisions of this agreement shall be construed as constituting a waiver of any other provision or provisions of this agreement or as estopping either party from its rights to enforce any provision or all provisions hereof.

Digitized by Google

21. *Not Assignable.*—This agreement shall not be assigned by the Exhibitor without the written consent of Products. It shall, however, subject to such restriction upon assignment by the Exhibitor, be binding upon the parties and their respective successors, assigns, and legal representatives and shall be interpreted according to the laws of the State of New York.

In witness whereof the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,

In presence of—

By _____.

_____
(as to Exhibitor)

_____

By _____.

_____
(as to E. R. P. I.)

---

285 T S–12 M

Contract No. _____

This agreement made in triplicate in the City of New York, State of New York, this _____ day of _____ 192__, by and between Electrical Research Products, Inc. (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation having its principal place of business in the City, County, and State of New York (hereinafter called "Products"), licensor, and _____, a _____ Corporation having its principal place of business at No. _____ Street, in the City of _____, State of _____ (hereinafter called the "Exhibitor"), licensee, and operating the _____ _____ Theatre, at No. _____ Street, in the City of _____ _____, State of _____ (hereinafter called the "Theatre"):

Witnesseth that, for and in consideration of the premises and of the covenants, stipulations, and representations herein set forth, the respective parties hereto agree as follows:

1. (a) *Grant of License and Installation of Equipment.*—Products hereby grants to the Exhibitor a non-exclusive non-assignable license to use in the Theatre (subject to all the terms, conditions, limitations, and agreements herein contained) the equipment hereinafter described for the electrical reproduction of sound in synchronism with, or as incidental to, the exhibition of motion pictures, and to employ (to the extent necessarily involved in such use of said equipment) the methods and/or systems of Products, under all United States patents and applications for United States patents, relating to said equipment or to such use thereof, which are now owned or controlled, or which may during the term of this agreement be owned or controlled by Products, or in respect of which it has or may hereafter during the term of this agreement have the right to grant such license.

(b) *Service Day.*—In pursuance of the license hereinabove granted, Products agrees to install in the Theatre sound reproducing equipment (herein referred to as "Equipment"), as follows:

_____

and will endeavor to complete such installation on or before _____ 192__, which shall be known as the "Tentative Service Day." Nothing herein contained shall be considered as a firm agreement on the part of Products to complete the installation of the Equipment on or before the said date, it being understood that the extent of the obligation of Products in this respect is limited to using its best efforts to procure the manufacure and delivery of the Equipment and to installing the same expeditiously. The day on which installation of the Equipment shall be completed and the Equipment made available to the Exhibitor as ready for public exhibition whether prior or subsequent to the "Tentative Service Day" shall be known as the "Service Day."

2. *Use of Equipment.*—The Exhibitor agrees that it will use and employ the Equipment only in the Theatre, and that it will at all times during the period of this license keep, maintain, and operate the Equipment in the manner from time to time prescribed by Products and in no other manner. The Exhibitor recognizes the highly technical mechanism and art involved in the inventions and construction of the Equipment, and in the making of records of sound (in

Digitized by Google

any form) for use therewith, that the prestige and business reputation of Products might be seriously affected by imperfect operation of the Equipment or by its use with records which are not suited to it or which produce inferior results when used with the Equipment, and that use of said Equipment otherwise than as herein licensed may involve infringement of patent rights. Therefore, in order to secure and insure the functioning of the Equipment to the satisfaction of the parties hereto, the Exhibitor shall not, without the written consent of Products, move, alter, change, or modify the Equipment, nor add anything thereto nor take anything therefrom; nor break the seal upon any part or collection of parts which is or may be sealed by Products; nor operate, use, or employ the Equipment in any manner in conjunction with any record of sound or with any other device or combination of devices in any way related to the production or reproduction of sound, unless said records, devices, and combinations of devices (other than those made under license from Products for such use) shall have been first tested by Products and found by it to operate properly, reliably, and efficiently and to reproduce sound with accuracy of quality and adequacy of volume, and approved by the legal counsel of Products as to freedom from infringement of patents. Also, in order further to secure proper functioning of the Equipment as aforesaid satisfactorily to the parties hereto, it is agreed that all additional and renewal parts and assembled parts for said Equipment shall be obtained from Products. Nothing herein contained, however, shall be construed as prohibiting the Exhibitor from taking all reasonable steps, consistent with the general intent hereof, either alone or together with Products, to protect, correct, or repair the Equipment in the event of an accident or breakdown. The Exhibitor agrees that prior to the first public use in the Theatre of each film and/or record, it will cause such films and/or records to be run privately upon the Equipment for the purpose of ascertaining that the Equipment is in satisfactory condition and adjustment for the particular film and/or record. The Exhibitor expressly agrees that if at any time the Equipment fails to function satisfactorily, it will immediately notify Products by registered mail and telegraph, and the absence of such notification shall be conclusive as to satisfactory functioning of the Equipment.

3. *Removal to another Theatre.*—In the event that the Exhibitor shall for any reason cease to manage or to operate the Theatre, Products will, at the request of the Exhibitor, remove the Equipment to and install the same in another theatre designated by the Exhibitor and satisfactory to Products, provided, however, that the cost of such removal and installation shall be borne by the Exhibitor and that a new agreement for the unexpired term of this license shall be executed by the exhibitor operating such theatre (the Exhibitor hereunder thereupon becoming guarantor to Products of the performance of such new agreement).

4. *Instruction and Inspection Service.*—Products agrees to instruct the motion picture machine operators of the Exhibitor in the manner and method of operating the Equipment, and will issue to each operator who has, in its opinion, satisfactorily completed a course of instruction in the operation of the Equipment, a certificate to that effect. Products further agrees, in order to perfect such instruction, and also in order to superintend the operation of the Equipment, to keep in attendance at the Theatre during the hours of performance and at such additional hours as may be necessary, an engineer or other person skilled in such operation for a period of one week following the day upon which the installation is completed and the Equipment made available to the Exhibitor as ready for public exhibition. Products also agrees to make periodical inspection and minor adjustments in the Equipment after it shall have been installed. Products may from time to time install such spare and renewal parts and accessories as may, in its opinion, be necessary to the satisfactory operation and maintenance of the Equipment.

5. *Installation Charge.*—The Exhibitor agrees to pay to Products in New York Exchange an installation charge of _____ Dollars ($_____), payable as follows:

The sum of _____ Dollars ($_____) on or before the execution of this instrument, receipt of which is hereby acknowledged, and the sum of _____ Dollars ($_____) by a demand promissory note satisfactory to Products in the amount last mentioned, made by the Exhibitor and delivered to Products on or before the execution of this agreement and bearing no interest prior to presentation, which demand note Products agrees not to present for payment prior to the "Service Day", and the balance by a

Digitized by Google

Series of twelve (12) promissory notes, each in the principal amount of _____ Dollars ($_____), satisfactory to Products made by the Exhibitor and delivered to Products on or before the execution of this instrument, the first of said notes maturing one month after the "Service Day" and the remaining notes at monthly intervals thereafter, and all bearing interest at the rate of 6% per annum from the "Service Day." Products is hereby authorized by the Exhibitor to enter upon the face of any notes given hereunder, when the "Service Day" is determined by it the respective maturity dates thereof and the date from which interest shall run. Upon the failure of the Exhibitor to pay any of the said notes as and when the same become due all of the said notes shall forthwith become due and payable.

6. *Service and Inspection Charge.*—In addition to any other payments required to be made by the Exhibitor hereunder the Exhibitor agrees to pay to Products throughout the term of the license hereby granted a weekly service and inspection payment which, for the first two weeks of said term, shall be payable on the Saturday next succeeding the "Service Day", and thereafter throughout the balance of said term on each and every Saturday in advance. The amount of such payment shall be in accordance with Products' regular schedule of such charges from time to time established, Products reserving the right, in its sole judgment, to increase or decrease its schedule of such charges to accord with increases or decreases in the cost of labor or material involved or in the character of services to be rendered. Under Products present schedule the weekly service charge shall be _____ Dollars.

This charge shall be payable for each week during which, or during any part of which the Equipment shall have been operated, and shall be payable for a minimum of forty weeks out of each fifty-two weeks following the Service Day.

7. *Transportation Charges.*—The Exhibitor agrees to pay the cost of transporting the Equipment from the place of shipment to the Theatre, and to accept delivery thereof from the common carrier and make payment directly to the common carrier of freight and express charges thereon. The Exhibitor will also arrange for any necessary loading, trucking, and unloading to put the Equipment down inside the Theatre, and will directly defray the cost thereof.

8. *Payment for Parts, Etc.*—The Exhibitor agrees to pay to Products its list installation charges as from time to time established for any additional equipment or spare or renewal parts, furnished or supplied by Products, upon delivery thereof and to pay the transportation charges thereon. The Exhibitor also agrees upon rendition of invoices to pay for any services rendered and expenses incurred by Products' employees in connection with and for the benefit of the Exhibitor, except for the regular periodical inspection and minor adjustment service hereinbefore provided for.

9. *Changes in Theatre.*—The Exhibitor warrants that the Theatre is or before said Equipment is installed will be supplied with suitable electric current; electric power leads of suitable capacity with outlets conveniently located for power supply to the Equipment; suitable space, properly ventilated, for the installation of the storage batteries and charging equipment; drapes for acoustic purposes, and suitable support for horns, and agrees to make such other reasonable changes, alterations and modifications as may be necessary for the proper installation and accommodation of the Equipment, all at the expense of the Exhibitor and when and to the extent and in the manner prescribed by Products or its engineers and agrees to comply with all local laws and ordinances relating to the use and operation of the Equipment and with any Fire Insurance Underwriters' requirements.

10. *Title to Equipment.*—Title to and ownership of all equipment at any time furnished hereunder and also all tools of all kinds drawings, prints, and written descriptions and instructions, is and shall at all times be and remain vested in Products.

11. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all taxes, license fees, and any and all other municipal, county, state, or other governmental charges that may be charged or levied against the Equipment or against Products by reason of its ownership of the Equipment.

12. *Access to Equipment.*—The Exhibitor will permit Products, through its designated agents, engineers, and mechanics, to have access to the Theatre at all reasonable hours, including hours of performance, for the purpose of installing and from time to time for the purpose of examining and inspecting the Equipment, and will grant to Products full opportunity to make such adjustments therein and repairs thereto as, in the opinion of Products, are necessary or desirable.

Digitized by Google

13. *Liability for Interruptions, Injuries, etc.*—Products shall not be responsible in any manner for any interruption of service arising from any cause or for any defect or change of condition in the Theatre or in the equipment thereof or in the electric current supplied thereto or for any loss or damage to persons or property in or upon the said premises for any reason whatsoever, and the Exhibitor agrees to indemnify Products and save it harmless on account of any such loss or damage. The Exhibitor agrees to indemnify Products for, and save it harmless from any liability or injury to workmen whom the Exhibitor shall furnish to assist in the handling, installing, or operating of the Equipment, and from any liability to any persons resulting from negligence of such workmen.

14. *Events of Default.*—This agreement and the license hereby granted shall, at the option of Products, terminate and come to an end upon the happening of any of the following events, hereby designated to be events of default, to wit:

(*a*) Upon the bankruptcy or insolvency of the Exhibitor or the assignment of any of its assets for the benefit of creditors.

(*b*) Upon the failure or refusal of the Exhibitor or any reason to pay any of the items or sums herein agreed to be paid by it, including the payment of any of the notes provided for in Section 5 hereof, within five days after such item or sum is or may become due, and as to this provision time shall be of the essence.

(*c*) Upon the Exhibitor's ceasing to own or operate the Theatre, unless the Exhibitor shall previous to its ceasing to own or operate the Theatre have notified Products in writing of the date it will cease to own or operate the Theatre and shall have made provision, satisfactory to Products, for the care and custody of the Equipment.

(*d*) Upon a breach by the Exhibitor of any of the covenants herein contained relative to the use of maintenance of the Equipment, continued for more than fourteen (14) days after notice thereof by registered mail from Products.

(*e*) Upon the removal of the Equipment or any part thereof without the consent of Products from the location and position in which it was installed by Products.

(*f*) Upon the failure of the Exhibitor to permit access to the Equipment by Products for the uses and purposes herein set forth.

(*g*) Upon the failure of the Exhibitor to accept delivery of the Equipment from the transportation company or common carrier, or to facilitate the work of Products in installing the Equipment.

In the event of a default under any of the provisions of this section at any time during the term of this license, the license hereby granted and all obligations imposed upon Products by virtue of this agreement shall, at the option of Products and whether or not it terminates this license or removes the Equipment as hereinafter provided, be suspended during the continuance of such default.

15. *Repossession of Equipment.*—Upon termination or expiration of this license by lapse of time or otherwise, the Exhibitor will surrender up and deliver possession of the Equipment to Products in good order and condition, reasonable wear and tear and obsolescence due to proper use thereof in the manner and place and for the purpose set forth in this agreement only excepted, and Products may repossess the Equipment and may, for the purpose of reducing the same to possession, enter the Theatre or any other premises where said Equipment may be and without any legal proceedings whatever possess and remove said Equipment, and the Exhibitor agrees to cooperate in such removal. If this license shall be terminated by default, or if the Exhibitor permits any of the events of default, hereinbefore enumerated, to occur, whether or not Products shall exercise the option to terminate this agreement, Products shall thereupon have the right without notice to take immediate possession of said Equipment, or any part thereof, and for that purpose may pursue the same wherever it or any part thereof may be found and may enter, with the aid and assistance of any person or persons, the Theatre or other premises of the Exhibitor and such place or places whatsoever, whether belonging to the Exhibitor or not in which the Equipment or any part thereof may be placed, and may take and seize the same to its own proper use forever, free from any right of the Exhibitor under this agreement. Products shall also have the right in like manner to enter the said premises and remove the Equipment

Digitized by Google

in the event of the said premises being destroyed or damaged by fire or otherwise, to an extent which, in the opinion of Products, endangers the Equipment. The Exhibitor expressly covenants that in any such event no claim will be made for damage on account of such removal or otherwise, and the Exhibitor further agrees that it will hold and save harmless Products from and against any and all claims for damages by any parties whatsoever on account of such removal.

16. *Replacement of Equipment in the event of Destruction.*—In the event of the partial or total destruction of the Equipment during the term of this license by fire or any other cause, without fault or neglect on the part of the Exhibitor, provided the Exhibitor shall not be in default in respect to any of the terms of this agreement and provided the Exhibitor shall continue to operate the Theatre or after any necessary repairs to the Theatre shall resume its operation, Products will, at its own expense, either repair the Equipment, or if in the sole judgment of Products, such destruction is so extensive as to render repair of the Equipment impracticable, install in the Theatre equipment then manufactured by or for Products as nearly similar as possible to the type of Equipment so destroyed.

17. *Patent Protection.*—Products agrees that subject to the provisions hereof it will at its own expense defend any and all actions and suits which may during the term hereof be brought against the Exhibitor for infringement of patents by reason of the use by the Exhibitor, for the purpose and in the manner contemplated by this agreement, of apparatus and equipment furnished by Products hereunder, and will pay or satisfy all judgments and decrees for profits, damages, and/or costs which may be finally awarded against the Exhibitor by the court of last resort in any such action or suit on account of any such infringement, provided that the Exhibitor shall give Products prompt notice of such action or suit full information and all reasonable cooperation in connection therewith and full opportunity to defend the same; and provided further, that this agreement shall not extend to any infringement or claim of infringement arising from the use of any of said equipment in combination with any apparatus or thing (not including films or records of Products' licenses) not furnished by Products, and that the liability of Products under this agreement shall in no case exceed the total amount paid hereunder by the Exhibitor to Products.

18. *License Nonexclusive.*—Nothing in this agreement shall be construed as granting to the Exhibitor an exclusive right or license to operate the Equipment in any particular City, Town, zone, or neighborhood, or as preventing or prohibiting Products from entering into similar agreements or granting licenses for the installation and use of similar equipment in competing theatres.

19. *Period of License.*—This license shall be for a term of ten years from the day upon which the installation shall have been completed and the Equipment made available to the Exhibitor as ready for use. It may, however, provided the Exhibitor shall not be in default in respect of any of the terms of this agreement, be terminated at the option of the Exhibitor at any time after the expiration of the first two years of the term hereof upon not less than six months' written notice given by the Exhibitor to Products of its intention so to terminate.

20. *Entire Understanding.*—The parties hereto expressly stipulate that this agreement as herein set forth contains the entire understanding of the respective parties with reference to the subject matter hereof, and that there is no other understanding, agreement, or representation, express or implied, in any way limiting, extending, defining, or otherwise relating to the provisions or any of the provisions hereof or any of the matters to which the present agreement relates. No agent or employee of Products is authorized to alter or modify this agreement in any way unless such alteration or modification shall be approved in writing by the President or a Vice President of Products or by such representative as may from time to time be designated in writing by either of such officers. No waiver by either party, whether express or implied, of any of the provisions of this agreement shall be construed as constituting a waiver of any other provision or provisions of this agreement or as estopping either party from its right to enforce any provision or all provisions hereof.

21. *Not Assignable.*—This agreement shall not be assigned by the Exhibitor without the written consent of Products. It shall, however, be subject to such restriction upon assignment by the Exhibitor, be binding upon the parties and their respective successors, assigns, and legal representatives, and shall be interpreted according to the laws of the State of New York.

Digitized by Google

In witness whereof the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,
By_____

In presence of—

_____
(as to E. R. P. I.)

_____
By_____

_____
(as to Exhibitor)

---

284 T S—104 W
Contract No. _____

This Agreement made in triplicate in the City of New York, State of New York, this _____ day of _____ 192__, by and between Electrical Research Products, Inc. (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation having its principal place of business in the City, County, and State of New York (hereinafter called "Products"), licensor, and _____ a _____ Corporation having its principal place of business at No. _____ Street, in the City of _____, State of _____ (hereinafter called the "Exhibitor"), licensee, and operating the _____ Theatre, at No. _____ Street, in the City of _____, State of _____ (hereinafter called the "Theatre"):

Witnesseth that, for and in consideration of the premises and of the covenants, stipulations and representations herein set forth, the respective parties hereto agree as follows:

1. (a) *Grant of License and Installation of Equipment.*—Products hereby grants to the Exhibitor a non-exclusive non-assignable license to use in the Theatre (subject to all the terms, conditions, limitations, and agreements herein contained) the equipment hereinafter described for the electrical reproduction of sound in synchronism with, or as incidental to, the exhibition of motion pictures, and to employ (to the extent necessarily involved in such use of said equipment) the methods and/or systems of Products, under all United States patents and applications for United States patents, relating to said equipment or to such use thereof, which are now owned or controlled, or which may during the term of this agreement be owned or controlled by Products, or in respect of which it has or may hereafter during the term of this agreement have the right to grant such license.

(b) *Service Day.*—In pursuance of the license hereinabove granted, Products agrees to install in the Theatre sound reproducing equipment (herein referred to as "Equipment"), as follows:
and will endeavor to complete such installation on or before _____ 192__. Nothing herein contained shall be considered as a firm agreement on the part of Products to complete the installation of the Equipment on or before the said date, it being understood that the extent of the obligation of Products in this respect is limited to using its best efforts to procure the manufacture and delivery of the Equipment and to installing the same expeditiously.

2. *Use of Equipment.*—The Exhibitor agrees that it will use and employ the Equipment only in the Theatre, and that it will at all times during the period of this license keep, maintain, and operate the Equipment in the manner from time to time prescribed by Products and in no other manner. The Exhibitor recognizes the highly technical mechanism and art involved in the inventions and construction of the Equipment, and in the making of records of sound (in any form) for use therewith, that the prestige and business reputation of Products might be seriously affected by imperfect operation of the Equipment or by its use with records which are not suited to it or which produce inferior results when used with the Equipment, and that use of said Equipment otherwise than as herein licensed may involve infringement of patent rights. Therefore, in order to secure and insure the functioning of the Equipment to the satisfaction of the parties hereto, the Exhibitor shall not, without the written consent of Products, move, alter, change, or modify the Equipment, nor add anything thereto nor take anything therefrom; nor break the seal upon any part or collection of parts which is or may be sealed by Products; nor operate, use, or employ

Digitized by Google

the equipment in any manner in conjunction with any record of sound or with any other device or combination of devices in any way related to the production or reproduction of sound, unless said records, devices, and combinations of devices (other than those made under license from Products for such use) shall have been first tested by Products and found by it to operate properly, reliably, and efficiently and to reproduce sound with accuracy of equality and adequacy of volume, and approved by the legal counsel of Products as to freedom from infringement of patents. Also, in order further to secure proper functioning of the Equipment, as aforesaid satisfactorily to the parties hereto, it is agreed that all additional and renewal parts and assembled parts for said Equipment shall be obtained from Products. Nothing herein contained, however, shall be construed as prohibiting the Exhibitor from taking all reasonable steps, consistent with the general intent hereof, either alone or together with Products, to protect, correct, or repair the Equipment in the event of an accident or breakdown. The Exhibitor agrees that prior to the first public use in the Theatre of each film and/or record, it will cause such films and/or records to be run privately upon the Equipment for the purpose of ascertaining that the Equipment is in satisfactory condition and adjustment for the particular film and/or record. The Exhibitor expressly agrees that if at any time the Equipment fails to function satisfactorily, it will immediately notify Products by registered mail and telegraph, and the absence of such notification shall be conclusive as to satisfactory functioning of the Equipment.

3. *Removal to another Theatre.*—In the event that the Exhibitor shall for any reason cease to manage or to operate the Theatre, Products will, at the request of the Exhibitor, remove the Equipment to and install the same in another theatre designated by the Exhibitor and satisfactory to Products, provided, however, that the cost of such removal and installation shall be borne by the Exhibitor and that a new agreement for the unexpired term of this license shall be executed by the exhibitor operating such theatre (the Exhibitor hereunder thereupon becoming guarantor to Products of the performance of such new agreement).

4. *Instruction and Inspection Service.*—Products agrees to instruct the motion-picture machine operators of the Exhibitor in the manner and method of operating the Equipment, and will issue to each operator who has, in its opinion, satisfactorily completed a course of instruction in the operation of the Equipment, a certificate to that effect. Products further agrees, in order to perfect such instruction, and also in order to superintend the operation of the Equipment, to keep in attendance at the Theatre during the hours of performance and at such additional hours as may be necessary, an engineer or other person skilled in such operation for a period of one week following the day upon which the installation is completed and the Equipment made available to the Exhibitor as ready for public exhibition. Products also agrees to make periodical inspection and minor adjustments in the Equipment after it shall have been installed. Products may from time to time install such spare and renewal parts and accessories as may, in its opinion, be necessary to the satisfactory operation and maintenance of the Equipment.

5. *Installation Charge.*—The Exhibitor agrees to pay to Products in New York Exchange an initial charge of_____Dollars ($_____) payable as follows:

The sum of_____Dollars ($_____) on or before the execution of this instrument, receipt of which is hereby acknowledged, and the balance, namely,_____Dollars ($_____) by a demand promissory note satisfactory to Products in the amount last mentioned, made by the Exhibitor and delivered to Products on or before the execution of this agreement and bearing no interest prior to presentation, which demand note Products agrees not to present for payment prior to the date on which the installation of the Equipment is completed and the Equipment made available to the Exhibitor as ready for public exhibition.

6. *Weekly Payment.*—In addition to any other payments required to be made by the Exhibitor hereunder the Exhibitor agrees to pay to Products throughout the term of the license hereby granted, a weekly payment which, for the first two weeks of said term, shall be payable on the Saturday next succeeding the day upon which the installation shall have been completed and the Equipment made available to the Exhibitor as ready for use, and thereafter throughout the balance of said term on each and every Saturday in advance. The

Digitized by Google

amount of such payment shall be_____Dollars ($_____) per week for the first two years (104 weeks), and thereafter for the balance of the term of said license, such weekly payment shall be in accordance with Products' then current schedule of weekly payments for similar licenses, but not exceeding one-fourth of the weekly payment hereinabove agreed upon to be paid for the first two years.

7. *Transportation Charges.*—The Exhibitor agrees to pay the cost of transporting the Equipment from the place of shipment to the Theatre, and to accept delivery thereof from the common carrier and make payment directly to the common carrier of freight and express charges thereon. The Exhibitor will also arrange for any necessary loading, trucking, and unloading, to put the Equipment down inside the Theatre, and will directly defray the cost thereof.

8. *Payment for Parts, Etc.*—The Exhibitor agrees to pay to Products its list installation charges as from time to time established for any additional equipment or spare or renewal parts, furnished or supplied by Products, upon delivery thereof and to pay the transportation charges thereon. The Exhibitor also agrees upon rendition of invoices to pay for any services rendered and expenses incurred by Products' employees in connection with and for the benefit of the Exhibitor, except for the regular periodical inspection and minor adjustment service hereinbefore provided for.

9. *Changes in Theatre.*—The Exhibitor warrants that the Theatre is or before said Equipment is installed will be supplied with suitable electric current; electric power leads of suitable capacity with outlets conveniently located for power supply to the Equipment; suitable space, properly ventilated, for the installation of the storage batteries and charging equipment; drapes for acoustic purposes, and suitable support for horns, and agrees to make such other reasonable changes, alterations, and modifications as may be necessary for the proper installation and accommodation of the Equipment, all at the expense of the Exhibitor and when and to the extent and in the manner prescribed by Products or its engineers, and agrees to comply with all local laws and ordinances relating to the use and operation of the Equipment and with any Fire Insurance Underwriters' requirements.

10. *Title to Equipment.*—Title to and ownership of all equipment at any time furnished hereunder and also all tools of all kinds, drawings, prints, and written descriptions and instructions, is and shall at all times be and remain vested in Products.

11. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all taxes, license fees, and any and all other municipal, county, state, or other governmental charges that may be charged or levied against the Equipment or against Products by reason of its ownership of the Equipment.

12. *Access to Equipment.*—The Exhibitor will permit Products, through its designated agents, engineers, and mechanics, to have access to the Theatre at all reasonable hours, including hours of performance, for the purpose of installing and from time to time for the purpose of examining and inspecting the Equipment, and will grant to Products full opportunity to make such adjustments therein and repairs thereto as, in the opinion of Products, are necessary or desirable.

13. *Liability for Interruptions, Injuries, etc.*—Products shall not be responsible in any manner for any interruption of service arising from any cause or for any defect or change of condition in the Theatre or in the equipment thereof or in the electric current supplied thereto or for any loss or damage to persons or property in or upon the said premises for any reason whatsoever, and the Exhibitor agrees to indemnify Products and save it harmless on account of any such loss or damage. The Exhibitor agrees to indemnify Products for, and save it harmless from any liability or injury to workmen whom the Exhibitor shall furnish to assist in the handling, installing, or operating of the Equipment, and from any liability to any persons resulting from negligence of such workmen.

14. *Events of Default.*—This agreement and the license hereby granted, shall, at the option of Products, terminate and come to an end upon the happening of any of the following events, hereby designated to be events of default, to wit:

(a) Upon the bankruptcy or insolvency of the Exhibitor or the assignment of any of its assets for the benefit of creditors.

(b) Upon the failure or refusal of the Exhibitor for any reason to pay any of the items or sums herein agreed to be paid by it, including the payment of the note provided for in Section 5 hereof, within five days after such item or sum is or may become due, and as to this provision time shall be of the essence.

Digitized by Google

(c) Upon the Exhibitor's ceasing to own or operate the Theatre, unless the Exhibitor shall previous to its ceasing to own or operate the Theatre have notified Products in writing of the date it will cease to own or operate the Theatre and shall have made provision, satisfactory to Products, for the care and custody of the Equipment.

(d) Upon a breach by the Exhibitor of any of the covenants herein contained relative to the use or maintenance of the Equipment, continued for more than fourteen (14) days after notice thereof by registered mail from Products.

(e) Upon the removal of the Equipment or any part thereof without the consent of Products from the location and position in which it was installed by Products.

(f) Upon the failure of the Exhibitor to permit access to the Equipment by Products for the uses and purposes herein set forth.

(g) Upon the failure of the Exhibitor to accept delivery of the Equipment from the transportation company or common carrier, or to facilitate the work of Products in installing the Equipment.

In the event of a default under any of the provisions of this section at any time during the first two years of the term of this license, the entire balance of weekly payments for the first two years shall be due and payable forthwith at the option of Products and whether or not it terminates this license or removes the Equipment as hereinafter provided. The license hereby granted and all obligations imposed upon Products by virtue of this agreement shall be suspended during the continuance of any event of default.

15. *Repossession of Equipment.*—Upon termination or expiration of this license by lapse of time or otherwise, the Exhibitor will surrender up and deliver possession of the Equipment to Products in good order and condition, reasonable wear and tear and obsolescence due to proper use thereof in the manner and place and for the purpose set forth in this agreement only excepted, and Products may repossess the Equipment and may, for the purpose of reducing the same to possession, enter the Theatre or any other premises where said Equipment may be and without any legal proceedings whatever possess and remove said Equipment, and the Exhibitor agrees to cooperate in such removal. If this license shall be terminated by default, or if the Exhibitor permits any of the events of default, hereinbefore enumerated, to occur, whether or not Products shall exercise the option to terminate this agreement, Products shall thereupon have the right without notice to take immediate possession of said Equipment, or any part thereof, and for that purpose may pursue the same wherever it or any part thereof may be found and may enter, with the aid and assistance of any person or persons, the Theatre or other premises of the Exhibitor and such place or places whatsoever, whether belonging to the Exhibitor or not in which the Equipment or any part thereof may be placed, and may take and seize the same to its own proper use forever, free from any right of the Exhibitor under this agreement. Products shall also have the right in like manner to enter the said premises and remove the Equipment in the event of the said premises being destroyed or damaged by fire or otherwise, to an extent which, in the opinion of Products, endangers the Equipment. The Exhibitor expressly covenants that in any such event no claim will be made for damage on account of such removal or otherwise, and the Exhibitor further agrees that it will hold and save harmless Products from and against any and all claims for damages by any parties whatsoever on account of such removal.

16. *Replacement of Equipment in the event of Destruction.*—In the event of the partial or total destruction of the Equipment during the term of this license by fire or any other cause, without fault or neglect on the part of the Exhibitor, provided the Exhibitor shall not be in default in respect to any of the terms of this agreement and provided the Exhibitor shall continue to operate the Theatre or after any necessary repairs to the Theatre shall resume its operation, Products will, at its own expense, either repair the Equipment or, if in the sole judgment of Products such destruction is so extensive as to render repair of the Equipment impracticable, install in the Theatre Equipment then manufactured by or for Products as nearly similar as possible to the type of Equipment so destroyed.

17. *Patent Protection.*—Products agrees that subject to the provisions hereof it will at its own expense defend any and all actions and suits which may during the term hereof be brought against the Exhibitor for infringement of patents by reason of the use by the Exhibitor, for the purpose and in the

Digitized by Google

manner contemplated by this agreement, of apparatus and equipment furnished by Products hereunder, and will pay or satisfy all judgments and decrees for profits, damages and/or costs which may be finally awarded against the Exhibitor by the Court of last resort in any such action or suit on account of any such infringement, provided that the Exhibitor shall give Products prompt notice of such action or suit, full information and all reasonable cooperation in connection therewith and full opportunity to defend the same, and provided further, that this agreement shall not extend to any infringement or claim of infringement arising from the use of any of said equipment in combination with any apparatus or thing (not including films or records of Products' licensees) not furnished by Products, and that the liability of Products under this agreement shall in no case exceed the total amount paid hereunder by the Exhibitor to Products.

18. *License Non-exclusive.*—Nothing in this agreement shall be construed as granting to the Exhibitor an exclusive right or license to operate the Equipment in any particular City, Town, zone, or neighborhood, or as preventing or prohibiting Products from entering into similar agreements or granting licenses for the installation and use of similar equipment in competing theatres.

19. *Period of License.*—This license shall be for a term of ten years from the day upon which the installation shall have been completed and the Equipment made available to the Exhibitor as ready for use. It may, however, provided the Exhibitor shall not be in default in respect of any of the terms of this agreement, be terminated at the option of the Exhibitor at any time after the expiration of the first two years of the term hereof upon not less than six months' written notice given by the Exhibitor to Products of its intention so to terminate.

20. *Entire Understanding.*—The parties hereto expressly stipulate that this agreement as herein set forth contains the entire understanding of the respective parties with reference to the subject matter hereof, and that there is no other understanding, agreement, or representation, express or implied, in any way limiting, extending, defining, or otherwise relating to the provisions hereof or any of the matters to which the present agreement relates. No agent or employee of Products is authorized to alter or modify this agreement in any way unless such alteration or modification shall be approved in writing by the President or a Vice President of Products or by such representative as may from time to time be designated in writing by either or such officers. No waiver by either party, whether express or implied, of any of the provisions of this agreement shall be construed as constituting a waiver of any other provision or provisions of this agreement or as estopping either party from its right to enforce any provision or all provisions hereof.

21. *Not Assignable.*—This agreement shall not be assigned by the Exhibitor without the written consent of Products. It shall, however, subject to such restriction upon assignment by the Exhibitor, be binding upon the parties and their respective successors, assigns, and legal representatives and shall be interpreted according to the laws of the State of New York.

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,
By_____

In presence of—

_____
(as to E. R. P. I.)

_____
By_____

_____
(as to Exhibitor)

---

283 T S—104 W 24
Contract No_____

This Agreement made in triplicate in the City of New York, State of New York, this _____ day of _____ 192__, by and between Electrical Research Products, Inc., (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation having its principal place of business in the City, County, and State of New York (hereinafter called "Products"), licensor,

Digitized by Google

and _____, a Corporation, having its principal place of business at No. _____ Street, in the City of _____, State of _____ (hereinafter called the "Exhibitor"), licensee, and operating the _____ Theatre, at No. _____ Street, in the City of _____, State of _____, (hereinafter called the "Theatre"):

Witnesseth that, for and in consideration of the premises and of the covenants, stipulations and representations herein set forth, the respective parties hereto agree as follows:

1. (a) *Grant of License and Installation of Equipment.*—Products hereby grants to the Exhibitor a non-exclusive non-assignable license to use in the Theatre (subject to all the terms, conditions, limitations, and agreements herein contained) the equipment hereinafter described for the electrical reproduction of sound in synchronism with, or as incidental to, the exhibition of motion pictures, and to employ (to the extent necessarily involved in such use of said equipment) the methods and/or systems of Products, under all United States patents and applications for United States patents, relating to said equipment or to such use thereof, which are now owned or controlled, or which may during the term of this agreement be owned or controlled by Products, or in respect of which it has or may hereafter during the term of this agreement have the right to grant such license.

(b) *Service Day.*—In pursuance of the license hereinabove granted, Products agrees to install in the Theatre sound reproducing equipment (herein referred to as "Equipment"), as follows:

_____

and will endeavor to complete such installation on or before _____, 192__. Nothing herein contained shall be considered as a firm agreement on the part of Products to complete the installation of the Equipment on or before the said date, it being understood that the extent of the obligation of Products in this respect is limited to using its best efforts to procure the manufacture and delivery of the Equipment and to installing the same expeditiously.

2. *Use of Equipment.*—The Exhibitor agrees that it will use and employ the Equipment only in the Theatre, and that it will at all times during the period of this license keep, maintain and operate the Equipment in the manner from time to time prescribed by Products and in no other manner. The Exhibitor recognizes the highly technical mechanism and art involved in the inventions and construction of the Equipment, and in the making of records of sound (in any form) for use therewith, that the prestige and business reputation of Products might be seriously affected by imperfect operation of the Equipment or by its use with records which are not suited to it or which produce inferior results when used with the Equipment, and that use of said Equipment otherwise than as therein licensed may involve infringement of patent rights. Therefore, in order to secure and insure the functioning of the Equipment to the satisfaction of the parties hereto, the Exhibitor shall not, without the written consent of Products, move, alter, change or modify the Equipment, nor add anything thereto nor take anything therefrom; nor break the seal upon any part or collection of parts which is or may be sealed by Products; nor operate, use or employ the Equipment in any manner in conjunction with any record of sound or with any other device or combination of devices in any way related to the production or reproduction of sound, unless said records, devices, and combinations of devices (other than those made under license from Products for such use) shall have been first tested by Products and found by it to operate properly, reliably, and efficiently, and to reproduce sound with accuracy of quality and adequacy of volume, and approved by the legal counsel of Products as to freedom from infringement of patents. Also, in order further to secure proper functioning of the Equipment as aforesaid satisfactorily to the parties hereto, it is agreed that all additional and renewal parts and assembled parts for said Equipment shall be obtained from Products. Nothing herein contained, however, shall be construed as prohibiting the Exhibitor from taking all reasonable steps, consistent with the general intent hereof, either alone or together with Products, to protect, correct, or repair the Equipment in the event of an accident or breakdown. The Exhibitor agrees that prior to the first public use in the Theatre of each film and/or record, it will cause such films and/or records to be run privately upon the Equipment for the purpose of ascertaining that the

Digitized by Google

Equipment is in satisfactory condition and adjustment for the particular film and/or record. The Exhibitor expressly agrees that if at any time the Equipment fails to function satisfactorily, it will immediately notify Products by registered mail and telegraph, and the absence of such notification shall be conclusive as to satisfactory functioning of the Equipment.

3. *Removal to another Theatre.*—In the event that the Exhibitor shall for any reason cease to manage or to operate the Theatre, Products will, at the request of the Exhibitor, remove the Equipment to and install the same in another theatre designated by the Exhibitor and satisfactory to Products, provided, however, that the cost of such removal and installation shall be borne by the Exhibitor and that a new agreement for the unexpired term of this license shall be executed by the exhibitor operating such theatre (the Exhibitor hereunder thereupon becoming guarantor to Products of the performance of such new agreement).

4. *Instruction and Inspection Service.*—Products agrees to instruct the motion picture machine operators of the Exhibitor in the manner and method of operating the Equipment, and will issue to each operator who has, in its opinion, satisfactorily completed a course of instruction in the operation of the Equipment, a certificate to that effect. Products further agrees, in order to perfect such instruction, and also in order to superintend the operation of the Equipment, to keep in attendance at the Theatre during the hours of performance and at such additional hours as may be necessary, an engineer or other person skilled in such operation for a period of one week following the day upon which the installation is completed and the Equipment made available to the Exhibitor as ready for public exhibition. Products also agrees to make periodical inspection and minor adjustments in the Equipment after it shall have been installed. Products may from time to time install such spare and renewal parts and accessories as may, in its opinion, be necessary to the satisfactory operation and maintenance of the Equipment.

5. *Installation Charge.*—The Exhibitor agrees to pay to Products in New York Exchange an initial charge of _____ Dollars ($_____) payable as follows:

The sum of _____ Dollars ($_____) on or before the execution of this instrument, receipt of which is hereby acknowledged, and the balance, namely, _____ Dollars ($_____) by a demand promissory note satisfactory to Products in the amount last mentioned, made by the Exhibitor and delivered to Products on or before the execution of this agreement and bearing no interest prior to presentation, which demand note Products agrees not to present for payment prior to the date on which the installation of the Equipment is completed and the Equipment made available to the Exhibitor as ready for public exhibition.

6. *Weekly Payment.*—In addition to any other payments required to be made by the Exhibitor hereunder the Exhibitor agrees to pay to Products throughout the term of the license hereby granted, a weekly payment which, for the first two weeks of said term, shall be payable on the Saturday next succeeding the day upon which the installation shall have been completed and the Equipment made available to the Exhibitor as ready for use, and thereafter throughout the balance of said term on each and every Saturday in advance. The amount of such payment shall be _____ Dollars ($_____) per week for the first two years (104 weeks), and thereafter for the balance of the term of said license, such weekly payments shall be in accordance with Product's then current schedule of weekly payments for similar licenses, but not exceeding one-fourth of the weekly payment hereinabove agreed upon to be paid for the first two years. The Exhibitor agrees however, that the payment for the twenty-four weeks' period inclusive of the eighty-first to the one hundred and fourth week, in the amount of $_____ shall be paid by it to Products in advance upon arrival of the Equipment at the town of destination and presentation of Bill of Lading therefor.

7. *Transportation Charges.*—The Exhibitor agrees to pay the cost of transporting the Equipment from the place of shipment to the Theatre, and to accept delivery thereof from the common carrier and make payment directly to the common carrier of freight and express charges thereon. The Exhibitor will also arrange for any necessary loading, trucking, and unloading to put the Equipment down inside the Theatre, and will directly defray the cost thereof.

8. *Payment for Parts, Etc.*—The Exhibitor agrees to pay to Products its list installation charges as from time to time established for any additional equip-

Digitized by Google

ment or spare or renewal parts, furnished or supplied by Products, upon delivery thereof and to pay the transportation charges thereon. The Exhibitor also agrees upon rendition of invoices to pay for any services rendered and expenses incurred by Products' employees in connection with and for the benefit of the Exhibitor, except for the regular periodical inspection and minor adjustment service hereinbefore provided for.

9. *Changes in Theatre.*—The Exhibitor warrants that the Theatre is or before said Equipment is installed will be supplied with suitable electric current; electric power leads of suitable capacity with outlets conveniently located for power supply to the Equipment; suitable space, properly ventilated, for the installation of the storage batteries and charging equipment; drapes for acoustic purposes, and suitable support for horns, and agrees to make such other reasonable changes, alterations, and modifications as may be necessary for the proper installation and accommodation of the Equipment, all at the expense of the Exhibitor and when and to the extent and in the manner prescribed by Products or its engineers, and agrees to comply with all local laws and ordinances relating to the use and operation of the Equipment and with any Fire Insurance Underwriters' requirements.

10. *Title to Equipment.*—Title to and ownership of all equipment at any time furnished hereunder and also all tools of all kinds, drawings, prints, and written descriptions and instructions, is and shall at all times be and remain vested in Products.

11. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all taxes, license fees, and any and all other municipal, county, state, or other governmental charges that may be charged or levied against the Equipment or against Products by reason of its ownership of the Equipment.

12. *Access to Equipment.*—The Exhibitor will permit Products, through its designated agents, engineers, and mechanics, to have access to the Theatre at all reasonable hours, including hours of performance, for the purpose of installing and from time to time for the purpose of examining and inspecting the Equipment, and will grant to Products full opportunity to make such adjustments therein and repairs thereto as, in the opinion of Products, are necessary or desirable.

13. *Liability for Interruptions, Injuries, etc.*—Products shall not be responsible in any manner for any interruption of service arising from any cause or for any defect or change of condition in the Theatre or in the equipment thereof or in the electric current supplied thereto or for any loss or damage to persons or property in or upon the said premises for any reason whatsoever, and the Exhibitor agrees to indemnify Products and save it harmless on account of any such loss or damage. The Exhibitor agrees to indemnify Products for, and save it harmless from any liability or injury to workmen whom the Exhibitor shall furnish to assist in the handling, installing or operating of the Equipment, and from any liability to any persons resulting from negligence of such workmen.

14. *Events of Default.*—This agreement and the license hereby granted shall, at the option of Products, terminate and come to an end upon the happening of any of the following events, hereby designated to be events of default, to wit:

(*a*) Upon the bankruptcy or insolvency of the Exhibitor or the assignment of any of its assets for the benefit of creditors.

(*b*) Upon the failure or refusal of the Exhibitor for any reason to pay any of the items or sums herein agreed to be paid by it, including the payment of the note provided for in Section 5 hereof, within five days after such item or sum is or may become due, and as to this provision time shall be of the essence.

(*c*) Upon the Exhibitor's ceasing to own or operate the Theatre, unless the Exhibitor shall previous to its ceasing to own or operate the Theatre have notified Products in writing of the date it will cease to own or operate the Theatre, and shall have made provision satisfactory to Products for the care and custody of the Equipment.

(*d*) Upon a breach by the Exhibitor of any of the covenants herein contained relative to the use or maintenance of the Equipment, continued for more than fourteen (14) days after notice thereof by registered mail from Products.

(*e*) Upon the removal of the Equipment or any part thereof without the consent of Products from the location and position in which it was installed by Products.

(*f*) Upon the failure of the Exhibitor to permit access to the Equipment by Products for the uses and purposes herein set forth.

Digitized by Google

(g) Upon the failure of the Exhibitor to accept delivery of the Equipment from the transportation company or common carrier, or to facilitate the work of Products in installing the Equipment.

In the event of a default under any of the provisions of this section at any time during the first two years of the term of this license, the entire balance of weekly payments for the first two years shall be due and payable forthwith at the option of Products and whether or not it terminates the license or removes the Equipment as hereinafter provided. The license hereby granted and all obligations imposed upon Products by virtue of this agreement shall be suspended during the continuance of any event of default.

15. *Repossession of Equipment.*—Upon termination or expiration of this license by lapse of time or otherwise, the Exhibitor will surrender up and deliver possession of the Equipment to Products in good order and condition, reasonable wear and tear and obsolescence due to proper use thereof in the manner and place and for the purpose set forth in this agreement only excepted, and Products may repossess the Equipment and may, for the purpose of reducing the same to possession, enter the Theatre or any other premises where said Equipment may be and without any legal proceedings whatever possess and remove said Equipment, and the Exhibitor agrees to cooperate in such removal. If this license shall be terminated by default, or if the Exhibitor permits any of the events of default, hereinbefore enumerated, to occur, whether or not Products shall exercise the option to terminate this agreement, Products shall thereupon have the right without notice to take immediate possession of said Equipment, or any part thereof, and for that purpose may pursue the same wherever it or any part thereof may be found and may enter, with the aid and assistance of any person or persons, the Theatre or other premises of the Exhibitor and such place or places whatsoever, whether belonging to the Exhibitor or not in which the Equipment or any part thereof may be placed, and may take and seize the same to its own proper use forever, free from any right of the Exhibitor under this agreement. Products shall also have the right in like manner to enter the said premises and remove the Equipment in the event of the said premises being destroyed or damaged by fire or otherwise, to an extent which, in the opinion of Products, endangers the Equipment. The Exhibitor expressly covenants that in any such event no claim will be made for damage on account of such removal or otherwise, and the Exhibitor further agrees that it will hold and save harmless Products from and against any and all claims for damages by any parties whatsoever on account of such removal.

16. *Replacement of Equipment in the event of Destruction.*—In the event of the partial or total destruction of the Equipment during the term of this license by fire or any other cause, without fault or neglect on the part of the Exhibitor, provided the Exhibitor shall not be in default in respect to any of the terms of this agreement and provided the Exhibitor shall continue to operate the Theatre or after any necessary repairs to the Theatre shall resume its operation, Products will, at its own expense, either repair the Equipment, or if in the sole judgment of Products, such destruction is so extensive as to render repair of the Equipment impracticable, install in the Theatre equipment then manufactured by or for Products as nearly similar as possible to the type of Equipment so destroyed.

17. *Patent Protection.*—Products agrees that subject to the provisions hereof it will at its own expense defend any and all actions and suits which may during the term hereof be brought against the Exhibitor for infringement of patents by reason of the use by the Exhibitor, for the purpose and in the manner contemplated by this agreement, of apparatus and equipment furnished by Products hereunder, and will pay or satisfy all judgments and decrees for profits, damages, and/or costs which may be finally awarded against the Exhibitor by the Court of last resort in any such action or suit on account of any such infringement, provided that the Exhibitor shall give Products prompt notice of such action or suit, full information and all reasonable cooperation in connection therewith and full opportunity to defend the same, and provided further, that this agreement shall not extend to any infringement or claim of infringement arising from the use of any of said equipment in combination with any apparatus or thing (not including films or records of Products' licensees) not furnished by Products, and that the liability of Products under this agreement shall in no case exceed the total amount paid hereunder by the Exhibitor to Products.

Digitized by Google

18. *License Non-exclusive.*—Nothing in this agreement shall be construed as granting to the Exhibitor an exclusive right or license to operate the Equipment in any particular City, Town, zone, or neighborhood or as preventing or prohibiting Products from entering into similar agreements or granting licenses for the installation and use of similar equipment in competing theatres.

19. *Period of License.*—This license shall be for a term of ten years from the day upon which the installation shall have been completed and the Equipment made available to the Exhibitor as ready for use. It may, however, provided the Exhibitor shall not be in default in respect of any of the terms of this agreement be terminated at the option of the Exhibitor at any time after the expiration of the first two years of the term hereof upon not less than six months' written notice given by the Exhibitor to Products of its intention so to terminate.

20. *Entire Understanding.*—The parties hereto expressly stipulate that this agreement as herein set forth contains the entire understanding of the respective parties with reference to the subject matter hereof and that there is no other understanding, agreement, or representation, express or implied, in any way limiting, extending, defining, or otherwise relating to the provisions hereof or any of the matters to which the present agreement relates. No agent or employee of Products is authorized to alter or modify this agreement in any way unless such alteration or modification shall be approved in writing by the President or a Vice President of Products or by such representative as may from time to time be designated in writing by either of such officers. No waiver by either party, whether express or implied, of any of the provisions of this agreement shall be construed as constituting a waiver of any other provision or provisions of this agreement or as estopping either party from its right to enforce any provision or all provisions hereof.

21. *Not Assignable.*—This agreement shall not be assigned by the Exhibitor without the written consent of Products. It shall, however, subject to such restricton upon assignment by the Exhibitor, be binding upon the parties and their respective successors, assigns, and legal representatives and shall be interpreted according to the laws of the State of New York.

In Witness Whereof the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,

By_____

In presence of—

_____
(as to E. R. P. I.)

_____

By_____

_____
(as to Exhibitor)

---

282 T N

Contract No. _____

This agreement made in triplicate in the City of New York, State of New York, this _____ day of _____, 192__, by and between Electrical Research Products, Inc. (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation having its principal place of business in the City, County, and State of New York (hereinafter called "Products"), licensor, and _____, a _____ Corporation having its principal place of business at No. _____ Street, in the City of _____, State of _____ (hereinafter called the "Exhibitor"), licensee, and operating the _____ Theatre, at No. _____ Street, in the City of _____, State of _____ (hereinafter called the "Theatre").

Witnesseth, that for and in consideration of the premises and of the covenants, stipulations, and representations herein set forth, the respective parties hereto agree as follows:

1. (*a*) *Grant of License and Installation of Equipment.*—Products hereby grants and agrees to grant to the Exhibitor, subject to all the terms and conditions hereof, the non-exclusive, non-assignable license to use and employ in the Theatre the Equipment hereinafter referred to, and such of the methods

Digitized by Google

and systems of Products as are necessarily involved in the use of said Equipment as herein contemplated, for the unsynchronized electrical reproduction of sound from records thereof made by licensees of Products, under any and all United States patents and applications for patents applicable thereto now or during the term hereof owned or controlled by Products or under which Products has the right to grant such license.

(*b*) *Service Day.*—In pursuance of the license hereinabove granted, Products agrees to install in the Theatre sound reproducing equipment (hereinafter referred to as "Equipment"), as follows: Non-synchronous Western Electric Sound Projector System Type _____ for reproducing from disc records, and will use its best endeavor to complete such installation on or before _____, 192__. Nothing herein contained shall be considered as a firm agreement on the part of Products to complete the installation of the Equipment on or before the said date, it being understood that the extent of the obligation of Products in this respect is limited to using its best efforts to procure the manufacture and delivery of the Equipment and to installing the same expeditiously.

2. *Use of Equipment.*—The Exhibitor agrees that it will use and employ the Equipment only in the Theatre, and that it will at all times during the period of this license keep, maintain, and operate the Equipment in the manner from time to time prescribed by Products and in no other manner. The Exhibitor recognizes the highly technical mechanism and are involved in the inventions and construction of the Equipment and in the making of records of sound (in any form) for use therewith; that the prestige and business reputation of Products might be seriously affected by its imperfect operation or by its use with records not suited to the Equipment or which are of such a nature as to produce inferior results when used with the Equipment; and that use of said Equipment otherwise than as herein licensed may involve infringement of patent rights. Therefore, in order to secure and insure the functioning of the Equipment to the satisfaction of the parties hereto, the Exhibitor agrees that it will not, without the written consent of Products, move, alter, change, or modify the Equipment, nor add anything thereto nor take anything therefrom; nor break the seal upon any part or collection of parts which is or may be sealed by Products; nor operate, use, or employ the Equipment in any manner in conjunction with any record of sound or with any other device or combination of devices in any way related to the production or reproduction of sound, unless said records, devices, and combinations of devices shall have been first tested by Products and found by it to operate properly, reliably, and efficiently and to reproduce sound with accuracy of quality and adequacy of volume, and approved by the Legal Counsel of Products as to freedom from infringement of patents. Also, in order further to secure proper functioning of the Equipment as aforesaid satisfactorily to the parties hereto, it is agreed that all additional and renewal parts and assembled parts for said Equipment shall be obtained from Products. Nothing herein contained, however, shall be construed as prohibiting the Exhibitor from taking all reasonable steps, consistent with the general intent hereof, either alone or together with Products, to protect, correct, or repair the Equipment in the event of an accident or breakdown. The Exhibitor expressly agrees that if at any time the Equipment fails to function satisfactorily it will immediately notify Products by registered mail or telegraph, and the absence of such notification shall be conclusive as to satisfactory functioning of the Equipment.

3. *Removal to another Theatre.*—In the event that the Exhibitor shall for any reason cease to manage or to operate the Theatre, Products will, at the request of the Exhibitor, remove the Equipment to any install the same in another theatre designated by the Exhibitor and satisfactory to Products; provided, however, that the cost of such removal and installation shall be borne by the Exhibitor and that a new agreement for the unexpired term of this license shall be executed by the exhibitor operating such theatre (the Exhibitor hereunder thereupon becoming guarantor to Products of the performance of such new agreement).

4. *Instruction and Inspection Service.*—Products agrees to instruct the operators of the Exhibitor in the manner and method of operating the Equipment and to make periodical inspection of and minor adjustments in the Equipment after it shall have been installed. Products may from time to time, but at the expense of the Exhibitor, supply or install such spare and renewal parts and accessories as may, in its opinion, be necessary to the satisfactory operation and maintenance of the Equipment.

Digitized by Google

5. *Installation charge.*—The Exhibitor agrees to pay to Products in New York Exchange an installation charge of _____ Dollars ($_____), payable as follows:

The sum of _____ Dollars ($_____) on or before the execution of this instrument, receipt of which is hereby acknowledged, and the balance, namely, _____ Dollars ($_____), on the day on which the installation of the Equipment is completed and the Equipment made available to the Exhibitor as ready for public exhibition, which said balance shall be evidenced by a demand promissory note satisfactory to Products made by the Exhibitor and delivered to Products on or before the execution of this instrument, and bearing no interest prior to presentation, which demand note Products agrees not to present for payment prior to the day on which the installation of the Equipment is completed and the Equipment made available to the Exhibitor as ready for public exhibition.

6. *Rental.*—The Exhibitor agrees to pay to Products, throughout the term of the lease hereby granted a weekly rental, which shall be payable in advance beginning with the first Saturday preceding the day upon which the installation shall have been completed and the Equipment made available to the Exhibitor as ready for use. The amount of such rental shall be _____ Dollars per week for the first two years (104 weeks), and thereafter for the balance of the term of said license, such weekly rental shall be in accordance with the Company's then current schedule of such weekly rentals but not exceeding one fourth of the weekly rental hereinabove agreed upon to be paid for the first two years.

7. *Transportation Charges.*—The Exhibitor agrees to pay the cost of transporting the Equipment from the place of shipment to the Theatre, and to accept delivery thereof from the common carrier and make payment directly to the common carrier of freight and express charges thereon. The Exhibitor will also arrange for any necessary loading, trucking, and unloading to put the Equipment down inside the Theatre, and will directly defray the cost thereof.

8. *Payment for Spare Parts, etc.*—The Exhibitor agrees to pay to Products its list installation charges as from time to time established for any additional equipment or spare or renewal parts, furnished or supplied by Products, upon delivery thereof and to pay the transportation charges thereon, title to such equipment and parts, however, to remain in Products. The Exhibitor also agrees upon rendition of invoices to pay for any services rendered and expenses incurred by Products' employees in connection with and for the benefit of the Exhibitor, except for the regular periodical inspection and minor adjustment service hereinbefore provided for.

9. *Changes in Theatre.*—The Exhibitor warrants that the Theatre is, or before said Equipment is installed will be, supplied with suitable electric current; electric power leads of suitable capacity with outlets conveniently located for power supply to the Equipment; suitable space, properly ventilated, for the installation of the storage batteries and charging equipment; drapes for acoustic purposes, and suitable support for horns, and agrees to make such other reasonable changes, alterations, and modifications as may be necessary for the proper installation and accommodation of the Equipment, all at the expense of the Exhibitor and when and to the extent and in the manner prescribed by Products or its engineers, and agrees to comply with all local laws and ordinances relating to the use and operation of the Equipment and with any Fire Insurance Underwriters' requirements.

10. *Title to Equipment.*—Title to and ownership of all equipment at any time furnished hereunder and also all tools of all kinds, drawings, prints, and written descriptions and instructions, is and shall at all times be and remain vested in Products.

11. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all taxes, license fees and any and all other municipal, county, state, or other governmental charges that may be charged or levied against the Equipment or against Products by reason of its ownership of the Equipment.

12. *Access to Equipment.*—The Exhibitor will permit Products, through its designated agents, engineers, and mechanics, to have access to the Theatre at all reasonable hours, including hours of performance, for the purpose of installing and from time to time for the purpose of examining and inspecting the Equipment, and will grant to Products full opportunity to make such ad-

Digitized by Google

justments therein and repairs thereto as, in the opinion of Products, are neessary or desirable.

13. *Liability for Interruptions, Injuries, etc.*—Products shall not be responsible in any manner for any interruption of service arising from any cause or for any defect or change of condition in the Theatre or in the equipment thereof or in the electric current supplied thereto or for any loss or damage to persons or property in or upon the said premises for any reason whatsoever, and the Exhibitor agrees to indemnify Products and save it harmless on account of any such loss or damage. The Exhibitor agrees to indemnify Products for, and save it harmless from any liability or injury to workmen whom the Exhibitor shall furnish to assist in the handling, installing, or operating of the Equipment, and from any liability to any persons resulting from negligence of such workmen.

14. *Events of Default.*—This agreement and the license hereby granted shall, at the option of Products, terminate and come to an end upon the happening of any of the following events, hereby designated to be events of default, to wit:

(*a*) Upon the bankruptcy or insolvency of the Exhibitor or the assignment of any of its assets for the benefit of creditors.

(*b*) Upon the failure or refusal of the Exhibitor for any reason to pay any of the items or sums herein agreed to be paid by it, within five days after such item or sum is or may become due, and as to this provision time shall be of the essence.

(*c*) Upon the Exhibitor's ceasing to own or operate the Theatre, unless the Exhibitor shall previous to its ceasing to own or operate the Theatre have notified Products in writing of the date it will cease to own or operate the Theatre, and shall have made provision, satisfactory to Products, for the care and custody of the Equipment.

(*d*) Upon a breach by the Exhibitor of any of the covenants herein contained relative to the use or maintenance of the Equipment.

(*e*) Upon the removal of the Equipment or any part theerof without the consent of Products from the location and position in which it was installed by Products.

(*f*) Upon the failure of the Exhibitor to permit access to the Equipment by the Company for the uses and purposes herein set forth.

(*g*) Upon the failure of the Exhibitor to accept delivery of the Equipment from the transportation company or common carrier, or to facilitate the work of Products in installing the Equipment.

Except as to the provisions of sub-divisions (*a*), (*b*), (*c*), (*f*), and (*g*) of this section the foregoing provisions for the termination of this license in the event of default shall not be effective until Products shall have notified the Exhibitor by registered mail that it is in default and specifying in what particular, and until a period of fourteen days shall have been given to the Exhibitor to remove or correct such default. In the event of a default under any of the provisions of this section at any time during the first two years of the term of this license, at the option of Products, and whether or not it terminates this license or removes the Equipment as hereinafter provided, the entire unpaid rental for the first two years shall be due and payable forthwith. The license hereby granted and all obligations imposed upon Products by virtue of this agreement shall be suspended during the continuance of any event of default.

15. *Repossession of Equipment.*—Upon termination or expiration of this license by lapse of time or otherwise, the Exhibitor will surrender up and deliver possession of the Equipment to Products in good order and condition, reasonable wear and tear and obsolescence due to proper use thereof in the manner and place and for the purpose set forth in this agreement only excepted, and Products may repossess the Equipment and may, for the purpose of reducing the same to possession, enter the Theatre or any other premises where said Equipment may be and without any legal proceedings whatever, possess and remove said Equipment, and the Exhibitor will cooperate in such removal. If this license shall be terminated by default, or if the Exhibitor permits any of the events of default, hereinbefore enumerated, to occur, whether or not Products shall exercise the option to terminate this agreement, Products shall thereupon have the right without notice to take immediate possession of said Equipment, and for that purpose may pursue the same wherever it or any part thereof may be found, and may enter with the aid and assistance of any person or persons, the Theatre or other premises of the Exhibitor, and such place or places whatsoever, whether belonging to the Exhibitor or not in which

Digitized by Google

the Equipment or any part thereof may be placed, and may take and seize the same to its own proper use forever, free from any right of the Exhibitor under this agreement. Products shall also have the right in like manner to enter the said premises and remove the Equipment in the event of the said premises being destroyed or damaged by fire or otherwise, to an extent which, in the opinion of Products, endangers the Equipment. The Exhibitor expressly covenants that in any such event no claim will be made for damage on account of such removal or otherwise, and the Exhibitor further agrees that it will hold and save harmless Products from and against any and all claims for damages by any parties whatsoever on account of such removal.

16. *Replacement of Equipment in the event of Destruction.*—In the event of the partial or total destruction of the Equipment during the term of this license by fire or any other cause, without fault or neglect on the part of the Exhibitor, provided the Exhibitor shall not be in default in respect to any of the terms of this agreement and provided the Exhibitor shall continue to operate the Theatre or after any necessary repairs to the Theatre shall resume its operation, Products will, at its own expense, repair the Equipment, or if in the sole judgment of Products, such destruction is so extensive as to render repair of the Equipment impracticable, Products will install in the Theatre equipment then manufactured by or for Products as nearly similar as possible to the type of Equipment so destroyed.

17. *Patent Protection.*—Products agrees that subject to the provisions hereof it will at its own expense defend any and all actions and suits which may during the term hereof be brought against the Exhibitor for infringement of patents by reason of the use by the Exhibitor, for the purpose and in the manner contemplated by this agreement, of apparatus and equipment furnished by Products hereunder, and will pay or satisfy all judgments and decrees for profits, damages, and/or costs which may be finally awarded against the Exhibitor by the Court of last resort in any such action or suit on account of any such intringement, provided that the Exhibitor shall give Products prompt notice of such action or suit, full information and all reasonable cooperation in connection therewith, and full opportunity to defend the same; and provided further, that this agreement shall not extend to any infringement or claim of infringement arising from the use of any of said equipment in combination with any apparatus or thing not furnished by Products, and that the liability of Products under this agreement shall in no case exceed the total amount paid hereunder by the Exhibitor to Products.

18. *License Non-exclusive.*—Nothing in this agreement shall be construed as granting to the Exhibitor an exclusive right or license to operate the Equipment in any particular City, Town, zone, or neighborhood or as preventing or prohibiting Products from entering into similar agreements or granting licenses for the installation and use of similar equipment in competing theatres.

19. *Not Assignable.*—This agreement shall not be assigned by the Exhibitor without the written consent of Products. It shall, however, subject to such restriction upon assignment by the Exhibitor, be binding upon the parties and their respective successors, assigns, and legal representatives and shall be interpreted according to the laws of the State of New York.

20. *Period of License.*—This license shall be for a term of ten years from the day upon which the installation shall have been completed and the Equipment made available to the Exhibitor as ready for use. It may, however, provided the Exhibitor shall not be in default in respect of any of the terms of this agreement, be terminated at the option of the Exhibitor at any time after the expiration of the first two years of the term hereof upon not less than six months' written notice given by the Exhibitor to Products of its intention so to terminate.

21. *Extension.*—Products agrees that it will, if called upon to do so by the Exhibitor and provided the Exhibitor shall not be in default in respect of any of the terms of this agreement, extend the license hereby granted to include the right to use and employ in the Theatre the methods, systems and equipment of Products for the electrical reproduction of sound in synchronism with motion pictures, and will convert the Equipment to a type suitable for synchronized reproduction in the Theatre. The Exhibitor agrees that if it shall exercise this option it will enter into the standard form of license agreement then used by Products embodying the terms then obtaining for the type of Equipment to be installed, and in that event Products agrees that it will credit upon the installation charge for such new equipment the amount then regularly allowed by it for the type of Equipment hereby leased.

Digitized by Google

22. *Entire Understanding.*—The parties hereto expressly stipulate that this agreement as herein set forth contains the entire understanding of the respective parties with reference to the subject matter hereof, and that there is no other understanding, agreement, or representation, express or implied, in any way limiting, extending, defining, or otherwise relating to the provisions hereof or any of the matters to which the present agreement relates. No waiver by either party, whether express or implied, of any of the provisions of this agreement shall be construed as constituting a waiver of any other provision or provisions of this agreement or as estopping either party from its right to enforce any provision or all provisions hereof.

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,
By _____
_____
By _____

In presence of—

_____
(as to E. R. P. I.)
_____
(as to Exhibitor)

---

281 T N

Contract No. _____

This agreement made in triplicate in the City of New York, State of New York, this _____ day of _____ 192__, by and between Electrical Research Products, Inc. (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation having its principal place of business in the City, County, and State of New York (hereinafter called "Products"), licensor, and _____, a _____ Corporation having its principal place of business at No. _____ Street, in the City of _____, State of _____ (hereinafter called the "Exhibitor"), licensee, and operating the _____ Theatre, at No. _____ Street, in the City of _____, State of _____ (hereinafter called the "Theatre").

Witnesseth, that for, and in consideration of the premises and of the covenants, stipulations, and representations herein set forth, the respective parties hereto agree as follows:

1. (*a*) *Grant of License and Installation of Equipment.*—Products hereby grants and agrees to grant to the Exhibitor, subject to all the terms and conditions hereof, the non-exclusive, non-assignable license to use and employ in the Theatre the Equipment hereinafter referred to, and such of the methods and systems of Products as are necessarily involved in the use of said Equipment as herein contemplated, for the unsynchronized electrical reproduction of sound from records thereof made by licensees of Products, under any and all United States patents and applications for patents applicable thereto now or during the term hereof owned or controlled by Products or under which Products has the right to grant such license.

(*b*) *Service Day.*—In pursuance of the license hereinabove granted, Products agrees to install in the Theatre sound reproducing equipment (hereinafter referred to as "Equipment"), as follows: Non-synchronous Western Electric Sound Projector System Type _____ for reproduction from disc records and will use its best endeavor to complete such installation on or before _____ 192__. Nothing herein contained shall be considered as a firm agreement on the part of Products to complete the installation of the Equipment on or before the said date, it being understood that the extent of the obligation of Products in this respect is limited to using its best efforts to procure the manufacture and delivery of the Equipment and to installing the same expeditiously.

2. *Use of Equipment.*—The Exhibitor agrees that it will use and employ the Equipment only in the Theatre, and that it will at all times during the period of this license keep, maintain, and operate the Equipment in the manner from time to time prescribed by Products and in no other manner. The Exhibitor recognizes the highly technical mechanism and art involved in the inventions and construction of the Equipment, and in the making of records of sound (in any form) for use therewith, that the prestige and business reputation of Products might be seriously affected by its imperfect operation or by its use

Digitized by Google

with records not suited to the Equipment or which are of such a nature as to produce inferior results when used with the Equipment, and that the use of said Equipment otherwise than as herein licensed may involve infringement of patent rights. Therefore, in order to secure and insure the functioning of the Equipment to the satisfaction of the parties hereto, the Exhibitor agrees that it will not, without the written consent of Products, move, alter, change, or modify the Equipment, nor add anything thereto nor take anything therefrom; nor break the seal upon any part or collection of parts which is or may be sealed by Products; nor operate, use, or employ the Equipment in any manner in conjunction with any record of sound or with any other device or combination of devices in any way related to the production or reproduction of sound, unless said records, devices, and combinations of devices shall have been first tested by Products and found by it to operate properly, reliably, and efficiently, and to reproduce sound with accuracy of quality and adequacy of volume, and approved by the Legal Counsel of Products as to freedom from infringement of patents. Also, in order further to secure proper functioning of the Equipment as aforesaid satisfactorily to the parties hereto, it is agreed that all additional and renewal parts and assembled parts for said Equipment shall be obtained from Products. Nothing herein contained, however, shall be construed as prohibiting the Exhibitor from taking all reasonable steps, consistent with the general intent hereof, either alone or together with Products, to protect, correct, or repair the Equipment in the event of an accident or breakdown. The Exhibitor expressly agrees that if at any time the Equipment fails to function satisfactorily, it will immediately notify Products by registered mail or telegraph, and the absence of such notification shall be conclusive as to satisfactory functioning of the Equipment.

3. *Removal to another Theatre.*—In the event that the Exhibitor shall for any reason cease to manage or to operate the Theatre, Products will, at the request of the Exhibitor, remove the Equipment to and install the same in another theatre designated by the Exhibitor and satisfactory to Products, provided, however, that the cost of such removal and installation shall be borne by the Exhibitor and that a new agreement for the unexpired term of this license shall be executed by the Exhibitor operating such theatre (the Exhibitor hereunder thereupon becoming guarantor to Products of the performance of such new agreement).

4. *Instruction and Inspection Service.*—Products agrees to instruct the operators of the Exhibitor in the manner and method of operating the Equipment and to make periodical inspection of and minor adjustments in the Equipment after it shall have been installed. Products may from time to time, but at the expense of the Exhibitor, supply or install such spare and renewal parts and accessories as may, in its opinion, be necessary to the satisfactory operation and maintenance of the Equipment.

5. *Installation Charge.*—The Exhibitor agrees to pay to Products in New York Exchange an installation charge of _____ Dollars ($_____) payable as follows:

The sum of _____ Dollars ($_____) on or before the execution of this instrument, receipt of which is hereby acknowledged, and the balance, namely, _____ Dollars ($_____) on the day on which the installation of the Equipment is completed and the Equipment made available to the Exhibitor as ready for public exhibition, which said balance shall be evidenced by a demand promissory note satisfactory to Products made by the Exhibitor and delivered to Products on or before the execution of this instrument and bearing no interest prior to presentation, which demand note Products agrees not to present for payment prior to the day on which the installation of the Equipment is completed and the Equipment made available to the Exhibitor as ready for public exhibition.

6. *Rental.*—The Exhibitor agrees to pay to Products throughout the term of the lease hereby granted a weekly rental, which shall be payable in advance beginning with the first Saturday preceding the day upon which the installation shall have been completed and the Equipment made available to the Exhibitor as ready for use. The amount of such rental shall be _____ _____ Dollars per week for the first two years (104 weeks) and thereafter for the balance of the term of said license, such weekly rental shall be in accordance with the Company's then current schedule of such weekly rentals but not exceeding one fourth of the weekly rental hereinabove agreed upon to be paid for the first two years. The Exhibitor agrees, however, that the rental for the twenty-four weeks' period, inclusive of the eighty-first to the one

Digitized by Google

hundred and fourth week, in the amount of $_____ shall be paid by it to Products in advance upon arrival of the Equipment at the town of destination and presentation of Bill of Lading therefor.

7. *Transportation Charges.*—The Exhibitor agrees to pay the cost of transporting the Equipment from the place of shipment to the Theatre, and to accept delivery thereof from the common carrier and make payment directly to the common carrier of freight and express charges thereon. The Exhibitor will also arrange for any necessary loading, trucking, and unloading to put the Equipment down inside the Theatre, and will directly defray the cost thereof.

8. *Payment for Spare Parts, etc.*—The Exhibitor agrees to pay to Products its list installation charges as from time to time established for any additional equipment or spare or renewal parts, furnished or supplied by Products, upon delivery thereof and to pay the transportation charges thereon, title to such equipment and parts, however, to remain in Products. The Exhibitor also agrees upon rendition of invoices to pay for any services rendered and expenses incurred by Products' employees in connection with and for the benefit of the Exhibitor, except for the regular periodical inspection and minor adjustment service hereinbefore provided for.

9. *Changes in Theatre.*—The Exhibitor warrants that the Theatre is or before said Equipment is installed will be supplied with suitable electric current; electric power leads of suitable capacity with outlets conveniently located for power supply to the Equipment; suitable space, properly ventilated, for the installation of the storage batteries and charging equipment; drapes for acoustic purposes, and suitable support for horns, and agrees to make such other reasonable changes, alterations, and modifications as may be necessary for the proper installation and accommodation of the Equipment, all at the expense of the Exhibitor, and when and to the extent and in the manner prescribed by Products or its engineers, and agrees to comply with all local laws and ordinances relating to the use and operation of the Equipment and with any Fire Insurance Underwriters' requirements.

10. *Title to Equipment.*—Title to and ownership of all equipment at any time furnished hereunder, and also all tools of all kinds, drawings, prints, and written descriptions and instructions, is and shall at all times be and remain vested in Products.

11. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all taxes, license fees, and any and all other municipal, county, state, or other governmental charges that may be charged or levied against the Equipment or against Products by reason of its ownership of the Equipment.

12. *Access to Equipment.*—The Exhibitor will permit Products, through its designated agents, engineers, and mechanics, to have access to the Theatre at all reasonable hours, including hours of performance, for the purpose of installing and from time to time for the purpose of examining and inspecting the Equipment, and will grant to Products full opportunity to make such adjustments therein and repairs thereto as, in the opinion of Products, are necessary or desirable.

13. *Liability for Interruptions, Injuries, etc.*—Products shall not be responsible in any manner for any interruption of service arising from any cause or for any defect or change of condition in the Theatre or in the equipment thereof or in the electric current supplied thereto or for any loss or damage to persons or property in or upon the said premises for any reason whatsoever, and the Exhibitor agrees to indemnify Products and save it harmless on account of any such loss or damage. The Exhibitor agrees to indemnify Products for and save it harmless from any liability or injury to workmen whom the Exhibitor shall furnish to assist in the handling, installing, or operating of the Equipment, and from any liability to any persons resulting from negligence of such workmen.

14. *Events of Default.*—This agreement and the license hereby granted shall, at the option of Products, terminate and come to an end upon the happening of any of the following events, hereby designated to be events of default, to wit:

(*a*) Upon the bankruptcy or insolvency of the Exhibitor or the assignment of any of its assets for the benefit of creditors.

(*b*) Upon the failure or refusal of the Exhibitor for any reason to pay any of the items or sums herein agreed to be paid by it within five days after such item or sum is or may become due, and as to this provision time shall be of the essence.

(*c*) Upon the Exhibitor's ceasing to own or operate the Theatre, unless the Exhibitor shall previous to its ceasing to own or operate the Theatre have

Digitized by Google

notified Products in writing of the date it will cease to own or operate the Theatre and shall have made provision, satisfactory to Products, for the care and custody of the Equipment.

(*d*) Upon a breach by the Exhibitor of any of the covenants herein contained relative to the use or maintenance of the Equipment.

(*e*) Upon the removal of the Equipment or any part thereof without the consent of Products from the location and position in which it was installed by Products.

(*f*) Upon the failure of the Exhibitor to permit access to the Equipment by the Company for the uses and purposes herein set forth.

(*g*) Upon the failure of the Exhibitor to accept delivery of the Equipment from the transportation company or common carrier, or to facilitate the work of Products in installing the Equipment.

Except as to the provisions of sub-divisions (a), (b), (c), (f), and (g) of this section the foregoing provisions for the termination of this license in the event of default shall not be effective until Products shall have notified the Exhibitor by registered mail that it is in default and specifying in what particular, and until a period of fourteen days shall have been given to the Exhibitor to remove or correct such default. In the event of a default under any of the provisions of this section at any time during the first two years of the term of this license, at the option of Products and whether or not it terminates this license or removes the Equipment as hereinafter provided, the entire unpaid rental for the first two years shall be due and payable forthwith. The license hereby granted and all obligations imposed upon Products by virtue of this agreement shall be suspended during the continuance of any event of default.

15. *Repossession of Equipment.*—Upon termination or expiration of this license, by lapse of time or otherwise, the Exhibitor will surrender up and deliver possession of the Equipment to Products in good order and condition, reasonable wear and tear and obsolescence due to proper use thereof in the manner and place and for the purpose set forth in this agreement only excepted, and Products may repossess the Equipment and may, for the purpose of reducing the same to possession, enter the Theatre or any other premises where said Equipment may be and without any legal proceedings whatever possess and remove said Equipment, and the Exhibitor will cooperate in such removal. If this license shall be terminated by default, or if the Exhibitor permits any of the events of default, hereinbefore enumerated, to occur, whether or not Products shall exercise the option to terminate this agreement, Products shall thereupon have the right without notice to take immediate possession of said Equipment, and for that purpose may pursue the same wherever it or any part thereof may be found and may enter with the aid and assistance of any person or persons the Theatre or other premises of the Exhibitor and such place or places whatsoever, whether belonging to the Exhibitor or not in which the Equipment or any part thereof may be placed, and may take and seize the same to its own proper use forever, free from any right of the Exhibitor under this agreement. Products shall also have the right in like manner to enter the said premises and remove the Equipment in the event of the said premises being destroyed or damaged by fire or otherwise, to an extent which, in the opinion of Products, endangers the Equipment. The Exhibitor expressly covenants that in any such event no claim will be made for damage on account of such removal or otherwise, and the Exhibitor further agrees that it will hold and save harmless Products from and against any and all claims for damages by any parties whatsoever on account of such removal.

16. *Replacement of Equipment in the event of Destruction.*—In the event of the partial or total destruction of the Equipment during the term of this license by fire or any other cause, without fault or neglect on the part of the Exhibitor, provided the Exhibitor shall not be in default in respect to any of the terms of this agreement and provided the Exhibitor shall continue to operate the Theatre or after any necessary repairs to the Theatre shall resume its operation, Products will, at its own expense, repair the Equipment, or if in the sole judgment of Products, such destruction is so extensive as to render repair of the Equipment impracticable, Products will install in the Theatre equipment then manufactured by or for Products as nearly similar as possible to the type of Equipment so destroyed.

17. *Patent Protection.*—Products agrees that subject to the provisions hereof, it will, at its own expense, defend any and all actions and suits which may, during the term hereof, be brought against the Exhibitor for infringement of

Digitized by Google

patents by reason of the use by the Exhibitor, for the purpose and in the manner contemplated by this agreement, of apparatus and equipment furnished by Products hereunder, and will pay or satisfy all judgments and decrees for profits, damages, and/or costs which may be finally awarded against the Exhibitor by the Court of last resort in any such action or suit on account of any such infringement, provided that the Exhibitor shall give Products prompt notice of such action or suit, full information and all reasonable cooperation in connection therewith and full opportunity to defend the same, and provided further, that this agreement shall not extend to any infringement or claim of infringement arising from the use of any of said equipment in combination with any apparatus or thing not furnished by Products, and that the liability of Products under this agreement shall in no case exceed the total amount paid hereunder by the Exhibitor to Products.

18. *License Non-exclusive.*—Nothing in this agreement shall be construed as granting to the Exhibitor an exclusive right or license to operate the Equipment in any particular City, Town, zone or neighborhood or as preventing or prohibiting Products from entering into similar agreements of granting licenses for the installation and use of similar equipment in competing theatres.

19. *Not Assignable.*—This agreement shall not be assigned by the Exhibitor without the written consent of Products. It shall, however, subject to such restriction upon assignment by the Exhibitor, be binding upon the parties and their respective successors, assigns, and legal representatives and shall be interpreted according to the laws of the State of New York.

20. *Period of License.*—This license shall be for a term of ten years from the day upon which the installation shall have been completed and the Equipment made available to the Exhibitor as ready for use. It may, however, provided the Exhibitor shall not be in default in respect of any of the terms of this agreement be terminated at the option of the Exhibitor at any time after the expiration of the first two years of the term hereof upon not less than six months' written notice given by the Exhibitor to Products of its intention so to terminate.

21. *Extension.*—Products agrees that it will, if called upon to do so by the Exhibitor and provided the Exhibitor shall not be in default in respect of any of the terms of this agreement, extend the license hereby granted to include the right to use and employ in the Theatre the methods, systems, and equipment of Products for the electrical reproduction of sound in synchronism with motion pictures, and will convert the Equipment to a type suitable for synchronized reproduction in the Theatre. The Exhibitor agrees that if it shall exercise this option it will enter into the standard form of license agreement then used by Products embodying the terms then obtaining for the type of Equipment to be installed and in that event Products agrees that it will credit upon the installation charge for such new equipment the amount then regularly allowed by it for the type of Equipment hereby leased.

22. *Entire Understanding.*—The parties hereto expressly stipulate that this agreement as herein set forth contains the entire understanding of the respective parties with reference to the subject matter hereof, and that there is no other understanding, agreement, or representation, express or implied, in any way limiting, extending, defining, or otherwise relating to the provisions hereof or any of the matters to which the present agreement relates. No waiver by either party, whether express or implied, of any of the provisions of this agreement shall be construed as constituting a waiver of any other provision or provisions of this agreement or as estopping either party from its right to enforce any provision or all provisions hereof.

In witness whereof the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,

By _____

_____

By _____

In presence of—

_____
(As to E. R. I. P.)

_____
(As to Exhibitor)

Digitized by Google

Contract No.....

This Agreement made in triplicate in the City of New York, State of New York, this _____ day of _____, 192__, by and between Electrical Research Products, Inc. (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation having its principal place of business in the City, County, and State of New York, hereinafter called the "Company", licensor, and _____ a Corporation having its principal place of business at No. _____ Street, in the City of _____, State of _____, hereinafter called the "Exhibitor", licensee, and operating the _____ Theatre, at No. _____ Street, in the City of _____, State of _____, hereinafter referred to as the "Theatre",

Witnesseth that for, and in consideration of the premises and of the covenants, stipulations, and representations herein set forth, the respective parties hereto agree as follows:

1. (a) *Company grants license and will install Equipment.*—The Company hereby grants and agrees to grant to the Exhibitor, subject to all the terms and conditions hereof, the non-exclusive, non-assignable right and license to use and employ in the Theatre the methods, systems, and equipment of the Company for the electrical reproduction of sound independently of and in synchronism with motion pictures under any and all United States patents, applications for patents, and licenses applicable thereto now or during the term hereof owned or controlled by the Company and under which the Company has the right to grant such license.

(b) *Service Day.*—In pursuance of the license hereinabove granted, the Company agrees to install in the Theatre sound reproducing equipment (hereinafter referred to as "(Equipment") as follows:

_____

and will use its best endeavor to complete such installation on or before _____, 192__, which shall be known as the "Tentative Service Day." Nothing herein contained shall be considered as a firm agreement on the part of the Company to complete the installation of the Equipment on or before the said date, it being understood that the extent of the obligation of the Company in this respect is limited to using its best efforts to procure the manufacture and delivery of the Equipment and to installing the same expeditiously. The day on which installation of the Equipment shall be completed and the Equipment made available to the Exhibitor as ready for public exhibition whether prior or subsequent to the "Tentative Service Day" shall be known as the "Service Day."

2. *Use of Equipment.*—The Exhibitor agrees to use and employ the Equipment only in the Theatre, and when the same is used for the purpose of reproducing synchronized productions (i. e., recordings of sound in synchronism with co-ordinated or co-related motion pictures produced in synchronism) no recordings shall be used except those produced by licensees of the Company.

3. *Removal to another Theatre.*—In the event that the Exhibitor shall for any reason cease to manage or to operate the Theatre, the Company will, at the request of the Exhibitor, remove the Equipment to and install the same in another theatre satisfactory to the Company, not theretofore so equipped, of similar character, in the same zone or neighborhood and managed or operated by the same or an affiliated corporation, provided, however, that the cost of such removal and installation shall be borne by the Exhibitor and that a new agreement for the unexpired term of this license shall be executed by the Exhibitor operating such theatre (the Exhibitor hereunder thereupon becoming guarantor to the Company of the performance of such new agreement).

4. *Instruction.*—The Company agrees to instruct the motion picture machine operators of the Exhibitor in the manner and method of operating the Equipment. The Company will issue to each operator who has, in its opinion, satisfactorily completed a course of instruction in the operation of the Equipment, a certificate to that effect. The Company further agrees, in order to perfect such instruction, and also in order to superintend the operation of the Equipment, to keep in attendance at the Theatre during the hours of performance, and at such additional hours as may be necessary, an engineer or other person skilled in such operation, for a period of one week following the Service Day.

Digitized by Google

5. *Inspection Service.*—The Company agrees to make periodical inspection and minor adjustments in the Equipment after it shall have been installed. The Company agrees to keep on hand and in stock a line of spare parts and accessories. The Company may from time to time install such spare and renewal parts and accessories as may, in its opinion, be necessary to the satisfactory operation and maintenance of the Equipment.

6. *Installation Fee.*—The Exhibitor agrees to pay to the Company in New York exchange an installation fee of_____Dollars ($_____) payable as follows:

---

the sum of_____Dollars ($_____) on or before the execution of this instrument, receipt of which is hereby acknowledged;

---

the sum of_____Dollars ($_____) on the "Service Day" to be evidenced by a demand promissory note satisfactory to the Company, made by the Exhibitor and delivered to the Company on or before the execution of this instrument and bearing no interest prior to presentation, which demand note the Company agrees not to present for payment prior to the "Service Day", and the balance

---

in_____equal monthly installments of_____ Dollars ($_____) each, all to be evidenced by a series of promissory notes satisfactory to the Company, corresponding to the amounts of the respective payments, made by the Exhibitor and delivered to the Company on or before the execution of this instrument, the first of said notes maturing one month after the "Service Day" and the remaining notes serially thereafter, and all bearing interest at the rate of 6% per annum from the "Service Day." The Company is hereby authorized by the Exhibitor to enter upon the face of any notes given hereunder, when the "Service Day" is determined, the respective maturity dates thereof and the date from which interest shall run. It is understood an dagreed that the giving and acceptance of said promissory notes is for convenience and as evidence, that they shall not be construed to constitute payment nor a waiver of any term, provision, or condition of this agreement, and that the Company shall have the privilege of endorsing or discounting them without such endorsement or discount being construed as an acceptance of the same as a payment hereon. Upon the failure of the Exhibitor to pay any of the said notes as and when the same becomes due all of the said notes shall forthwith become due and payable.

7. *Service and Inspection Charge.*—The Exhibitor agrees to pay to the Company a weekly service and inspection charge in accordance with the Company's regular schedule of such charges from time to time established, the Company reserving the right, in its sole judgment, to increase or decrease its schedule of such charges to accord with increases or decreases in the cost of labor or material involved or in the character of services to be rendered. Under the Company's present schedule, the weekly service charge shall be_____ Dollars. Payment thereof shall be made on Saturday of each week, starting with the Saturday following the Service Day. This charge shall be payable for each week during which, or during any part of which the Equipment shall have been operated, and shall be payable for a minimum of forty weeks out of each fifty-two weeks following the Service Day, provided that said weekly charge shall not be payable unless there be available to the Exhibitor records adapted for reproduction by, and/or in conjunction with the equipment.

8. *Transportation Charges.*—The Exhibitor agrees to pay the cost of transporting the Equipment from the place of shipment to the Theatre, and to accept delivery thereof from the common carrier and make payment directly to the common carrier of freight and express charges thereon. The Exhibitor will also arrange for any necessary loading, trucking, and unloading to put the Equipment down inside the Theatre, and will directly defray the cost thereof. Similarly, upon the termination of this agreement, the Exhibitor agrees to pay the cost of disconnecting and removing the Equipment from the Theatre and of transporting it to such place as may then be designated by the Company which said place shall not be more distant from the Theatre than the place from which shipment was originally made.

9. *Projection Equipment of Theatre.*—The Exhibitor agrees that the Theatre is or will be equipped with not less than two projection machines which are or will be machines in good order and condition, and of a type with which the

Digitized by Google

Equipment has been designed to operate and that the Theatre is or will be supplied with suitable electric current. Prior to the service day, the Company will cause the Theatre to be inspected by its engineers and will notify the Exhibitor as to the general character and extent of the changes which will be necessary for the proper installation and accommodation of the Equipment.

Changes in Theatre.—The Exhibitor agrees to make such reasonable changes, alterations, and modifications as may be necessary for the proper installation and accommodation of the Equipment, including, among other things, the possible enlargement and sound proofing of the booth, the provision of suitable space, properly ventilated, for the installation of the storage batteries and charging equipment, provision of suitable supports for horns, and provision of drapes for acoustic purposes, all at the expense of the Exhibitor and to the extent and in the manner prescribed by the Company or its engineers, provided, however, that if the necessary changes involve such major structural modifications in the building or are otherwise so extensive as to inflict an unreasonable hardship, the Exhibitor, at its election, may, by immediate written notification to the Company and by the payment of the expenses incurred by the Company in connection with such inspection and installation (including repacking and return transportation charges), forthwith terminate this contract.

10. *Payment for Spare Parts, etc.*—The Exhibitor agrees to pay to the Company its list charges as from time to time established for any additional equipment or spare or renewal parts, furnished or supplied by the Company upon delivery thereof to the Theatre and to pay the transportation charges thereon. The Exhibitor also agrees upon rendition of invoices to pay for any services rendered and expenses incurred by the Company's employees in connection with and for the benefit of the Exhibitor, except for the regular periodical inspection and minor adjustment service hereinbefore provided for.

11. *Manner of using Equipment.*—The Exhibitor agrees that it will at all times during the period of this license keep, maintain, and operate the Equipment in the manner from time to time prescribed by the Company and in no other manner; that it will not, without the written consent of the Company, alter, change, or modify the Equipment in any particular, nor add anything thereto or take anything therefrom; that all additional or renewal parts shall be obtained from the Company and that it will not break the seal upon any part or collection of parts which is or may be sealed upon the delivery or installation thereof, but nothing herein contained shall be construed as prohibiting the Exhibitor from taking all reasonable steps to correct or repair the Equipment in the event of an accident or breakdown.

12. *Private Trial of Films and Records.*—The Exhibitor agrees that prior to the first public use in the Theatre of each film and/or records to be run privately upon the Equipment for the purpose of ascertaining that the Equipment is in satisfactory condition and adjustment for the particular film and/or record. If at any time any defect or faulty adjustment in the Equipment develops, which cannot be immediately corrected by the Exhibitor, the Exhibitor shall notify the Company by telegraph or telephone, and shall refrain from further use of the Equipment until such defect or faulty adjustment has been corrected. In the absence of such notification it shall be assumed that the Equipment is in satisfactory condition.

13. *Insurance.*—The Exhibitor agrees that upon and after the arrival of the Equipment at the town of destination (commencing immediately upon receipt of information from the common carrier that it has so arrived), it shall be kept insured at the expense of the Exhibitor against loss or damage by fire to the amount of at least the aggregate installation payments herein stipulated, loss, if any, to be adjusted with and payable to the Company as the owner of the Equipment, and, in the event of loss, the Company will apply any moneys recovered by it towards the repair or replacement of the leased equipment either in the same theatre or, in the event of the Exhibitor ceasing to operate the said theatre, then in another theatre of similar character, in the same zone or neighborhood, not theretofore so equipped, satisfactory to the Company, and managed by the Exhibitor or an affiliated corporation or concern. Unless the Exhibitor shall promptly effect and maintain insurance satisfactory to the Company and shall lodge with the Company the policies or certificates therefor, the Company may at its option, and so long as any of the installation charges remain unpaid, effect and maintain such insurance as it may deem advisable and arrange for the premiums to be billed directly to the Exhibitor who shall promptly pay the same. The Exhibitor agrees to comply with all

Digitized by Google

local laws and ordinances relating to the use and operation of the Equipment and with any Fire Insurance Underwriters' requirements. It is mutually understood and agreed that after shipment of said equipment, all risk of loss thereof or damage thereto shall be borne by the Exhibitor.

14. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all taxes, license fees, and any and all other municipal, county, state, or other public charges that may be charged or levied against the Equipment or against the Company by reason of its ownership of the Equipment.

15. *Access to Equipment.*—The Exhibitor will permit the Company, through its designated agents, engineers, and mechanics, to have access to the Theatre at all reasonable hours, including hours of performance, for the purpose of examining and inspecting the Equipment and for the purpose also of instructing motion picture operators, not employed by the Exhibitor, in the operation thereof (but only in such manner and at such times as not to interfere with regular performances) and will grant to the Company full opportunity to make such adjustments therein and repairs thereof as, in the opinion of the Company, are necessary or desirable. The Exhibitor will, through its operators, electricians, and other employees, facilitate such examinations, inspections, adjustments, and repairs, and at all reasonable hours and times have available and supply electric current of suitable voltage and character therefor. The Exhibitor will grant similar access to the Theatre to representatives and employees of the Company for a reasonable length of time (depending on the size and situation of the Theatre), prior to the "Service Day", for the purpose of installing and testing the Equipment and will also grant such access, after the expiration or termination of this license to permit representatives of the Company to disconnect, pack, and remove the Equipment.

16. *Liability for Interruptions, Injuries, etc.*—The Company shall not be responsible in any manner for any interruption of service arising from any cause or for any defect or change of condition in the Theatre or in the equipment thereof or in the electric current supplied thereto or for any loss or damage to persons or property in or upon the said premises for any reason whatsoever, and the Exhibitor agrees to indemnify the Company and save it harmless on account of any such loss or damage. The Exhibitor agrees to indemnify the Company for, and save it harmless from, any liability or injury to workmen whom the Exhibitor shall furnish to assist in the handling, installing, or operating of the Equipment and from any liability to any persons resulting from negligence of such workmen.

17. *Title to Equipment.*—All of the sums agreed to be paid by the Exhibitor to the Company by any of the provisions hereof, however designated, calculated, or described, are items forming part of the agreed consideration for the license granted hereby and are so paid by the Exhibitor and so received by the Company, and notwithstanding any termination or expiration of this license, all such sums theretofore paid may be retained by the Company without prejudice to the Company's right to recover any additional amounts which may be due. Title to and ownership of all equipment furnished pursuant to any of the terms hereof (including all parts, accessories, batteries, tubes, wiring, and incidental mechanism and tools of all kinds) is and shall at all times be and remain vested in the Company.

18. *Events of Default.*—This agreement and the license hereby granted shall, at the option of the Company, terminate and come to an end upon the happening of any of the following events, to wit:

(*a*) Upon the bankruptcy or insolvency of the Exhibitor.

(*b*) Upon the failure or refusal of the Exhibitor for any reason to pay any of the items or sums herein agreed to be paid by it, within ten days after such item or sum is or may become due, and as to this provision time shall be of the essence.

(*c*) Upon a breach by the Exhibitor of any of the covenants herein contained relative to the use or maintenance of the Equipment.

(*d*) Upon the removal of the Equipment or any part thereof from the location and position in which it was installed by the Company.

(*e*) Upon the failure of the Exhibitor to permit access to the Equipment by the Company for the uses and purposes herein set forth.

Except as to the provisions of subdivisions (*a*), (*b*), and (*e*) of this section the foregoing provisions for the termination of this license in the event of default shall not be effective until the Company shall have notified the Exhibitor by registered mail that it is in default, specifying in what particular,

Digitized by Google

and until a period of fourteen days shall have been given to the Exhibitor to remove or correct such default, but any and all obligations imposed upon the Company by virtue of this agreement shall be suspended while the Exhibitor shall be in default.

19. *Repossession of Equipment.*—Upon termination or expiration of this license by lapse of time or otherwise, the Exhibitor will surrender up and deliver possession of the Equipment to the Company in good order and condition, reasonable wear and tear and obsolescence due to proper use thereof in the manner and place and for the purpose set forth in this agreement only excepted and the Company may repossess the Equipment and may, for the purpose of reducing the same to possession, enter the Theatre or any other premises where said Equipment may be and without any legal proceedings whatever possess and remove said Equipment, and the Exhibitor will cooperate in such removal. If this license shall be terminated by default, the Company shall thereupon, without notice, have the right to take immediate possession of said Equipment, and for that purpose may pursue the same wherever it or any part thereof may be found and may enter with the aid and assistance of any person or persons the Theatre or other premises of the Exhibitor and such place or places whatsoever, whether belonging to the Exhibitor or not in which the Equipment or any part thereof may be placed, and may take and seize the same to its own proper use forever, free from any right of the Exhibitor under this agreement. The Exhibitor expressly covenants that in any such event no claim will be made for damages on account of such removal or otherwise, and the exhibitor further agrees that it will hold and save harmless the Company from and against any and all claims for damages by any parties whatsoever on account of such removal.

20. *Patent Protection.*—The Company agrees that subject to the provisions hereof, it will at its own expense defend any and all actions and suits which may, during the term hereof, be brought against the Exhibitor for infringement of patents by reason of the employment by the Exhibitor of apparatus and equipments furnished by the Company hereunder and used for the purpose and in the manner contemplated by this agreement, and will pay or satisfy all judgments and decrees for profits, damages and/or costs which may be finally awarded against the Exhibitor by the court of last resort in any such action or suit on account of any such infringement; provided that the Exhibitor shall give the Company prompt notice of such action or suit, full information, and all reasonable cooperation in connection therewith, and full opportunity to defend the same, and provided further that this agreement shall not extend to any infringement arising from the use of any of said Equipment in combination with apparatus or things not furnished by the Company and that the liability of the Company under this agreement shall in no case exceed the total amount paid hereunder by the Exhibitor to the Company.

21. *License Non-exclusive.*—Nothing in this contract shall be construed as granting to the Exhibitor an exclusive right or license to operate the Equipment in any particular City, Town, zone, or neighborhood, or as preventing or prohibiting the Company from entering into similar contracts of license for the use and installation of similar equipment in competing theatres.

22. *Not Assignable.*—This agreement shall not be assigned by the Exhibitor without the written consent of the Company. It shall, however, subject to such restriction upon assignment by the Exhibitor, be binding upon the parties and their respective successors and legal representatives and shall be interpreted according to the laws of the State of New York.

23. *Period of License.*—This license shall be for a term of ten years from the Service Day as herein defined, but if the installation charge shall have been fully paid and the Exhibitor shall not be in default as to any of the provisions of this agreement, the same may be terminated at the option of the Exhibitor after the expiration of three years from the Service Day upon not less than six months' written notice given by the Exhibitor to the Company of intention so to terminate and the payment to the Company of a sum sufficient to defray the cost to the Company of removing the Equipment.

24. *Entire Understanding.*—The parties hereto expressly stipulate that this agreement as herein set forth contains the entire understanding of the respective parties with reference to the subject matter hereof, and that there is no other understanding, agreement, or representation, express or implied, in any way limiting, extending, defining, or otherwise relating to the provisions hereof. No waiver by either party, whether express or implied, of any of the provisions of this agreement shall be construed as constituting a waiver of any other provision

Digitized by Google

or provisions of this agreement or as estopping either party from its right to enforce any provision or all provisions hereof.

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INCORPORATED,

By _____

_____

By _____

In the presence of—

_____
(As to E. R. P. I.)

_____
(As to Exhibitor)

Contract No. _____

This agreement made in triplicate in the City of New York, State of New York, this _____ day of _____192__, by and between Electrical Research Products, Inc. (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation having its principal place of business in the City, County, and State of New York, hereinafter called the "Company" licensor, and _____ a Corporation having its principal place of business at No. _____ Street, in the City of _____ State of _____ hereinafter called the "Exhibitor", licensee and operating the _____ Theatre, at No. _____ Street, in the City of _____, State of _____, hereinafter referred to as the "Theatre",

Witnesseth, that for and in consideration of the premises and of the covenants, stipulations, and representations herein set forth, the respective parties hereto agree as follows:

1. (*a*) *Company grants license and will install Equipment.*—The Company hereby grants and agrees to grant to the Exhibitor, subject to all the terms and conditions hereof, the non-exclusive, non-assignable right and license to use and employ in the Theatre the methods, systems, and equipment of the Company for the electrical reproduction of sound independently of and in synchronism with motion pictures under any and all United States patents, applications for patents, and licenses applicable thereto, now or during the term hereof owned or controlled by the Company and under which the Company has the right to grant such license.

(*b*) *Service Day.*—In pursuance of the license hereinabove granted, the Company agrees to install in the Theatre sound reproducing equipment (hereinafter referred to as "Equipment") as follows: Type _____ equipment designed for use with Simplex or Powers Projectors and will use its best endeavor to complete such installation on or before _____192__, which shall be known as the "Tentative Service Day." Nothing herein contained shall be considered as a firm agreement on the part of the Company to complete the installation of the Equipment on or before the said date, it being understood that the extent of the obligation of the Company in this respect is limited to using its best efforts to procure the manufacture and delivery of the Equipment and to installing the same expeditiously. The day on which installation of the Equipment shall be completed and the Equipment made available to the Exhibitor as ready for public exhibition whether prior or subsequent to the "Tentative Service Day" shall be known as the "Service Day."

2. *Use of Equipment.*—The Exhibitor agrees to use and employ the Equipment only in the Theatre, and when the same is used for the purpose of reproducing synchronized production (i. e., recordings of sound in synchronism with co-ordinated or co-related motion pictures produced in synchronism) no recordings shall be used except those produced by licensees of the Company.

3. *Removal to another Theatre.*—In the event that the Exhibitor shall for any reason cease to manage or to operate the Theatre, the Company will, at the request of the Exhibitor, remove the Equipment to and install the same in another theatre satisfactory to the Company, not theretofore so equipped, of similar character, in the same zone or neighborhood and managed or operated by the same or an affiliated corporation; provided, however, that the cost of such removal and installation shall be borne by the Exhibitor and that a new agreement for the unexpired term of this license shall be executed by the

Digitized by Google

Exhibitor operating such theatre (the Exhibitor hereunder thereupon becoming guarantor to the Company of the performance of such new agreement).

4. *Instruction.*—The Company agrees to instruct the motion picture machine operators of the Exhibitor in the manner and method of operating the Equipment. The Company will issue to each operator who has, in its opinion, satisfactorily completed a course of instruction in the operation of the Equipment, a certificate to that effect. The Company further agrees, in order to perfect such instruction, and also in order to superintend the operation of the Equipment, to keep in attendance at the Theatre during the hours of performance, and at such additional hours as may be necessary, an engineer or other person skilled in such operation, for a period of one week following the Service Day.

5. *Inspection Service.*—The Company agrees to make periodical inspection and minor adjustments in the Equipment after it shall have been installed. The Company agrees to keep on hand and in stock a line of spare parts and accessories. The Company may from time to time install such spare and renewal parts and accessories as may, in its opinion, be necessary to the satisfactory operation and maintenance of the Equipment.

6. *Installation Fee.*—The Exhibitor agrees to pay to the Company in New York exchange an installation fee of _____ Dollars ($_____), payable as follows: the sum of _____ Dollars ($_____) on or before the execution of this instrument, receipt of which is hereby acknowledged; the sum of _____ Dollars ($_____) on the "Service Day" to be evidenced by a demand promissory note satisfactory to the Company, made by the Exhibitor and delivered to the Company on or before the execution of this instrument and bearing no interest prior to presentation which demand note the Company agrees not to present for payment prior to the "Service Day"; and the balance _____ in _____ equal monthly installments of _____ Dollars ($_____) each, all to be evidenced by a series of promissory notes satisfactory to the Company, corresponding to the amounts of the respective payments, made by the Exhibitor and delivered to the Company on or before the execution of this instrument, the first of said notes maturing one month after the "Service Day" and the remaining notes serially thereafter, and all bearing interest at the rate of 6% per annum from the "Service Day." The Company is hereby authorized by the Exhibitor to enter upon the face of any notes given hereunder, when the "Service Day" is determined, the respective maturity dates thereof and the date from which interest shall run. It is understood and agreed that the giving and acceptance of said promissory notes is for convenience and as evidence that they shall not be construed to constitute payment nor a waiver of any term, provision, or condition of this agreement, and that the Company shall have the privilege of endorsing or discounting them without such endorsement or discount being construed as an acceptance of the same as a payment hereon. Upon the failure of the Exhibitor to pay any of the said notes as and when the same become due all of the said notes shall forthwith become due and payable.

7. *Service and Inspection Charge.*—The Exhibitor agrees to pay to the Company a weekly service and inspection charge in accordance with the Company's regular schedule of such charges from time to time established, the Company reserving the right, in its sole judgment, to increase or decrease its schedule of such charges to accord with increases or decreases in the cost of labor or material involved or in the character of services to be rendered. Under the Company's present schedule, the weekly service charge shall be _____ Dollars. Payment thereof shall be made on Saturday of each week, starting with the Saturday following the Service Day. This charge shall be payable for each week during which, or during any part of which the Equipment shall have been operated, and shall be payable for a minimum of forty weeks out of each fifty-two weeks following the Service Day, provided that said weekly charge shall not be payable unless there be available to the Exhibitor records adapted for reproduction by, and/or in conjunction with the equipment.

8. *Transportation Charges.*—The Exhibitor agrees to pay the cost of transporting the Equipment from the place of shipment to the Theatre, and to accept delivery thereof from the common carrier and make payment directly to the common carrier of freight and express charges thereon. The Exhibitor will also arrange for any necessary loading, trucking, and unloading to put the Equipment down inside the Theatre, and will directly defray the cost thereof. Similarly, upon the termination of this agreement, the Ex-

Digitized by Google

hibitor agrees to pay the cost of disconnecting and removing the Equipment from the Theatre and of transporting it to such place as may then be designated by the Company which said place shall not be more distant from the Theatre than the place from which shipment was originally made.

9. *Projection Equipment of Theatre—Changes in Theatre.*—The Exhibitor agrees that the Theatre is or will be equipped with not less than two projection machines which are or will be machines in good order and condition, and of a type with which the Equipment has been designed to operate and that the Theatre is or will be supplied with suitable electric current. Prior to the service day, the Company will cause the Theatre to be inspected by its engineers and will notify the Exhibitor as to the general character and extent of the changes which will be necessary for the proper installation and accommodation of the Equipment. The Exhibitor agrees to make such reasonable changes, alterations, and modifications as may be necessary for the proper installation and accommodation of the Equipment, including, among other things, the possible enlargement and sound proofing of the booth, the provision of suitable space, properly ventilated, for the installation of the storage batteries and charging equipment, provision of suitable supports for horns and provision of drapes for acoustic purposes, all at the expense of the Exhibitor and to the extent and in the manner prescribed by the Company or its engineers; provided, however, that if the necessary changes involve such major structural modifications in the building or are otherwise so extensive as to inflict an unreasonable hardship, the Exhibitor, at its election, may, by immediate written notification to the Company and by the payment of the expenses incurred by the Company in connection with such inspection and installation (including repacking and return transportation charges), forthwith terminate this contract.

10. *Payment for Spare Parts, etc.*—The Exhibitor agrees to pay to the Company its list charges as from time to time established for any additional equipment or spare or renewal parts furnished or supplied by the Company upon delivery thereof to the Theatre and to pay the transportation charges thereon. The Exhibitor also agrees upon rendition of invoices to pay for any services rendered and expenses incurred by the Company's employees in connection with and for the benefit of the Exhibitor, except for the regular periodical inspection and minor adjustment service hereinbefore provided for.

11. *Manner of using Equipment.*—The Exhibitor agrees that it will at all times during the period of this license keep, maintain, and operate the Equipment in the manner from time to time prescribed by the Company and in no other manner; that it will not, without the written consent of the Company, alter, change, or modify the Equipment in any particular, nor add anything thereto or take anything therefrom; that all additional or renewal parts shall be obtained from the Company and that it will not break the seal upon any part or collection of parts which is or may be sealed upon the delivery or installation thereof, but nothing herein contained shall be construed as prohibiting the Exhibitor from taking all reasonable steps to correct or repair the Equipment in the event of an accident or breakdown.

12. *Private Trial of Films and Record.*—The Exhibitor agrees that prior to the first public use in the Theatre of each film and/or record it will cause such films and/or records to be run privately upon the Equipment for the purpose of ascertaining that the Equipment is in satisfactory condition and adjustment for the particular film and/or record. If at any time any defect or faulty adjustment in the Equipment develops, which cannot be immediately corrected by the Exhibitor, the Exhibitor shall notify the Company by telegraph or telephone, and shall refrain from further use of the Equipment until such defect or faulty adjustment has been corrected. In the absence of such notification it shall be assumed that the Equipment is in satisfactory condition.

13. *Insurance.*—The Exhibitor agrees that upon and after the arrival of the Equipment at the town of destination (commencing immediately upon receipt of information from the common carrier that it has so arrived), it shall be kept insured at the expense of the Exhibitor against loss or damage by fire to the amount of at least the aggregate installation payments herein stipulated, loss, if any, to be adjusted with and payable to the Company as the owner of the Equipment, and in the event of loss, the Company will apply any moneys recovered by it towards the repair or replacement of the leased equipment either in the same theatre or, in the event of the Exhibitor ceasing to operate the

Digitized by Google

said theatre, then in another theatre of similar character, in the same zone or neighborhood, not theretofore so equipped, satisfactory to the Company, and managed by the Exhibitor or an affiliated corporation or concern. Unless the Exhibitor shall promptly affect and maintain insurance satisfactory to the Company and shall lodge with the Company the policies or certificates therefor, the Company may at its option and so long as any of the installation charges remain unpaid, effect and maintain such insurance as it may deem advisable and arrange for the premiums to be billed directly to the Exhibitor, who shall promptly pay the same. The exhibitor agrees to comply with all local laws and ordinances relating to the use and operation of the Equipment and with any Fire Insurance Underwriters' requirements. It is mutually understood and agreed that after shipment of said equipment, all risk of loss thereof or damage thereto shall be borne by the Exhibitor.

14. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all taxes, license fees, and any and all other municipal, county, state, or other public charges that may be charged or levied against the Equipment or against the Company by reason of its ownership of the Equipment.

15. *Access to Equipment.*—The Exhibitor will permit the Company, through its designated agents, engineers, and mechanics, to have access to the Theatre at all reasonable hours, including hours of performance, for the purpose of examining and inspecting the Equipment and for the purpose also of instructing motion picture operators, not employed by the Exhibitor, in the operation thereof (but only in such manner and at such times as not to interfere with regular performances) and will grant to the Company full opportunity to make such adjustments therein and repairs thereof as, in the opinion of the Company, are necessary or desirable. The Exhibitor will, through its operators, electricians, and other employees, facilitate such examinations, inspections, adjustments, and repairs, and at all reasonable hours and times have available and supply electric current of suitable voltage and character therefor. The Exhibitor will grant similar access to the Theatre to representatives and employees of the Company for a reasonable length of time (depending on the size and situation of the Theatre) prior to the "Service Day", for the purpose of installing and testing the Equipment and will also grant such access, after the expiration or termination of this license to permit representatives of the Company to disconnect, pack, and remove the Equipment.

16. *Liability or Interruptions, Injuries, etc.*—The Company shall not be responsible in any manner for any interruption of service arising from any cause or for any defect or change of condition in the Theatre or in the equipment thereof or in the electric current supplied thereto or for any loss or damage to persons or property in or upon the said premises for any reason whatsoever, and the Exhibitor agrees to indemnify the Company and save it harmless on account of any such loss or damage. The Exhibitor agrees to indemnify the Company for, and save it harmless from any liability or injury to workmen whom the Exhibitor shall furnish to assist in the handling, installing, or operating of the Equipment, and from any liability to any persons resulting from negligence of such workmen.

17. *Title to Equipment.*—All of the sums agreed to be paid by the Exhibitor to the Company by any of the provisions hereof, however designated, calculated, or described, are items forming part of the agreed consideration for the license granted hereby and are so paid by the Exhibitor and so received by the Company, and notwithstanding any termination or expiration of this license, all such sums theretofore paid may be retained by the Company without prejudice to the Company's right to recover any additional amounts which may be due. Title to and ownership of all equipment furnished pursuant to any of the terms hereof (including all parts, accessories, batteries, tubes, wiring, and incidental mechanism and tools of all kinds) is and shall at all times be and remain vested in the Company.

18. *Events of Default.*—This agreement and the license hereby granted shall, at the option of the Company, terminate and come to an end upon the happening of any of the following events, to wit:

(*a*) Upon the bankruptcy or insolvency of the Exhibitor.

(*b*) Upon the failure or refusal of the Exhibitor for any reason to pay any of the items or sums herein agreed to be paid by it, within ten days after such item or sum is or may become due, and as to this provision time shall be of the essence.

Digitized by Google

(c) Upon a breach by the Exhibitor of any of the covenants herein contained relative to the use or maintenance of the Equipment.

(d) Upon the removal of the Equipment or any part thereof from the location and position in which it was installed by the Company.

(e) Upon the failure of the Exhibitor to permit access to the Equipment by the Company for the uses and purposes herein set forth.

Except as to the provisions of subdivisions (a), (b) and (e) of this section the foregoing provisions for the termination of this license in the event of default shall not be effective until the Company shall have notified the Exhibitor by registered mail that it is in default, specifying in what particular, and until a period of fourteen days shall have been given to the Exhibitor to remove or correct such default, but any and all obligations imposed upon the Company by virtue of this agreement shall be suspended while the Exhibitor shall be in default.

19. *Repossession of Equipment.*—Upon termination or expiration of this license by lapse of time or otherwise, the Exhibitor will surrender up and deliver possession of the Equipment to the Company in good order and condition, reasonable wear and tear and obsolescense due to proper use thereof in the manner and place and for the purpose set forth in this agreement only excepted and the Company may repossess the Equipment and may, for the purpose of reducing the same to possession, enter the Theatre or any other premises where said Equipment may be and without any legal proceedings whatever possess and remove said Equipment, and the Exhibitor will cooperate in such removal. If this license shall be terminated by default, the Company shall thereupon, without notice, have the right to take immediate possession of said Equipment, and for that purpose may pursue the same wherever it or any part thereof may be found and may enter with the aid and assistance of any person or persons the Theatre or other promises of the Exhibitor and such place or places whatsoever, whether belonging to the Exhibitor or not in which the Equipment or any part thereof may be placed, and may take and seize the same to its own proper use forever, free from any right of the Exhibitor under this agreement. The Exhibitor expressly covenants that in any such event no claim will be made for damages on account of such removal or otherwise, and the exhibitor further agrees that it will hold and save harmless the Company from and against any and all claims for damages by any parties whatsoever on account of such removal.

20. *Patent Protection.*—The Company agrees that subject to the provisions hereof, it will at its own expense defend any and all actions which may, during the term hereof, be brought against the Exhibitor for infringement of patents by reason of the employment by the Exhibitor of apparatus and equipments furnished by the Company hereunder and used for the purpose and in the manner contemplated by this agreement, and will pay or satisfy all judgments and decrees for profits, damages, and/or costs which may be finally awarded against the Exhibitor by the court of last resort in any such action or suit on account of any such infringement; provided that the Exhibitor shall give the Company prompt notice of such action or suit, full information, and all reasonable cooperation in connection therewith, and full opportunity to defend the same, and provided further that this agreement shall not extend to any infringement arising from the use of any of said Equipment in combination with apparatus or things not furnished by the Company and that the liability of the Company under this agreement shall in no case exceed the total amount paid hereunder by the Exhibitor to the Company.

21. *License Nonexclusive.*—Nothing in this contract shall be construed as granting to the Exhibitor an exclusive right or license to operate the Equipment in any particular City, Town, zone, or neighborhood, or as preventing or prohibiting the Company from entering into similar contracts of license for the use and installation of similar equipment in competing theatres.

22. *Not Assignable.*—This agreement shall not be assigned by the Exhibitor without the written consent of the Company. It shall, however, subject to such restriction upon assignment by the Exhibitor, be binding upon the parties and their respective successors and legal representatives and shall be interpreted according to the laws of the State of New York.

23. *Period of License.*—This license shall be for a term of ten years from the Service Day as herein defined, but if the installation charge shall have been fully paid and the Exhibitor shall not be in default as to any of the provisions of this agreement, the same may be terminated at the option of the

Digitized by Google

Exhibitor after the expiration of three years from the Service Day upon not less than six months' written notice given by the Exhibitor to the Company of intention so to terminate and the payment to the Company of a sum sufficient to defray the cost to the Company of removing the Equipment.

24. *Entire Understanding.*—The parties hereto expressly stipulate that this agreement as herein set forth contains the entire understanding of the respective parties with reference to the subject matter hereof, and that there is no other understanding, agreement or representation, express or implied, in any way limiting, extending, defining, or otherwise relating to the provisions hereof. No waiver by either party, whether express or implied, of any of the provisions of this agreement shall be construed as constituting a waiver of any other provision or provisions of this agreement or as estopping either party from its right to enforce any provision or all provisions hereof.

25. *Cancelling Previous Agreement.*—Reference is hereby made to a certain agreement between The Vitaphone Corporation and the Exhibitor dated ----------, granting a license to the Exhibitor to use Vitaphone Equipment in said Theatre, which agreement has been assigned to the Company, and the parties hereto mutually agree that this agreement on ---------- ----------, be and the same hereby is substituted for said prior agreement with the Vitaphone Corporation, and said prior agreement on said date be and the same hereby is terminated and all rights of the parties hereto terminated. Any and all payments heretofore made and promissory notes delivered by the Exhibitor to The Vitaphone Corporation applying to the installation fee shall be considered as having been made and delivered under the provisions and pursuant to the terms of the present agreement and to be, to the extent thereof, compliance with the provisions of the present agreement.

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INCORPORATED.

By ----------

By ----------

In presence of—

(as to E. R. P. I.)

(as to Exhibitor)

WESTERN ELECTRIC CO., INC.,
New York, September 27, 1935.

COMMITTEE ON PATENTS,
House of Representatives, United States,
New York, N. Y.

(Attention Mr. Chas. A. Welsh, Jr.)

DEAR MR. WELSH: With reference to your request with regard to the apparatus and service account under the sound picture agreements of Electrical Research Products, Inc., I am advised that the amount collected on this account by Electrical Research Products, Inc., is approximately $89,476,000.

Yours very truly,

E. J. MORIARTY, *General Attorney.*

AMERICAN TELEPHONE & TELEGRAPH CO.,
New York, October 14, 1935.

Mr. CHARLES A. WELCH, JR.,
New York, N. Y.

DEAR SIR: In response to your telephonic request I take pleasure in sending you herewith a copy of the agreement between the General Electric Co. and this company, dated July 1, 1926, for which the agreement you now have was substituted.

Very truly yours,

G. E. FOLK, *General Patent Attorney.*

Digitized by Google

AGREEMENT BETWEEN WESTERN ELECTRIC AND AMERICAN TELEPHONE & TELEGRAPH

This agreement made this 6th day of February, A. D. 1882, by and between the American Bell Telephone Co., a corporation created and existing under the laws of the Commonwealth of Massachusetts, of the first part, and the Western Electric Co., a corporation created and existing under the laws of the State of Illinois of the second part.

Witnesseth: Whereas said second party desires to be employed by said first party to manufacture the telephones required by it, said first party, and to be licensed to manufacture telephonic appliances and apparatus, other than telephones under letters patent now owned, or controlled, or which may hereafter be owned or controlled by said first party, and whereas said second party owns certain inventions, patents, and rights under patents relating to telephones and telephonic appliances.

Now therefore it is agreed

1. Said second party agrees that it will if said first party shall elect to purchase the same at any time within 6 months from the date hereof, sell, assign, and transfer to the first party at the actual cost thereof to it, said second party, either or any, or all the inventions in electrical speaking telephones, or improvements therein, or applicable thereto, which it, said second party, now owns, and further that it, said second party, will from time to time if, and whenever it shall acquire any inventions in electric speaking telephones, or improvements therein, or applicable thereto, forthwith notify said first party thereof and that it will, in case said first party shall elect to purchase the same within 6 months after such notice sell, assign, and transfer the same to said first party at the actual cost thereof to said second party.

The word "telephone" as used in this contract includes all instruments employed for the electrical transmission of articulate speech, including therein all attachments and devices which serve to cause to improve, or to modify, the articulating current, or the effects thereof.

2. Said first party agrees that it will employ said second party during the existence of this contract to manufacture telephones required by it, the American Bell Telephone Co., whether for use in the United States, or for export, upon the terms and conditions following—that is to say:

Said telephones shall be manufactured only at such of the manufacturies of said second party as said first party may from time to time designate.

At all times during their manufacture and upon their completion the instruments and the materials employed shall be subject to the inspection and acceptance of superintendents and inspectors, appointed by said first party.

The price to be paid therefor shall be the actual cost thereof, with an addition of 20 percent of such cost as manufacturer's profit.

Said second party shall promptly manufacture and supply all telephones ordered by said American Bell Telephone Co. and shall provide itself with facilities for making them in such quanities as the cost of business may demand.

Said telephones shall be of such patterns and styles and shall embody such inventions and improvements as said first party may from time to time prescribe, and shall be made in all respects as they shall direct as to style, material, workmanship, and finish.

In addition to the patent marks and figures said telephones shall bear such other marks and figures as said American Bell Telephone Co. shall from time to time direct and no others.

Said manufacture shall be subject to such regulations as may in the opinion of the first party be necessary for its protection and as it shall from time to time prescribe to said second party. Except as in this article provided for the second party shall engage in the manufacture of telephones within the United States only under such restrictions as the first party may from time to time impose.

Said second party faithfully complying with the terms of this employment, said first party agrees that it will during the existence of this contract employ no others to manufacture telephones.

3. Said second party hath granted and doth hereby grant to the first party the sole and exclusive right and license during the full term for which patents thereon have been, or may be granted, to make, use, and sell, and to license others, except only the existing licensed manufacturers of said first party named in article 4 hereof, to make, use, and sell in call bells, switches, and other telephonic appliances, any inventions or improvements therein, which

Digitized by Google

it, said second party, does now or may hereafter own or control, in whole or in part, by contract or otherwise, whether patented or not.

"Telephonic appliances" include calls, switches, switchboards, annunciators, exchange furniture, and other apparatus, and devices adapted for use on or for telephone lines, except telephones as above defined.

The second party agrees that it will from time to time and at all times do, execute, and deliver such other and further acts and instruments, if any, as may be necessary to secure to and vest in said first party such sole and exclusive right and license.

4. Said first party hereby grants and agrees to grant (subject, however, as to inventions hereafter directly acquired by said first party to the provisions of (*j*) of this article) to the second party a license exclusive, except as hereinafter stated upon the terms and conditions and subject to the limitations herein expressed, during the full term for which letters patent thereon have been or may be granted, to make and to sell call bells, switches, and other telephonic appliances as above defined, embodying any inventions or improvements thereon which it, said first party, does now or may hereafter own or control (including herein the inventions and improvements licensed to it, said first party, by said second party in the previous article hereof) but said second party shall and said second party hereby agrees that it will—

(*a*) Assume, and pay, or discharge any and all royalties and other obligations which said first party is, or may be bound to pay or perform on, or on account of said inventions, or any of them.

(*b*) Within the United States sell such apparatus to the licensees of telephones of the American Bell Telephone Co. at prices not exorbitant or unreasonable and under the terms and limitations hereinafter stated; such prices are to be uniform for the different classes of licensees of said American Bell Telephone Co.—and to sublicensees and nonlicensees of said American Bell Telephone Co. only under such restrictions as the first party may from time to time impose.

(*c*)

(*d*) Mark such apparatus in addition to the patent numbers and marks with such other numbers, marks, notices or names and in such manner as said first party shall from time to time prescribe.

(*e*) Promptly manufacture and supply all such apparatus as it is hereby authorized to supply, and of such patterns and styles, and embodying such inventions and improvements as may be ordered by the parties to whom it is authorized to dispose of the same, and will provide itself with facilities for making such apparatus in such quantities as the course of business may demand.

(*f*) Will, during the continuance hereof, make full and true returns under oath of all and singular telephonic appliances and apparatus manufactured hereunder if and when such return may be required by the first party.

(*g*) And except as in this article provided shall engage in the manufacture of telephonic appliances within the United States only under such restrictions as the first party may from time to time impose.

(*h*) The party of the second part agrees that all instruments, or apparatus, manufactured under this license, shall be of the most approved forms and first class in point of material, finish, and workmanship and shall be subject to the inspection of the party of the first part.

(*i*) The license hereby granted is not exclusive as to inventions, or improvements in cables, conductors, insulators, or the manner of constructing and arranging lines (apart from switches and instruments) and

The rights in this article granted are subject to the existing rights of Post & Co. of Cincinnati, Ohio, under contract dated June 27, 1879, with the National Bell Telephone Co.; of Davis and Watts, of Baltimore, Md., under contract dated June 24, 1879, with the National Bell Telephone Co. of the Electric Merchandising Co. under contract dated June 11, 1879, with the National Bell Telephone Co.; and to the manufacturing rights of the Telephone & Telegraph Construction Co. under contract dated October 24, 1877, with Gardiner G. Hubbard, trustee. But the first party agrees that it will within 6 months after request therefor from said second party give notice to terminate such of such last-named contracts as can be so terminated as therein provided; and it is agreed that the second party shall until such termination be entitled to receive all royalties accruing to the first party thereunder after July 1, 1881, on account of manufactures less only royalties which said first party may be bound to pay on account thereof.

Digitized by Google

(*j*) In case said first party shall hereafter acquire any invention, or inventions, in telephone appliances as above defined, other than such as it may hereafter acquire by license from the second party under article 3 hereof it shall forthwith notify said second party thereof, and such invention, or inventions, shall in case said second party shall so elect within 6 months from the date of such notice, come under the provisions of this article 4 hereof with like effect as if such invention, or inventions, were now owned by said first party; but the second party, in case it shall elect to have such license, shall forthwith upon making such election repay to said first party the cost of such invention or inventions and assume any and all royalties and other obligations which said first party may be bound to pay or perform on or on account of such invention, or inventions.

5. Whereas the due prosecution of the business of said telephone company and of its licensees, users of its telephones, requires that telephones and telephonic appliances of the most approved forms and workmanship be promptly furnished, and, as herein provided, and whereas the said telephone company is unwilling to permit the reasonable expectations of its licensees in this regard to be disappointed, and whereas the time required to ascertain judicially whether the second party shall or shall not, have failed to perform its obligations hereunder, would cause a delay which might work great, irreparable, and unascertainable damage to said telephone company and its said licensees, now it is an integral part of this contract, and is also a limitation of, and an exception to the license hereby granted, and the employment hereby contracted for, that—

1. Whenever the directors or executive committee of said telephone company shall be of opinion that the second party has failed in its obligations in this respect, or that there is imminent danger, or probability, that it will so fail, the said telephone company may without notice on demand forthwith manufacture, or cause to be manufactured elsewhere, either by itself or others, such instruments as in its opinion may be required to meet the emergency and may continue, and prepare to continue, such manufacture elsewhere so long as in its opinion may be needful; and for the purpose of obtaining such supply, the opinion of its directors, or its executive committee, arrived at in good faith, shall be conclusive as to its right so to obtain a supply elsewhere, and its action, based thereon, shall not be restrained by any court or judicial power whatever; but such decision shall not terminate this contract and license, nor shall it prevent the second party from furnishing apparatus to any persons who may lawfully order the same according to the terms hereof.

2. If it shall thereafter be determined by agreement of the parties, or by the final judgment of any court of competent jurisdiction, that the opinion so acted on by said telephone company was erroneous, then the consequences of such error shall be that said telephone company shall pay to said second party all the profits which it, said second party, would actually have realized and receive if such supply, so obtained elsewhere, had been obtained of said second party and said decision of said telephone company shall not authorize it thereafter to obtain such supply elsewhere.

3. If it shall be determined by agreement of the parties, or by the final judgment of any court of competent jurisdiction, that said second party did violate, or failed to comply with, or has violated, or failed to comply with, any of the terms of this agreement, then this license to manufacture telephonic appliances shall be deemed to have been nonexclusive and the obligation to employ the second party to manufacture telephones to have ceased as from the time of such violation, or default, and said license shall remain nonexclusive, and the first party shall be under no obligation to employ the second party to manufacture telephones, unless and until said second party shall, upon notice from said first party, have remedied or repaired such default, violation, or neglect and shall have repaid and made good to said first party any and all loss, cost, damage, and expense occasioned thereby, or resulting therefrom, and shall reasonably satisfy said first party that it is prepared and intends to conform hereto, whereupon said license shall again become exclusive and the obligation to employ the second party to manufacture telephones shall revive, such license and such employment being, however, subject to all the terms, conditions, limitations, and stipulations, inclusive of this article, herein contained.

6. Existing interferences in cases of inventions in telephonic appliances shall be disposed of as counsel of the parties hereto may advise, to recognize and protect the right of the several inventors to their respective inventions, subject to the decisions of the Patent Office.

Digitized by Google

7. The first party agrees that it will, so long as, and insofar as the license herein granted the second party is and shall remain exclusive, consent to the use of its name either alone, or together with that of the second party, as the case may require, in all such suits as counsel of the parties may advise are necessary or proper for the protection of such rights against infringement, but the whole expense of such litigation shall be borne by the second party.

8. This contract shall remain in force until it shall be terminated by the mutual agreement of the parties hereto.

In witness whereof the American Bell Telephone Co. has caused these presents to be signed in its name and behalf of William H. Forbes, its president, and its corporate seal to be hereto affixed, and the Western Electric Co. has caused these presents to be signed in its name and behalf by Anson Stager, its president, and its corporate seal to be hereto affixed the day and year first above written.

[Before the execution hereof the following interlineations were made, viz: On p. 3 the word "employment" (substituted for the word "agreement" erased). On p. 4 the word "thereon" and the words "except only the existing licensed manufacturers of said first party named in art. 4 hereof"; on p. 4 the words "or perform"; on p. 7 the words "to the manufacturing rights" and (at the end of par. (i)) the words "on account of manufactures less only royalties which said first party may be bound to pay on account thereof"; on p. 8 the words "or perform" and the word "said"; on p. 9 the words "or has violated or failed to comply with".]

THE AMERICAN BELL TELEPHONE CO. [SEAL]
By W. H. FORBES, *President.*
WESTERN ELECTRIC CO. [SEAL]
By ANSON STAGER, *President.*

Attest:
S. G. LYNCH, *Secretary.*

Memorandum of an agreement made this 8th day of April 1908 between the American Bell Telephone Co., a corporation organized under the laws of Massachusetts, of the first part, and the Western Electric Co., a corporation organized under the laws of Illinois, of the second part,

Witnesseth: That whereas the parties hereto executed on the 6th day of February 1882 a certain contract relating to the manufacture of telephones and telephonic apparatus and it is desired that certain changes be made in said contract.

Now, therefore, it is mutually agreed that said contract shall be modified as follows:

1. That clause 2 be modified by striking out the words:

"Except as in this article provided for the second party shall not engage in the manufacture of telephones within the United States."

and substituting in place thereof thefollowingwords:

"Except as in this article provided for the second party shall engage in the manufacture of telephones within the United States only under such restrictions as the first party may from time to time impose."

2. That the following be substituted for paragraph (*b*) of clause 4:

"Within the United States sell such apparatus to the licensees of telephones of the American Bell Telephone Co. at prices not exorbitant or unreasonable and under the terms and limitations hereinafter stated; such prices are to be uniform for the different classes of licensees of said American Bell Telephone Co.—and to sublicensees and nonlicensees of said American Bell Telephone Co. only under such restrictions as the first party may from time to time impose."

3. That paragraph (*e*) of clause 4 be canceled.

4. That the following be substituted for paragraph (*d*) of clause 4:

"Mark such apparatus in addition to the patent numbers and marks with such other numbers, marks, notices, or names and in such manner as said first party shall from time to time prescribe."

5. That the following be substituted for paragraph (*f*) of clause 4:

"Will, during the continuance hereof, make full and true returns under oath of all and singular telephonic appliances and apparatus manufactured hereunder if and when such return may be required by the first party."

6. That the following be substituted for paragraph (*g*) of clause 4:

"And except as in this article provided shall engage in the manufacture of telephonic appliances within the United States only under such restrictions as the first party may from time to time impose."

Digitized by Google

In witness whereof the parties hereto have caused their respective corporate seals to be hereto affixed and these presents to be signed in their names and behalf by their proper officers thereto duly authorized.

THE AMERICAN BELL TELEPHONE CO., [SEAL]
By THEO. N. VAIL, *President.*

Attest:

CHAS. EUSTICE HUBBARD, *Clerk.*
WESTERN ELECTRIC CO., [SEAL]
By E. M. BARTON, *President.*

Attest:

H. A. HALLIGAN, *Secretary.*

WESTERN ELECTRIC CO., INC.,
195 Broadway, New York, September 25, 1935.

COMMITTEE ON PATENTS,
House of Representatives,
Fifth Avenue Hotel, New York, N. Y.
(Attention Mr. Charles A. Welsh, Jr.)

DEAR MR. WELSH: In accordance with your request, I am handing you herewith copies of the contract forms covering the leasing by Electrical Research Products, Inc., to exhibitor licensees of sound picture reproducing equipment.

I also hand you a small binder of photostatic copies of the general contractual arrangement made on May 11, 1928, relating to Paramount Publix Theatres.

Yours very truly,

E. J. MORIARTY,
General Attorney.

PARAMOUNT FAMOUS LASKY CORPORATION TO ELECTRICAL RESEARCH PRODUCTS, INC.—ORDER AGREEMENT WITH SCHEDULES A AND B AND EXHIBITORS' AGREEMENT FORM DATED MAY 11, 1928

MAY 11, 1928.

ELECTRICAL RESEARCH PRODUCTS, INC.,
195 Broadway, New York City.

GENTLEMEN: We hereby place with you orders for 55 reproducing equipments of the types standardized by you and suitable for installation in the theaters listed in schedule A hereto annexed, for such approximate installation dates as are indicated on said schedule.

We agree that for each such theater and for any other theater owned, controlled, or operated by us, or in which we have a proprietary interest, for which such equipment may be ordered from time to time, a contract shall be entered into for the individual theater by the company which owns, operates, or controls the theater, on your standard form of exhibitor's license agreement which is applicable to the particular equipment determined upon as above, subject to the modifications of such exhibitor's license agreement set forth in schedule B hereto annexed, and such agreement shall in each case be deemed amended as provided in said schedule B. It is understood that the reproducing equipments covered hereby shall be furnished upon the terms set forth in the letter from you to us of even date herewith, insofar as such terms relate to said reproducing equipments.

Very truly yours,

PARAMOUNT FAMOUS LASKY CORPORATION,
By ADOLPH ZUKOR, *President.*

APRIL 13, 1933.

Mr. A. E. CASE and
Mr. J. J. LAWRENCE:

Herewith photostat copy of a list of theaters denominated "Schedule A, Electrical Research Products, Inc., and Paramount Famous Lasky Corporation, dated May 11, 1928." This list was substituted for the list of 55 theaters originally attached to the letter of May 11, 1928, from Paramount Famous Lasky Corporation to E. R. P. I. ordering the installation of reproducing equipments in the theater shown in the schedule.

Digitized by Google

The first page of the original of this list bears the following notation: "O. K. W. B. Saal." It is my understanding that at the time this list was prepared Mr. Saal was in charge of theater matters for Paramount. His signature has not reproduced very well on the photostat copy, but it is entirely plain on the original.

L. E. SHERWOOD.

SCHEDULE A

INSTALLATIONS HERETOFORE MADE

Asheville, N. C., Imperial.
Charlotte, N. C., Imperial.
Atlanta, Ga., Rialto.
Birmingham, Ala., Strand.
Macon, Ga., Rialto.
Savannah, Ga., Odeon.
Austin, Tex., Queen.
Dallas, Tex., Melba.
Fort Worth, Tex., Palace.
Galveston, Tex., Queen.
Houston, Tex., Kirby.
San Antonio, Tex., Empire.
Waco, Tex., Palace.
Enid, Okla., Criterion.
Oklahoma City, Okla., Capitol.
Miami, Fla., Hippodrome.
St. Petersburg, Fla., Pheil.
Tampa, Fla., Victory.
Yonkers, N. Y., Strand.
Colorado Springs, Colo., Rialto.
Davenport, Iowa, Columbia.
Des Moines, Iowa.
Omaha, Nebr., Rialto.
Sioux City, Iowa, Capitol.
St. Louis, Mo., Grand Central.
El Paso, Tex.
Wichita Falls, Tex.
Amarillo, Tex.
Iowa City, Iowa.
Fort Dodge, Iowa.
Mason City, Iowa.
Clinton, Iowa.

INSTALLATIONS FOR WHICH ORDERS HAVE BEEN PLACED

Columbia, S. C., Ideal.
Knoxville, Tenn., Riviera.
Augusta, Ga., Modjeska.
Chattanooga, Tenn., New Theatre.
Montgomery, Ala., Strand.
Fort Smith, Ark., Joy.
Little Rock, Ark., Royal.
Daytona, Fla., Florida.
Gainesville, Fla., Florida.
Ocala, Fla., Dixie.
Newburgh, N. Y., Broadway.
Poughkeepsie, N. Y., Strand.
Buffalo, N. Y., North Park.
Buffalo, N. Y., Kensington.

ADDITIONAL INSTALLATIONS DESIRED

Greenville, S. C., Rivoli.
Miami Beach, Fla., Community.
Denver, Colo., Rialto.
Greeley, Colo., Stirling.
Pueblo, Colo., Stirling.
Lincoln, Nebr., Lincoln.
St. Joseph, Mo., Missouri.
Allston, Mass., Allston.
Boston, Mass., Washington Street Olympia.
Boston, Mass., Fenway.
Cambridge, Mass., Central Square.
Brockton, Mass., Strand.
Pittsfield, Mass., Capital.
Dorchester, Mass., Doman Square.
Gloucester, Mass., North Shore.
Haverhill, Mass., Colonial.
Lowell, Mass., Merrimac Square.
Chelsea, Mass., Olympia.
Lynn, Mass., Olympia.
New Bedford, Mass., Olympia.
Salem, Mass., Salem.
Bangor, Maine, Opera House.
Biddeford, Maine, Central.
Waterville, Maine, Haines.
Lewiston, Maine, Auburn.
August, Maine, Opera House.
Newport, R. I., Strand.
Rutland, Vt., Strand.
Woonsocket, R. I., Stadium.
Pawtucket, R. I., Strand.
Portsmouth, R. I., Portsmouth.
Chicago, Ill., Chicago.
Chicago, Ill., Oriental.
Chicago, Ill., McVicker's.
Chicago, Ill., Roosevelt.
Chicago, Ill., Uptown.
Chicago, Ill., Tivoli.
Chicago, Ill., Norshore.
Chicago, Ill., Harding.
Chicago, Ill., Senate.
Chicago, Ill., Paradise.
Chicago, Ill., State and six (6) L. & T. houses not yet named.
Chicago, Ill., Marquette.
Chicago, Ill., Highway.
Detroit, Mich., Capitol.
Detroit, Mich., State.
Munsey, Ind.
Richmond, Ind.
Michigan City, Ind.

Digitized by Google

INSTALLATIONS COMPLETE

Atlanta, Ga., Rialto.
Charlotte, N. C., Imperial.
Asheville, N. C., Imperial.
Austin, Tex., Queens.
Newburgh, N. Y., Broadway.
Savannah, Ga., Odeon.
Galveston, Tex., Queens.
Oklahoma City, Okla., Capitol.
Enid, Okla., Criterion.
Montgomery, Ala., Strand.
Birmingham, Ala., Strand.
Fort Worth, Tex., Palace.
Dallas, Tex., Melba.
Houston, Tex., Kirby.
Macon, Ga., Rialto.
Colorado Springs, Colo., Rialto.
San Antonio, Tex., Empire.

INSTALLATIONS TO BE COMPLETED

Poughkeepsie, N. Y., Stratford.
Cambridge, Mass., Central Square.
Allston, Mass., Allston.
Augusta, Ga., Modjeska.
Boston, Mass., Fenway.
Boston, Mass., Washington St. Olympia.
Dorchester, Mass., Codman Square.
Chelsea, Mass., Olympia.
Columbia, S. C., Ideal.
Pawtucket, R. I. Strand.
Pittsfield, Mass., Capitol.
Knoxville, Tenn., Riviera.
Chattanooga, Tenn., New.
Fort Smith, Ark., Joie.
Buffalo, N. Y., North Park.
Buffalo, N. Y., Kensington.
Daytona, Fla., Florida.
Gainesville, Fla., Florida.
Birmingham, Ala., Alabama.
Macon, Ga., Capitol.
Ocala, Fla., Dixie.
Chicago, Ill., McVicker's.
Gloucester, Mass., North Shore.
Newport, R. I., Strand.
Boston, Mass., Scolly Square.
Denver, Colo., Denver.
San Francisco, Calif., Granada.
New York, N. Y., Paramount.
Seattle, Wash., Seattle.
Portland, Oreg., Portland.
Little Rock, Ark., Royal.
Atlanta, Ga., Howard.
Lowell, Mass., Merrimac.
Lynn, Mass., Olympia.
Biddeford, Maine, Central.
Denver, Colo., Rialto.
Los Angeles, Calif., Metropolitan.
Dallas, Tex., Palace.
Houston, Tex., Metropolitan.
San Antonio, Tex., Texas.
Haverhill, Mass., Colonial.
Salem, Mass., Salem.
Bangor, Maine, Opera House.
Woonsocket, R. I., Stadium.
Chattanooga, Tenn., Ritz.
New Haven, Conn., Olympia.
Waterloo, Iowa, Riviera.
New York, N. Y., Rialto.
New York, N. Y., Rivoli.
St. Louis, Mo., Ambassador.
Indianapolis, Ind., Indiana.
St. Louis, Mo., Missouri.
Minneapolis, Minn., Minnesota.
St. Joseph, Mo., Missouri.
Lincoln, Nebr., Lincoln.
Chicago, Ill., Chicago.
Chicago, Ill., Oriental.
Chicago, Ill., Roosevelt.
Chicago, Ill., Uptown.
Brockton, Mass., Strand.
Rutland, Vt., Strand.
Chicago, Ill., Tivoli.
Chicago, Ill., North Shore.
Chicago, Ill., Harding.
Chicago, Ill., Senate.
Chicago, Ill., Paradise.
Chicago, Ill., State.
Chicago, Ill., Marquette.
Chicago, Ill., Highway.
Detroit, Mich., Capitol.
Detroit, Mich., State.
Chicago, Ill., Regal.
Detroit, Mich., Michigan.
Oklahoma City, Okla., Criterion.
Boston, Mass., Metropolitan.
Buffalo, N. Y., Buffalo.
Greenville, S. C., Carolina.
Charlotte, N. C., Carolina.
Des Moines, Iowa, Capitol.
Jacksonville, Fla., Florida.
Miami, Fla., Olympia.
Tampa, Fla., Tampa.
Augusta, Ga., Imperial.
St. Petersburg, Fla., Florida.
Austin, Tex., Majestic.
Miami Beach, Fla., Community.
Greeley, Colo., Sterling.
Pueblo, Colo., Colorado.
Greenville, S. C., Rivoli.
Ybor City, Fla., new theatre.
Fort Worth, Tex., Worth.

SCHEDULE B

ANNEXED TO LETTER DATED MAY 11TH, 1928 FROM PARAMOUNT FAMOUS LASKY CORPORATION TO ELECTRICAL RESEARCH PRODUCTS, INC.

The following modifications of the so-called Exhibitors' License Agreement are to apply to the contracts referred to in the letter to which this Schedule

Digitized by Google

is annexed, the references herein being to several paragraphs in said Exhibitors' License Agreement.

Par. 14: "*Events of Default.*"

Par. 15: "*Repossession of Equipment.*"

It is understood that Products shall give notice stating the default, which notice shall be given by registered mail addressed to the particular exhibitor at the theatre in question and a copy thereof addressed to the exhibitor's home office in New York City, before Products shall exercise the option to terminate, except, however, that in the event of bankruptcy of the exhibitor no notice from Products shall be required.

Par. 17: "*Patent Protection.*"

In the event that in any action or suit for infringements covered by the above paragraph a judgment or decree for profits, damages, or costs on account of any such infringement shall be entered against the Exhibitor by any court of competent jurisdiction, Products agrees either to pay and satisfy such judgment or decree or, at its own expense, to take all necessary action (as by appeal or writ of certiorari, including the furnishing of all necessary bonds) to suspend the operation thereof pending final judgment by a court of last resort.

It is agreed that the provision at the end of paragraph 17, which reads as follows:

"and shall in no case exceed the total amount paid hereunder by the Exhibitor to Products"

shall be considered eliminated with respect to the agreements referred to in the letter to which this is annexed.

Paragraph 19. "Period of License."

The license shall be for a term of sixteen (16) years instead of ten (10) years, as stated in the above paragraph.

Paragraph 21: "Non-Assignable."

If the Exhibitor ceases to own or operate the Theatre he may assign this license to the successor operator of the Theatre, provided such successor operator assumes full performance of all of the obligations of this license in a manner satisfactory to Products; and provided further, that if said assignment takes place prior to the payment in full of the installation charges herein provided, the Exhibitor herein named shall remain liable for the unpaid balance of such charges.

287 T S—12 M

Contract No._____

This Agreement made in triplicate in the City of New York, State of New York, this _____ day of _____, 192__, by and between Electrical Research Products, Inc. (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation having its principal place of business in the City, County, and State of New York (hereinafter called "Products"), licensor, and _____, a _____ Corporation having its principal place of business at No. _____ Street, in the City of _____, State of _____ (hereinafter called the "Exhibitor"), licensee, and operating the _____ Theatre, at No. _____ Street, in the City of _____, State of _____ (hereinafter called the "Theatre"):

Witnesseth, that, for and in consideration of the covenants, stipulations, and representations herein set forth, the respective parties hereto agree as follows:

1. (*a*) *Grant of License and Installation of Equipment.*—Products hereby grants to the Exhibitor a non-exclusive non-assignable license to use in the Theatre (subject to all the terms, conditions, limitations, and agreements herein contained) the equipment hereinafter described for the electrical reproduction of sound in synchronism with, or as incidental to, the exhibition of motion pictures, or any performance given in conjunction therewith, and to employ (to the extent necessarily involved in such use of said equipment) the methods and/or systems of Products, under all United States patents and applications for United States patents, relating to said equipment or to such use thereof, which are now owned or controlled, or which may during the term of this agreement be owned or controlled by Products, or in respect of which it has or may hereafter during the term of this agreement have the right to grant such license.

(*b*) *Service Day.*—Products agrees to install in the Theatre sound reproducing equipment (herein referred to as "Equipment"), as follows:

Digitized by Google

and will endeavor to complete such installation on or before _____ 192__, which shall be known as the "Tentative Service Day." Nothing herein contained shall be considered as a firm agreement on the part of Products to complete the installation of the Equipment on or before the said date, it being understood that the extent of the obligation of Products in this respect is limited to using its best efforts to procure the manufacture and delivery of the Equipment and to installing the same expeditiously. The day on which installation of the Equipment shall be completed and the Equipment made available to the Exhibitor as ready for public exhibition whether prior or subsequent to the "Tentative Service Day" shall be known as the "Service Day."

2. *Use of Equipment.*—The Exhibitor agrees that it will use and employ the Equipment only in the Theatre, and that it will at all times during the period of this license keep, maintain, and operate the Equipment in the manner from time to time prescribed by Products and in no other manner. The Exhibitor recognizes the highly technical mechanism and art involved in the inventions and construction of the Equipment, and in the making of sound records (in any form) for use therewith, and that the prestige and business reputation of Products might be seriously affected by imperfect operation of the Equipment or by its use with sound records which are not suited to it or which produce inferior results when used with the Equipment, and that use of said Equipment otherwise than as herein licensed may involve infringement of patent rights. Therefore, in order to secure and insure the functioning of the Equipment to the satisfaction of the parties hereto, the Exhibitor shall not, without the written consent of Products, move, alter, change, or modify the Equipment, nor add anything thereto nor take anything therefrom; nor break the seal upon any part or collection of parts which is or may be sealed by Products; nor operate, use, or employ the Equipment in any manner in conjunction with any sound record not made under license from Products for such use, unless such sound record is of such character that the Equipment will operate properly, reliably, and efficiently to reproduce sound from such sounds records with accuracy of quality and adequacy of volume. Also, in order further to secure proper functioning of the Equipment as aforesaid satisfactorily to the parties hereto, it is agreed that all additional and renewal parts and assembled parts for the Equipment shall be obtained from Products. Nothing herein contained, however, shall be construed as prohibiting the Exhibitor from taking all reasonable steps, consistent with the general intent hereof, either alone or together with Products, to protect, correct, or repair the Equipment in the event of an accident or breakdown. The Exhibitor agrees that prior to the first public use in the Theatre of each film and/or sound record, it will cause such films and/or sound records to be run privately upon the Equipment for the purpose of ascertaining that the Equipment is in satisfactory condition and adjustment for the particular film and/or sound record. The Exhibitor expressly agrees that if at any time the Equipment fails to function satisfactorily, it will immediately notify Products by registered mail and telegraph, and the absence of such notification shall be conclusive as to satisfactory functioning of the Equipment.

3. *Removal to another Theatre.*—In the event that the Exhibitor shall for any reason cease to manage or to operate the Theatre, Products will, at the request of the Exhibitor, remove the Equipment to and install the same in another theatre designated by the Exhibitor and satisfactory to Products, provided, however, that the cost of such removal and installation shall be borne by the Exhibitor and that a new agreement for the unexpired term of this license shall be executed by the exhibitor operating such theatre (the Exhibitor hereunder thereupon becoming guarantor to Products of the performance of such new agreement).

4. *Instruction and Inspection Service.*—Products agrees to instruct the motion picture machine operators of the Exhibitor in the manner and method of operating the Equipment, and will issue to each operator who has, in its opinion, satisfactorily completed a course of instruction in the operation of the Equipment, a certificate to that effect. Products further agrees, in order to perfect such instruction, and also in order to superintend the operation of the Equipment, to keep in attendance at the Theatre during the hours of performance and at such additional hours as may be necessary, an engineer or other person skilled in such operation for a period of one week following the day upon which the installation is completed and the Equipment made available to the Exhibitor as ready for public exhibition. Products also agrees to make peri-

Digitized by Google

odical inspection and minor adjustments in the Equipment after it shall have been installed. Products may from time to time install such spare and renewal parts as may, in its opinion, be necessary to the satisfactory operation and maintenance of the Equipment.

5. *Installation Charge.*—The Exhibitor agrees to pay to Products in New York Exchange an installation charge of_____Dollars ($_____) payable as follows:

The sum of_____Dollars ($_____) on or before the execution of this instrument, receipt of which is hereby acknowledged, and the sum of_____Dollars ($_____) by a demand promissory note satisfactory to Products in the amount last mentioned, made by the Exhibitor and delivered to Products on or before the execution of this agreement and bearing no interest prior to presentation, which demand note Products agrees not to present for payment prior to the "Service Day", and the balance by a Series of twelve (12) promissory notes, each in the principal amount of_____Dollars ($_____) satisfactory to Products made by the Exhibitor and delivered to Products on or before the execution of this instrument, the first of said notes maturing one month after the "Service Day" and the remaining notes at monthly intervals thereafter, and all bearing interest at the rate of 6% per annum from the "Service Day." Products is hereby authorized by the Exhibitor to enter upon the face of any notes given hereunder, when the "Service Day" is determined by it the respective maturity dates thereof and the date from which interest shall run. Upon the failure of the Exhibitor to pay any of the said notes as and when the same become due all of the said notes shall forthwith become due and payable.

6. *Service Inspection Charge.*—In addition to any other payments required to be made by the Exhibitor hereunder, the Exhibitor agrees to pay Products throughout the term of the license hereby granted a service and inspection payment, payable weekly, which, for the first two weeks of said term, shall be payable on the Saturday next succeeding the "Service Day" and thereafter throughout the balance of said term on each and every Saturday in advance. The amount of such payment shall be in accordance with Products' regular schedule of such charges as from time to time established. Under Products' present schedule, the service and inspection payment shall be $_____ per week, which charge shall not be exceeded during the first two years of the period of said license and thereafter for the balance of the term of said license shall not exceed the sum of $_____ per week.

7. *Transportation Charges.*—The Exhibitor agrees to pay the cost of transporting the Equipment from the place of shipment to the Theatre, and to accept delivery thereof from the common carrier and make payment directly to the common carrier of freight and express charges thereon. The Exhibitor will also arrange for any necessary loading, trucking, and unloading to put the Equipment down inside the Theatre, and will directly defray the cost thereof.

8. *Payment for Parts, etc.*—The Exhibitor agrees to pay to Products its list installation charges as from time to time established for any additional equipment or spare or renewal parts, furnished or supplied by Products, upon delivery thereof and to pay the transportation charges thereon. The Exhibitor also agrees upon rendition of invoices to pay for any services rendered and expenses incurred by Products' employees in connection with and for the benefit of the Exhibitor, except for the regular periodical inspection and minor adjustment service hereinbefore provided for.

9. *Changes in Theatre.*—The Exhibitor warrants that the Theatre is or before said Equipment is installed will be supplied with suitable electric current; electric power leads of suitable capacity with outlets conveniently located for powe rsupply to the Equipment; suitable space, properly ventilated, for the installation of the storage batteries and charging equipment; drapes for acoustic purposes, and suitable support for horns, and agrees to make such other reasonable changes, alterations, and modifications as may be necessary for the proper installation and accommodation of the Equipment, all at the expense of the Exhibitor and when and to the extent and in the manner prescribed by Products or its engineers, and agrees to comply with all local laws and ordinances relating to the use and operation of the Equipment and with any Fire Insurance Underwriters' requirements.

10. *Title to Equipment.*—Title to and ownership of all equipment at any time furnished hereunder and also all tools of all kinds, drawings, prints, and written descriptions and instructions, remains vested in Products.

Digitized by Google

11. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all personal property taxes which may be charged or levied in connection with the Equipment.

12. *Access to Equipment.*—The Exhibitor will permit Products, through its designated agents, engineers, and mechanics, to have access to the Theatre at all reasonable hours, for the purpose of installing and from time to time for the purpose of examining and inspecting the Equipment, and will grant to Products full opportunity to make such adjustments therein and repairs thereto as, in the opinion of Products, are necessary or desirable.

13. *Liability for Interruptions, Injuries, etc.*—Products shall not be responsible in any manner for any interruption of service arising from any cause or for any defect or change of condition in the Theatre or in the equipment thereof or in the electric current supplied thereto or for any loss or damage to persons or property in or upon the said premises for any reason whatsoever. The Exhibitor agrees to indemnify Products for, and save it harmless from any liability or injury to workmen whom the Exhibitor shall furnish to assist in the handling, installing, or operating of the Equipment, and from any liability to any persons resulting from negligence of such workmen.

14. *Events of Default.*—This agreement and the license hereby granted shall, at the option of Products, terminate and come to an end upon the happening of any of the following events, hereby designated to be events of default, to wit:

(*a*) Upon the bankruptcy or insolvency of the Exhibitor or the assignment of any of its assets for the benefit of creditors.

(*b*) Upon the failure or refusal of the Exhibitor for any reason to pay any of the items or sums herein agreed to be paid by it, including the payment of any of the notes provided for in Section 5 hereof, within five days after such item or sum is or may become due, and as to this provision time shall be of the essence.

(*c*) Upon the Exhibitor's ceasing to own or operate the Theatre, unless the Exhibitor shall previous to its ceasing to own or operate the Theatre have notified Products in writing of the date it will cease to own or operate the Theatre and shall have made provision, satisfactory to Products, for the care and custody of the Equipment or for the assumption of this agreement by the successor operator of the Theatre.

(*d*) Upon a breach by the Exhibitor of any of the covenants herein contained relative to the use or maintenance of the Equipment, continued for more than fourteen (14) days after notice thereof by registered mail from Products.

(*e*) Upon the removal of the Equipment or any part thereof without the consent of Products from the location and position in which it was installed by Products.

(*f*) Upon the failure of the Exhibitor to accept delivery of the Equipment from the transportation company or common carrier, or to facilitate the work of Products in installing the Equipment.

In the event of a default under any of the provisions of this section at any time during the term of this license, the license hereby granted and all obligations imposed upon Products by virtue of this agreement shall, at the option of Products and whether or not it terminates this license or removes the Equipment as hereinafter provided, be suspended during the continuance of such default.

15. *Repossession of Equipment.*—Upon termination or expiration of this license by lapse of time or otherwise, the Exhibitor will surrender up and deliver possession of the Equipment to Products in good order and condition, reasonable wear and tear and obsolescence due to proper use thereof in the manner and place and for the purpose set forth in this agreement only excepted, and Products may repossess the Equipment and may, for the purpose of reducing the same to possession, enter the Theatre or any other premises where said Equipment may be and without any legal proceedings whatever possess and remove said Equipment, and the Exhibitor agrees to cooperate in such removal. If this license shall be terminated by default, or if the Exhibitor permits any of the events of default, hereinbefore enumerated, to occur, whether or not Products shall exercise the option to terminate this agreement, Products shall thereupon have the right without notice to take immediate possession of said Equipment, or any part thereof, and for that purpose may pursue the same wherever it or any part thereof may be found and may enter, with the aid and assistance of any person or persons, the Theatre or other premises of the Exhibitor and such place or places whatsoever, whether belonging to the Exhibitor

Digitized by Google

or not in which the Equipment or any part thereof may be placed, and may take and seize the same to its own proper use forever, free from any right of the Exhibitor under this agreement. Products shall also have the right in like manner to enter the said premises and remove the Equipment in the event of the said premises being destroyed or damaged by fire or otherwise, to an extent which, in the opinion of Products, endangers the Equipment. The Exhibitor expressly covenants that in any such event no claim will be made for damage on account of such removal or otherwise, and the Exhibitor further agrees that it will hold and save harmless Products from and against any and all claims for damages by any parties whatsoever on account of such removal.

16. *Replacement of Equipment in the Event of Destruction.*—In the event of the partial or total destruction of the Equipment during the term of this license by fire or any other cause, without fault or neglect on the part of the Exhibitor, provided the Exhibitor shall not be in default in respect to any of the terms of this agreement and provided the Exhibitor shall continue to operate the Theatre or after any necessary repairs to the Theatre shall resume its operation, Products will, at its own expense, either repair the Equipment, or if in the sole judgment of Products, such destruction is so extensive as to render repair of the Equipment impracticable, install in the Theatre equipment then manufactured by or for Products as nearly similar as possible to the type of Equipment so destroyed.

17. *Patent Protection.*—Products agrees that subject to the provisions hereof it will at its own expense defend any and all actions and suits which may during the term hereof be brought against the Exhibitor for infringement of patents by reason of the use by the Exhibitor, for the purpose and in the manner contemplated by this agreement, of apparatus and equipment furnished by Products hereunder, and will pay or satisfy all judgments and decrees for profits, damages and/or costs which may be finally awarded against the Exhibitor by the Court of last resort in any such action or suit on account of any such infringement, provided that the Exhibitor shall give Products immediate written notice of such action or suit, full information and all reasonable cooperation in connection therewith and full opportunity to defend the same; and provided further, that this agreement shall not extend to any infringement or claim of infringement arising from any use of any of said equipment in combination with any apparatus or thing (not including films or records of Products' licensees) not furnished by Products, and that the liability of Products on account of any such infringement or claim of infringement shall be limited to its agreements in this paragraph contained and shall in no case exceed the total amount paid hereunder by the Exhibitor to Products. To the end that Products may protect itself and the Exhibitor from claims for infringement of patents, it is agreed that Products may at any time substitute for any of the Equipment or parts thereof which may have been furnished to the Exhibitor hereunder, other equipment or parts which Products shall after test determine to be equally suitable for performing the functions required, such substitution to be made without additional expense to the Exhibitor and with the least possible inconvenience to it or interruption of its business.

18. *License Non-exclusive.*—Nothing in this agreement shall be construed as granting to the Exhibitor an exclusive right or license to operate the Equipment in any particular City, Town, zone, or neighborhood or as preventing or prohibiting Products from entering into similar agreements or granting licenses for the installation and use of similar equipment in competing theatres.

19. *Period of License.*—This license shall be for a term of ten years from the day upon which the installation shall have been completed and the Equipment made available to the Exhibitor as ready for use. It may however, provided the Exhibitor shall not be in default in respect of any of the terms of this agreement, be terminated at the option of the Exhibitor at any time after the expiration of the first two years of the term hereof upon not less than six months' written notice given by the Exhibitor to Products of its intention so to terminate.

20. *Entire Understanding.*—The parties hereto expressly stipulate that this agreement as herein set forth contains the entire understanding of the respective parties with reference to the subject matter hereof, and that there is no other understanding, agreement, or representation, express or implied, in any way limiting, extending, defining, or otherwise relating to the provisions hereof or any of the matters to which the present agreement relates. No agent or employee of Products is authorized to alter or modify this agree-

Digitized by Google

ment in any way unless such alteration or modification shall be approved in writing by the President or a Vice President of Products or by such representative as may from time to time be designated in writing by either of such officers. No waiver by either party, whether express or implied, of any of the provisions of this agreement shall be construed as constituting a waiver of any other provision or provisions of this agreement or as estopping either party from its right to enforce any provision or all provisions hereof.

21. *Not Assignable.*—This agreement shall not be assigned by the Exhibitor without the written consent of Products. It shall, however, subject to such restriction upon assignment by the Exhibitor be binding upon the parties and their respective successors, assigns, and legal representatives and shall be interpreted according to the laws of the State of New York.

22. This agreement shall be subject to the modifications set forth in Schedule B annexed to the order agreement entered into between Products and Paramount Famous Lasky Corporation dated May 11, 1928.

ELECTRICAL RESEARCH PRODUCTS, INC.,

By _____

_____

(As to E. R. P. I.)

_____

By _____

_____

(As to Exhibitor)

ELECTRICAL RESEARCH PRODUCTS, INC.,
May 11, 1928.

PARAMOUNT FAMOUS LASKY CORPORATION,
New York City.

GENTLEMEN: Referring to the recording-license agreement with you which we are executing simultaneously herewith, there are several matters relating generally to such agreement or incidental to our contractual relationship which we have discussed and which, in consideration of the execution of said recording license agreement, are agreed to by and between us as follows:

1. We understand that you are desirous of procuring from us licenses under such foreign patents and rights as we have or may acquire, to distribute in countries foreign to the United States, sound records produced in the United States with our recording equipment and we are willing to enter into agreements for these purposes. It is understood between us that if and when such agreements are consummated the royalties to be payable thereunder shall be for the following foreign countries or territorial divisions the amount set opposite each, determined on a basis similar in each case to that provided in subparagraphs (1) and (3) of paragraph (*b*), section 1, article III of your recording license agreement for the United States.

	Rate of royalty
United Kingdom and Ireland	$100.00
Germany	50.00
Australasia	62.50
Central Europe	35.00
France and Belgium	25.00
South America	40.00
Scandinavia and Denmark	20.00
Spain and Portugal	12.50
Italy	15.00
Cuba	7.50
Mexico	7.50
India and Indo-China	7.50
China and Japan	15.00
Holland	10.00
Turkey, Egypt, and Asia Minor	7.50
South Africa	10.00
Canada	75.00

It is further understood that if any such agreements for the foreign field include the distribution in such field of news reels produced in the United States the amount of royalty with respect thereto shall be at a rate equal to

Digitized by Google

one-fifth of the amount set forth opposite each of the countries or territorial divisions above and shall be determined on a basis similar in each case to that provided in subparagraph (2) of paragraph (*b*) of section 1 of article III of the recording license agreement.

If, upon investigation of conditions in any foreign country, we determine that we do not desire to exploit the installation of reproducing equipment, we will notify you and will offer no objection to your developing the installation of reproducing equipment in such foreign country in such manner and by such means as may be reasonably consistent with our mutual interests. You may call upon us for a statement of our policy as regards any foreign country in these respects at the expiration of 2 years from the date hereof.

2. Under our agreements with certain of our other licensees we may be entitled to obtain for you certain rights to use artists and performers for recording sound, and it is understood that if you desire to obtain any of these rights you shall similarly assign rights which you may have or obtain with respect to artists and performers for recording sound, so that they will be available to our other licensees, and that if it is desired by our various licensees that an agency or bureau be established for the purpose of engaging artists and performers for recording sound, you may participate in the use of such agency or bureau, on agreeing to pay your share of the maintenance thereof, it being understood that the services of such agency or bureau shall not be available to any but our licensees. By artists and performers, as above referred to, we do not mean to include motion-picture actors, whether stars or otherwise. By an instrument which is being executed simultaneously herewith we are granting you certain rights under a copyright agreement dated September 5, 1927, between us and Edwin C. Mills, acting as agent and trustee for certain music publishers. In connection with said grant of rights to you under the Mills agreement, you agree that the expenses to be apportioned by us may include the expenses incurred by us in negotiating the Mills agreement. It is contemplated that we shall negotiate on behalf of all our licensees other agreements covering copyrighted music and that we shall give all of our licensees opportunity to participate in the benefits of such agreements. You agree that in the event you participate in such agreements you will share in the expenses of the negotiation thereof and our expenses in performing and carrying out the terms and provisions thereof, your share to be determined by our equitably apportioning between our licensees availing themselves of such agreements any royalties or other payments which we are required to make under such agreements, together with the expenses above referred to, and also the expenses in connection with, or on account of, or arising from any litigation in respect of the subject matter of such agreements, except that you shall not be liable for any contribution toward or for any part of any loss, damage, or expense that we may suffer, incur, or assume by reason of any act or omission of any licensee of ours other than you or your associated companies.

3. We herewith consent, pursuant to the provisions of article II, section 1, paragraph (c) of the recording-license agreement, so long as you or your associated companies distribute the productions of Christie Film Co., Inc., that the limitations of said paragraph (*c*) with respect to number of motion pictures of other producers shall not apply to the productions of Christie Film Co., Inc., except that the number of feature pictures produced by it shall not exceed five on any one calendar year. This consent is condition upon Christie Film Co., Inc., executing a recording-license agreement with us satisfactory to us. It is understood that this consent is subject to the condition that you pay royalties, at the rates provided in your recording-license agreement, with respect to the motion pictures produced by Christie Film Co., Inc., and distributed by you, which pictures are accompanied by sound records.

4. It is understood between us that it may become necessary in connection with our other contractual obligations to determine the amount of your gross revenue derived from the exercise of the license granted by us to you, and in order to facilitate this determination you agree that from time to time as and when we request you to do so in writing you will furnish us a figure representing such part of your gross revenue and that of your associated companies as is derived from the production, lease, or other distribution of sound records, and of motion pictures accompanied by sound records. You also agree to furnish us as far as you can in your opinion consistently with your other business interests the amount of the gross revenue received by you on particular motion pictures accompanied by sound records, and with such other information as you

Digitized by Google

feel you can in your opinion consistently give us from time to time to enable a fair estimate to be made as to the proportion of your gross revenues which are derived from the exercise of your licenses from us. We agree that we will not require any such information from you as is referred to in this paragraph except when we deem it necessary in connection with our business, and will not disclose the information to others unless we deem it necessary to do so in connection with existing contracts, and furthermore that such information shall have no bearing upon the royalties payable by you under your recording-license agreement.

If the time shall arrive when all your productions have sound records accompanying them, you shall not be required under this provision to furnish the total gross of your business, but in that event, you will furnish us with figures showing the total gross on your motion-picture productions not featuring recognized stars and of such pictures featuring recognized stars as you in your opinion can consistently furnish.

If we desire and request you to do so in writing, you agree, at our expense, to have the certified public accountants regularly used by you certify to us the correctness of the figures which you furnish to us under this paragraph 4.

5. In order to promote the use of sound records in connection with motion pictures, and to make an adequate market for your productions and for our reproducing equipments, you agree that all theaters operated by you or by your associated companies shall install our reproducing equipments (which you agree are hereby adopted as the standard equipment for such purposes), wherever and as rapidly as in your judgment conditions permit, and we will supply such equipments as rapidly as we are able to after receipt of orders therefor, taking into account our other commitments, but as respects orders for reproducing equipment given us by you during the calendar year 1928 (other than your initial order which is now being placed with us) we agree that we will, subject to the provisions of our standard exhibitors' license agreements, install up to 50 of said equipments not later than 4 months after date of receipt of order. You further agree to promote in every reasonable manner the installation of our reproducing equipments in motion-picture theaters.

6. We agree to furnish to you and your associated companies from time to time during the period of the recording license agreement, reproducing equipment at our current prevailing charges for such equipment, and you and your associated companies agree to lease the same from us upon such basis. In the case of all installations made in theaters controlled or operated by you or your associated companies during the first 5 years from date hereof, we shall be entitled to an average net profit not in excess of 20 percent of our charge for furnishing and installing such equipment. At the end of said 5-year period an adjustment will be made between us and we will pay to you any excess over said average net profit of 20 percent which may be determined to be due to you, calculation being made on the basis set forth below. You, on the other hand, shall not be called upon to make any payment to us on account of its being determined at that time that we have not received an average net profit of 20 percent.

Such average net profit shall represent the difference between the net charges collected by us for furnishing and installing such equipment and the complete cost of such equipment installed, as follows:

"(*a*) Manufacturing cost computed in accordance with Western Electric Co.'s established accounting procedure used in determining complete standard cost for apparatus sold to the Bell System. You agree to accept the statement of the president of Western Electric Co., certified to by the firm of certified public accountants employed by Western Electric Co., as to such costs.

"(*b*) Installation cost computed in accordance with our established accounting procedure covering all the engineering, operating, and overhead expenditures and expenses relative to the furnishing and installation of reproducing equipments, except that past experimental engineering expenses and losses shall not be included in cost where such expenses and losses were incurred prior to January 1, 1928. You agree to accept the statement of the president of Electrical Research Products Inc., certified to by the firm of certified public accountants employed by us, as to such cost and as to the net profit above referred to."

7. Where reference is made in article IV of the recording license agreement to our charges including a net profit to us of 20 percent, it is agreed that such net profit shall be determined in accordance with our established

Digitized by Google

accounting procedure, and you agree to accept the statement of the president of Electrical Research Products Inc., certified to by the firm of certified public accountants employed by us, as to the net profit above referred to.

8. We understand that there are theaters in which you or your associated companies now have or may hereafter have a substantial proprietary interest which are not owned, controlled or operated by you or your associated companies. All of the provisions of this letter which refer to your associated companies shall be deemed to apply to the theaters in which you or your associated companies shall have such a substantial proprietary interest, except, however, that it shall be understood that as to installations made in such class of theaters the payment and credit terms for equipments shall be arranged between us and such respective theaters in the regular course of business. It is understood in this connection that you make no agreement to install equipments in such theaters, but that you do agree to use your best efforts to have our reproducing equipments installed in such theaters wherever and as rapidly as in your judgment conditions will permit.

9. Referring to subparagraph (4) of paragraph (*g*), section 1, article III of the recording license agreement, it is understood and agreed that the reference to theaters owned, controlled or operated shall be deemed to include theaters in which you or your associated companies have a substantial proprietary interest; also that the theaters referred to in said subparagraph (4) shall be limited to those at which the average gross weekly admission receipts exceed $2,000 per theater.

10. It is understood and agreed that except as herein otherwise specifically provided, the definitions referred to in said recording license agreement between us shall likewise apply to the terms used in this letter.

To indicate your agreement with the above, kindly accept this letter in the place provided for acceptance and return one copy to us.

Your very truly,

ELECTRICAL RESEARCH PRODUCTS, INC.,
By J. E. OTTERSON, *President.*

Accepted:

PARAMOUNT FAMOUS LASKY CORPORATION,
By ADOLPH ZUKOR, *President.*

The following are four Loew's theaters that are under the May 11, 1928, agreement:

Capitol Theater, New York, N. Y.; Embassy Theater, North Bergen, N. J.; Majestic Theater, Evansville, Ind.; Zeigfield Theater, New York, N. Y.

The Capitol Theater at New York appears on original schedule A. The other three theaters do not appear on schedule A but are under the blanket agreement.

J. J. LAWRENCE, *June 1, 1935.*

APRIL 13, 1933.

Mr. J. D. VAN WAGONER,
Paramount Publix Corporation, Paramount Building,
New York, N. Y.

MY DEAR MR. VAN WAGONER: Pursuant to our telephone conversation, I am enclosing herewith photostat copy of a list of theaters, denominated "schedule A, Electrical Research Products, Inc., and Paramount Famous Lasky Corporation, dated May 11, 1928."

This list was substituted for the list originally attached to the letter of May 11, 1928, ordering reproducing equipments from us. You will note that Mr. Saal, who, it is my understanding, was in charge of theater matters for Paramount Famous Lasky Corporation at the date mentioned, has placed an O. K. on the first sheet of the list. Mr. Saal's signature did not reproduce any too well on the photostat copy but is perfectly plain on the original.

I am having a complete check made of the theaters in the Southern Enterprises, Inc., system, to determine whether they are included in the above-mentioned schedule or whether we have separate contracts therefor. As soon as this is done I propose advising Mr. Linz, the receiver for Southern Enterprises, Inc., of the situation and will be glad to send a copy to you.

Very truly yours,

L. E. SHERWOOD.

Digitized by Google

EXHIBIT C—METRO GOLDWYN PICTURES CORPORATION

EQUIPMENT TO BE INSTALLED

5. The Exhibitor agrees to pay to Products in New York Exchange an installation charge of _____ Dollars ($_____), payable as follows:
The sum of _____ Dollars ($_____), on or before the execution of this instrument, receipt of which (with interest) is hereby acknowledged.
The sum of _____ Dollars ($_____), on the "Service Day".
The balance of the installation charge shall be evidenced by a series of thirteen (13) promissory notes made by the Exhibitor and delivered to Products on or before the execution of this instrument, which said notes are to be dated as hereinafter provided as of the fifteenth day of the month during which the "Service Day" occurs and are to bear interest at the rate of 6% per annum from said date. One-half of said balance shall be evidenced by twelve of said notes of equal principal amount which shall mature monthly beginning one month after the date thereof; the remaining half of said balance shall be evidenced by the thirteenth note which shall bear even maturity date with the twelfth note of the series. Products is hereby authorized by the Exhibitor to enter upon the face of any notes given hereunder, when the "Service Day" is determined by it, the date of the said notes, and the date from which interest shall run. Upon the failure of the Exhibitor to pay any of the said notes as and when the same become due, all of the said notes shall forthwith become due and payable.
6. In addition to any other payments required to be made by the Exhibitor hereunder, the Exhibitor agrees to pay Products throughout the term of the license hereby granted a service and inspection payment, payable weekly, which, for the first two weeks of said term, shall be payable on the Saturday next succeeding the "Service Day" and thereafter throughout the balance of said term on each and every Saturday in advance. The amount of such payment shall be in accordance with Products' regular schedule of such charges as from time to time established. Under Products' present schedule, the service and inspection payment shall be _____ Dollars ($_____) per week, which charge shall not be exceeded during the first two years of the period of said license and thereafter for the balance of the term of said license shall not exceed the sum of _____ Dollars ($_____) per week.

---

286 T S—104 W
Contract No. _____

This Agreement made in triplicate in the City of New York, State of New York, this _____ day of _____ 192__, by and between Electrical Research Products, Inc. (subsidiary of Western Electric Company, Incorporated), a Delaware Corporation having its principal place of business in the City, County and State of New York (hereinafter called "Products"), licensor, and _____, a _____ Corporation having its principal place of business at No. _____ Street, in the City of _____, State of _____ (hereinafter called the "Exhibitor"), licensee, and operating the _____ Theatre, at No. _____ Street, in the City of _____, State of _____ (hereinafter called the "Theatre"):

Witnesseth that, for and in consideration of the covenants, stipulations, and representations herein set forth, the respective parties hereto agree as follows:

1. (a) *Grant of License and Installation of Equipment.*—Products hereby grants to the Exhibitor a non-exclusive non-assignable license to use in the Theatre (subject to all the terms, conditions, limitations, and agreements herein contained) the equipment hereinafter described for the electrical reproduction of sound in synchronism with, or as incidental to, the exhibition of motion pictures, or any performance given in conjunction therewith, and to employ (to the extent necessarily involved in such use of said equipment) the methods and/or systems of Products, under all United States patents and applications for United States patents, relating to said equipment or to such use thereof, which are now owned or controlled, or which may during the term of this agreement be owned or controlled by Products, or in respect of which it has or may hereafter during the term of this agreement have the right to grant such license.

Digitized by Google

(b) *Service Day.*—Products agrees to install in the Theatre sound reproducing equipment (herein referred to as "Equipment"), as follows:

---

and will endeavor to complete such installation on or before _____ 193__. Nothing herein contained shall be considered as a firm agreement on the part of Products to complete the installation of the Equipment on or before the said date, it being understood that the extent of the obligation of Products in this respect is limited to using its best efforts to procure the manufacture and delivery of the Equipment and to installing the same expeditiously.

2. *Use of Equipment.*—The Exhibitor agrees that it will use and employ the Equipment only in the Theatre, and that it will at all times during the period of this license keep, maintain and operate the Equipment in the manner from time to time prescribed by Products and in no other manner. The Exhibitor recognizes the highly technical mechanism and art involved in the inventions and construction of the Equipment, and in the making of sound record (in any form) for use therewith, and that the prestige and business reputation of Products might be seriously affected by imperfect operation of the Equipment or by its use with sound records which are not suited to it or which produce inferior results when used with the Equipment, and that use of said Equipment otherwise than as herein licensed may involve infringement of patent rights. Therefore, in order to secure and insure the functioning of the Equipment to the satisfaction of the parties hereto, the Exhibitor shall not, without the written consent of Products, move, alter, change, or modify the Equipment, nor add anything thereto nor take anything therefrom; nor break the seal upon any part or collection of parts which is or may be sealed by Products; nor operate, use, or employ the Equipment in any manner in conjunction with any sound record not made under license from Products for such use, unless such sound record is of such character that the Equipment will operate properly, reliably, and efficiently to reproduce sound from such sound record with accuracy of quality and adequacy of volume. Also, in order further to secure proper functioning of the Equipment as aforesaid satisfactorily to the parties hereto, it is agreed that all additional and renewal parts and assembled parts for the Equipment shall be obtained from Products. Nothing herein contained, however, shall be construed as prohibiting the Exhibitor from taking all reasonable steps, consistent with the general intent hereof, either alone or together with Products, to protect, correct, or repair the Equipment in the event of an accident or breakdown. The Exhibitor agrees that prior to the first public use in the Theatre of each film and/or sound record, it will cause such films and/or sound records to be run privately upon the Equipment for the purpose of ascertaining that the Equipment is in satisfactory condition and adjustment for the particular film and/or sound record. The Exhibitor expressly agrees that if at any time the Equipment fails to function satisfactorily, it will immediately notify Products by registered mail and telegraph, and the absence of such notification shall be conclusive as to satisfactory functioning of the Equipment.

3. *Removal to another Theatre.*—In the event that the Exhibitor shall for any reason cease to manage or to operate the Theatre, Products will, at the request of the Exhibitor, remove the Equipment to and install the same in another theatre designated by the Exhibitor and satisfactory to Products, provided, however, that the cost of such removal and installation shall be borne by the Exhibitor and that a new agreement for the unexpired term of this license shall be executed by the exhibitor operating such theatre (the Exhibitor hereunder thereupon becoming guarantor to Products of the performance of such new agreement).

4. *Instruction and Inspection Service.*—Products agrees to instruct the motion-picture machine operators of the Exhibitor in the manner and method of operating the Equipment, and will issue to each operator who has, in its opinion, satisfactorily completed a course of instruction in the operation of the Equipment, a certificate to that effect. Products further agrees, in order to perfect such instruction, and also in order to superintend the operation of the Equipment, to keep in attendance at the Theatre during the hours of performance and at such additional hours as may be necessary, an engineer or other person skilled in such operation for a period of one week following the day upon which the installation is completed and the Equipment made available to the Exhibitor as ready for public exhibition. Products also agrees to make periodical inspection and minor adjustments in the Equipment after it shall have been installed. Products may from time to time install such spare and renewal parts as may, in its opinion, be necessary to the satisfactory operation and maintenance of the Equipment.

Digitized by Google

5. *Installation Charge.*—The Exhibitor agrees to pay to Products in New York Exchange an initial charge of _____ Dollars ($_____) payable as follows:

The sum of _____ Dollars ($_____) on or before the execution of this instrument, receipt of which is hereby acknowledged, and the balance, namely, _____ Dollars ($_____) by a demand promissory note satisfactory to Products in the amount last mentioned, made by the Exhibitor and delivered to Products on or before the execution of this agreement and bearing no interest prior to presentation, which demand note Products agrees not to present for payment prior to the date on which the installation of the Equipment is completed and the Equipment made available to the Exhibitor as ready for public exhibition.

6. *Weekly Payment.*—In addition to any other payments required to be made by the Exhibitor hereunder, the Exhibitor agrees to pay to Products throughout the term of the license hereby granted, a weekly payment which, for the first two weeks of said term, shall be payable on the Saturday next succeeding the day upon which the installation shall have been completed and the Equipment made available to the Exhibitor as ready for use, and thereafter throughout the balance of said term on each and every Saturday in advance. The amount of such payment shall be _____ Dollars ($_____) per week for the first two years (104 weeks), and thereafter for the balance of the term of said license such weekly payment shall be in accordance with Product's then current schedule of weekly payments for similar licenses, but not exceeding one-fourth of the weekly payment hereinabove agreed upon to be paid for the first two years.

7. *Transportation Charges.*—The Exhibitor agrees to pay the cost of transporting the Equipment from the place of shipment to the Theatre, and to accept delivery thereof from the common carrier and make payment directly to the common carrier of freight and express charges thereon. The Exhibitor will also arrange for any necessary loading, trucking, and unloading to put the Equipment down inside the Theatre, and will directly defray the cost thereof.

8. *Payment for Parts, etc.*—The Exhibitor agrees to pay to Products its list installation charges as from time to time established for any additional equipment or spare or renewal parts, furnished or supplied by Products, upon delivery thereof and to pay the transportation charges thereon. The Exhibitor also agrees upon rendition of invoices to pay for any services rendered and expenses incurred by Products' employees in connection with and for the benefit of the Exhibitor, except for the regular periodical inspection and minor adjustment service hereinbefore provided for.

9. *Changes in Theatre.*—The Exhibitor warrants that the Theatre is or before said Equipment is installed will be supplied with suitable electric current; electric power leads of suitable capacity with outlets conveniently located for power supply to the Equipment; suitable space, properly ventilated, for the installation of the storage batteries and charging equipment; drapes for acoustic purposes, and suitable support for horns, and agrees to make such other reasonable changes, alterations, and modifications as may be necessary for the proper installation and accommodation of the Equipment, all at the expense of the Exhibitor and when and to the extent and in the manner prescribed by Products or its engineers, and agrees to comply with all local laws and ordinances relating to the use and operation of the Equipment and with any Fire Insurance Underwriters' requirements.

10. *Title to Equipment.*—Title to and ownership of all equipment at any time furnished hereunder and also all tools of all kinds, drawings, prints, and written descriptions and instructions, remains vested in Products.

11. *Taxes.*—The Exhibitor shall bear and discharge promptly any and all personal property taxes which may be charged or levied in connection with the Equipment.

12. *Access to Equipment.*—The Exhibitor will permit Products, through its designated agents, engineers, and mechanics, to have access to the Theatre at all reasonable hours, for the purpose of installing, and from time to time for the purpose of examining and inspecting the Equipment, and will grant to Products full opportunity to make such adjustments therein and repairs thereto as, in the opinion of Products, are necessary or desirable.

13. *Liability for Interruptions, Injuries, etc.*—Products shall not be responsible in any manner for any interruption of service arising from any cause or for

Digitized by Google

any defect or change of condtion in the Theatre or in the equipment thereof or in the electric current supplied thereto or for any loss or damage to persons or property in or upon the said premises for any reason whatsoever. The Exhibitor agrees to indemnify Products for, and save it harmless from any liability or injury to workmen whom the Exhibitor shall furnish to assist in the handling, installing or operating of the Equipment, and from any liability to any persons resulting from negligence of such workmen.

14. *Events of Default.*—This agreement and the license hereby granted shall, at the option of Products, terminate and come to an end upon the happening of any of the following events, hereby designated to be events of default, to wit:

(*a*) Upon the bankruptcy or insolvency of the Exhibitor or the assignment of any of its assets for the benefit of creditors.

(*b*) Upon the failure or refusal of the Exhibitor for any reason to pay any of the items or sums herein agreed to be paid by it, including the payment of the note provided for in Section 5 hereof, within five days after such item or sum is or may become due, and as to this provision time shall be of the essence.

(*c*) Upon the Exhibitor's ceasing to own or operate the Theatre, unless the Exhibitor shall previous to its ceasing to own or operate the Theatre have notified Products in writing of the date it will cease to own or operate the Theatre and shall have made provision, satisfactory to Products, for the care and custody of the Equipment or for the assumption of this agreement by the successor operator of the Theatre.

(*d*) Upon a breach by the Exhibitor of any of the covenants herein contained relative to the use or maintenance of the Equipment, continued for more than fourteen (14) days after notice thereof by registered mail from Products.

(*e*) Upon the removal of the Equipment or any part thereof without the consent of Products from the location and position in which it was installed by Products.

(*f*) Upon the failure of the Exhibitor to accept delivery of the Equipment from the transportation company or common carrier, or to facilitate the work of Products in installing the Equipment.

In the event of a default under any of the provisions of this section at any time during the first two years of the term of this license, the entire balance of weekly payments for the first two years shall be due and payable forthwith at the option of Products and whether or not it terminates this license or removes the Equipment as hereinafter provided. The license hereby granted and all obligations imposed upon Products by virtue of this agreement shall be suspended during the continuance of any event of default.

15. *Repossession of Equipment.*—Upon termination or expiration of this license by lapse of time or otherwise, the Exhibitor will surrender up and deliver possession of the Equipment to Products in good order and condition, reasonable wear and tear and obsolescence due to proper use thereof in the manner and place and for the purpose set forth in this agreement only excepted, and Products may repossess the Equipment and may, for the purpose of reducing the same to possession, enter the Theatre or any other premises where said Equipment may be and without any legal proceedings whatever possess and remove said Equipment, and the Exhibitor agrees to cooperate in such removal. If this license shall be terminated by default, or if the Exhibitor permits any of the events of default, hereinbefore enumerated, to occur, whether or not Products shall exercise the option to terminate this agreement, Products shall thereupon have the right without notice to take immediate possession of said Equipment, or any part thereof, and for that purpose may pursue the same wherever it or any part thereof may be found and may enter, with the aid and assistance of any person or persons, the Theatre or other premises of the Exhibitor and such place or places whatsoever, whether belonging to the Exhibitor or not, in which the Equipment or any part thereof may be placed, and may take and seize the same to its own proper use forever, free from any right of the Exhibitor under this agreement. Products shall also have the right in like manner to enter the said premises and remove the Equipment in the event of the said premises being destroyed or damaged by fire or otherwise, to an extent which, in the opinion of Products, endangers the Equipment. The Exhibitor expressly covenants that in any such event no claim will be made for damage on account of such removal or otherwise, and the Exhibitor further agrees that it will hold and save harmless Products from and against any and all claims for damages by any parties whatsoever on account of such removal.

Digitized by Google

16. *Replacement of Equipment in the Event of Destruction.*—In the event of the partial or total destruction of the Equipment during the term of this license by fire or any other cause, without fault or neglect on the part of the Exhibitor, provided the Exhibitor shall not be in default in respect to any of the terms of this agreement, and provided the Exhibitor shall continue to operate the Theatre or after any necessary repairs to the Theatre shall resume its operation, Products will, at its own expense, either repair the Equipment, or if, in the sole judgment of Products, such destruction is so extensive as to render repair of the Equipment impracticable, install in the Theatre equipment then manufactured by or for Products as nearly similar as possible to the type of Equipment so destroyed.

17. *Patent Protection.*—Products agrees that subject to the provisions hereof it will at its own expense defend any and all actions and suits which may during the term hereof be brought against the Exhibitor for infringement of patents by reason of the use by the Exhibitor, for the purpose and in the manner contemplated by this agreement, of apparatus and equipment furnished by Products hereunder, and will pay or satisfy all judgments and decrees for profits, damages, and/or costs which may be finally awarded against the Exhibitor by the Court of last resort in any such action or suit on account of any such infringement, provided that the Exhibitor shall give Products immediate written notice of such action or suit, full information and all reasonable cooperation in connection therewith and full opportunity to defend the same, and provided further, that this agreement shall not extend to any infringement or claim of infringement arising from any use of any of said equipment in combination with any apparatus or thing (not including films or records of Products' licensees) not furnished by Products, and that the liability of Products on account of any such infringement or claim of infringement shall be limited to its agreements in this paragraph contained and shall in no case exceed the total amount paid hereunder by the Exhibitor to Products. To the end that Products may protect itself and the Exhibitor from claims for infringement of patents, it is agreed that Products may at any time substitute for any of the Equipment or parts thereof which may have been furnished to the Exhibitor hereunder, other equipment or parts which Products shall after test determine to be equally suitable for performing the function required, such substitution to be made without additional expense to the Exhibitor and with the least possible inconvenience to it or interruption of its business.

18. *License Nonexclusive.*—Nothing in this agreement shall be construed as granting to the Exhibitor an exclusive right or license to operate the Equipment in any particular City, Town, zone, or neighborhood or as preventing or prohibiting Products from entering into similar agreements or granting licenses for the installation and use of similar equipment in competing theatres.

19. *Period of License.*—This license shall be for a term of_____years from the day upon which the installation shall have been completed and the Equipment made available to the Exhibitor as ready for use. It may, however, provided the Exhibitor shall not be in default in respect of any of the terms of this agreement, be terminated at the option of the Exhibitor at any time after the expiration of the first two years of the term hereof upon not less than six months' written notice given by the Exhibitor to Products of its intention so to terminate.

20. *Entire Understanding.*—The parties hereto expressly stipulate that this agreement as herein set forth contains the entire understanding of the respective parties with reference to the subject matter hereof, and that there is no other understanding, agreement, or representation, express or implied, in any way limiting, extending, defining, or otherwise relating to the provisions hereof or any or the matters to which the present agreement relates. No agent or employee of Products is authorized to alter or modify this agreement in any way unless such alteration or modification shall be approved in writing by the President or a Vice President of Products or by such representative as may from time to time be designated in writing by either of such officers. No waiver by either party, whether express or implied, of any of the provisions of this agreement shall be construed as constituting a waiver of any other provision or provisions of this agreement or as estopping either party from its right to enforce any provision or all provisions hereof.

21. *Not Assignable.*—This agreement shall not be assigned by the Exhibitor without the written consent of Products. It shall, however, subject to such restriction upon assignment by the Exhibitor, be binding upon the parties and

Digitized by Google

their respective successors, assigns, and legal representatives, and shall be interpreted according to the laws of the State of New York.

In witness whereof, the parties hereto have caused these presents to be executed by their duly authorized officers in their behalf, the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,
By_____
_____

In presence of—

_____
(as to E. R. P. I.)

By_____
_____

_____
(as to Exhibitor)

AGREEMENT BETWEEN WESTERN ELECTRIC COMPANY, INCORPORATED, AND ELECTRICAL RESEARCH PRODUCTS, INC., DATED DECEMBER 30, 1926

This agreement, made this 30th day of December 1926, between Western Electric Company, Incorporated, a corporation of the State of New York (hereinafter called the Seller) and Electrical Research Products, Inc., a corporation of the State of Delaware (hereinafter called the Buyer).

WITNESSETH

Whereas the Buyer is authorized by its certificate of incorporation to issue 750,000 shares of stock without par value, of which the subscribers to the certificate of incorporation have subscribed for a total of ten shares and duly assigned their several subscriptions to the Seller, leaving unsubscribed 749,990 shares; and

Whereas it is mutually desired by the parties hereto that the Buyer shall, subject to certain reservations hereinafter set forth, purchase the business of the Seller, which is distinct from its Bell System business, Graybar business, International business, and Canadian business, as herein defined, and it is also mutually desired that the Buyer shall purchase certain property, effects, assets, rights, licenses, and good-will of the Seller and shall in consideration thereof and the payment by the Seller of the sum of One million dollars ($1,000,000) in cash issue to the Seller all of the shares of stock of the Buyer which it is authorized to issue:

Now, therefore, in consideration of the covenants and agreements herein contained, and the further considerations herein expressed, it is agreed by and between the parties hereto as follows:

ARTICLE I

SECTION 1. *Bell System Business.*—The Seller's Bell System business is understood and agreed to be the development, manufacture, purchase, sale, repair, lease, and other handling of and dealing with apparatus, machinery, material, supplies, and merchandise for, and the furnishing of services to, the companies comprising the Bell System, and generally all business of every description of the Seller, directly or indirectly, with or for said companies as the same is now or may hereafter from time to time be conducted.

SECTION 2. *Bell System.*—The term "Bell System", as used in this contract, shall include all of the companies which the Seller usually and regularly treats, or may from time to time hereafter regularly treat, as a part of said System.

SECTION 3. *Graybar Business.*—The Seller's Graybar business is understood and agreed to be that part of the Seller's business connected with the performance by the Seller of such contract or contracts as are, or from time to time may be, in force between the Seller and the Graybar Electric Company, Inc., or their respective successors and assigns, and generally all business of every description of the Seller, directly or indirectly, with or for said Graybar Electric Company, Inc., as the same is now or may hereafter from time to time be conducted.

SECTION 4. *International Business.*—The Seller's International business is understood and agreed to be that part of the Seller's business connected with the performance by the Seller of such contract or contracts as are or from

Digitized by Google

time to time may be in force between the Seller and International Telephone and Telegraph Corporation or International Standard Electric Corporation, or their respective successors and assigns, and generally all business of every description of the Seller, directly or indirectly, with or for said last-mentioned companies, as the same is now or may hereafter from time to time be conducted.

SECTION 5. *Canadian Business.*—The Seller's Canadian business is understood and agreed to be all business now or at any time hereafter transacted by the Seller in Canada or Newfoundland or with persons, firms, or corporations domiciled in Canada or Newfoundland, and all manufacture, lease, and sale of apparatus and merchandise intended for use or sale in Canada or Newfoundland, and all transactions relating to patents in said countries.

SECTION 6. *Patents.*—The word "patents" wherever used herein shall be understood to include letters patent, applications for letters patent, licenses, and rights in respect of inventions, whether for the United States or other countries.

SECTION 7. *Title to Property.*—In all cases where any of the property herein agreed to be assigned or transferred to the Buyer is inseparable or indivisible from the property which, under the terms hereof, is to be retained by the Seller, the Seller shall retain the legal title to and deal with such property for the benefit of the Buyer and the Seller according to their respective interests under this contract.

SECTION 8. *Transfer of Licenses and Action Regarding Patents.*—In all cases where patents herein agreed to be assigned or transferred by either party to the other are or shall be applicable both to the field of business of the Buyer and to the fields of business herein reserved to the Seller, the party holding the legal title thereto shall grant and does hereby grant to the other party licenses under such patents, which licenses are and shall be exclusive for the field of business of such other party hereunder, subject, however, to all the provisions of this agreement. In all cases of infringement of such patents by third parties, the party holding the legal title will bring such suits and take such action (or permit such other party to do so in the name of the party holding such legal title) as may be necessary or advisable to protect the rights of both parties, and the expenses of such suits shall be borne by the party benefited or in the event that both parties are benefited, such expense shall be apportioned between the parties in such manner as may be mutually agreed upon or, in default of such agreement, such apportionment shall be determined by arbitration in accordance with the provisions of Section 3 of Article IV hereof.

ARTICLE II.

SECTION 1. *Assets to be Sold.*—The Seller agrees to pay to the Buyer the sum of One million dollars ($1,000,000) in cash and to sell, assign, transfer, and deliver to the Buyer, and the Buyer agrees to purchase and accept from the Seller, at the times and in the manner and for the consideration herein expressed, all of the following property of the Seller:

(a) One hundred fifty thousand (150,000) shares of the capital stock of Graybar Electric Company, Inc.

(b) Twenty-six thousand, one hundred sixty (26,160) shares of the capital stock of Northern Electric Company, Limited.

(c) One hundred (100) shares of the capital stock of Western Electric Company, Limited of Canada.

(d) One hundred (100) shares of Western Electric Company, Limited of London.

(e) All accounts receivable which are owing on the date of sale by Western Electric Company, Limited, of Canada to the Seller.

(f) All accounts receivable which are owing on the date of sale by Western Electric Company, Limited, of London to the Seller.

(g) Bonds and certificates of indebtedness of the United States of the aggregate face value of Thirty million dollars ($30,000,000) subject to outstanding agreements by the Seller to re-sell said securities or any part thereof at rates or on bases fixed at the time the same were purchased by the Seller, which re-sale agreements are assumed by the Buyer.

(h) All accounts receivable outstanding on the date of sale which relate solely to the business herein agreed to be transferred.

(i) All interest accrued and unpaid to the date of sale on items (e), (f), (g), and (h) above listed.

Digitized by Google

(j) All royalties accrued and unpaid to the date of sale under contracts of be assigned by the Seller to the Buyer as hereinafter provided, less such part of said royalties as the Seller is obligated to pay to others.

(k) Apparatus, material, and equipment which on the date of sale is under lease or loan by the Seller in the course of that part of the Seller's business to be transferred hereunder to the Buyer.

(l) Claim against Russia on account of deposits in banks, stock interest in and receivables from N. C. Heisler & Company, and accounts receivable owing to the Seller (as assignee of International Western Electric Company, Incorporated, and its subsidiaries) from Russian customers.

(m) Claim against Germany for losses and damages in Belgium growing out of the World War.

(n) The Seller's business (as distinguished from its property) existing on the date of sale which is separate and distinct from the business herein reserved to the Seller.

(o) All right, title, and interest which the Seller has the right so to transfer, in and to all contracts, good-will, patents, trade-marks, and trade-names of the Seller (except the trade-mark or trade-name "Western Electric") in so far as but only to the extent that the same respectively pertain to the business and property herein agreed to be transferred, and subject to all the reservations, terms, conditions, and limitations in this agreement contained. Among said contracts so to be transferred are included specifically, but not by way of limitation, the contracts listed in Schedule A attached hereto and made a part hereof.

SECTION 2. *Assigned Contracts.*—In the event that the assignment of any of the contracts herein agreed to be assigned shall require the consent of the other party or parties to such contracts and such consent cannot be obtained, the Buyer shall at the request of the Seller act as the agent of the Seller to carry out and perform such contracts, and whether the Buyer shall so act as agent or not, the Buyer shall be entitled to receive such profits as would have been derived by it if the assignment of such contracts had been consented to by the other party thereto.

SECTION 3. *General Reservation of Business.*—The Seller specifically reserves to itself all its Bell System business, Graybar business, International business, and Canadian business, and all business with and sales to the following classes of customers, together with all rights, assets, and property relating to or connected with the buinesses so reserved:

(a) Such of the companies now or hereafter designated or known as Bell Connecting Companies as the Seller may from time to time exclude from the provisions of its contract with the Graybar Electric Company, Inc., dated December 31, 1925, or from any other contracts, present or future, between the Seller and said Graybar Electric Company, Inc.

(b) Companies (other than those of the Bell System and Bell Connecting Companies) operating public communication services with which the Seller may at any time during the term hereof enter into continuing contracts to supply its manufactures.

(c) The United States Government.

(d) Manufacturers who may from time to time purchase apparatus of the Seller's manufacture for incorporation in or assembly with the apparatus manufactured by such other manufacturers for sale either to the Seller only or to the Seller and other customers of such manufacturers.

(e) Employees of the Seller and its subsidiaries and employees of companies comprising the Bell System.

SECTION 4. *Future Transfer of Certain Reserved Business.*—As and when the existing obligations of the Seller with reference to its Graybar, International, or Canadian businesses are terminated or diminished, the Seller shall thereupon transfer to the Buyer such part of any business so released as the Seller may elect to sell to the Buyer, together with the contracts, rights, assets, and property of the Seller pertaining to such business, and the Buyer agrees to purchase the same as and when notified by the Seller of its election to sell, subject to all of the terms and conditions of this contract and at a price to be mutually agreed upon, or in the absence of such agreement at a fair and reasonable price to be determined by arbitration in accordance with the provisions of Section 3 of Article IV hereof.

SECTION 5. *Reservation as to Sales in Special Cases.*—The Seller specifically reserves the right to make any sales direct to customers not reserved to it hereunder in such special cases as it deems desirable, but in each such case the

Digitized by Google

Seller shall pay to the Buyer the profit the latter would have derived in case it had made such sale.

SECTION 6. *Reservations as to Seller's Contractual Obligations.*—All of the agreements in this instrument contained and all of the property herein agreed to be assigned or transferred are and shall be subject to all contracts and obligations of the Seller existing on the date of the respective assignments or transfers. The Seller hereby reserves are rights (and the Buyer agrees to transfer to the Seller all rights which the Buyer may acquire) which are necessary to enable the Seller to carry out said contracts and obligations, except in so far as such contracts and obligations are herein agreed to be transferred to the Buyer.

SECTION 7. *Reservations as to Modification of Contracts.*—The Seller reserves the right and option at any time or times hereafter to modify its existing contractual relations with respect to the business herein reserved as existing on the date of sale, and either to enlarge or restrict the character and extent of any such reserved business, and this contract shall be and become subject to all such modifications; but in the event that any such modification shall diminish or enlarge any rights of the Buyer hereunder with respect to business as existing on the date of sale (except where the diminution of such rights is made necessary by virtue of the enforcement by other parties of contractual obligations of the Seller to such other parties) reasonable compensation shall be paid therefor either to the Buyer by the Seller or to the Seller by the Buyer as the case may be; such reasonable compensation to be determined by mutual agreement or, in default of such agreement, to be determined by arbitration in accordance with the provisions of Section 3 of Article IV hereof.

SECTION 8. *Assumption of Obligations of Seller.*—The Buyer agrees to perform and carry out all of the obligations of the Seller in or in connection with any of the contracts, business or other assets herein agreed to be assigned to the Buyer, to the extent that such obligations exist on the date of the respective assignments or transfers.

SECTION 9. *Reimbursement for Taxes.*—The Buyer agrees to reimburse the Seller for any taxes which the Seller may hereafter be required to pay to the etxent that such taxes are based on investments which are to be transferred by the Seller to the Buyer, pursuant to the proivsions of this agreement, or where such taexs are based on earnings and such investments enter into the determination of the ratio to be used in determining the amount of such tax, or to the extent that such taxes are based on earnings attributable to the business herein agreed to be transferred.

ARTICLE III.

SECTION 1. *Patents of Seller.*—The Seller hereby agrees, subject to all the provisions of this agreement, that it will, upon request of the Buyer, assign and transfer to the Buyer (so far as and to the extent that the Seller shall have the right so to do) all rights of the Seller pertaining to the field of business herein agreed to be transferred to the Buyer in, to, and under all patents which the Seller may hereafter acquire relating or applicable to the said field of business.

SECTION 2. *Patents of Buyer.*—The Buyer hereby agrees, subject to the provisions of this Article, that it will, upon request of the Seller, assign and transfer to the Seller (so far as and to the extent that the Buyer shall have the right so to do) all rights pertaining to the field of business herein reserved to the Seller in, to, and under all patents which the Buyer may hereafter acquire relating or applicable to the Seller's said fields of business.

SECTION 3. *Assumption of Obligations Under Patents.*—Patents which have been or which may be acquired by either party subject to any conditions, obligations or restrictions, such, for example, as those requiring the payment of royalties, or limiting the field of use of the invention, or requiring the grant of licenses in exchange, shall be subject to transfer to the other party hereto only upon the agreement of such other party in writing to assume and be bound by all such conditions, obligations and restrictions, and to pay all royalties which may be required by reason of the use of such patents by such other party.

SECTION 4. *Exchange of Information.*—Each party agrees to furnish to the other party from time to time upon request and at cost (including the usual current loadings of the party furnishing the same) all engineering, manufacturing and technical information (including drawings, blueprints, specifi-

Digitized by Google

cations, models and samples) in its possession or under its control and which it may have the right so to furnish, relating to inventions, apparatus, systems, material and processes applicable to the field of the other party hereunder.

SECTION 5. *Performance of Services and Sale of Material.*—Each party agrees upon request of the other party to perform for the other aprty all services and to furnish to the other party all apparatus, material and merchandise relating to their respective fields hereunder which the party so requested may be in a position to perform or furnish; provided, however, that neither party shall be required to perform for the other any obligations which the other party shall at the time itself be in a position to perform. All such services shall be paid for by the party requesting the same at cost (including the usual current loadings of the party furnishing the same), and all such apparatus, material and merchandise furnished by either party to the other hereunder shall be furnished not at cost but at prices and upon terms to be established from time to time by the party furnishing the same, which prices and terms shall be as favorable as those at which the party furnishing the same then sells comparable apparatus, material and merchandise in like quantities to its other customers. The prices and terms of payment on sales to companies comprising the Bell System, to employees of the Seller and its subsidiaries, and to employees in the Bell System, or on sales to the United States Government, shall not be used in determining the prices and terms hereunder.

SECTION 6. *Reservation of Right to Manufacture.*—The Seller reserves the exclusive right and license under all patents or inventions relating or applicable to the business herein agreed to be transferred to manufacture any apparatus which the Buyer may require to be manufactured, provided, however, that if the Seller shall decline to accept any specific order from the Buyer for the manufacture of any apparatus for use within the field of the business herein agreed to be transferred to the Buyer, the Buyer shall thereupon have the right to manufacture or to have manufactured for it a reasonable quantity of said apparatus.

SECTION 7. *Patents in Fields Similar to Seller's.*—The Seller reserves under its present and future patents, and the Buyer agrees to assign to the Seller under all patents which the Buyer may hereafter acquire, all right, title, and interest for business and fields similar to or of the same character as the Seller's Bell System business or Graybar business.

SECTION 8. *Patents on Manufacturing Methods, etc.*—The Buyer agrees that in granting licenses or rights to others for methods or processes of manufacture or for machinery, tools, or equipment for manufacturing purposes, under the patents herein assigned or agreed to be assigned to the Buyer, the Buyer will first obtain the approval of the Seller as to the licensee to whom such grant is to be made.

ARTICLE IV

SECTION 1. *Issuance of Stock.*—The Buyer agrees to issue and deliver to the Seller, at the time herein provided, certificates representing 750,000 shares of fully-paid and non-assessable stock of the Buyer without par value in consideration of the cash payment herein provided, and the business, property, effects, assets, rights, licenses, and good-will to be transferred, assigned, and delivered by the Seller to the Buyer pursuant to the provisions of this agreement.

SECTION 2. *Documents of Transfer.*—The Seller agrees to execute and deliver to the Buyer upon receipt from the Buyer of the certificates of stock provided in Section 1 of this Article, proper instruments transferring all of the personal property and good-will of the Seller covered hereby, and as promptly as possible thereafter to deliver to the Buyer assignments of contracts and patents and such other instruments as may be necessary to vest full title in the Buyer to the business, property, effects, assets, rights, and licenses herein agreed to be transferred, and the Seller further agrees to deliver to the Buyer, from time to time upon request, any other or further instruments that may be necessary to fully carry out the terms and provisions of this agreement or to evidence the rights of the Buyer in and to the property herein agreed to be transferred, without the necessity of producing this agreement. All expenses in connection with the transfers required hereunder shall be borne by the Buyer.

SECTION 3. *Arbitration.*—In the event that the parties fail to mutually agree on any of the matters left for mutual agreement in Section 8 of Article I, of Sections 4 and 7 of Article II hereof, either of the parties may make a request

Digitized by Google

in writing that such matter be referred to arbitration, in which event each of the parties shall appoint an arbitrator within ten days after such request. The two arbitrators so appointed shall, within ten days thereafter, select a third arbitrator or umpire, and the matter in dispute shall be promptly submitted to such arbitrators, pursuant to such rules and in accordance with such regulations as they may prescribe; provided, that each of the parties shall be required, within thirty days after notice from such arbitrators, to fully present the matter in dispute with the evidence relative thereto, to said arbitrators, and provided further, that within sixty days thereafter said arbitrators shall make their award. The cost of the arbitration shall be divided equally between the parties hereto. Should either party fail to appoint an arbitrator, the arbitration shall proceed notwithstanding, and the arbitrator appointed by the other party, shall, in such case, be the sole arbitrator. Should two arbitrators be appointed by the parties and they be unable to agree upon the third arbitrator or umpire, such third arbitrator or umpire shall, upon application of either party, on two days' written notice to the other, be appointed by one of the Justices of the Supreme Court of the State of New York, New York County. A decision by two of the arbitrators upon any matter submitted to them under the provisions hereof shall be binding and conclusive upon both parties hereto.

SECTION 4. *Date of Sale.*—It is agreed that the date of sale of the business, property, effects, assets, rights, licenses, and good-will covered by this agreement shall be January 1, 1927, and that delivery of the cash payment provided in Section 1 of Article II hereof and of certificates of the Buyer's stock shall be made on the first business day of January 1927.

SECTION 5. *Construction.*—This contract shall be construed according to the Laws of the State of New York and shall inure to the benefit of and be binding upon the parties hereto and their respective successors.

In witness whereof the parties hereto have caused this agreement to be executed by their respective officers thereunto duly authorized, and their respective corporate seals to be hereunto affixed the day and year first above written.

WESTERN ELECTRIC COMPANY, INCORPORATED,
By H. A. HALLIGAN, *Vice-President.*

Attest:

H. G. GILMORE, *Secretary.*

ELECTRICAL RESEARCH PRODUCTS, INC.,
By J. L. KILPATRICK, *Vice-President.*

Attest:

D. S. PRATT, *Assistant Secretary.*

STATE OF NEW YORK,
County of New York, ss.:

On the 31st day of December, nineteen hundred and twenty-six, before me came H. A. Halligan, to me known, who, being by me duly sworn, did depose and say that he resides in Montclair, Essex County, New Jersey; that he is a vice-president of Western Electric Company, Incorporated, the corporation described in, and which executed the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by authority of the Board of Directors of said corporation, and that he signed his name thereto by like authority.

J. RAYMOND MCMAHON.

STATE OF NEW YORK,
County of New York, ss.:

On the 31st day of December, nineteen hundred and twenty-six, before me came J. L. Kilpatrick, to me known, who, being by me duly sworn, did depose and say that he resides in East Orange, Essex County, New Jersey; that he is vice-president of Electrical Research Products Inc., the corporation described in, and which executed the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by authority of the Board of Directors of said corporation, and that he signed his name thereto by like authority.

J. RAYMOND MCMAHON.

Digitized by Google

SCHEDULE A

(1) Contract dated February 4, 1926, between The Telegraph Construction and Maintenance Company Limited, and Western Electric Company, Incorporated, relating to continuously loaded submarine telegraph cables;
(2) Contract dated January 19, 1926, between Western Electric Company, Incorporated, and Felten & Guilleaume Carlswerk Aktien Gesellschaft, relating to continuously loaded submarine telegraph cables;
(3) Contract dated April 20, 1926, between Western Electric Company, Incorporated, and The Vitaphone Corporation, relating to electrical recording and reproduction of sound and the synchronization thereof with the talking or reproduction of motion pictures;
(4) Contract dated March 18, 1925, between Western Electric Company, Incorporated, and Victor Talking Machine Company, relating to apparatus for the electrical recording of sound;
(5) Contract dated May 1, 1925, between Victor Talking Machine Company, and International Western Electric Company, Incorporated (and duly assigned by the latter to Western Electric Company, Incorporated), relating to apparatus for the electrical recording of sound;
(6) Contract dated June 26, 1925, between Western Electric Company, Incorporated, and Victor Talking Machine Company, relating to acoustic reproducing and amplifying apparatus for reproducing sound by mechanical means;
(7) Contract dated July 19, 1926, between Western Electric Company, Incorporated, and Victor Talking Machine Company, relating to acoustic reproducing and amplifying apparatus for reproducing sound by mechanical means;
(8) Contract dated May 1, 1925, between The Gramophone Company, Limited, and International Western Electric Company, Incorporated (and duly assigned by the latter to Western Electric Company, Incorporated), relating to the electrical recording of sound;
(9) Contract dated January 19, 1926, between Western Electric Company, Incorporated, and The Gramophone Company, Limited, relating to acoustic reproducing and amplifying apparatus for reproducing sound by mechanical means;
(10) Contract dated February 26, 1925, between Western Electric Company, Incorporated, and Columbia Phonograph Company, Incorporated, relating to apparatus for the electrical recording of sound;
(11) Contract dated April 22, 1925, between Columbia Graphophone Company, Limited, and International Western Electric Company, Incorporated (and duly assigned by the latter to Western Electric Company, Incorporated), relating to apparatus for the electrical recording of sound.

JUNE 14, 1934.

Subject: Sound-picture equipment.

J. B. HARLOW,
Development Manager, Electrical Research Products, Inc.
New York, N. Y.

DEAR SIR: Pending the settlement of the proper form to be used in granting rights to Electrical Research Products, Inc., in new fields, it is satisfactory to the Western Electric Co., Inc., for the Electrical Research Products, Inc., to go ahead and exploit in all countries of the world, other than Canada and Newfoundland, sound-picture equipment of Western Electric manufacture for use in the home for educational and entertainment purposes, and this release shall be replaced by whatever form for granting rights that is agreed upon.

Such exploitation is also subject to the following:

1. The distribution of this apparatus shall not be other than in accordance with the conditions of the substitute license agreement of July 1, 1932, between General Electric Co and American Telephone & Telegraph Co.

2. Electrical Research Products, Inc., shall pay the Western Electric Co., Inc., for transmittal to the American Telephone & Telegraph Co. 33⅓ percent of the gross royalties and/or other payments received by Electrical Research Products, Inc., for the use of these systems and apparatus in the United States

Very truly yours,

F. B. GLEASON,
General Commercial Manager.

Digitized by Google

NOVEMBER 6, 1926.

EDGAR S. BLOOM,
President, Western Electric Co., Inc., New York, N. Y.

DEAR MR. BLOOM: The American Telephone & Telegraph Co. extends to the Western Electric Co., Inc., the privilege of manufacturing, for sale or lease in the United States, systems and apparatus for recording and reproducing sound in coordination, synchronism, or timed relation with the taking and projection of pictures and of entering into contracts with properly accredited individuals or organizations for the use by them of such systems and apparatus in the United States. This release is subject to restrictions as follows:

1. That the Western Electric Co., Inc., pay to the American Telephone & Telegraph Co. a 5-percent royalty on its sale price. The same royalty shall also apply on all parts for repair or reconstruction where such parts are in the classification of restricted apparatus, but shall not apply on other parts which are classed as standard unrestricted apparatus.

2. That the Western Electric Co., Inc., furnish this equipment to the Associated Bell Telephone Cos. at prices which shall be as low as the electric company's prices, under comparable conditions, to its most favored customers, in effect on the date of shipment.

3. That the Western Electric Co., Inc., pay to the American Telephone & Telegraph Co. 33⅓ percent of the gross royalties and/or other payments received by the Western Electric Co. for the use of these systems and apparatus in the United States.

4. That the manufacture, sale, lease, and use of these systems and apparatus shall not be other than in accordance with the conditions of the license agreement of July 1, 1920, between the General Electric Co. and the American Telephone & Telegraph Co. as modified by the agreement dated July 1, 1926.

5. That the Western Electric Co., Inc., shall extend no rights covering the use of such systems and apparatus in connection with a wire distributing system, except for apparatus for distribution to an assembled audience or to rooms (other than "homes") within a building or a group of substantially adjacent buildings commonly owned or operated, in each case located in the immediate vicinity of such audience or within the building or group of buildings within which such distribution is made.

6. That the American Telephone & Telegraph Co. shall approve the form of contract to be entered into between the Western Electric Co. and its customers or lessees which shall provide in particular—

(*a*) That said apparatus shall not be used for any other purpose than the recording and reproducing of sound in coordination, synchronism, or timed relation with the taking and projection of pictures.

(b) That such licenses under patents of the American Telephone & Telegraph Co. and of the Western Electric Co., Inc., as are extended by the latter, shall be nonexclusive to at least the extent that nonexclusive rights under any and all such patents shall be reserved by the American Telephone & Telegraph Co. and its associated companies.

The American Telephone & Telegraph Co. also now withdraws the release to the Western Electric Co., Inc., covered by Mr. Gifford's letter to Mr. DuBois, dated July 6, 1925.

Sincerely yours,

W. S. GIFFORD, *President.*

(Copy sent to Mr. C. P. Cooper, Mr. J. C. Lynch, Mr. G. E. Folk, Mr. E. H. Colpitts, Mr. C. A. Heiss.)

JULY 6, 1935.

C. G. DUBOIS,
President Western Electric Co., Inc., New York, N. Y.

DEAR MR. DUBOIS: The American Telephone & Telegraph Co. extends to the Western Electric Co. the privilege of manufacturing and selling or leasing systems and apparatus developed for the recording and reproduction of so-called talking motion pictures and to enter into contracts with properly accredited individuals or organizations to extend technical development of these systems and apparatus to commercial forms and to promote their commercial development. This release is subject to restrictions, as follows:

1. That the Western Electric Co. pay to the American Telephone & Telegraph Co. a royalty of 5 percent on all parts of the equipment manufactured by the

Digitized by Google

Western Electric Co. This royalty is to apply on the sale price of the telephone department to the supply department of the Western Electric Co. In the case of sales for export, this royalty is to apply on the sale price of the telephone department of the Western Electric Co. to the International Western Electric Co.

2. That the Western Electric Co. shall extend no rights covering the use of this equipment in connection with any public-service telephone or telegraph system or with any communication system for the purpose of transmitting matter outside of the building in which the equipment is located.

3. That the American Telephone & Telegraph Co. shall approve the form of contract to be entered into between the Western Electric Co. and its customers or lessees or with agents employed for the purpose of promoting the technical and commercial development of these systems and apparatus which shall provide in particular—

(*a*) That said apparatus shall not be used for any other purpose than the recording and reproduction of so-called talking motion pictures.

(*b*) That such licenses under patents of the American Telephone & Telegraph Co. and of the Western Electric Co. as are extended by the latter, shall not be exclusive to at least the extent that nonexclusive rights under any and all such patents shall be reserved by the American Telephone & Telegraph Co. and its associated companies.

It should be understood by the Western Electric Co., Inc., that should successful commercial use of these systems and apparatus be developed wherein royalties are collected or moneys accrue to the Western Electric Co. for their use, it shall promptly advise the American Telephone & Telegraph Co. in order that proper sharing of these moneys between the two corporations may be effected. The American Telephone & Telegraph Co. agrees that it will not require payments in excess of 50 percent of the gross amounts received by the Western Electric Co. as a result of such successful commercial development.

Very truly yours,

W. S. GIFFORD, *President.*

(Copies sent to Mr. G. E. Folk, Mr. E. H. Colpitts, Mr. C. A. Heiss.)

WESTERN ELECTRIC CO., INC.,
New York, January 2, 1934.

Mr. C. P. COOPER,
Vice President, American Telephone & Telegraph Co.,
New York, N. Y.

DEAR MR. COOPER: As you know, we have an opportunity to close a contract with the Associated Press for the purchase of telephotographic equipment which will be used on lines leased from the telephone companies. Undoubtedly there will be other press associations that will be interested in purchasing similar equipment, and we would like to be in a position to meet their demands. The equipment we plan to sell to the Associated Press will be the new machines that have recently been developed for 11-inch by 17-inch pictures.

Will you please let us know if it will be satisfactory to the American Telephone & Telegraph Co. for the Western Electric Co., Inc., to manufacture and sell in the United States telephotographic equipment for picture transmission purposes?

Very truly yours,

C. G. STOLL, *Vice President.*

JANUARY 5, 1934.

Mr. C. G. STOLL,
Vice President, Western Electric Co., Inc.,
New York, N. Y.

DEAR MR. STOLL: In response to your letter of January 2, 1934, American Telephone & Telegraph Co. extends to Western Electric Co., Inc., the right to manufacture and sell in the United States, to press associations, equipment for sending pictures by wire, subject to the following condition:

"That Western Electric Co., Inc., pay to American Telephone & Telegraph Co. a 5-percent royalty on its sales price."

Very truly yours,

C. P. COOPER, *Vice President.*

Digitized by Google

JANUARY 15, 1934.

MR. KENT COOPER,
General Manager, the Associated Press,
383 Madison Avenue, New York, New York.

DEAR MR. COOPER: We have your letter of December 29, 1933, regarding the purchase of telephotograph equipment, and are submitting herein statements embodying the obligations and responsibilities of the Western Electric Co. In so doing, we have attempted to cover all of the points raised by you.

DESCRIPTION OF APPARATUS

The units of apparatus involved in this transaction and which you have ordered as "telephotograph transmitting and receiving machines" may best be described as including:

Two machines, one for transmitting and one for receiving, with their associated tables.

Two bays of relay rack type equipment containing the amplifiers, oscillators, filters, and other equipment associated with the machines.

One cylinder-loading fixture and test microscope.
One set of spare vacuum tubes and lamps.
One spare sending light valve.
One spare receiving light valve head.
One extra picture cylinder for sending machine.
One extra film cylinder for receiving machine.
One portable filament ammeter.
One portable voltmeter for plate and grid batteries.
One associated power plant (table mounted).

This equipment is substantially that which has been demonstrated to you in your various visits of the past few months to the Bell Telephone Laboratories. It is sufficient for continuous service in transmitting and receiving pictures, except for such time as is necessary for maintenance and repairs. It is arranged to operate with 220-volt 3-phase 60-cycle alternating current, which you will make available at the location of the picture equipment. If it should be necessary to use another type of power supply, arrangements to suit such a supply can be made at possibly a slight increase in cost to you. We believe, however, that the specified power supply is generally available in the cities in which you expect to operate.

As stated in Mr. Carter's letter of October 10 to Mr. Huse, the loading of the transmitting machine with the picture to be sent (which picture must be of a type that can be wrapped snugly around the cylinder) does not require the use of a dark room. You no doubt understand that the loading and unloading of the film cylinder for the reception of the picture must be done in a dark room, and this is not covered in our bid.

The equipment as we have described it can be housed in a floor space of approximately 200 square feet with a minimum ceiling height of 8 feet, providing the space is reasonably proportioned. Any splitting up of the space would necessitate changes which might involve additional cost to you for engineering, manufacture, and installing.

The equipment is designed for use in ordinary office buildings and will function properly with vibration normally experienced in such buildings. If, however, the equipment must be located near heavy machinery which sets up severe vibrations, additional cost of installation might be necessary, and this is not included in our price.

INTALLATION

Our price of the equipment covers its complete installation on the premises of your subscribers. There are certain requirements on you, however, that it might be well to call to your attention. They are as follows:

It is essential that the floor space of your subscribers' premises in which the equipment is to be installed be made available to us in accordance with our schedules, which will be planned to meet the best possible service dates, and our employees must have free access to such buildings and facilities. You will have advance notice of our schedule.

It will be necessary that line facilities be supplied in order that testing may be done in accordance with our schedules.

Digitized by Google

Heat and illumination in the rooms in which the work is to be performed and material stored must be provided.

Proper electric current and suitable terminals in the rooms in which the equipment is to be installed, for soldering irons and power purposes, shall be provided.

Inasmuch as you will doubtless have required dark-room facilities at each location, this requirement must be provided in sufficient time that it may be used by us during the testing period.

QUALITY

The warranty of the Western Electric Co. is that the apparatus which we supply you is capable of transmitting and receiving pictures equal to the samples which we herewith submit to you provided that the original pictures are comparable to those which were used to produce such samples.

It has been called to your attention that picture-transmission systems have certain limitations as regards fineness of details which can be transmitted. This is most noticeable in pictures carrying small type, and this limitation is shown by the sample marked "small type."

Another limitation which has been mentioned relates to the transmission of halftones and is, we believe, familiar to you. The quality to be expected is shown by sample marked "Halftone."

This warranty is subject to the conditions that the apparatus shall be properly maintained and operated and used over lines of proper characteristics.

The equipment will transmit and receive pictures to a maximum size of approximately 11 by 17 inches, and as stated above, the pictures must be such that they may be wrapped snugly around the cylinder of the transmitter.

The equipment will operate at a speed of about 1 minute to cover 1 inch of the length of the rotating drum; therefore a picture 8 by 10 inches would take approximately 8 minutes to transmit.

PRICE

The price to the Associated Press per unit of equipment, made up of the apparatus described under the heading "Description of Apparatus" and completely installed in the United States of America, is sixteen thousand dollars ($16,000) each.

SCHEDULE

You have expressed the desire that twelve (12) units of this equipment be delivered by September 30, 1934, and our plans are being made to meet this date as closely as possible. In the manufacture of apparatus and equipment such as this, where much of the apparatus is new and complicated, the units will be completed and assembled one or two at a time. We expect very shortly to advise you of the schedule to which we shall work that you may make your plans accordingly. In all probability, however, while some of the units will be ready for delivery prior to September 30, the 12 equipments will not be ready on that date. You may rest assured that no effort will be spared to comply with your wishes.

ORDER

Your acceptance of the conditions of this letter will constitute your order on us for the following:

1. Twelve (12) telephotograph transmitting and receiving machines, to be delivered as soon as possible.

2. Sixteen (16) additional telephotograph transmitting and receiving machines, to be installed as early as possible after September 30, 1934. The sixteen (16) additional machines herein mentioned are ordered with the option of cancelation by the Associated Press, in full or in part, at any time prior to February 16, 1934.

3. Thirty-two (32) additional telephotograph transmitting and receiving machines over and above the foregoing twenty-eight (28) mentioned, with the option of cancelation by the Associated Press, in whole or in part, of such thirty-two (32) machines herein mentioned at any time prior to July 1, 1934.

In other words, this is an order for sixty (60) machines, twelve (12) of which are on definite order, sixteen (16) or any part thereof are subject to can-

Digitized by Google

celation prior to February 16, 1934, and thirty-two (32), or any part thereof, are subject to cancelation prior to July 1, 1934.

We would state to you that with the prompt acceptance of this letter your order will be the only order we have or have had for this type of equipment, and will take precedence over any other orders we may later receive, with the possible exception of the 32 units covered by the paragraph numbered 3. If an order from another customer should be received by us before July 1, 1934, it would necessarily take precedence over the 32 units unless prior to such order you had withdrawn your right to cancel. If you so desire, it is acceptable to us what you consolidate the 32 units with those mentioned under the paragraph numbered 2, in which event all 60 units will take precedence over any orders which we may receive from other customers.

PRICE CHANGES

As to price changes, you will recall that when we were in your office our commitment was that at all times you would enjoy prices on Telephotograph equipment based on date of order, as low as our prices for like quantities to our most favored customers other than the Bell system and associated companies. We could not make a retroactive adjustment of price on apparatus previously shipped and billed, but we should always give you the "most favored customer" price basis outlined above. Of course, the great advantage to you, and which must be considered as offsetting any possibly higher-priced first production units, would be that you would be securing apparatus ahead of all others.

PATENT CLAUSE

We agree to defend at our own expense all suits alleging infringement of any United States patent on account of your use of the apparatus we furnish you on this order and will hold you harmless against all liability for such infringement, provided that we shall have immediate notice of and full control of the defense of all claims and suits for such infringement, and provided also that we assume no responsibility for alleged infringements due to any use of said apparatus in combination with other apparatus not furnished by us or for any uses otherwise than as and for the purposes for which it is furnished.

TERMS

The terms which we discussed in your office and which are agreeable to us are—

One-quarter (¼) of the total amount of any firm commitment thirty (30) days after date of first shipment of apparatus applying on that commitment, with the balance to be paid in twenty-four (24) equal monthly installments beginning thirty (30) days after the first payment is due, with interest at the rate of six percent (6%) per annum. The Associated Press is to have the right to make payment in full at any time within that period.

TRAINING OF ASSOCIATED PRESS EMPLOYEES

Our price does not include the training of any of your employees in the operation and maintenance of the equipment. This is a matter that should be arranged for in your dealings with Mr. Miller and Mr. Carter.

We wish to assure you that with your signifying the acceptance of this letter, we shall proceed with all speed to carry forward the manufacturing involved, and shall exert every effort to complete the work to your entire satisfaction and in accordance with your wishes as to schedule.

Yours very truly,

_____,
General Commercial Manager.

JANUARY 16, 1934.

Mr. KENT COOPER,
General Manager, The Associated Press,
383 Madison Avenue, New York, N. Y.

DEAR MR. COOPER: In accordance with our conversation of yesterday, we are agreeable to supplementing the paragraphs of our letter of January 15 as follows:

Digitized by Google

PRICE CHANGES

If it should happen that while we are engaged in manufacturing on your order or orders apparatus such as is defined under the heading, "Description of apparatus", in our letter of January 15, we should agree to sell to another customer (other than the Bell System or associated companies) like apparatus in like quantities and under like conditions at a price lower than our price to you covering the apparatus then being made, we will reduce the price of the uncompleted portion of your such order or orders to agree with the price named to such other customer.

PATENT CLAUSE

The use for which the apparatus defined in our letter of January 15 under the heading, "Description of apparatus", is sold to you is that of the facsimile reproduction of pictures, including photographs, drawings, sketches, and the like, and printed and written matter at a distance, by means of electrical transmitting and receiving apparatus operating over wires extending from the transmitting station to the receiving station (as distinguished from operation by radio waves) but not including the transmission or reception of personal messages as a service to the public.

Will you be good enough to signify your acceptance of the provisions of our letter of January 15 as supplemented by the above paragraphs?

Yours very truly,

_____.

(Original signed by F. B. Gleason, general commercial manager.)

THE ASSOCIATED PRESS,
January 19, 1934.

Mr. F. B. GLEASON,
195 Broadway, New York, N. Y.

DEAR MR. GLEASON: This is acceptance for the Associated Press of the conditions of your letter of January 15 and therefore constitutes our order for the equipment specified in that letter, and we accept further your offer to consolidate with no. 2 of the order the 32 units specified in no. 3 of the order, which action will cause all sixty units to take precedence over any orders you may receive from other customers, but the Associated Press reserves the option to cancel, in full or in part, any of these additional 48 machines if such cancelation, in full or in part, is mailed to you at any time prior to February 16, 1934.

The acceptance herein is further based upon your letter of January 16, 1934, supplementing the letter of January 15, 1934, as respects "Price changes" and "Patent clause."

Please confirm receipt of this order as outlined herein.

Sincerely yours,

KENT COOPER.

ADJUDICATED PATENTS OWNED OR CONTROLLED BY THE AMERICAN TELEPHONE AND TELEGRAPH COMPANY

1307510, Nicolson: Claims 7 and 13 held valid and infringed; *R. C. A. et al.* v. *Majestic Distributors;* 6 Fed. Supp. 87.

1329283, Arnold: By pro confesso decree held valid and infringed; *W. E. Co. et al.* v. *Biophone Corp.;* Jan. 30, 1935.

1349252, Arnold: By pro confesso decree held valid and infringed; *W. E. Co. et al.* v. *Biophone Corp.;* Jan. 30, 1935.

1354939, Arnold: Claims 10, 15, and 16 held valid and infringed; *R. C. A. et al.* v. *Majestic Distributors;* 6 Fed. Supp. 87.

1398665, Arnold: By pro confesso decree held valid and infringed; *W. E. Co. et al* v. *Biophone Corp.;* Jan. 30, 1935.

1403475, Arnold: By decree pro confesso held valid and infringed; *W. E. Co. et al.* v. *Silverphone Corp.;* 388 O. G. 281. By consent decree held valid and infringed; *R. C. A. et al.* v. *Platt Music Co.;* 415 O. G. 7. Consent decree for plaintiff; *R. C. A. et al.* v. *F. W. Lang et al.;* 418 O. G. 556. Decree pro confesso; *R. C. A. et al.* v. *F. R. Smith;* 428 O. G. 773. By consent decree held infringed; *R C. A. et al.* v. *M. Sexton et al.;* 429 O. G. 7. By consent decree held in-

Digitized by Google

fringed; *R. C. A. et al.* v. *E. Burns;* 429 O. G. 7. Consent decree for plaintiff; *R. C. A. et al.* v. *Modell's Radio Outlets, Inc. et al.;* 429 O. G. 78. Consent decree for plaintiff; *R. C. A. et al.* v. *H. F. Lyman;* 431 O. G. 269. Consent decree for plaintiff; *R. C. A. et al.* v. *John Wanamaker of N. Y.;* 432 O. G. 9. Consent decree for plaintiff; *R. C. A. et al.* v. *Vim Electric Co.;* 433 O. G. 800. Consent decree for plaintiff; *R. C. A. et al.* v. *Insuline Corp. of America;* 433 O. G. 1086. Held valid and infringed; *R. C. A. et al.* v. *D. W. Rogers;* 437 O. G. 579. Consent decree for plaintiff; *R. C. A. et al.* v. *H. Antin et al.;* 439 O. G. 272. Consent decree for plaintiff; *R. C. A. et al.* v. *E. Hauser et al.;* 441 O. G. 258. By decree pro confesso held valid and infringed; *R. C. A. et al.* v. *Roots Auto Radio Mfg. Co.;* 442 O. G. 545. By consent decree held valid and infringed; *R. C. A. et al.* v. *Goldblatt Bros. Inc.;* 442 O. G. 1065. Consent decree for plaintiff for injunction; *R. C. A. et al.* v. *Automatic Radio Mfg. Co.;* 444 O. G. 260. Decree for plaintiff; *R. C. A. et al.* v. *Mark's Stores, Inc.;* 446 O. G. 508. By consent decree held valid and infringed; *R. C. A. et al.* v. *Climax Radio Corp.;* 448 O. G. 514. By consent decree held valid and infringed; *R. C. A. et al.* v. *A. I. Blanc et al.;* 448 O. G. 769. By consent decree held valid and infringed; *R. C. A. et al.* v. *M. H. Hoffman et al.;* 448 O. G. 769. By consent decree held valid and infringed; *R. C. A. et al.* v. *Pacific Radio Corp. et al.;* 450 O. G. 506. Held valid and infringed; *R. C. A. et al.* v. *J. T. Kelley, Jr.;* 450 O. G. 940. Held valid and infringed; *R. C. A. et al.* v. *R. Rawlings;* 450 O. G. 940. Decree for plaintiff, holding infringement; *R. C. A. et al.* v. *F. T. Cawood;* 452 O. G. 471. Decree for plaintiff; *R. C. A. et al.* v. *C. F. Sexton;* 452 O. G. 471. Decree for plaintiff, holding infringement; *R. C. A. et al.* v. *H. Bell;* 452 O. G. 472. Consent decree holding patent valid and infringed; *R. C. A. et al.* v. *Eagle Radio Co., Inc., et al.;* 454 O. G. 9. By consent decree held valid and infringed; *R. C. A. et al.* v. *International Parts Corp., et al.;* 454 O. G. 538. Decree pro confesso as to defendants Zaney and Gill. Consent decree as to defendant Rabinovitch, holding patent valid and infringed; *R. C. A. et al.* v. *S. P. Zancy et al.;* 454 O. G. 538. By consent decree held valid and infringed; *R. C. A. et al.* v. *F. M. Lund et al.;* 454 O. G. 538. By consent decree held valid and infringed; *R. C. A. et al.* v. *Levinson Radio Stores Co., et al;* 454 O. G. 538. By consent decree held valid and infringed; *R. C. A. et al.* v. *Atlas Sports and Radio Co., et al.;* 454 O. G. 539. By consent decree held valid and infringed; *R. C. A. et al.* v. *J. P. Winnecour;* 454 O. G. 539. By pro confesso decree held valid and infringed; *R. C. A. et al.* v. *International Trading Corp. et al.;* 457 O. G. 249. By pro confesso decree held valid and infringed; *R. C. A. et al.* v. *Royal Radio Manufacturing Co., Inc., et al.;* 457 O. G. 249. Pro confesso decree; *R. C. A. et al.* v. *Danco, Inc. and Daniel Combs;* (See notice # 6 from R. C. A.). Consent decree against two defendants and pro confesso decree against another; *R. C. A. et al.* v. *General Television;* (See notice # 4 from R. C. A.). Consent decree; *R. C. A. et al.* v. *Lenox Engineering Co.* (See notice # 25 from R. C. A.).

1403632, Wilson: Pro confesso decree held patent valid and infringed; *W. E. Co. et al.* v. *Biophone Corp.;* Jan. 30, 1935. Consent decree for plaintiff; *R. C. A. et al.* v. *F. W. Lang et al.;* 418 O. G. 556. Consent decree for plaintiff; *R. C. A. et al.* v. *J. D. Mendelson;* 440 O. G. 572. Consent decree for plaintiff; *R. C. A. et al.* v. *Royal Radio of New York;* 441 O. G. 258. Consent decree for plaintiff; *R. C. A. et al.* v. *B. Hauser et al.;* 441 O. G. 258. Consent decree for plaintiff; *R. C. A. et al.* v. *Espey Mfg. Co. et al.;* 441 O. G. 514. Decree pro confesso holding patent valid and infringed; *R. C. A. et al.* v. *Roots Auto Radio Mfg. Corp.;* 442 O. G. 545. Consent decree for plaintiff; *R. C. A. et al.* v. *W. A. Garl et al.;* 442 O. G. 1065. Consent decree for plaintiff; *R. C. A. et al.* v. *Plymouth Radio Co.;* 442 O. G. 1065. Consent decree for plaintiff; *R. C. A. et al.* v. *Automatic Radio Mfg. Co.;* 444 O. G. 260. Decree for plaintiff; *R. C. A. et al.* v. *Mark's Stores, Inc.;* 446 O. G. 508. Consent decree for plaintiff; *R. C. A. et al.* v. *Climax Radio Corp. et al.;* 448 O. G. 515. Consent decree for plaintiff; *R. C. A. et al.* v. *A. I. Blanc et al.;* 448 O. G. 769 Consent decree for plaintiff; *R. C. A. et al.* v. *M. H. Hoffman et al.;* 448 O. G. 769. By consent decree held valid and infringed; *R. C. A. et al.* v. *Pacific Radio Corp. et al.;* 450 O. G. 506. Held valid and infringed; *R. C. A. et al.* v. *J. T. Kelley, Jr.;* 450 O. G. 940. Held valid and infringed; *R. C. A. et al.* v. *R. Rawlings;* 450 O. G. 940. Decree for plaintiff, holding infringement; *R. C. A. et al.* v. *F. T. Cawood;* 452 O. G. 471. Decree for plaintiff; *R. C. A. et al.* v. *C. F. Sexton;* 452 O. G. 471. Decree for plaintiff, holding infringement; *R. C. A. et al.* v. *H. Bell;* 452 O. G. 472. Consent decree holding patent valid and infringed; *R. C. A. et al.* v. *Eagle Radio Co., Inc., et al.;* 454 O. G. 9. Decree pro confesso

Digitized by Google

as to defendants Zaney and Gill. Consent decree as to defendant Rabinovitch, holding patent valid and infringed; *R. C. A. et al.* v. *S. P. Zaney et al.;* 454 O. G. 538. By consent decree held valid and infringed; *R. C. A. et al.* v. *F. M. Lund et al.;* 454 O. G. 538. By consent decree held valid and infringed; *R. C. A. et al.* v. *Levinson Radio Stores Co. et al.;* 454 O. G. 538. By consent decree held valid and infringed; *R. C. A. et al.* v. *Atlas Sports and Radio Co. et al.;* 454 O. G. 539. By consent decree held valid and infringed; *R. C. A. et al.* v. *J. P. Winnecourt;* 454 O. G. 539. By pro confesso decree held valid and infringed; *R. C. A. et al.* v. *International Trading Corp. et al.;* 457 O. G. 249. By pro confesso decree held valid and infringed; *R. C. A. et al.* v. *Regal Radio Manufacturing Co., Inc., et al.;* 457 O. G. 249. Pro confesso decree; *R. C. A. et al.* v. *Danco, Inc., and Daniel Combs* (See notice #6 from R. C. A.). Consent decree; *R. C. A. et al.* v. *Lenox Engineering Co.* (See R. C. A., notice #25).

1419530, Wilson: Claim 2 held invalid; *R. C. A. et al.* v. *Majestic Distributors;* 6 Fed. Supp. 87.

1426754, Mathes: Claim 8 held valid and infringed; *R. C. A. et al.* v. *J. H. Bunnell & Co. et al.;* 22 Fed. (2d) 847. Claim 25 held valid and infringed in the District Court; *W. E. Co.* v. *Sol Wallerstein;* 51 Fed. (2d) 529. Claim 25 held infringed in the Circuit Court of Appeals; *W. E. Co.* v. *Sol Wallerstein;* 60 Fed. (2d) 723. By pro confesso decree held valid and infringed; *W. E. Co. et al.* v. *Biophone Corp.;* Jan. 30, 1935. Consent decree; *R. C. A. et al.* v. *Trav-Ler Mfg. Co.;* 410 O. G. 550.

1432022, Heising: By pro confesso decree held valid and infringed; *W. E. Co.* v. *Biophone Corp.;* Jan. 30, 1935. Decree pro confesso; *W. E. Co. et al.* v. *Silverphone Corp.;* 388 O. G. 530. Consent decree; *R. C. A. et al.* v. *H. Antin et al.;* 439 O. G. 273.

1432863, Johnson: By pro confesso decree held valid and infringed; *W. E. Co. et al.* v. *Biophone Corp.;* Jan. 30, 1935.

1432867, Kelly: Consent decree for plaintiff for injunction; *R. C. A. et al.* v. *Munder Electric Co.;* 445 O. G. 782.

1442439, Mathes: By pro confesso decree held valid and infringed; *W. E. Co. et al.* v. *Biophone Corp.;* Jan. 30, 1935. Decree pro confesso; *W. E. Co. et al.* v. *Silverphone Corp.;* 388 O. G. 530.

1448550, Arnold: By pro confesso decree held valid and infringed; *W. E. Co. et al.* v. *Biophone Corp.;* Jan. 30, 1935. Decree pro confesso; *W. E. Co. et al.* v. *Silverphone Corp.;* 388 O. G. 530.

1456528, Arnold: Held valid and infringed; *R. C. A. et al.* v. *Tectron Radio Corp.;* 376 O. G. 273. Consent decree for plaintiff; *R. C. A. et al.* v. *Triad Mfg. Co.;* 392 O. G. 246. Consent decree for plaintiff; *R. C. A. et al.* v. *Cable Radio Tube Corp.;* 394 O. G. 553. Consent decree dismissing suit without prejudice; *R. C. A. et al.* v. *G. J. Seedman Co.;* 395 O. G. 341. Consent decree for plaintiff; *R. C. A. et al.* v. *Pilot Radio and Tube Corp.;* 399 O. G. 421. Consent decree and order of discontinuance; *R. C. A. et al.* v. *The Dale Co.;* 413 O. G. 287. Consent decree and order of discontinuance; *R. C. A. et al.* v. *Gold Seal Electric Co.;* 413 O. G. 287.

1459412, Nicolson: Claims 7 and 23 held valid and infringed; *R. C. A. et al.* v. *Majestic Distributors;* 6 Fed. Supp. 87. Held valid and infringed; *R. C. A. et al.* v. *Tectron Radio Corp.;* 376 O. G. 273. Consent decree for plaintiff; *R. C. A. et al.* v. *Triad Mfg. Co.;* 392 O. G. 246. Consent decree for plaintiff; *R. C. A. et al.* v. *Cable Radio Tube Corp.;* 394 O. G. 553. Consent decree dismissing suit without prejudice; *R. C. A. et al.* v. *G. J. Seedman Co.;* 395 O. G. 341. Consent decree for plaintiff; *R. C. A. et al.* v. *Pilot Radio and Tube Corp.;* 399 O. G. 421. Consent decree and order of discontinuance; *R. C. A. et al.* v. *Gold Seal Electrical Co.;* 413 O. G. 287. Consent decree and order of discontinuance; *R. C. A. et al.* v. *The Dale Co.;* 413 O. G. 287.

1465332, Arnold: By pro confesso decree held valid and infringed; *W. E. Co. et al.* v. *Biophone Corp.;* Jan. 30, 1935. Held valid and infringed; *R. C. A. et al.* v. *F. W. Falck;* 388 O. G. 4. Consent decree for plaintiff; *R. C. A. et al.* v. *Pierce-Airo Co.;* 402 O. G. 10. Consent decree; *R. C. A. et al.* v. *Trav-Ler Mfg. Corp.;* 410 O. G. 550. Held valid and infringed; *R. C. A. et al.* v. *Platt Music Co.;* 415 O. G. 7. Consent decree for plaintiff; *R. C. A. et al.* v. *F. W. Lang et al.;* 420 O. G. 8. Decree pro confesso; *R. C. A. et al.* v. *F. R. Smith;* 428 O. G. 773. Consent decree for plaintiff; *R. C. A. et al.* v. *H. F. Lyman;* 431 O. G. 269. Consent decree for plaintiff; *R. C. A. et al.* v. *John Wanamaker, N. Y.;* 432 O. G. 9. Consent decree for plaintiff; *R. C. A. et al.* v. *Radio Syndicate, Inc.;* 432 O. G. 759. Consent decree for plaintiff; *R. C. A. et al.* v. *Insuline Corp. of America;* 433 O. G. 1086. Held valid and infringed; *R. C. A. et al.* v.

Digitized by Google

D. W. Rogers et al.; 437 O. G. 579. Consent decree for plaintiff; *R. C. A. et al.* v. *H. Antin et al.;* 439 O. G. 272. Consent decree for plaintiff; *R. C. A. et al.* v. *J. D. Mendelson;* 440 O. G. 571. Consent decree for plaintiff; *R. C. A. et al.* v. *Royal Radio of N. Y. et al.;* 441 O. G. 258. Consent decree for plaintiff; *R. C. A. et al.* v. *E. Hauser et al.;* 441 O. G. 258. Consent decree for plaintiff; *R. C. A. et al.* v. *Espey Mfg. Co. et al.;* 441 O. G. 514. By consent decree held valid and infringed; *R. C. A. et al.* v. *Lincoln Radio Corp.;* 442 O. G. 545. By consent decree held valid and infringed; *R. C. A. et al.* v. *Premier Electric Co. et al.;* 442 O. G. 545. By decree pro confesso held valid and infringed; *R. C. A. et al.* v. *Roots Auto Radio Mfg. Corp.;* 442 O. G. 545. By consent decree held valid and infringed; *R. C. A. et al.* v. *Goldblatt Bros., Inc.;* 442 O. G. 1065. By consent decree held valid and infringed; *R. C. A. et al.* v. *W. A. Garl et al.;* 442 O. G. 1065. Consent decree for plaintiff; *R. C. A. et al.* v. *Plymouth Radio Co.;* 442 O. G. 1065. Consent decree for plaintiff for injunction; *R. C. A. et al.* v. *Automatic Radio Mfg. Co.;* 444 O. G. 260. Decree for plaintiff; *R. C. A. et al.* v. *Mark's Stores;* 446 O. G. 509. By consent decree held valid and infringed; *R. C. A. et al.* v. *Climax Radio Corp. et al.;* 448 O. G. 515. By consent decree held valid and infringed; *R. C. A. et. al.* v. *A. I. Blanc et al.;* 448 O. G. 769. By consent decree held valid and infringed; *R. C. A. et al.* v. *M. H. Hoffman et al.;* 448 O. G. 769. Decree for plaintiff, holding infringement; *R. C. A. et al.* v. *F. T. Cawood;* 452 O. G. 471. Decree for plaintiff; *R. C. A. et al.* v. *C. F. Sexton;* 452 O. G. 471. By consent decree held valid and infringed; *R. C. A. et al.* v. *International Parts Corp. et al.;* 454 O. G. 538. Decree pro confesso as to defendants Zaney and Gill. Consent decree as to defendant Rabinovitch, holding patent valid and infringed; *R. C. A. et al.* v. *S. P. Zaney et al.;* 454 O. G. 538. Pro confesso decree; *R. C. A. et al* v. *Danco, Inc., and Daniel Combs.* (See notice #6 from R. C. A.)

1465932, Colpitts: Consent decree for plaintiff; *R. C. A. et al.* v. *F. W. Lang et al.;* 418 O. G. 556.

1479778, Van der Bijl: Claim 7 held valid and infringed; *R. C. A. et al.* v. *Majestic Distributors;* 6 Fed. Supp. 87.

1483273, Blattner: Held not infringed in District Court; *W. E. Co.* v. *Sol Wallerstein;* 51 F. (2d) 530. Claims 6 and 8 held invalid in Circuit Court of Appeals; *W. E. Co.* v. *Sol Wallerstein;* 60 F. (2d) 723. By pro confesso decree held valid and infringed; *W. E. Co. et al.* v. *Biophone Corp.;* Jan. 30, 1935. Decree pro confesso; *W. E. Co. et al.* v. *Silvertone Corp.;* 388 O. G. 530. Consent decree for plaintiff; *R. C. A. et al* v. *Pierce-Airo Co.;* 402 O. G. 10.

1493217, Mathes: Decree pro confesso; *W. E. Co. et al.* v. *Silvertone Corp.;* 388 O. G. 530.

1493595, Blattner: By pro confesso decree held valid and infringed; *W. E. Co. et al.* v. *Biophone Corp.;* Jan. 30, 1935. Decree pro confesso; *W. E. Co. et al.* v. *Silvertone Corp.;* 388 O. G. 530.

1504537, Arnold: Claims 17, 18, 20, and 33 to 36 held valid and infringed in the District Court; *W. E. Co.* v. *Sol Wallerstein;* 51 Fed. (2d) 529. Claims 17, 18, 20, and 33 to 36 held invalid, in the Circuit Court of Appeals; *W. E. Co.* v. *Sol Wallerstein;* 60 Fed. (2d) 723. By pro confesso decree held valid and infringed; *W. E. Co. et al.* v. *Biophone Corp.;* Jan. 30, 1935. Decree pro confesso; *W. E. Co. et al.* v. *Silvertone Corp.;* 388 O. G. 530.

1507016, De Forest: Held valid in the District Court of Pa.; *De Forest Radio Tel. and Tel Co.* v. *Westinghouse El. & Mfg. Co.;* 13 Fed. (2d) 1014. Held valid against claim of priority; *Westinghouse Electric & Mfg. Co.* v. *De Forest Radio Tel. and Tel. Co.;* 21 Fed. (2d) 918. Held valid and infringed in the District Court of New York; *R. C. A. et al.* v. *Radio Engineering Labs.;* 1 Fed. Supp. 65. As to 1507016, claims 24 to 28 held invalid, and as to 1507017, claims 15 and 17 to 21 held invalid in the C. C. of Appeals; *R. C. A. et al.* v. *Radio Engineering Labs., Inc.;* 66 Fed. (2d) 768. As to 1507016, claims 24 to 28 held valid and infringed by the Supreme Court, and as to 1507017, claims 15 and 17 to 21 held valid and infringed by the Supreme Court; *R. C. A. et al.* v. *Radio Engineering Labs., Inc.;* 78 Law. Ed. 1455; 54 Sup. Ct. Reporter, 752. As to 1507016, claims 25 to 28 held valid and infringed, and as to 1507017, claims 15 and 17 to 21 held valid and infringed; *R. C. A. et al.* v. *Universal Wireless Communication Co. et al.;* 390 O. G. 421. Consent decree for plaintiff; *R. C. A. et al.* v. *John Wanamaker, N. Y.;* 432 O. G. 9. Consent decree for plaintiff; *R. C. A. et al.* v. *H. Antin et al.;* 439 O. G. 272. By consent decree held valid and infringed; *R. C. A. et al.* v. *Lincoln Radio Corp.;* 442 O. G. 545. Consent decree for plaintiff; *R. C. A. et al.* v. *Plymouth Radio Corp., Inc.;* 442 O. G.

Digitized by Google

1065. By consent decree held valid and infringed; *R. C. A. et al.* v. *McMurdo-Silver, Inc.;* 448 O. G. 515. Held valid and infringed; *R. C. A. et al.* v. *J. T. Kelley, Jr.;* 450 O. G. 940. Held valid and infringed; *R. C. A. et al.* v. *Rawlings;* 450 O. G. 940. Decree for plaintiff; *R. C. A. et al.* v. *Oscar's Radio Shop, Inc., et al.;* 452 O. G. 472. Decree for plaintiff; *R. C. A. et al.* v. *North Radio Co., Inc., et al.;* 452 O. G. 472. Decree for plaintiff; *R. C. A. et al.* v. *B. Shaw;* 452 O. G. 472. Decree for plaintiff; *R. C. A. et al.* v. *L. C. Bodanes et al.;* 452 O. G. 472. Decree for plaintiff; *R. C. A. et al.* v. *Amco Radio Stores, Inc., et al.;* 452 O. G. 472. Decree for plaintiff; *R. C. A. et al.* v. *Hygrade Sylvania Corp.;* 451 O. G. 6. Decree for plaintiff holding infringement; *R. C. A. et al.*, v. *H. Bell.;* 452 O. G. 472. Decree for plaintiff; *R. C. A. et al.* v. *C. F. Sexton;* 452 O. G. 472. Consent decree for plaintiff; *R. C. A. et al.* v. *H. & B. Radio Corp., et al.;* 452 O. G. 472. Consent decree for plaintiff; *R. C. A. et al.* v. *Furst Radio Corp., et al.;* 453 O. G. 9. Consent decree for plaintiff; *R. C. A. et al.* v. *Post Radio, Inc., et al.;* 453 O. G. 9. Consent decree for plaintiff; *R. C. A. et al.* v. *Transatlantic Radio Stores, Inc., et al.;* 453 O. G. 9. Consent decree holding patent valid and infringed; *R. C. A. et al.* v. *Eagle Radio Co., Inc., et al.;* 454 O. G. 9. By consent decree held valid and infringed; *R. C. A. et al.* v. *F. M. Lund et al.;* 454 O. G. 538. By consent decree held valid and infringed; *R. C. A. et al.* v. *Levinson Radio Stores Co., et al.;* 454 O. G. 538. By consent decree held valid and infringed; *R. C. A. et al.* v. *Eagle Radio Co., Inc., et al.;* 454 O. G. 9. Decree pro confesso for plaintiff; *R. C. A.* v. *Fox Radio Corp., et al.;* 455 O. G. 10. By pro confesso decree held valid and infringed; *R. C. A. et al.* v. *International Trading Corp., et al.;* 457 O. G. 249. Consent decree for plaintiff; *R. C. A. et al.* v. *H. E. Van Thijn et al.;* 457 O. G. 704. Final decree pro confesso; *R. C. A. et al.* v. *Homer F. Lyman;* (See notice # 27 from R. C. A.).

1507017, De Forest. (See 1507016.)

1520994, Arnold. Decree pro confesso; *W. E. Co. et al.* v. *Silverphone Corp.;* 388 O. G. 530.

1531805, Mathes: Consent decree for plaintiff; *R. C. A. et al.* v. *Espey Mfg. Co. et al.*, 441 O. G. 514. By consent decree held valid and infringed; *R. C. A. et al.* v. *McMurdo-Silver, Inc.*, 448 O. G. 514.

1544943, Scriven: Decree pro confesso; *W. E. Co. et al.* v. *Silverphone Corp.*, 388 O. G. 530.

1596198, Loewe: By consent decree held valid and infringed; *R. C. A. et al.* v. *McMurdo-Silver, Inc.*, 448 O. G. 514.

1658346, Mathes: Consent decree for plaintiff; *R. C. A. et al.* v. *Espey Mfg. Co. et al.*, 441 O. G. 514. By consent decree held valid and infringed; *R. C. A. et al.* v. *McMurdo-Silver, Inc.*, 448 O. G. 515.

1707544, Thuras: Decree pro confesso and perpetual injunction; *W. E. Co.* v. *Maiden-Toledo, Inc., et al.* Consent decree for plaintiff; *W. E. Co. et al.* v. *Silverphone Corp.*, 387 O. G. 724.

1707545, Wente: Claims 1 to 5 and 8 held valid and infringed; *W. E. Co.* v. *Kersten Radio Equipment, Inc.*, 44 F. (2d) 644. Decree pro confesso and perpetual injunction; *W. E. Co.* v. *Maiden-Toledo, Inc., et al.* Consent decree for plaintiff; *W. E. Co. et al.* v. *Silverphone Corp.*, 387 O. G. 724. Consent decree for plaintiff; *W. E. Co. et al.* v. *Amplion Corp. of America*, 415 O. G. 762.

1734624, Harrison: Claim 11 held valid; claim 16 held valid and infringed; *W. E. Co.* v. *Kersten Radio Equipment, Inc.*, 44 Fed. (2d) 644. Consent decree for plaintiff; *W. E. Co. et al.* v. *Amplion Corp. of America*, 415 O. G. 762.

1738269, Van der Bijl: Consent decree for plaintiff for injunction; *R. C. A. et al.* v. *Munder Electric Co.;* 445 O. G. 783.

1896780, Llewellyn: Consent decree for plaintiff; *R. C. A. et al.* v. *Espey Mfg. Co. et al.;* 441 O. G. 515. By decree pro confesso held valid and infringed; *R. C. A. et al.* v. *Roots Auto Radio Mfg. Corp.;* 442 O. G. 546.

JULY 30, 1928.

GENERAL RADIO CO.,
Cambridge, Mass.

GENTLEMEN: My attention has been called to an article entitled "Equalization Panels" contained in the April 1928 edition of the General Radio Experimenter. I understand that the article refers to a type of equalizer which you furnished the New England Telephone & Telegraph Co., one of the associated companies of the Bell System. If I am correct, then that type of equalizer is covered by

Digitized by Google

our Hoyt patent no. 1453980, issued May 1, 1923, and the use thereof in combination with certain other apparatus is covered by our patents nos. 1453982 of May 1, 1923, and 1454011 of May 1, 1923.

I am calling your attention to this matter in order that you may not inadvertently infringe these patents, since the article states that "equipmens of this sort having any desired specification can be made on special order."

Yours very truly,

G. E. FOLK,
General Patent Attorney.

NOVEMBER 21, 1928.

LEMERT ENGINEERING CORPORATION,
Wilmington, Calif.

GENTLEMEN: Our attention has been called to recent newspaper statements, purporting to come from you, to the effect that you are planning to erect a radio telephone transmitting station on the Pacific coast and, in connection therewith, to manufacture and sell receiving apparatus for ship-to-shore radio-telephone communication. We are unaware of the details of your proposed system and apparatus, but, out of an abundance of caution, this letter is written to inform you, on behalf of the American Telephone & Telegraph Co., that this company controls a number of patents and applications which cover very thoroughly radio-telephone transmitting and receiving apparatus. We wish to put you on your guard so that you may not inadvertently infringe those patents. In particular, I call your attention to the following United States patents: Arnold, 1129942, March 2, 1915; Colpitts, 1129959, March 2, 1915; Heising, 1137315, April 27, 1915; Hartley, 1183875, May 23, 1916; De Forest, 1201272, October 17, 1916; Lowenstein, 1231764, July 3, 1917; Colpitts (reissue), 14380, October 23, 1917; De Forest, 1314250, August 26, 1919; Arnold, 1349252, August 10, 1920; Van der Bijl, 1350752, August 24, 1920; Hartley, 1356763, October 26, 1920; Scriven, 1375739, April 26, 1921; De Forest, 1377405, May 10, 1921; Colpitts & Arnold, 1388450, August 23, 1921; Arnold, 1398665, November 29, 1921; Mathes, 1426754, August 22, 1922; Heising, 1442146, January 16, 1923; Heising, 1442147, January 16, 1923; De Forest, 1507016, September 2, 1924; De Forest, 1507017, September 2, 1924.

These are but some of this company's more fundamental patents covering radio-telephone transmitting and receiving apparatus. It is not intended to be anything like a complete list.

As you were informed in a letter dated October 8, 1928, this company expects to develop commercially, in the field above mentioned, the inventions covered by its patents. It, furthermore, intends to enforce its rights under these and other patents covering systems of the general type which you propose to use, and it is for that reason that I am warning you of the extent of its patent rights in such systems.

Yours very truly,

G. E. FOLK,
General Patent Attorney.

APRIL 16, 1929.

NORTHERN ELECTRIC CO.,
908 Weston Avenue, Seattle, Wash.

GENTLEMEN: We have received information to the effect that you are planning to manufacture and sell radiotelephone apparatus for use in ship-to-shore communication. We are unaware of the details of your proposed apparatus, but out of an abundance of caution this letter is written to inform you, on behalf of the American Telephone & Telegraph Co., that this company controls a number of patents and applications which cover very thoroughly radiotelephone transmitting and receiving apparatus. We wish to put you on your guard so that you may not inadvertently infringe such patents. In particular I call your attention to the following United States patents: Arnold, 1129942, March 2, 1915; Colpitts, 1129959, March 2, 1915; Heising, 1137315, April 27, 1915; Hartley, 1183875, May 23, 1916; DeForest, 1201272, October 17, 1916; Lowenstein, 1231764, July 3, 1917; Colpitts (reissue), 14380, October 23, 1917; DeForest, 1314250, August 26, 1919; Arnold, 1349252, August 10, 1920; Van der Bijl, 1350752, August 24, 1920; Hartley, 1356763, October 26, 1920; Scriven, 1375739, April 26, 1921; DeForest, 1377405, May 10, 1921; Colpitts & Arnold, 1388450, August 23, 1921; Arnold, 1398665, November 29, 1921; Mathes, 1426754, August 22, 1922; Heising, 1442146, January 16, 1923; Heising, 1442147, January 16,

Digitized by Google

1923; DeForest, 1507016, September 2, 1924; DeForest, 1507017, September 2, 1924.

These are but some of this company's more fundamental patents covering radiotelephone transmitting and receiving apparatus. It is not intended to be anything like a complete list.

This company has developed inventions covered by its patents for commercial exploitation in the field above mentioned. It furthermore intends to enforce its rights under these and other patents covering systems of the general type which we understand you propose to manufacture and sell, and it is for that reason that I am warning you of the extent of its patent rights in such systems.

Yours very truly,

G. E. FOLK, *General Patent Attorney.*

APRIL 16, 1929.

HEITZ & KAUFMAN,
219–223 Natoma Street, San Francisco, Calif.

GENTLEMEN: We have received information to the effect that you are planning to manufacture and sell radiotelephone apparatus for use in ship-to-shore communication and for use in communicating airplanes. We are unaware of the details of your proposed apparatus, but out of an abundance of caution this letter is written to inform you, on behalf of the American Telephone & Telegraph Co., that this company controls a number of patents and applications which cover very thoroughly radiotelephone transmitting and receiving apparatus. We wish to put you in your guard so that you may not inadvertently infringe such patents. In particular, I call your attention to the following United States patents: Arnold, 1129942, March 2, 1915; Colpitts, 1129959, March 2, 1915; Heising, 1137315, April 27, 1915; Hartley, 1183875, May 23, 1916; DeForest, 1201272, October 17, 1916; Lowenstein, 1231764, July 3, 1917; Colpitts (reissue), 14380, October 23, 1917; DeForest, 1314250, August 26, 1919; Arnold, 1349252, August 10, 1920; Van der Bijl, 1350752, August 24, 1920; Hartley, 1356763, October 26, 1920; Scriven, 1375739, April 26, 1921; DeForest, 1377405, May 10, 1921; Colpitts & Arnold, 1338450, August 23, 1921; Arnold, 1398665, November 29, 1921; Mathes, 1426754, August 22, 1922; Heising, 1442146, January 16, 1923; Heising, 1442147, January 16, 1923; DeForest, 1507016, September 2, 1924; DeForest, 1507017, September 2, 1924.

These are but some of this company's more fundamental patents covering radiotelephone transmitting and receiving apparatus. It is not intended to be anything like a complete list.

This company has developed inventions covered by its patents for commercial exploitation in the fields above mentioned. It furthermore intends to enforce its rights under these and other patents covering systems of the general type which we understand you propose to manufacture and sell, and it is for that reason that I am warning you of the extent of its patent rights in such systems.

Yours very truly,

G. E. FOLK,
General Patent Attorney.

MAY 27, 1929.

GENERAL INDUSTRIES CO.,
63 Gorham Street, West Somerville, Mass.

GENTLEMEN: We have received information to the effect that you have manufactured and installed, at the headquarters of the Boston Fire Department, radio telephone equipment for use in communication with fire boats in Boston Harbor. We are unaware of the structure of this apparatus, but out of an abundance of caution this letter is written to inform you, on behalf of the American Telephone & Telegraph Co., that this company controls a number of patents and applications which cover very thoroughly radio telephone transmitting and receiving apparatus.

We wish to put you on your guard so that you may not inadvertently infringe such patents. In particular, I call your attention to the following United States patents: Arnold, 1129942, March 2, 1915; Colpitts, 1129959, March 2, 1915; Heising, 1137315, April 27, 1915; Hartley, 1183875, May 23, 1916; DeForest, 1201272, October 17, 1916; Lowenstein, 1231764, July 3, 1917; Colpitts (reissue), 14380, October 23, 1917; DeForest, 1314250, August 26, 1919; Arnold, 1349252, August 10, 1920; Van der Bijl, 1350752, August 24, 1920; Hartley, 1356763, October 26, 1920; Scriven, 1375739, April 26, 1921; DeForest, 1377405, May 10, 1921; Colpitts and Arnold, 1388450, August 23, 1921; Arnold, 1398665, November

Digitized by Google

29, 1921; Mathes, 1426754, August 22, 1922; Heising, 1442146, January 16, 1923; Heising, 1442147, January 16, 1923; DeForest, 1507016, September 2, 1924; DeForest, 1507017, September 2, 1924.

These are but some of this company's more fundamental patents covering radio telephone transmitting and receiving apparatus. It is not intended to be anything like a complete list.

This company has developed inventions covered by its patents for commercial exploitation in the fields above mentioned. It furthermore intends to enforce its rights under these and other patents covering systems of the general type which we understand you have furnished to the Boston Fire Department, and it is for this reason that I am warning you of the extent of its patent rights in such systems.

Yours very truly,

G. E. FOLK,
General Patent Attorney.

MAY 25, 1931.

Mr. THEODORE H. BEARD,
Supervising Engineer, Dictaphone Corporation,
Bridgeport, Conn.

DEAR SIR: We have examined the blue prints which you forwarded me with your letter of March 27, 1931, and in connection therewith wish to call your attention to the following patents owned or controlled by this company which appear to contain claims reading on the circuits of said prints:

Colpitts, 1128292, February 16, 1915.

Arnold, 1504537, August 12, 1924. See particularly claims 17 and 33.

Lowenstein, 1231764, July 3, 1916.

Mathes, 1426754, August 22, 1922.

Scriven, 1375739, April 26, 1921. This patent is especially applicable to diagram 3.

Wilson, 1403932, January 17, 1922. The claims of this patent appear to read on diagram 4.

Heising, 1432022, October 17, 1922. The claims of this patent read on diagram 4.

Blattner, 1493595, May 13, 1924. Some of the claims, as example claim 8, read on diagram 4. 1483273, February 12, 1924. Some of the claims, such as 7, read on diagram 4.

DeForest, 1375447, April 19, 1921; 1314250, August 26, 1919. Particular attention is called to claims 8 and 27 of patent 1375447 and claim 7 of patent 1314250. 1377405, May 10, 1921. Special attention is called to claim 6 which appears to read on diagrams 1, 2, 3, 4, and 5.

Arnold, 1292942, March 2, 1915. Special attention is called to claim 2. 1329283, January 27, 1920. From the data we have it cannot be definitely ascertained whether your amplifier embodies the features of this patent. 1349252, August 10, 1920. From the data we have it cannot be definitely ascertained whether your amplifier embodies the features of this patent. 1448550, March 13, 1923. The claims of this patent read on diagrams 1, 2, 3, and 4. 1398665. November 29, 1921. Attention is called to claim 4 as probably reading on several diagrams. 1520994, December 30, 1924. Attention is called to claim 2 in connection with diagrams 1, 2, 3, and 4. 1465332, Aug. 21, 1923. Claims 3 and 4 read on diagram 2.

Mathes, 1442439. January 16, 1923. This is probably of interest.

Kendall, 1453982, May 1, 1923. Special attention is called to claim 66 in connection with diagram 2 and also probably in connection with diagrams 1 and 3.

Without more detailed information it is impossible to say whether all of the above-mentioned patents would be infringed by your diagrams, but certainly a large number of them would be. All of them appear to be of interest, and hence I call them to your attention.

If you are interested in acquiring a license under the above-mentioned patents, or any of them, or if you wish to make some arrangement to have the amplifying apparatus manufactured for you, you may take this matter up with Mr. H. G. Knox, vice president of Electrical Research Products, Inc., 250 West Fifty-seventh Street, New York City.

Yours very truly,

G. E. FOLK,
General Patent Attorney.

Digitized by Google

MAY 13, 1932.

The Communication Equipment and Engineering Co.,
2626 West Washington Boulevard, Chicago, Ill.

GENTLEMEN: Our attention has been called to the recent statements purporting to come from you to the effect that you are planning to manufacture and sell loading coils made up of iron dust of high permeability. We are unaware of the details of your proposed coils, but out of an abundance of caution, this letter is written to inform you, on behalf of the American Telephone & Telegraph Co., that this company controls a number of patents and applications covering such coils. We wish to put you on your guard so that you may not inadvertently infringe any of those patents. In that connection I call your attention to the following United States patents and in addition thereto we have eight or more pending applications relating to such coils.

705935 Lee et al.
716206 Dolezalek
737704 Campbell et al.
1182997 Fondiller
1251651 Espenschied
1251700 Shaw
1274952 Speed
1286965 Elmen
1292206 Woodruff
1297126 Elmen.
1297127 Elmen.
1303511 Shackelton.
1378969 Milton
1381460 Harris.
1403305 Elmen.
1448542 Jackson.
1523109 Elmen.
1572869 Adams.
1402202 Affel-Davidson.
1403475 Arnold.
1403932 Wilson.
1413732 Heising.
1420089 Fondiller.
1426754 Mathes.
1426755 Mathes-Read.
1429248 Osborne.
1432863 Johnson.
1442439 Mathes.
1443984 Espenschied.
1445141 Kendall.
1448216 Heising.
1448550 Arnold.
1448702 Carson.
1449372 Arnold.
1449382 Carson.
1453980 Hoyt.
1453982 Kendall.
1454011 Blackwell.
1454840 Affel.
1459709 Kendall.
1463199 Davidson.
1463200 Davidson.
1465332 Arnold.
1472470 Hartley.
1472506 Van der Vort.
1472610 Mathes.
1473682 Osborne.
1475997 Hoyt.
1632900 Jammer.
1636713 Reier.
1636737 Dietze.
1654062 Willis.
1658215 Vennes.
1665501 Jammer.
1538964 Zobel.
1544910 Kendall.
1544921 Mathes.
1544943 Scriven.
1547232 Parker.
1548062 Pierce.
1548260 Espenschied.
1557230 Zobel.
1559638 Martin.
1559850 Casper.
1561933 Kendall.
1564391 Wilbur.
1568963 Corem.
1573948 Terry.
1573954 Vennes.
1574484 Horton.
1586822 Mathes.
1586884 Elmen.
1590252 Osborne.
1601071 Horton
1602019 Weis.
1603305 Zobel.
1603319 Clark.
1604996 Guilbaud.
1606795 Johnson-Long.
1616193 Mills.
1617372 Casper.
1620878 Elmen.
1665673 Nottingham.
1672056 Carson.
1680207 DeForest-Logwood.
1773901 Kendall.
1438217 Clark.
1511013 Affel.
1880800 Chestnut et al.

These are in addition to the DeForest oscillator patents nos. 1507016 and 1507017 referred to in my letter of June 19, 1935.

Yours very truly,

G. E. FOLK,
General Patent Attorney.

Digitized by Google

APRIL 5, 1933.

BROWNIEFONE CO.,
18 Napier Street, Oakland, Calif.

GENTLEMEN: It has come to our attention that you have been demonstrating certain radiotelephone apparatus for use in police work and by the United States Navy. We are unaware of the details of the apparatus or circuits which you are using or contemplating using, but out of an abundance of caution this letter is written to inform you, on behalf of the American Telephone & Telegraph Co., that this company controls a number of patents and patent applications relating to such apparatus and circuits.

We wish to put you on your guard so that you may not inadvertently infringe such patents. In particular, I call your attention to the following United States patents: Hartley, 1183875, May 23, 1916; DeForest, 1201272, October 17, 1916; Lowenstein, 1231764, July 3, 1917; Colpitts (reissue), 14380, October 23, 1917; DeForest, 1314250, August 26, 1919; Arnold, 1349252, August 10, 1920; Van der Bijl, 1350752, August 24, 1920; Hartley, 1356763, October 26, 1920; Scriven, 1375739, April 26, 1921; DeForest, 1377405, May 10, 1921; Colpitts & Arnold, 1388450, August 23, 1921; Arnold, 1398665, November 29, 1921; Heising, 1442146, January 16, 1923; Heising, 1442147, January 16, 1923; DeForest, 1507016, September 2, 1924; DeForest, 1507017, September 2, 1934.

These are but some of this company's more fundamental patents covering radiotelephone transmitting and receiving apparatus. It is not intended to be anything like a complete list.

It is the intention of this company to enforce its rights under its patents and it is for this reason that I am warning you of the extent of its patent rights in such systems.

Yours very truly,

G. E. FOLK.
General Patent Attorney.

MAY 18, 1933.

RADIO ENGINEERING LABORATORIES, INC.,
100 Wilbur Avenue, Long Island City, N. Y.

GENTLEMEN: My attention has been called to your advertisement of April 1933, in Q. S. T., page 65, in which you are offering for sale wireless telephone transmitting and receiving apparatus for various purposes. We are unaware of the structure of this apparatus, but out of an abundance of caution this letter is written to inform you, on behalf of the American Telephone & Telegraph Co., that this company controls a number of patents which cover very thoroughly radio telephone transmitting and receiving apparatus. We wish to put you on your guard so that you may not inadvertently infringe such patents. In particular, I call your attention to the following United States patents: Hartley, 1183875, May 23, 1916; DeForest, 1201272, October 17, 1916; Lowenstein, 1231764, July 3, 1917; Colpitts (reissue), 14380, October 23, 1917; DeForest, 1314250, August 26, 1919; Arnold, 1349252, August 10, 1920; Van der Bijl, 1350752, August 24, 1920; Hartley, 1356763, October 26, 1920; Scriven, 1375759, April 26, 1921, DeForest, 1377405, May 10, 1921; Colpitts & Arnold, 1388450, August 23, 1921; Arnold, 1398665, November 29, 1921; Heising, 1442146, January 16, 1923; Heising, 1442147, January 16, 1923; DeForest, 1507016, September 2, 1924; DeForest, 1507017, September 2, 1924. These are but some of this company's more fundamental patents covering radio transmitting and receiving apparatus. It is not intended to be anything like a complete list.

This company has developed inventions covered by these patents for commercial exploitation in the fields mentioned in your advertisement. It intends to enforce its rights under these and other patents covering such systems, and it is for this reason that I am warning you of the extent of its patent rights. Unless we receive from you the assurance of your intention to desist from what would seem to be an infringement of its patents, it is the expectation of the American Telephone & Telegraph Co. to proceed to enforce its rights.

Yours very truly,

G. E. FOLK,
General Patent Attorney.

Copy sent to Mr. Miller.

Digitized by Google

MARCH 27, 1934.

The LEICH ELECTRIC CO., *Genoa, Ill.*

GENTLEMEN: This is to notify you on behalf of the American Telephone & Telegraph Co., that your company is infringing the following patents: Campbell, 1254472, January 22, 1918; Campbell, 1254474, January 22, 1918; Thompson, 1402322, January 3, 1922.

Your antiside tone circuit infringes the above-mentioned Campbell patents, and when that circuit is used with a hand set, the above-mentioned Thompson patent is also infringed. You are, therefore, requested to desist from further infringing these patents and to account for past infringement thereof.

Yours very truly,

G. E. FOLK, *General Patent Attorney.*

MARCH 27, 1934.

KELLOGG SWITCHBOARD & SUPPLY CO.,
1066 West Adams Street, Chicago, Ill.

GENTLEMEN: This is to notify you on behalf of the American Telephone & Telegraph Co. that your company is infringing the following patents: Campbell, 1254472, January 22, 1918; Campbell, 1254474, January 22, 1918; Thompson, 1402322, January 3, 1922.

Your antiside tone circuit, known as the triad circuit, infringes the above-mentioned Campbell patents, and when that circuit is used with a hand set, the above-mentioned Thompson patent is also infringed. You are, therefore, requested to desist from further infringing these patents and to account for past infringement thereof.

Yours very truly,

G. E. FOLK, *General Patent Attorney.*

OCTOBER 8, 1934.

Mr. C. C. COLE,
20 North Thorton Street, Orlando, Fla.

DEAR SIR: I have been informed that you are designing and selling police radio equipment for cities in Florida. We are unaware of the details of the apparatus or circuits which you are using but out of an abundance of caution this letter is written to inform you, on behalf of the American Telephone & Telegraph Co., that this company controls a number of patents and patent applications relating to such apparatus and circuits. We wish to put you on your guard so that you may not inadvertently infringe such patents. I call your attention to the following United States patents: DeForest, 1314250, August 26, 1919; Arnold, 1349252, August 10, 1920; Van der Bijl, 1350752, August 24, 1920; Hartley, 1356763, October 26, 1920; Scriven, 1375739, April 26, 1921; DeForest, 1377405, May 10, 1921; Colpitts & Arnold, 1388450, August 23, 1921; Arnold, 1398665, November 29, 1921; Heising, 1442146, January 16, 1923; Heising, 1442147, January 16, 1923; DeForest, 1507016, September 2, 1924; DeForest, 1507017, September 2, 1924.

In particular, I call your attention to the last two mentioned patents which cover the circuit arrangements by which the vacuum tube is used as a generator of high frequency oscillations. This patent has been recently sustained by the Supreme Court of the United States.

It is the intention of this company to enforce its rights under its patents, and I shall be pleased to hear from you that it is your intention to respect these patent rights.

Yours very truly,

G. E. FOLK, *General Patent Attorney.*

NOVEMBER 7, 1934.

Mr. VAN C. NORWOOD,
10 Northwest Second Street, Evansville, Ind.

DEAR SIR: Your letter of October 31, 1934, addressed to the Bell Telephone Co., regarding the use of privately owned amplifiers on telephone lines, has been

Digitized by Google

referred to the Indiana Bell Telephone Co., from whom you will hear in due course.

I note, however, from your letterhead that you hold yourself out as furnishing "Installations of public address centralized sound systems." We are unaware of the details of the apparatus or systems which you furnish, but out of an abundance of caution, we hereby inform you on behalf of the American Telephone & Telegraph Co., that this company controls a number of patents and patent applications relating to such apparatus and systems. We wish to put you on guard so that you may not inadvertently infringe such patents. In particular, we call your attention to the enclosed list of United States patents which cover public-address systems manufactured and sold by the Western Electric Co. under license from this company. These are but some of this company's more fundamental patents covering public-address systems. It is not intended to be anything like a complete list.

It is the intention of this company to enforce its rights under these patents, and it is for this reason that we are warning you of the extent of its right in such systems.

Yours very truly,

G. E. FOLK,
General Patent Attorney.

PUBLIC ADDRESS SYSTEMS

Amplifiers: 1195632 (General Electric Co.), 1231764, 1314250, 1325865, 1329283, 1349252, 1375447, 1375739, 1377405, 1387262, 1396745, 1397862, 1398665, 1401121, 1403475, 1403932, 1422837, 1426754, 1431219, 1432863, 1442439, 1442456, 1448550, 1453982, 1465332, 1483273, 1493216, 1493595, 1495422, 1496768, 1534537, 1507994, 1520994, 1523827, 1530649, 1530981, 1534172, 1545247, 1562844, 1743701, 1752046.

Transmitters: 1333744, 1456538, 1565581, 1583416, 1603300, 1611870, 1660990, 1675853, 1722347, 1833642.

Receivers: 1365898, 1393515, 1400038, 1707544, 1707545, 1717158, 1734624, 1812389, 1845075.

Loud-speaking telephones: 1365898, 1659933, 1704354, 1710249, 1778308, 1859892, De. 74114, De. 77165.

Panels: 1231764, 1343880, 1377405, 1426754, 1432863, 1448550, 1453982, 1472507, 1493216, 1495422, 1520994, 1523102, Re. 15469, 1523827, 1530633, 1550724, 1562844, 1587107, 1778779.

Announcing system: 1296617, 1356256.

Anticlick circuit: 1523102.

Plurality of loud speakers: 1550724.

J. W. MILLER Co.,
5917 South Main Street, Los Angeles, Calif.

GENTLEMEN: One of our licensees under the DeForest patents nos. 1507016 and 1507017, covering the use of the generation of high frequencies by feedback vacuum tube circuits, has called our attention to the fact that you are manufacturing such devices. These patents have very recently been sustained by the Supreme Court of the United States, and it is our intention to protect our rights under them. If the information we have is correct will you please let us know what your intentions are regarding the matter.

Yours very truly,

G. E. FOLK,
General Patent Attorney.

JUNE 17, 1935.

LEAR DEVELOPMENTS, INC.,
125 West Seventeenth Street, New York, N. Y.

GENTLEMEN: My attention has been called to your booklet entitled "Aircraft Radios." An examination of the circuits disclosed therein indicates clearly that certain patents owned or controlled by this company are infringed by your

Digitized by Google

manufacture and sale of the apparatus described in the booklet. I call your attention particularly to the following patents:

1350752 Van der Bijl.
1356763 Hartley.
*1398665 Arnold.
*1403475 Arnold.
*1403932 Wilson.
1447773 Espenschied et al.
*1465332 Arnold.
1472470 Hartley.
*1507016 DeForest.
*1507017 DeForest.
1511015 Affel.
*1531805 Mathes.
1574780 Affel.
*1596198 Loewe.
1734038 Levy.
1734132 Kendall.
1778750 Bruce.
1849651 Anderson.
1869323 Evans.
*1896780 Llewellyn.
1936162 Heising.

Those patents that are starred are ones on which this company has repeatedly brought suit successfully. No doubt you are aware that the two patents, nos. 1507016 and 1507017, have been held by the Supreme Court to be valid and infringed (54 Sup. Ct. R. 752).

It is the intention of this company to insist that its patent rights be respected by you, and I shall be pleased to hear from you that it is your intention to do so.

Yours very truly,

G. E. FOLK,
General Patent Attorney.

JUNE 18, 1935.

SOUTHERN ELECTRIC & TRANSMISSION CO.,
3513 Cleveland Street, Dallas, Tex.

GENTLEMEN: Our attention has been called to the fact that you are manufacturing and selling the following types of equipment:

(1) Carrier telephone systems;
(2) Telephone repeaters; and
(3) Loading coils made up of iron dust of high permeability.

We are unaware of the details of any of your such equipment, but out of an abundance of caution this letter is written to inform you, on behalf of the American Telephone & Telegraph Co., that this company controls a number of patents covering each of such types of equipment. We wish to put you on your guard so that you may not inadvertently infringe any of those patents. In that connection we call your attention to the following United States patents relating to carrier and repeater systems:

1273154 Demarest.
1277274 Toomey et al.
1280969 Demarest.
1308664 Demarest.
1329283 Arnold.
1330471 Kendall.
1343306 Carson.
1343307 Carson.
1343308 Carson.
1349252 Arnold
1350752 Van der Bijl.
1356763 Hartley.
1364159 Toomey.
1375447 DeForest.
1375739 Scriven.
1377405 DeForest
1382206 McCaa.
1385777 Clark.
1388450 Colpitts-Arnold.
1398665 Arnold.
1402202 Affel-Davidson.
1403475 Arnold.
1403932 Wilson.
1413732 Heising.
1420989 Fondiller.
1426754 Mathes.
1426755 Mathes-Read.
1429248 Osborne.
1432863 Johnson.
1442439 Mathes.
1443984 Espenschied.
1445141 Kendall.
1448216 Heising.
1448550 Arnold.
1448702 Carson.
1449372 Arnold.
1449382 Carson.
1453980 Hoyt.
1453982 Kendall.
1454011 Blackwell.
1454840 Affel.
1459709 Kendall.

Digitized by Google

1463199 Davidson.
1463200 Davidson.
1465332 Arnold.
1472470 Hartley.
1472506 Van der Vort.
147.610 Mathes.
1473682 Osborne.
1475997 Hoyt.
1479613 Kendall.
1481817 Affel.
1481831 Demarest.
1485156 Arnold.
1493216 Mathes.
1493217 Mathes.
1495221 Clark.
1501729 Scriven.
1504537 Arnold.
1507016 DeForest.
1507017 DeForest.
1507994 Field.
1509184 Zobel.
1513761 Osborne.
1514705 Kendall.
1520994 Arnold.
1523037 Quarles.
1523473 Clark.
1530613 Pierce.
1530633 Whiting.
1530649 Casper.
1537653 Murphy.
1538964 Zobel.
1544910 Kendall.
1544921 Mathes.
1544943 Scriven.
154723: Parker.
1548062 Pierce.
1548260 Espenschied.
1557230 Zobel.
1559638 Martin.
1559850 Casper.
1561933 Kendall.
1564391 Wilbur.
1568963 Coram.
1573948 Terry.
1573954 Vennes.
1574484 Horton.
1586822 Mathes.
1586884 Elmen.
1590252 Osborne.
1601071 Horton.
1602019 Weis.
1603305 Zobel.
1603319 Clark.
1604996 Guilbaud.
1606795 Johnson-Long.
1616193 Mills.
1617372 Casper.
1620878 Elmen.
1632900 Jammer
1636713 Reier
1636737 Dietze
1654062 Willis
1658215 Vennes
1665501 Jammer
1665673 Nottingham
1672056 Carson
1680207 DeForest-Logwood
1773901 Kendall
1438217 Clark
1511013 Affel
1880800 Chestnut et al

Your attention is especially called to the above patents numbered 1507016 and 1507017, which have recently been held valid and infringed by the Supreme Court of the United States after prolonged litigation.

Your attention is also called to the following patents relating to loading coils:

1274952 Speed
1286965 Elmen
1292206 Woodruff
1297126 Elmen
1297127 Elmen
1303511 Shackelton
1378969 Milton
1381460 Harris
1403305 Elmen
1448542 Jackson
1523109 Elmen
1572869 Adams
1586884 Elmen
1615685 Ehlers
1618818 Ehlers
1620878 Elmen
1624630 Shackelton
1632105 Zichrick
1647737 Legg
1647738 Legg
1651957 Lowry
1651958 Lowry
1669642 Andrews
1669643 Andrews et al.
1669645 Andrews et al.
1669646 Bandur
1669644 Andrews
1669648 Bandur
1669658 Elmen
1669665 Karcher
1675884 Elmen
1695041 Elmen
1703287 Andrews
1714683 Lowry
1715543 Elmen
1715646 Elmen
1715647 Elmen
1715648 Elmen
1721379 Ehlers et al.
1725026 Swinne
1733592 Given
1739068 Harris
1739752 Elmen
1768274 Thomas et al.
1845113 Andrews et al.
1826711 Andrews
1666191 Bandur
1673790 Bandur

Digitized by Google

1669647 Bandur
1743089 Bandur
1669649 Beath et al.
1818070 Lathrop
1787606 Legg
1809042 Kelsall
1561782 Given
1759612 Given et al.
1841472 Given
1845144 Gillis
1739052 White
1739068 Harris
1747854 Bozorth
1853924 Owens
1795639 Chaston et al.

It is the intention of this company to enforce its rights under its patents relating to the above systems and apparatus and it is for this reason that we are putting you on your guard. We shall be pleased to hear from you regarding this matter.

Yours very truly,

G. E. FOLK, *General Patent Attorney.*

JUNE 19, 1935.

The COMMUNICATION EQUIPMENT & ENGINEERING CO.,
2626 West Washington Boulevard, Chicago, Ill.

GENTLEMEN: Our attention has been called to the fact that you are either manufacturing or propose to manufacture and sell carrier current telephone equipment. We are not aware of the details of your proposed system, but wish to call your attention to the fact that this company controls a large number of patents relating to such systems, and wish to put you on your guard so that you may not inadvertently infringe those patents. In particular, your attention is called to the two DeForest patents 1507016 and 1507017 which have recently, in an infringement suit, been adjudicated and held by the Supreme Court of the United States to be valid and infringed.

It is the intention of this company to enforce its rights under its patents relating to such equipment, and it is for this reason that we are putting you on your guard.

Yours very truly,

G. E. FOLK, *General Patent Attorney.*

JUNE 19, 1935.

KELLOGG SWITCHBOARD & SUPPLY CO.,
1066 West Adams Street, Chicago, Ill.

GENTLEMEN: Our attention has been called to a circular of your company describing a two-way telephone repeater including schematic circuit drawings designated A-2388, 2339, 2360, 2363, 2364, and 2368, and a gain-frequency characteristic curve. The circuits described in the circular are believed to infringe the following patents owned or controlled by this company: Toomey et al, 1277274, August 27, 1918; Demarest, 1280969, October 8, 1918; Arnold, 1329283, January 27, 1920; Arnold, 1349252, August 10, 1920; DeForest, 1377405, May 10, 1921; Clark, 1495221, May 27, 1924.

There is not sufficient detailed description and drawings of the circuit, to determine if they infringe the following of this company's patents: Nos. 1454011, 1273154, 1308664, 1364159, 1398665, and 1453982, but we are calling your attention to these and the other patents, out of an abundance of caution so that you may not inadvertently infringe any of them.

It is the intention of this company to enforce its rights under its patents relating to repeater systems and apparatus, and it is for this reason we are putting you on your guard. We should be pleased to hear from you regarding this matter.

Yours very truly,

G. E. FOLK, *General Patent Attorney.*

JULY 12, 1935.

MR. R. A. CLARK, JR.,
President, The Communication Equipment & Engineering Co.,
2626 West Washington Boulevard, Chicago, Ill.

DEAR SIR: This will acknowledge the receipt of your letter of July 10, 1935, in which you request a list of patents which this company owns or controls

Digitized by Google

covering oscillator and modulator circuits. In this connection, I call your attention to the following patents relating to carrier and repeater systems:

1273154 Demarest
1277274 Toomey et al.
1280969 Demarest
1308664 Demarest
1329283 Arnold
1330471 Kendall
1343306 Carson
1343308 Carson
1349252 Arnold
1350752 Van der Bijl
1356763 Hartley
1364159 Toomey
1375447 DeForest
1375739 Scriven
1377405 DeForest
1382206 McCaa
1385777 Clark
1388450 Colpitts-Arnold
1398665 Arnold
1479613 Kendall
1481817 Affel
1481831 Demarest
1485156 Arnold
1493216 Mathes
1493217 Mathes
1495221 Clark
1501729 Scriven
1504537 Arnold
1507594 Field
1509184 Zobel
1513761 Osborne
1514705 Kendall
1520994 Arnold
1523737 Quarles
1523473 Clark
1530613 Pierce
1530633 Whiting
1530649 Casper
1537653 Murphy
1580884 Elmen
1615685 Ehlers
1618818 Ehlers
1620878 Elmen
1624630 Shackelton
1632105 Zichrick
1647737 Legg
1647738 Legg
1651957 Lowry
1651958 Lowry
1669642 Andrews
1669643 Andrews et al.
1669645 Andrews et al.
1669646 Bandur
1669644 Andrews
1669648 Bandur
1669658 Elmen
1669665 Karcher
1675884 Elmen
1695041 Elmen
1703287 Andrews
1714683 Lowry
1715543 Elmen
1715646 Elmen
1715647 Elmen
1715648 Elmen
1721379 Ehlers et al.
1725926 Swinne
1733592 Given
1739068 Harris
1739752 Elmen
1768274 Thomas et al.
1845113 Andrews et al.
1826711 Andrews
1666191 Bandur
1673790 Bandur
1669647 Bandur
1743089 Bandur
1669649 Beath et al.
1818070 Lathrop
1787606 Legg
1809042 Kelsall
1561782 Given
1759612 Given et al.
1841472 Given
1845144 Gillis
1739052 White
1739068 Harris
1747854 Bozorth
1853924 Owens
1795639 Chaston et al.

It is the intention of this company to enforce its rights under its patents relating to such coils and it is for this reason that we are putting you on your guard.

Yours very truly,

G. E. FOLK,
General Patent Attorney.

PATENTS OWNED OR CONTROLLED BY THE AMERICAN TELEPHONE & TELEGRAPH CO. WHICH ARE IN THE PROCESS OF ADJUDICATION

*1307510, Nicolson: Dist. Ct. E. D. of N. Y.; *R. C. A. et al.* v. *Duovac Radio Tube Corp.* D. C., E. D., N. Y.; *R. C. A. et al.* v. *Amperex Electronic Products, Inc., et al.* (E7496). D. C., E. D., N. Y.; *R. C. A. et al.* v. *Amperex Electronic Products, Inc., et al.* (E7572).

*1329283, Arnold: Dist. Ct. So. D. of N. Y.; *W. E. Co. et al.* v. *General Talking Pictures Corp.* D. C., Minn., 4th Div.; *W. E. Co. et al.* v. *Cinema Supplies, Inc., et al.* (E2804).

Digitized by Google

*1349252, Arnold: Dist. Ct. So. D. of N. Y.; *W. E. Co. et al.* v. *General Talking Pictures Corp.* D. C., Minn., 4th Div.; *W. E. Co. et al.* v. *Cinema Supplies, Inc., et al.* (E2804).

*1354939, Arnold: Dist. Ct. E. D. of N. Y.; *R. C. A. et al.* v. *Duovac Radio Tube Corp.* Dist. Ct. of Conn.; *R. C. A. et al.* v. *Mersick & Co.* Dist. Ct. of Conn.; *R. C. A. et al.* v. *Roskin Distributors.* D. C., E. D., N. Y.; *R. C. A. et al.* v. *Amperex Electronic Products, Inc., et al.* (E7496). D. C., E. D., N. Y.; *R. C. A. et al.* v. *Amperex Electronic Products, Inc., et al.* (E7572).

1356763, Hartley: Dist. Ct. E. D. of N. Y.; *R. C. A. et al.* v. *Radio Engineering Labs.*

*1398665, Arnold: D. C., Minn., 4th Div.; *W. E. Co. et al.* v. *Cinema Supplies, Inc., et al.* (E2804).

*1403475, Arnold: Dist. Ct. So. D. of N. Y.; *W. E. Co. et al.* v. *General Talking Pictures Corp.* Dist. Ct. E. D. of N. Y.; *R. C. A. et al.* v. *Airplane & Marine Direction Finder, Inc.* Dist. Co. No. D. of Ill.; *R. C. A. et al.* v. *Zaney-Gill Corp.* Dist. Ct. E. D. of N. Y.; *R. C. A. et al.* v. *Atlantic Radio Corp.* Dist. Ct. No. D. of Ill.; *R. C. A. et al.* v. *Cavalier Radio Corp.* Dist Ct. So. D. of Calif.; *R. C. A. et al.* v. *Westone Radio Corp.* Dist. Ct. So. D. of N. Y.; *R. C. A. et al.* v. *Traveltone Radio Corp.* Dist. Ct. E. D. of N. Y.; *R. C. A. et al.* v. *Powrad, Inc.* Dist. Ct.. So. D. of N. Y.; *R. C. A. et al.* v. *Royal Radio of N. Y., Inc.* Dist. Ct. E. D. of Mich.; *R. C. A. et al* v. *Plymouth Radio Corp.* Dist. Ct. So. D. of N. Y.; *R. C. A. et al.* v. *H. Kirschbaum.* Dist. Ct. So. D. of N. Y.; *R. C. A. et al.* v. *J. & L. Sara Co., Inc. et al.* D. C., S. D., Calif.; *R. C. A. et al.* v. *H. C. Block* (E 465–J). D. C., S. D., Calif.; *R. C. A. et al.* v. *R. S. Shelley et al.* (E 470–H). D. C., N. D., Ill.; *R. C. A. et al.* v. *Arlab Mfg. Co.* (14,254). D. C., N. D., Ill.; *R. C. A. et al.* v. *A. Bloomfield* (14,260). D. C., N. D., Ill.; *R. C. A. et al.* v. *Universal Radio Mfg. Co., Inc. et al.* (14,262). D. C., N. D., Ill.; *R. C. A. et al.* v. *D. Krechman et al.* (14,264). D. C., Minn., 4th Div.; *W. E. Co. et al.* v. *Cinema Supplies, Inc., et al.* (2804). D. C., S. D., Calif.; *R. C. A. et al.* v. *D. W. Smith* (E528). D. C., S. D., Calif.; *R. C. A. et al.* v. *J. L. Misrach* (E550–C).

*1403932, Wilson: Dist. Co. So. D. of Calif.; *R. C. A. et al.* v. *Westone Radio Corp.* Dist. Ct. So. D. of N. Y.; *R. C. A. et al.* v. *Traveltone Radio Corp.* Dist. Ct. E. D. of N. Y.; *R. C. A. et al.* v. *Powrad, Inc.* Dist. Ct. No. D. of Ill.; *R. C. A. et al.* v. *International Parts Corp.* Dist. Ct. So. D. of N. Y.; *R. C. A. et al.* v. *H. Kirschbaum.* Dist. Ct. So. D. of N. Y.; *R. C. A. et al.* v. *Bel-Rad Products Co., Inc., et al.* Dist. Ct. So. D. of N. Y.; *R. C. A. et al.* v. *J. & L. Sara Co., Inc., et al.* D. C., S. D., Calif.; *R. C. A. et al.* v. *H. C. Block* (E465–J). D. C., S. D., Calif., *R. C A. et. al.* v. *R. S. Shelley et al.* (E470–H). D. C., N. D., Ill.; *R. C. A. et al.* v. *Arlab Mfg. Co.* (14254). D. C., N. D., Ill.; *R. C. A. et al.* v. *A. Bloomfield* (14260). D. C., N. D., Ill.; *R. C. A. et al.* v. *Universal Radio Mfg. Co., Inc., et al.* (14260). D. C., N. D., Ill.; *R. C. A. et al.* v. *D. Krechman, et al.* (14264). D. C., S. D., Calif.; *R. C. A. et al.* v. *D. W. Smith* (E528). D. C., S. D., Calif.; *R. C. A. et al.* v. *J. L. Misrach* (E550–C).

*1419530, Wilson: Dist. Ct. E. D. of N. Y.; *R. C. A. et al.* v. *Duovac Radio Tube Corp.*

*1,426,754, Mathes: Dist. Ct. So. D. of N. Y.; *W. E. Co. et al.* v. *General Talking Pictures Corp.* Dist. Ct. E. D. of N. Y.; *R. C. A. et al.* v. *Airplane & Marine Direction Finder, Inc.* Dist. Ct. So. D. of Calif.; *R. C. A. et al.* v. *F. R. Smith.* Dist. Ct. So. D. of Calif.; *R. C. A. et al.* v. *May Department Stores Co.*

*1432022, Heising: Dist. Ct. E. D. of N. Y.; *R. C. A. et al.* v. *Radio Engineering Labs., Inc.*

*1432867, Kelly.

1448216, Heising: Dist. Ct. E. D. of N. Y.; *R. C. A. et al.* v. *Airplane & Marine Direction Finder, Inc.*

*1448550, Arnold: Dist. Ct. So. D. of N. Y.; *W. E. Co. et al.* v. *General Talking Pictures, Corp.* D. C., Minn., 4th Div.; *W. E. Co. et al.* v. *Cinema Supplies, Inc., et al* (E2804).

1453982, Kendall: D. C., Minn., 4th Div.; *W. E. Co. et al.* v. *Cinema Supplies Inc., et al.* (E2804).

*1456528, Arnold: Dist. Ct. E. D. of N. Y.; *R. C. A. et al.* v. *C. G. Rosewall* Dist. Ct. E. D. of N. Y.; *R. C. A. et al.* v. *Williamsburgh Electric Supply Co.*, Dist. Ct. So. D. of N. Y.; *R. C. A. et al.* v. *Sonatron Tube Co.* Dist. Ct. E. D. of N. Y.; *R. C. A. et al.* v. *Duovac Radio Tube Corp.*

Digitized by Google

*1459412, Nicholson: Dist. Ct. E. D. of N. Y.; *R. C. A. et al.* v. *C. G. Rosewall.* Dist. Ct. E. D. of N. Y.; *R. C. A. et al.* v. *Williamsburgh Electric Supply Co.* Dist. Ct. So. D. of N. Y.; *R. C. A. et al.* v. *Sonatron Tube Co.* Dist. Ct. E. D. of N. Y.; *R. C. A. et al.* v. *Duovac Radio Tube Corp.* Dist. Ct. of Conn.; *R. C. A. et al.* v. *C. S. Mersick & Co.* Dist. Ct. of Conn.; *R. C. A.* v. *Roskin Distributors, Inc.*

*1465332, Arnold: Dist. Ct. So. D. of N. Y.; *W. E. Co. et al.* v. *General Talking Pictures Corp.* Dist. Ct. E. D. of N. Y.; *R. C. A. et al.* v. *Airplane & Marine Direction Finder, Inc.* Dist. Ct. No. D. of Ill.; *R. C. A. et al.* v. *Zaney-Gill Corp.* Dist. Ct. No. D. of Ill.; *R. C. A.* v. *Cavalier Radio Corp.* Dist. Ct. So. D. of Calif.; *R. C. A. et al.* v. *Westone Radio Corp.* Dist. Ct. So. D. of N. Y.; *R. C. A. et al.* v. *Traveltone Radio Corp.* Dist. Ct. E. D. of N. Y.; *R. C. A.* v. *Powrad, Inc.* Dist. Ct. E. D. of Mich.; *R. C. A. et al.* v. *Detrola Radio Corp. et al.* Dist. Ct. So. D. of N. Y.; *R. C. A. et al.* v. *H. Kirschbaum.* Dist. Ct. So. D. of N. Y.; *R. C. A. et al.* v. *Pyramid Radio Distributors, Inc.* Dist. Ct. So. D. of N. Y.; *R. C. A. et al.* v. *Bel-Rad Products Co., Inc.* Dist. Ct. So. D. of N. Y.; *R. C. A. et al.* v. *J. & L. Sara Co., Inc., et al.* Dist. Ct. No. D. of Ill.; *R. C. A.* v. *S. P. Zaney et al.* D. C., Minn., 4th Div.; *W. E. Co. et al.* v. *Cinema Supplies, Inc., et al.* (E2804).

1472470, Hartley: Dist. Ct. E. D. of N. Y.; *R. C. A. et al.* v. *Radio Engineering Labs., Inc.*

*1479778, Van der Bijl: Dist. Ct. E. D. of N. Y.; *R. C. A. et al.* v. *Duovac Radio Tube Corp.* Dist. Ct. of Conn.; *R. C. A. et al.* v. *C. S. Mersick & Co.* Dist. Ct. of Conn.; *R. C. A. et al.* v. *C. S. Mersick & Co.* Dist. Ct. of Conn.; *R. C. A. et al.* v. *Roskin Distributors, Inc.* D. C., E. D., N. Y.; *R. C. A. et al.* v. *Amperex Electronic Products, Inc., et al.* (E7496). D. C., E. D., N. Y.; *R. C. A. et al.* v. *Amperex Electronic Products, Inc., et al.* (E7572).

1493595, Blattner: D. C., Minn., 4th Div.; *W. E. Co. et al.* v. *Cinema Supplies, Inc., et al.* (E2804).

*1507016, De Forest: Dist. Ct. E. D. of N. Y.; *De Forest Radio Co.* v. *Pilot Radio & Tube Corp.* Dist. Ct. of Md.; *DeForest Radio Co.* v. *Radio Victor Corp. of America* (1507016 not included in the bill). Dist. Ct. So. D. of Calif.; *R. C. A. et al.* v. *Westone Radio Corp.* Dist. Ct. No. D. of Ill.; *R. C. A. et al.* v. *Roots Auto Radio Manufacturing Corp.* Dist. Ct. E. D. of Mich.; *R. C. A.* v. *Detrola Radio Corp. et al.* D. C., S. D., Calif.; *R. C. A. et al.* v. *H. C. Block* (E465–J). D. C., S. D., Calif.; *R. C. A. et al.* v. *R. S. Shelley et al.* (E470–H). D. C., N. D., Ill.; *R. C. A. et al.* v. *Arlab Mfg. Co.* (14254). D. C., S. D., Calif.; *R. C. A. et al.* v. *F. T. Cawood* (E498–C). D. C., S. D., Calif.; *R. C. A. et al.* v. *D. W. Smith* (E528). D. C., S. D., Calif.; *R. C. A. et al.* v. *J. L. Misrach* (E550–C). D. C., Del.; *R. C. A. et al.* v. *Collins Radio Co.* (E1117).

*1507017, De Forest. (See 1507016).

*1520994, Arnold: Dist. Ct. So. D. of N. Y.; *W. E. Co. et al* v. *General Talking Pictures Corp.* Dist. Ct. E. D. of N. Y.; *R. C. A. et al* v. *Airplane & Marine Direction Finder, Inc.* D. C., Minn., 4th Div.; *W. E. Co. et al* v. *Cinema Supplies, Inc., et al.* (E2804).

*1531805, Mathes: Dist. Ct. So. D. of N. Y.; *R. C. A. et al* v. *H. Kirschbaum.* Dist. Ct. So. D. of N. Y.; *R. C. A. et al* v. *J. & L. Sara Co., Inc., et al.*

1544921, Mathes: D. C., Minn., 4th Div.; *W. E. Co. et al.* v. *Cinema Supplies, Inc., et al.* (E2804).

*596198, Loewe: Dist. Ct. So. D. of N. Y.; *R. C. A. et al.* v. *H. Kirschbaum.* Dist. Ct. So. D. of N. Y.; *R. C. A. et al.* v. *J. & L. Sara Co., Inc., et al.*

*1658346, Mathes: Dist. Ct. So. D. of N. Y.; *R. C. A. et al.* v. *H. Kirschbaum.* Dist. Ct. So. D. of N. Y.; *R. C. A. et al.* v. *J. & L. Sara Co., Inc., et al.*

1707545, Wente: D. C., Minn., 4th Div.; *W. E. Co. et al.* v. *Cinema Supplies, Inc.* (E2806).

1734038, Levy: Dist. Ct. So. D. of N. Y.; *Westinghouse Elec. & Mfg. Co.* v. *A. T. & T. Co.*

1734624, Harrison: D. C., Minn., 4th Div.; *W. E. Co.* v. *Cinema Supplies, Inc.* (E2805).

1737671, Ohl: Dist. Ct. So. D. of N. Y.; *Finch* v. *Affel et al.*

1737672, Ohl. (See 1737671.)

*1896780, Llewellyn: Dist. Ct. E. D. of Mich.; *R. C. A. et al.* v. *Detrola Radio Corp. et al.* Dist. Ct. So. D. of N. Y.; *R. C. A. et al.* v. *H. Kirschbaum.* Dist. Ct. So. D. of N. Y.; *R. C. A. et al.* v. *J. & L. Sara Co., Inc., et al.*

1936162, Heising: D. C., S. D., N. Y.; *R. C. A. et al.* v. *Lenox Engineering Co., Inc., et al.* (E80/142)

Digitized by Google

PATENTS AND DESIGNS ACT, 1907.

(As amended up to 12th July 1932)

ARRANGEMENT OF SECTIONS

PART I. PATENTS

Application for and Grant of Patent

Term of Patent

Restoration of lapsed Patents

Amendment of Specification

Compulsory Licenses and Revocation

Register of Patents

Crown

Legal Proceedings

Digitized by Google

Miscellaneous

PART II. DESIGNS

Registration of Designs

Copyright in registered Designs

Industrial and International Exhibitions

Legal Proceedings

PART III. GENERAL

Patent Office, and Proceedings thereat

Fees

Provisions as to Registers and other Documents in Patent Office

Digitized by Google

Powers and Duties of Comptroller

Evidence, &c.

Register of Patent Agents

Powers, &c. of Board of Trade

Offences

International and Colonial Arrangements

Definitions

Application to Scotland, Northern Ireland, and the Isle of Man

Repeal, Savings, and Short Title

An Act to consolidate the enactments relating to Patents for Inventions and the Registration of Designs and certain enactments relating to Trade Marks.

[*Printed (in accordance with 22 & 23 Geo. 5. c. 32. s. 14) as amended up to 12th July, 1932, by the Patents and Designs Act,* 1914 (4 & 5 *Geo. 5. c.* 18), *the Patents and Designs Act,* 1919 (9 & 10 *Geo. 5. c.* 80), *the Patents and Designs (Convention) Act,* 1928 (18 *Geo. 5. c.* 3) *and the Patents and Designs Act,* 1932 (22 & 23 *Geo. 5. c.* 32).]

Be it enacted by the King's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:

Digitized by Google

PART I. PATENTS

APPLICATION FOR AND GRANT OF PATENT

1. (1) An application for a patent may be made by any person who claims to be the true and first inventor of an invention, whether he is a British subject or not, and whether alone or jointly with any other person.

(2) The application must be made in the prescribed form, and must be left at, or sent by post to, the Patent Office in the prescribed manner.

(3) The application must contain a declaration to the effect that the applicant is in possession of an invention, whereof he, or in the case of a joint application one at least of the applicants, claims to be the true and first inventor, and for which he desires to obtain a patent, and must be accompanied by either a provisional or complete specification.

(4) The declaration required by this section may be either a statutory declaration or not, as may be prescribed.

2. (1) A provisional specification must describe the nature of the invention.

(2) A complete specification must particularly describe and ascertain the nature of the invention and the manner in which the same is to be performed.

(3) In the case of any provisional or complete specification where the comptroller deems it desirable he may require that suitable drawings shall be supplied with the specification, or at any time before the acceptance of the same, and such drawings shall be deemed to form part of the said specification.

(4) A specification, whether provisional or complete, must commence with the title, and in the case of a complete specification must end with a distinct statement of the invention claimed.

(5) Where the invention in respect of which an application is made is a chemical invention, then, subject to the prescribed rules, typical samples and specimens shall, if in any particular case the comptroller considers it desirable so to require, be furnished before the acceptance of the complete specification, and the applicant shall be at liberty, where he so desires, and subject to the prescribed rules, so to furnish any typical samples and specimens, unless the comptroller in any particular case considers that it is undesirable that any should be received.

3. (1) The comptroller shall refer every application to an examiner.

(2) If the examiner reports that the nature of the invention is not fairly described, or as respects a complete specification that the nature of the invention or the manner in which it is to be performed is not therein particularly described and ascertained, or that the application, specification, or drawings have not been prepared in the prescribed manner, or that the title does not sufficiently indicate the subject-matter of the invention, the comptroller may refuse to accept the application or require that the application, specification, or drawings be amended before he proceeds with the application; and in the latter case the application shall, if the comptroller so directs, be deemed to have been made on the date on which the requirement is complied with.

(3) The comptroller may, where the application was accompanied by a specification purporting to be a complete specification, if the applicant so requests, treat the specification as a provisional specification and proceed with the application accordingly.

(4) The comptroller may, where the applicant before acceptance of the complete specification so requests and upon payment by the applicant of the prescribed fee, direct that the application shall be deemed to have been made on such date within a period of six months running from the date when the application was actually made, as the applicant may request.

(5) The applicant may appeal from any decision of the comptroller under this section to the Appeal Tribunal, who shall, if required, hear the applicant and the comptroller, and may make an order determining whether and subject to what conditions (if any) the application shall be accepted.

(6) The comptroller shall, when an application has been accepted, give notice thereof to the applicant.

4. An invention may, during the period between the date of an application for a patent therefor and the date of sealing a patent on that application, be used and published without prejudice to that patent, and such protection from the consequences of use and publication is in this Act referred to as provisional protection.

In this section the expression "date of an application for a patent" means, as respects an application which is post-dated or ante-dated under this Act, the

Digitized by Google

date to which the application is so post-dated or ante-dated, and means, as respects any other application, the date on which it is actually made.

5. (1) If the applicant does not leave a complete specification with his application, he may leave it at any subsequent time within twelve months from the date of the application:

Provided that where an application is made for an extension of the time for leaving a complete specification, the comptroller shall, on payment of the prescribed fee, grant an extension of time to the extent applied for but not exceeding one month.

(2) Unless a complete specification is so left the application shall be deemed to be abandoned.

6. (1) Where a complete specification is left after a provisional specification, the comptroller shall refer both specifications to an examiner.

(2) If the examiner reports that the nature of the invention or the manner in which it is to be performed is not particularly described and ascertained in the complete specification or that the complete specification or drawings have not been prepared in the prescribed manner, the comptroller may refuse to accept the complete specification until it has been amended to his satisfaction.

(3) If the examiner reports that the invention particularly described in the complete specification is not substantially the same as that which is described in the provisional specification the comptroller may—

(*a*) refuse to accept the complete specification until it has been amended to his satisfaction; or

(*b*) (with the consent of the applicant) cancel the provisional specification and direct that the application shall be deemed to have been made on the date at which the complete specification was left and proceed with the application accordingly:

Provided that where the complete specification includes an invention not included in the provisional specification, the comptroller may allow the original application to proceed so far as the invention included both in the provisional and in the complete specification is concerned, and allow an application for the additional invention included in the complete specification to be made and direct that that application shall be deemed to have been made on the date at which the complete specification was left.

(4) An appeal shall lie from the decision of the comptroller under this section to the Appeal Tribunal, who shall, if required, hear the applicant and the comptroller and may make an order determining whether and subject to what conditions (if any) the complete specification shall be accepted.

7. (1) Where an application for a patent has been made and a complete specification has been left, the examiner shall, in addition to the other inquiries which he is directed to make by this Act, make a further investigation for the purpose of ascertaining whether the invention claimed has been wholly or in part claimed or described in any specification (other than a provisional specification not followed by a complete specification) published before the date which the patent applied for would bear if granted and left pursuant to any application for a patent made in the United Kingdom and dated within fifty years next before such date.

(2) If on investigation it appears that the invention claimed has been wholly or in part claimed or described in any such specification, the applicant shall be informed thereof, and the applicant may, within such time as may be prescribed, amend his specification, and the amended specification shall be investigated in like manner as the original specification.

(3) If the comptroller is satisfied that no objection exists to the specification on the ground that the invention claimed thereby has been wholly or in part claimed or described in a previous specification as before mentioned, he shall, in the absence of any other lawful ground of objection, accept the specification.

(4) If the comptroller is not so satisfied, he shall, unless the objection is removed by amending the specification to the satisfaction of the comptroller, determine whether a reference to any, and, if so, what prior specifications ought to be made in the specification by way of notice to the public:

Provided that the comptroller, if satisfied that the invention claimed has been wholly and specifically claimed or wholly and specifically described in any specification to which the investigation has extended, may, in lieu of requiring references to be made in the applicant's specification as aforesaid, refuse to grant a patent.

(5) If it is within the knowledge of the comptroller that the invention claimed has been made available to the public by publication in the United

Digitized by Google

Kingdom, before the date which the patent applied for would bear if granted, in any document (other than a United Kingdom specification or a specification describing the invention for the purposes of an application for protection made in any country outside the United Kingdom more than fifty years next before that date, or any abridgment of, or extract from, any such specification published under the authority of the comptroller or of the Government of any country outside the United Kingdom), the provisions of subsections (2), (3) and (4) of this section shall apply in relation to a claim or description of the invention in that document in like manner as those provisions apply in relation to a description thereof in a prior specification to which the investigation has extended.

(6) An appeal shall lie from the decision of the comptroller under this section to the Appeal Tribunal.

8. (1) In addition to the investigation under the last preceding section, the examiner shall make an investigation for the purpose of ascertaining whether the invention claimed has been wholly or in part claimed in any specification published on or after the date which the patent applied for would bear if granted and deposited pursuant to an application made in the United Kingdom for a patent which if granted would bear prior date to the date which the patent applied for would bear if granted.

(2) Where on such further investigation it appears that the invention claimed has been wholly or in part claimed in any such specification, the applicant shall, whether or not his specification has been accepted or a patent granted to him, be afforded such facilities as may be prescribed for amending his specification, and in the event of his failing to do so the comptroller shall, in accordance with such procedure as may be prescribed, determine what reference, if any, to other specifications ought to be made in his specificaton by way of notice to the public.

(3) An appeal shall lie from the decision of the comptroller under this section to the Appeal Tribunal.

(4) The investigations and reports required by this and the last preceding section shall not be held in any way to guarantee the validity of any patent and no liability shall be incurred by the Board of Trade or any officer thereof by reason or or in connection with any such investigation or report or any proceedings consequent thereon.

8A. Unless a complete specification is accepted within eighteen months from the date of an application the application shall become void unless—

(*a*) an appeal under any of the foregoing provisions of this Act has been lodged in respect of the application; or

(*b*) in the case of an application for a patent of addition an appeal under any of the foregoing provisions of this Act has been lodged in respect either of that application or of the application for the original patent; or

(*c*) the time within which such an appeal as aforesaid may be lodged has not expired:

Provided that where an application is made for an extension of time for the acceptance of a complete specification, the comptroller shall, on payment of the prescribed fee, grant an extension of time to the extent applied for, but not exceeding three months.

9. On the acceptance of the complete specification the comptroller shall advertise the acceptance; and the application and specifications, with the drawings samples and specimens (if any), shall be open to public inspection.

10. After the acceptance of a complete specification and until the date of sealing a patent in respect thereof, or the expiration of the time for sealing, the applicant shall have the like privileges and rights as if a patent for the invention had been sealed on the date of the acceptance of the complete specification: Provided that an applicant shall not be entitled to institute any proceeding for infringement until the patent has been sealed.

11. (1) Any person may at any time within two months from the date of the advertisement of the acceptance of a complete specification or within such further period, not exceeding one month, as the comptroller may on an application made to him within the said period of two months and subject to payment of the prescribed fee, allow, give notice at the Patent Office of opposition to the grant of the patent on any of the following grounds:—

(*a*) that the applicant obtained the invention or any part thereof from him, or from a person of whom he is the legal representative; or

(*b*) that the invention has prior to the date which the patent applied for would bear if granted been published in any complete specification,

Digitized by Google

or in any provisional specification followed by a complete specification, deposited pursuant to any application made in the United Kingdom and dated within fifty years next before such date, or has been made available to the public by publication in any document (other than a United Kingdom specification or a specification describing the invention for the purpose of an application for protection made in any country outside the United Kingdom more than fifty years next before such date, or any abridgment of, or extract from any such specification published under the authority of the comptroller or of the Government of any country outside the United Kingdom) published in the United Kingdom before such date; or

(*bb*) that the invention has been claimed in any complete specification for a United Kingdom patent which though not published at the date which the patent applied for would bear if granted was deposited pursuant to an application for a patent which is or will be of prior date to such patent; or

(*c*) that the nature of the invention or the manner in which it is to be performed is not sufficiently and fairly described and ascertained in the complete specification; or

(*d*) that the complete specification describes or claims an invention other than that described in the provisional specification, and that such other invention either forms the subject of an application made by the opponent for a patent which if granted would bear a date in the interval between the date of the application and the leaving of the complete specifiaction, or has been made available to the public by publication in any document published in the United Kingdom in that interval; or

(*e*) that in the case of an application under section ninety-one of this Act the specification describes or claims an invention other than that for which protection has been applied for in foreign state or any part of His Majesty's dominions outside of the United Kingdom and that such other invention either forms the subject of an application made by the opponent for a patent which if granted would bear a date in the interval between the leaving of the application in the foreign state or part of His Majesty's dominions outside the United Kingdom and the date of the application in the United Kingdom, or has been made available to the public by publication in any document published in the United Kingdom in that interval,

but on no other ground.

(2) Where such notice is given the comptroller shall give notice of the opposition to the applicant, and shall, after hearing the applicant and the opponent, if desirous of being heard, decide on the case.

(3) The decision of the comptroller shall be subject to appeal to the Appeal Tribunal who shall, if required, hear the applicant and the opponent, if the opponent is, in the opinion of the Tribunal, a person entitled to be heard in opposition to the grant of the patent and shall decide the case.

12. (1) If there is no opposition, or, in case of opposition, if the determination is in favour of the grant of a patent, a patent shall, on payment of the prescribed fee, be granted to the applicant, or in the case of a joint application to the applicants jointly, and the comptroller shall cause the patent to be sealed with the seal of the Patent Office.

Provided that—

(*a*) where an applicant under a joint application has died, the patent may, with the consent of his personal representative, be granted to the survivors or survivor of the joint applicants;

(*b*) where an applicant has agreed in writing to assign the patent when granted or, in the case of a joint application, his interest in the patent when granted, the patent may, upon proof of the agreement to the satisfaction of the comptroller, be granted to the assignee or, in the case of an assignment by a joint applicant of his interest to an assignee not being the other joint applicant, to the assignee jointly with the other applicant or his assignee.

(2) Where disputes arise between joint applicants or their assigns as to proceeding with an application, the comptroller, if satisfied that one or more of such persons ought to be allowed to proceed alone, may allow him or them to proceed with the application and may grant a patent to him or them, so, however, that all parties interested shall be entitled to be heard before the comptroller.

(3) An appeal shall lie from the decision of the comptroller under this section to the Appeal Tribunal.

Digitized by Google

(4) A patent shall be sealed as soon as may be, and not after the expiration of twenty-one months from the date of application, provided that—

(*a*) where the comptroller has allowed an extension of the time within which a complete specification may be left or accepted, a further extension of four months after the said twenty-one months shall be allowed for the sealing of the patent:

(*b*) where the sealing of a patent is delayed by an appeal to the Appeal Tribunal or by any proceedings taken for obtaining the decision of the comptroller under the provisions of subsection (2) of this section, or by opposition to the grant of the patent, that patent and any patent of addition the sealing whereof is delayed in consequence of the delay in the sealing of that patent may be sealed at such time as in the first-mentioned case the Tribunal, or in either of the two last-mentioned cases the comptroller, may direct:

(*c*) where the patent is granted to the legal representative of an applicant who has died before the expiration of the time which would otherwise be allowed for sealing the patent, the patent may be sealed at any time within twelve months after the date of his death, or at such later time as the comptroller may think fit:

(*d*) where it is proved to the satisfaction of the comptroller that hardship would arise in connection with the prosecution by an applicant of an application for a patent in any country outside the United Kingdom unless the maximum period which would otherwise be allowed for sealing the patent is extended, that period may be extended subject to payment of the prescribed fee to such an extent as appears to the comptroller to be necessary in order to prevent that hardship arising:

(*e*) where for any reason a patent cannot be sealed within the period allowed by this section, that period may, on the payment of the prescribed fee and on compliance with the prescribed conditions, be extended to such an extent as may be prescribed.

13. Except as otherwise expressly provided by this Act, a patent shall be dated as of the date of the application: Provided that no proceedings shall be taken in respect of an infringement committed before the acceptance of the complete specification.

14. (1) A patent sealed with the seal of the Patent Office shall have the same effect as if it were sealed with the Great Seal of the United Kingdom, and shall have effect throughout the United Kingdom and the Isle of Man:

Provided that a patentee may assign his patent for any place in or part of the United Kingdom, or Isle of Man, as effectually as if the patent were originally granted to extend to that place or part only.

(2) Every patent may be in the prescribed form and shall be granted for one invention only, but the specification may contain more than one claim; and it shall not be competent for any person in an action or other proceeding to take any objection to a patent on the ground that it has been granted for more than one invention.

15. (1) A patent granted on the application of the true and first inventor shall not be invalidated by an application in fraud of him, or by provisional protection obtained thereon, or by any use or publication of the invention subsequent to that fraudulent application during the period of provisional protection.

(2) Where a patent has been revoked by the court on the ground that it has been obtained in fraud of the true and first inventor, or where the grant has been refused by the comptroller under the provisions of paragraph (*a*) of subsection (1) of section eleven of this Act, or revoked on the same ground under the provisions of section twenty-six of this Act, the comptroller may, on the application of the true inventor made in accordance with the provisions of this Act, grant to him a patent for the whole or any part of the invention in lieu of and bearing the same date as the patent so revoked, or as would have been borne by the patent if the grant thereof had not been refused.

(3) Where in proceedings before the comptroller under this Act for opposition to the grant of a patent or for revocation of a patent, the comptroller has found that an invention was in part obtained from the opponent or the applicant for revocation and has required that the specification be amended by exclusion of that part of the invention, he may, on the application of the true inventor made in accordance with the provisions of this Act, grant to him a patent for that excluded part of the invention bearing the date of the opposed application or the date of the patent sought to be revoked as the case may be.

Digitized by Google

(4) No action shall be brought for any infringement of a patent granted under the provisions of either of the last two foregoing subsections committed before the date of sealing the patent.

16. (1) Where the same applicant has put in two or more provisional specifications for inventions which are cognate or modifications one of the other, and has obtained thereby concurrent provisional protection for the same, and the comptroller is of opinion that the whole of such inventions are such as to constitute a single invention and may properly be included in one patent, he may accept one complete specification in respect of the whole of such applications and grant a single patent thereon.

(2) Such patent shall bear the date of the earliest of such applications, but in considering the validity of the same, and in determining other questions under this Act, the court or the comptroller, as the case may be, shall have regard to the respective dates of the provisional specifications relating to the several matters claimed in the complete specification.

Term of Patents

17. (1) The term limited in every patent for the duration thereof shall, save as otherwise expressly provided by this Act, be sixteen[1] years from its date.

(2) A patent shall, notwithstanding anything therein or in this Act, cease if the patentee fails to pay the prescribed fees within the prescribed times; provided that the comptroller, upon the application of the patentee, shall, on receipt of such additional fee, not exceeding ten pounds, as may be prescribed, enlarge the time to such an extent as may be applied for but not exceeding three months.

(3) If any proceeding is taken in respect of an infringement of the patent committed after a failure to pay any fee within the prescribed time, and before any enlargement thereof, the court before which the proceeding is proposed to be taken may, if it thinks fit, refuse to award any damages in respect of such infringement.

18. (1) A patentee may, after advertising in manner provided by rules of the Supreme Court his intention to do so, present a petition to the court praying that his patent may be extended for a further term, but such petition must be presented at least six months before the time limited for the expiration of the patent:

Provided that the court may allow such a petition to be presented at such time, not being later than the time limited for the expiration of the patent, as the court may in its discretion think fit.

(2) Any person may give notice to the court of objection to the extension.

(3) On the hearing of any petition under this section the patentee and any person who has given such notice of objection shall be made parties to the proceeding, and the comptroller shall be entitled to appear and be heard, and shall appear if so directed by the court.

(4) The court, in considering its decision, shall have regard to the nature and merits of the invention in relation to the public, to the profits made by the patentee as such, and to all the circumstances of the case.

(5) If it appears to the court that the patentee has been inadequately remunerated by his patent, the court may by order extend the term of the patent for a further term not exceeding five years, or, in exceptional cases, ten years, or may order the grant of a new patent for such term as may be specified

---

[1] The Patents and Designs Act, 1919 (9 & 10 Geo. 5, c. 80) provides (section 6) that—

(2) Any patent the original term of which had not expired at the date of the commencement of this Act shall have effect as if the term mentioned herein was sixteen years instead of fourteen years, subject to the following conditions:—

(*a*) Any licence existing at that date which has been granted for the term of the patent shall be treated as having been granted for the term as so extended if the licensee so desires:

(*b*) If the patent would, apart from this section, have expired on or before the first day of January, nineteen hundred and twenty, the patent shall, during the period of extension, be subject to all the provisions by this Act substituted for section twenty-four of the principal Act (except subsection (5) thereof) as if the patent had been endorsed "licences of right."

(3) Where any party to a contract with the patentee or any other person, entered into before the nineteenth day of November, nineteen hundred and seventeen, is subjected to loss or liability by reason of the extension of the term of any patent under the provisions of this section, the court shall have power to determine in what manner and by which parties such loss or liability shall be borne.

Digitized by Google

in the order and containing any restrictions, conditions, and provisions the court may think fit.

(6) Where, by reason of hostilities between His Majesty and any foreign state, the patentee as such has suffered loss or damage (including loss of opportunity of dealing in or developing his invention owing to his having been engaged in work of national importance connected with such hostilities) an application under this section may be made by originating summons instead of by petition, and the court in considering its decision may have regard solely to the loss or damage so suffered by the patentee:

Provided that this subsection shall not apply if the patentee is a subject of such foreign state as aforesaid, or is a company the business whereof is managed or controlled by such subjects or is carried on wholly or mainly for the benefit or on behalf of such subjects, notwithstanding that the company may be registered within His Majesty's dominions.

19. (1) Where a patent for an invention has been applied for or granted and the applicant or the patentee, as the case may be, applies for a further patent in respect of any improvement in or modification of the invention, he may, if he thinks fit, in his application for the further patent, request that the term limited in that patent for the duration hereof be the same as that of the original patent or so much of that term as is unexpired.

(2) Where an application containing such a request is made, a patent of addition may be granted for such term as aforesaid.

(3) Where an invention, being an improvement in or modification of an original invention, is the subject of an independent patent and the patentee in respect of the independent patent, being also the patentee in respect of the patent for the original invention, so requests, the comptroller may make an order for the revocation of the independent patent and a patent of addition may be granted in respect of the improvement or modification bearing the same date as the date of the independent patent so revoked.

(4) A patent of addition shall remain in force during the term limited in the patent for the original invention or until the previous cesser thereof and no longer, but may be extended under the last foregoing section for any period for which the patent for the original invention is extended thereunder, and in respect of a patent of addition no fees shall be payable for renewals:

Provided that, if the patent for the original invention is revoked, then the patent of addition shall, if the court or comptroller so orders, become an independent patent, and the fees payable, and the dates when they become payable, shall be determined by its date, but its duration shall not exceed the unexpired term of the patent for the original invention.

(5) The grant of a patent of addition shall be conclusive evidence that the invention is a proper subject for a patent of addition, and the validity of the patent shall not be questioned on the ground that the invention ought to have been the subject of an independent patent.

RESTORATION OF LAPSED PATENTS

20. (1) Where any patent has become void owing to the failure of the patentee to pay any prescribed fee within the prescribed time, the patentee may apply to the comptroller in the prescribed manner for an order for the restoration of the patent.

(2) Every such application shall contain a statement of the circumstances which have led to the omission of the payment of the prescribed fee.

(3) If it appears from such statement that the omission was unintentional and that no undue delay has occurred in the making of the application, the comptroller shall advertise the application in the prescribed manner, and within such time as may be prescribed any person may give notice of opposition at the Patent Office.

(4) Where such notice is given the comptroller shall notify the applicant thereof.

(5) After the expiration of the prescribed period the comptroller shall hear the case and issue an order either restoring the patent or dismissing the application:

Provided that the comptroller may, if he thinks fit, as a condition of issuing an order under this section restoring a patent require that an entry shall be made in the register of patents in respect of any document or instrument in

Digitized by Google

respect of which the provisions of this Act as to entries in the register have not been complied with.

(6) In every order under this section restoring a patent such provision as may be prescribed shall be inserted for the protection of persons who may have availed themselves of the subject-matter of the patent after the patent has been announced as void in the Official Journal (Patents).

(7) An appeal shall lie from the decision of the comptroller under this section to the court.

AMENDMENT OF SPECIFICATION

21. (1) An applicant at any time after acceptance of his complete specification or a patentee at any time may, by request in writing left at the Patent Office, seek leave to amend his specification, including drawings forming part thereof, by way of disclaimer, correction, or explanation, stating the nature of, and the reasons for, the proposed amendment.

(2) The request and the nature of the proposed amendment shall be advertised in the prescribed manner, and at any time within one month from its first advertisement any person may give notice at the Patent Office of opposition to the amendment.

(3) Where such a notice is given the comptroller shall give notice of the opposition to the person making the request, and shall hear and decide the case.

(4) Where no notice of opposition is given, or the person so giving notice of opposition does not appear, the comptroller shall determine whether and subject to what conditions, if any, the amendment ought to be allowed.

(5) The decision of the comptroller in either case shall be subject to an appeal, where the person making the request to amend is a patentee, to the court, and, where the person making the request to amend is an applicant for a patent, to the Appeal Tribunal and the court or the Tribunal, as the case may be, shall, if required, hear the person making the request to amend, and, where notice of opposition has been given the person giving that notice, if he is in the opinion of the court or of the Tribunal, as the case may be, entitled to be heard in opposition to the request, and, where there is no opposition the comptroller, and may make an order determining whether and subject to what conditions (if any) the amendment ought to be allowed.

(6) No amendment shall be allowed that would make the specification, as amended, claim an invention substantially larger than or substantially different from the invention claimed by the specification as it stood before amendment.

(7) Leave to amend shall be conclusive as to the right of the party to make the amendment allowed, except in case of fraud; and the amendment shall be advertised in the prescribed manner, and shall in all courts and for all purposes be deemed to form part of the specification:

Provided that the court shall be entitled in construing a specification as amended to refer to the specification as accepted and published.

(8) This section shall not apply when and so long as any action for infringement or preceeding before the court for the revocation of a patent is pending.

22. In any action for infringement of a patent or proceedings before a court for the revocation of a patent the court may by order allow the patentee to amend his specification by way of disclaimer, correction or explanation in such manner, and subject to such terms as to costs advertisements or otherwise, as the court may think fit:

Provided that no amendment shall be so allowed that would make the specification, as amended, claim an invention substantially larger than, or substantially different from, the invention claimed by the specification as it stood before the amendment, and where an application for such an order is made to the court notice of the application shall be given to the comptroller, and the comptroller shall have the right to appear and be heard, and shall appear if so directed by the court.

23. Where an amendment of a specification by way of disclaimer, correction, or explanation, has been allowed under this Act, no damages shall be given in any action in respect of the use of the invention before the date of the decision allowing the amendment, unless the patentee establishes to the satisfaction of the court that his original claim was framed in good faith and with reasonable skill and knowledge.

Digitized by Google

COMPULSORY LICENSES AND REVOCATION

24. (1) At any time after the sealing of a patent the comptroller shall, if the patentee so requests, cause the patent to be indorsed with the words "licences of right," and a corresponding entry to be made in the register, and thereupon—

(*a*) any person shall at any time thereafter be entitled as of right to a licence under the patent upon such terms as, in default of agreement, may be settled by the comptroller on the application of either the patentee or the applicant:

Provided that any licence the terms of which are settled by agreement shall be deemed, unless otherwise expressly provided, to include the terms and conditions specified in paragraphs (*c*) and (*d*) of this subsection as if they had been imposed by the comptroller thereunder in like manner as if the terms had been settled by the comptroller:

(*b*) in settling the terms of any such licence the comptroller shall be guided by the following considerations—

(i) he shall, on the one hand, endeavour to secure the widest possible user of the invention in the United Kingdom consistent with the patentee deriving a reasonable advantage from his patent rights;

(ii) he shall, on the other hand, endeavour to secure to the patentee the maximum advantage consistent with the invention being worked by the licensee at a reasonable profit in the United Kingdom;

(iii) he shall also endeavor to secure equality of advantage among the several licensees, and for this purpose may, on due cause being shown, reduce the royalties or other payments accruing to the patentee under any licence previously granted:

Provided that, in considering the question of equality of advantage, the comptroller shall take into account any work done or outlay incurred by any previous licensee with a view to testing the commercial value of the invention or to securing the working thereof on a commercial scale in the United Kingdom:

(*c*) any such licence the terms of which are settled by the comptroller may be so framed as to preclude the licensee from importing into the United Kingdom any goods the importation of which, if made by persons other than the patentee of those claiming under him, would be an infringement of the patent, and in such a case the patentee and all licensees under the patent shall be deemed to have mutually covenanted against such importation:

(*d*) every such licensee shall be entitled to call upon a patentee to take proceedings to prevent the infringement of the patent, and if the patentee refuses, or neglects to do so within two months after being so called upon, the licensee may institute proceedings for the infringement in his own name as though he were patentee, making the patentee a defendant. A patentee so added as defendant shall not be liable for any costs unless he enters an appearance and takes part in the proceedings. Service on him may be effected by leaving the writ at his address for service given on the register:

(*e*) if in any action for infringement of a patent so indorsed the infringing defendant is ready and willing to take a licence upon terms to be settled by the comptroller, no injunction against him shall be awarded, and the amount recoverable against him by way of damages (if any) shall not exceed double the amount which would have been recoverable against him as licensee if the licence had been dated prior to the earliest infringement:

Provided that this paragraph shall not apply where the infringement consists of the importation of infringing goods:

(*f*) the renewal fees payable by the patentee of a patent so indorsed shall, as from the date of the indorsement, be one moiety only of the fees which would otherwise have been payable.

(2) The comptroller shall, before acting on any request to indorse a patent made by the patentee under this section, advertise such request in the Official Journal (Patents), and shall satisfy himself that the patentee is not precluded by contract from making such request, and for that purpose shall require from the patentee such evidence, by statutory declaration or otherwise, as he may deem necessary:

Provided that a patentee shall not be deemed to be so precluded by reason only of his having granted a licence under the patent where the licence does not limit his right to grant other licences.

Digitized by Google

(3) Any person, alleging that a request under this section has been made contrary to some contract in which he is interested, may apply to the comptroller within the prescribed time and in the prescribed manner, and the comptroller, if satisfied of the truth of such allegation, shall refuse to indorse the patent pursuant to the request or shall cause the indorsement, if already made, to be cancelled.

(4) Where a patent of addition is in force any request made under this section for an indorsement either of the original patent or of the patent of addition shall be treated as a request for the indorsement of both patents, and if refused as respects the one shall be refused as respects the other also, and where a patent of addition is granted in respect of a patent which is indorsed under this section the patent of addition shall also be so indorsed.

(5) All indorsements of patents under this section shall be entered on the register of patents and shall be published in the Official Journal (Patents), and in such other manner as to the comptroller may seem desirable for the purpose of bringing the invention to the notice of manufacturers.

(6) The comptroller may, if he thinks fit, on the application of the patentee and on payment by him of the unpaid moiety of all renewal fees which have become due since the indorsement, cancel the indorsement, and in that case the patentee's rights and liabilities shall be the same as if no such indorsement had been made:

Provided that before acting on any application for the cancellation of an indorsement, the comptroller shall advertise the application in the prescribed manner and shall satisfy himself that there is no existing licence or that all existing licensees consent to the application.

(7) Any person may within the prescribed time and in the prescribed manner, give notice at the Patent Office of opposition to an application for the cancellation of an indorsement, and where any such notice is given the comptroller shall, after giving notice of the opposition to the applicant and after giving to the applicant and to the opponent an opportunity of being heard, decide on the case.

(8) Any decision of the comptroller under this section shall be subject to an appeal to the court.

25.—(1) Revocation of a patent may be obtained on petition to the court.

(2) A patent may be revoked upon any of the following grounds,—

(*a*) that the invention was the subject of a valid prior grant;

(*b*) that the true and first inventor was not the applicant or one of the applicants for the patent;

(*c*) that the patent was obtained in fraud of rights of the person applying for the order or of any person under or through whom he claims;

(*d*) that the invention is not a manner of new manufacture the subject of letters patent and grant of privilege within section six of the Statute of Monopolies;

(*e*) subject as in this subsection provided, that the invention is not new;

(*f*) that the invention is obvious and does not involve any inventive step having regard to what was known or used prior to the date of the patent;

(*g*) that the invention is not useful;

(*h*) that the complete specification does not sufficiently and fairly describe and ascertain the nature of the invention and the manner in which the invention is to be performed;

(*i*) that the complete specification does not sufficiently and clearly ascertain the scope of the monopoly claimed;

(*j*) that the complete specification does not disclose the best method of performance of the invention known to the applicant for the patent at the time when the specification was left at the Patent Office;

(*k*) that the patent was obtained on a false suggestion or representation;

(*l*) that the invention claimed in the complete specification is not the same as that contained in the provisional specification, and that the invention claimed, so far as it is not contained in the provisional specification was not new at the date when the complete specification was filed, or the true and first inventor was not the applicant, or one of the applicants, for the patent, or, in the case of an application made under section ninety-one of this Act, that the invention claimed in the complete specification is not the same as that for which protection has been applied for in the foreign state, or part of His Majesty's dominions outside the United Kingdom;

Digitized by Google

(*m*) that the primary or intended use or exercise of the invention is contrary to law;

(*n*) that the patentee has contravened or has not complied with the conditions contained in the patent;

(*o*) that prior to the date of the patent the invention was secretly worked on a commercial scale and not merely by way of reasonable trial or experiment in the United Kingdom by the patentee or others, not being a Government department or the agents or contractors of, or other person authorised in that behalf by, a Government department;

(*p*) that, in the case of inventions relating to substances prepared or produced by chemical processes or intended for food or medicine the specification includes claims which under section thirty-eight A of this Act cannot lawfully be made; or

upon any other ground upon which a patent might, immediately before the first day of January one thousand eight hundred and eighty-four, have been repealed by scire facias:

Provided that this subsection shall have effect, as respects the ground of revocation specified in paragraph (*e*) thereof, subject to the provisions of subsection (1) of section fifteen, subsection (12) of section thirty, section forty-one and section forty-five of this Act.

(3) Every ground on which a patent may be revoked shall be available as a ground of defence in an action for infringement of a patent.

(4) A petition for revocation of a patent may be presented—

(*a*) by the Attorney-General or any person authorised by him; or

(*b*) by any person alleging—

(i) that the patent was obtained in fraud of his rights, or of the rights of any person under or through whom he claims; or

(ii) that he, or any person under or through whom he claims, was the true inventor of any invention included in the claim of the patentee; or

(iii) that he, or any person under or through whom he claims an interest in any trade, business, or manufacture, had publicly manufactured, used, or sold, within this realm, before the date of the patent, anything claimed by the patentee as his invention.

26. (1) Any person who would have been entitled to oppose the grant of a patent or is the successor in interest of a person who was so entitled may within twelve months from the date of sealing the patent apply to the comptroller for an order revoking the patent on any one or more of the grounds on which the grant of a patent might have been opposed:

Provided that when an action for infringement or proceedings for the revocation of the patent are pending in any court, an application under this section shall not be made except with the leave of the court.

(2) The comptroller shall give notice of the application to the patentee, and after hearing the parties, if desirous of being heard, may make an order revoking the patent or requiring the specification relating thereto to be amended by disclaimer, correction, or explanation, or dismissing the application; but the comptroller shall not make an order revoking the patent unless the circumstances are such as would have justified him in refusing to grant the patent had the proceedings been proceedings in an opposition to the grant of a patent.

(3) A patentee may at any time by giving notice in the prescribed manner to the comptroller offer to surrender his patent, and the comptroller may, if after giving notice of the offer and hearing all parties who desire to be heard he thinks fit, accept the offer, and thereupon make an order for the revocation of the patent.

(4) Any decision of the comptroller under this section shall be subject to appeal to the court.

27. (1) Any person interested may at any time after the expiration of three years from the date of sealing a patent apply to the comptroller alleging in the case of that patent that there has been an abuse of the monopoly rights thereunder and asking for relief under this section.

(2) The monopoly rights under a patent shall be deemed to have been abused in any of the following circumstances:—

(*a*) If the patented invention (being one capable of being worked in the United Kingdom), is not being worked within the United Kingdom on a commercial scale, and no satisfactory reason can be given for such non-working:

Provided that, if an application is presented to the comptroller on this ground, and the comptroller is of opinion that the time which has elapsed

Digitized by Google

since the sealing of the patent has by reason of the nature of the invention or for any other cause been insufficient to enable the invention to be worked within the United Kingdom on a commercial scale, the comptroller may make an order adjourning the application for such period as will in his opinion be sufficient for that purpose.

(*b*) If the working of the invention within the United Kingdom on a commercial scale is being prevented or hindered by the importation from abroad of the patented article by the patentee or persons claiming under him, or by persons directly or indirectly purchasing from him, or by other persons against whom the patentee is not taking or has not taken any proceedings for infringement:

(*c*) If the demand for the patented article in the United Kingdom is not being met to an adequate extent and on reasonable terms:

(*d*) If, by reason of the refusal of the patentee to grant a licence or licences upon reasonable terms, the trade or industry of the United Kingdom or the trade of any person or class of persons trading in the United Kingdom, or the establishment of any new trade or industry in the United Kingdom, is prejudiced, and it is in the public interest that a licence or licences should be granted:

(*e*) If any trade or industry in the United Kingdom, or any person or class of persons engaged therein, is unfairly prejudiced by the conditions attached by the patentee, whether before or after the passing of this Act, to the purchase, hire, licence, or use, of the patented article, or to the using or working of the patented process:

(*f*) If it is shown that the existence of the patent, being a patent for an invention relating to a process involving the use of materials not protected by the patent or for an invention relating to a substance produced by such a process, has been utilised by the patentee so as unfairly to prejudice in the United Kingdom the manufacture, use or sale of any such materials:

Provided that, for the purpose of determining whether there has been any abuse of the monopoly rights under a patent, it shall be taken that patents for new inventions are granted not only to encourage invention but to secure that new inventions shall so far as possible be worked on a commercial scale in the United Kingdom without undue delay.

(3) On being satisfied that a case of abuse of the monopoly rights under a patent has been established, the comptroller may exercise any of the following powers as he may deem expedient in the circumstances:—

(*a*) He may order the patent to be indorsed with the words "licences of right" and thereupon the same rules shall apply as are provided in this Act in respect of patents so indorsed, and an exercise by the comptroller of this power shall entitle every existing licensee to apply to the comptroller for an order entitling him to surrender his licence in exchange for a licence to be settled by the comptroller in like manner as if the patent had been so indorsed at the request of the patentee, and the comptroller may make such order; and an order that a patent be so indorsed may be made notwithstanding that there may be an agreement subsisting which would have precluded the indorsement of the patent at the request of the patentee:

(*b*) He may order the grant to the applicant of a licence on such terms as the comptroller may think expedient, including a term precluding the licensee from importing into the United Kingdom any goods the importation of which, if made by persons other than the patentee or persons claiming under him, would be an infringement of the patent, and in such case the patentee and all licensees for the time being shall be deemed to have mutually covenanted against such importation. A licensee under this paragraph shall be entitled to call upon the patentee to take proceedings to prevent infringement of the patent, and if the patentee refuses, or neglects to do so within two months after being so called upon, the licensee may institute proceedings for infringement in his own name as though he were the patentee, making the patentee a defendant. A patentee so added as defendant shall not be liable for any costs unless he enters an appearance and takes part in the proceedings. Service on him may be effected by leaving the writ at his address for service given on the register:

In settling the terms of a licence under this paragraph the comptroller shall be guided as far as may be by the same considerations as are specified in section twenty-four of this Act for his guidance in settling licences under that section:

Digitized by Google

(c) If the comptroller is satisfied that the invention is not being worked on a commercial scale within the United Kingdom, and is such that it cannot be so worked without the expenditure of capital for the raising of which it will be necessary to rely on the patent monopoly, he may, unless the patentee or those claiming under him will undertake to find such capital, order the grant to the applicant, or any other person, or to the applicant and any other person or persons jointly, if able and willing to provide such capital, of an exclusive licence on such terms as the comptroller may think just, but subject as hereinafter provided:

(d) If the comptroller is satisfied that the monopoly rights have been abused in the circumstances specified in paragraph (f) of the last foregoing subsection, he may order the grant of licences to the applicant and to such of his customers and containing such terms as the comptroller may think expedient:

(e) If the comptroller is satisfied that the objects of this section cannot be attained by the exercise of any of the foregoing powers, he may order the patent to be revoked, either forthwith or after such reasonable interval as may be specified in the order, unless in the meantime such conditions as may be prescribed in the order with a view to attaining the objects of this section are fulfilled, and the comptroller may, on reasonable cause shown in any case, by subsequent order extend the interval so specified:

Provided that the comptroller shall make no order for revocation which is at variance with any treaty, convention, arrangement, or engagement with any foreign country or part of His Majesty's dominions outside the United Kingdom:

(f) If the comptroller is of opinion that the objects of this section will be best attained by making no order under the above provisions of this section, he may make an order refusing the application and dispose of any question as to costs thereon as he thinks just.

(4) In settling the terms of any such exclusive license as is provided in paragraph (c) of the last preceding subsection, due regard shall be had to the risks undertaken by the licensee in providing the capital and working the invention, but, subject thereto, the licence shall be so framed as—

(a) to secure to the patentee the maximum royalty compatible with the licensee working the invention within the United Kingdom on a commercial scale and at a reasonable profit;

(b) to guarantee to the patentee a minimum yearly sum by way of royalty, if and so far as it is reasonable so to do, having regard to the capital requisite for the proper working of the invention and all the circumstances of the case;

and, in addition to any other powers expressed in the licence or order, the licence and the order granting the licence shall be made revocable at the discretion of the comptroller if the licensee fails to expend the amount specified in the licence as being the amount which he is able and willing to provide for the purpose of working the invention on a commercial scale within the United Kingdom, or if he fails so to work the invention within the time specified in the order.

(5) In deciding to whom such an exclusive license is to be granted the comptroller shall, unless good reason is shown to the contrary, prefer an existing licensee to a person having no registered interest in the patent.

(6) The order granting an exclusive licence under this section shall operate to take away from the patentee any right which he may have as patentee to work or use the invention and to revoke all existing licences, unless otherwise provided in the order, but on granting an exclusive licence the comptroller may, if he thinks it fair and equitable, make it a condition that the licensee shall give proper compensation to be fixed by the comptroller for any money or labour expended by the patentee or any existing licensee in developing or exploiting the invention.

(7) Every application presented to the comptroller under this section must set out fully the nature of the applicant's interest and the facts upon which the applicant bases his case and the relief which he seeks. The application must be accompanied by statutory declarations verifying the applicant's interest and the facts set out in the application.

(8) The comptroller shall consider the matters alleged in the application and declarations, and, if satisfied that the applicant has a bonâ fide interest and that a primâ facie case for relief has been made out, he shall direct the applicant to serve copies of the application and declarations upon the patentee

Digitized by Google

and upon any other persons appearing from the register to be interested in the patent and shall advertise the application in the Official Journal (Patents).

(9) If the patentee or any person is desirous of opposing the granting of any relief under this section, he shall, within such time as may be prescribed or within such extended time as the comptroller may on application further allow, deliver to the comptroller a counter statement verified by a statutory declaration fully setting out the grounds on which the application is to be opposed.

(10) The comptroller shall consider the counter statement and declarations in support thereof and may thereupon dismiss the application if satisfied that the allegations in the application have been adequately answered, unless any of the parties demands a hearing or unless the comptroller himself appoints a hearing. In any case the comptroller may require the attendance before him of any of the declarants to be cross-examined or further examined upon matters relevant to the issues raised in the application and counter statement, and he may, subject to due precautions against disclosure of information to rivals in trade, require the production before him of books and documents relating to the matter in issue.

(11) All orders of the comptroller under this section shall be subject to appeal to the court, and on any such appeal the Attorney-General or such other counsel as he may appoint shall be entitled to appear and be heard.

(12) In any case where the comptroller does not dismiss an application as hereinbefore provided, and (*a*) if the parties interested consent; or (*b*) if the proceedings require any prolonged examination of documents or any scientific or local investigation which cannot in the opinion of the comptroller conveniently be made before him; the comptroller may at any time order the whole proceedings or any question or issue of fact arising thereunder to be referred to an arbitrator agreed on by the parties, or in default of agreement appointed by the comptroller, and, where the whole proceedings are so referred, the award of such arbitrator shall, if all the parties consent, be final, but otherwise shall be subject to the same appeal as the decision of the comptroller under this section, and, where a question or issue of fact is so referred, the arbitrator shall report his findings to the comptroller.

(13) For the purposes of this section, the expression "patented article" includes made by a patented process.

REGISTER OF PATENTS

28. (1) There shall be kept at the Patent Office a book called the register of patents, wherein shall be entered the names and addresses of grantees of patents, notifications of assignments and of transmissions of patents, of licences under patents, and of amendments, extensions, and revocations of patents, and such other matters affecting the validity or proprietorship of patents as may be prescribed.

(2) The register of patents existing at the commencement of this Act shall be incorporated with and form part of the register of patents under this Act.

(3) The register of patents shall be prima facie evidence of any matters by this Act directed or authorised to be inserted therein.

(4) Copies of deeds, licences, and any other documents affecting the proprietorship in any letters patent or in any licence thereunder, must be supplied to the comptroller in the prescribed manner for filing in the Patent Office.

CROWN

29. (1) A patent shall have to all intents the like effect as against His Majesty the King as it has against a subject:

Provided that any Government department may, by themselves or by such of their agents, contractors, or others as may be authorised in writing by them at any time after the application, make, use or exercise the invention for the services of the Crown on such terms as may, either before or after the use thereof, be agreed on, with the approval of the Treasury, between the department and the patentee, or, in default of agreement, as may be settled in the manner hereinafter provided. And the terms of any agreement or licence concluded between the inventor or patentee and any person other than a Government department, shall be inoperative so far as concerns the making, use or exercise of the invention for the service of the Crown:

Digitized by Google

Provided further that, where an invention which is the subject of any patent has, before the date of the patent, been duly recorded in a document by, or tried by or on behalf of, any Government department (such invention not having been communicated directly or indirectly by the applicant for the patent or the patentee), any Government department, or such of their agents, contractors, or others as may be authorised in writing by them, may make, use and exercise the invention so recorded or tried for the service of the Crown, free of any royalty or other payment to the patentee, notwithstanding the existence of the patent. If in the opinion of the department the disclosure to the applicant or the patentee, as the case may be, of the document recording the invention, or the evidence of the trial thereof, if required, would be detrimental to the public interest, it may be made confidentially to counsel on behalf of the applicant or patentee, or to any independent expert mutually agreed upon.

(2) In case of any dispute as to the making, use or exercise of an invention under this section, or the terms therefor, or as to the existence or scope of any record or trial as aforesaid, the matter shall be referred to the court for decision, who shall have power to refer the whole matter or any question or issue of fact arising thereon to be tried before a special or official referee or an arbitrator upon such terms as it may direct. The court, referee, or arbitrator, as the case may be, may, with the consent of the parties, take into consideration the validity of the patent for the purposes only of the reference and for the determination of the issues between the applicant and such Government department. The court, referee, or arbitrator, further in settling the terms as aforesaid, shall be entitled to take into consideration any benefit or compensation which the patentee, or any other person interested in the patent, may have received directly or indirectly from the Crown or from any Government department in respect of such patent.

(3) The right to use an invention for the services of the Crown under the provisions of this section or any provisions for which this section is substituted shall include, and shall be deemed always to have included, the power to sell any articles made in pursuance of such right which are no longer required for the services of the Crown.

(4) Nothing in this section shall affect the right of the Crown or of any person deriving title directly or indirectly from the Crown to sell or use any articles forfeited under the laws relating to the customs or excise.

30. (1) The inventor of any improvement in instruments or munitions of war may (either for or without valuable consideration) assign to the Secretary of State for War or Secretary of State for Air or the Admiralty on behalf of His Majesty all the benefit of the invention and of any patent obtained or to be obtained for the invention; and the Secretary of State or the Admiralty may be a party to the assignment.

(2) The assignment shall effectually vest the benefit of the invention and patent in the Secretary of State or the Admiralty on behalf of His Majesty, and all covenants and agreements therein contained for keeping the invention secret and otherwise shall be valid and effectual (notwithstanding any want of valuable consideration), and may be enforced accordingly by the Secretary of State or the Admiralty.

(3) Where any such assignment has been made, the Secretary of State or the Admiralty may at any time before the publication of the complete specification certify to the comptroller that, in the interest of the public service, the particulars of the invention and of the manner in which it is to be performed should be kept secret.

(4) If the Secretary of State or the Admiralty so certify the application and specifications, with the drawings (if any), and any amendment of the complete specification, and any copies of such documents and drawings shall, instead of being left in the ordinary manner at the Patent Office, be delivered to the comptroller in a packet sealed by authority of the Secretary of State or the Admiralty.

(5) The packet shall, until the expiration of the term during which a patent for the invention may be in force, be kept sealed by the comptroller, and shall not be opened save under the authority of an order of the Secretary of State or the Admiralty.

(6) The sealed packet shall be delivered at any time during the continuance of the patent to any person authorised by the Secretary of State or the Admiralty to receive it, and shall if returned to the comptroller be again kept sealed by him.

(7) On the expiration of the term of the patent, the sealed packet shall be delivered to the Secretary of State or the Admiralty.

Digitized by Google

(8) Where the Secretary of State or the Admiralty certify as aforesaid, after an application for a patent has been left at the Patent Office, but before the publication of the complete specification, the application and specifications, with the drawings (if any), shall be forthwith placed in a packet sealed by authority of the comptroller, and the packet shall be subject to the foregoing provisions respecting a packet sealed by authority of the Secretary of State or the Admiralty.

(9) No proceeding by petition or otherwise shall lie for revocation of a patent granted for an invention in relation to which a certificate has been given by the Secretary of State or the Admiralty as aforesaid.

(10) No copy of any specification or other document or drawing, by this section required to be placed in a sealed packet, shall in any manner whatever be published or open to the inspection of the public, but, save as in this section otherwise directed, the provisions of this Act shall apply in respect of any such invention and patent as aforesaid.

(11) The Secretary of State or the Admiralty may at any time waive the benefit of this section with respect to any particular invention, and the specifications, documents, and drawings shall be thenceforth kept and dealt with in the ordinary way.

(12) The communication of any invention for any improvement in instruments or munitions of war to the Secretary of State or the Admiralty or to any person or persons authorised by the Secretary of State or the Admiralty to investigate the same or the merits thereof, shall not, nor shall anything done for the purposes of the investigation, be deemed use or publication of such invention so as to prejudice the grant or validity of any patent for the same.

(13) Rules may be made under this Act, after consultation with the Secretary of State and the Admiralty, for the purpose of ensuring secrecy with respect to patents to which this section applies, and those rules may modify any of the provisions of this Act in their application to such patents as aforesaid so far as may appear necessary for the purpose aforesaid.

LEGAL PROCEEDINGS

31. (1) In an action or proceeding for infringement or revocation of a patent, the court may, if it think fit, and shall on the request of all of the parties to the proceeding, call in the aid of an assessor specially qualified, and try the case wholly or partially with his assistance; the action shall be tried without a jury unless the court otherwise directs.

(2) The Court of Appeals may, if they think fit, in any proceeding before them call in the aid of an assessor as aforesaid.

(3) The remuneration, if any, to be paid to an assessor under this section shall be determined by the court or the Court of Appeal, as the case may be, and be paid as part of the expenses of the execution of this Act.

32. A defendant in an action for infringement of a patent may, without presenting a petition, apply in accordance with the rules of the Supreme Court by way of counterclaim in the action for the revocation of the patent.

32A. Where the court in any action for infringement of a patent finds that any claim in the specification, in respect of which infringement is alleged, is valid, but that any other claim therein is invalid, then, notwithstanding anything in section twenty-three of this Act—

(*a*) if the patentee furnishes proof to the satisfaction of the court that the invalid claim was framed in good faith and with reasonable skill and knowledge, or if the patent is dated before the commencement of the Patents and Designs Act, 1932, the court shall, subject to its discretion as to costs and as to the date from which damages should be reckoned, and to such terms as to amendment of the specification as it may deem desirable, grant relief in respect of any valid claim which is infringed without regard to the invalidity of any other claim in the specification and in exercising such discretion the court may take into consideration the conduct of the parties in inserting the invalid claim in the specification or permitting that claim to remain there;

(*b*) if the patentee does not furnish proof as aforesaid, and the patent is dated after the commencement of the Patents and Designs Act, 1932, the court shall not grant any relief by way of damages or costs, but may grant such other relief in respect of any valid claim which is infringed as to the court seems just, and may impose such terms as to amendment of the specification as a condition of granting any such relief as it may deem desirable;

Digitized by Google

(c) if a counterclaim for revocation of the patent has been made in the action on the ground of the invalidity of any claim in the specification, the court may postpone the operation of any order made thereon during such time as may be requisite for enabling the patentee to effect any amendment of the specification pursuant to terms imposed upon him and may attach any such other condition to any order to be made on the counterclaim as the court may deem desirable.

33. A patentee shall not be entitled to recover any damages in respect of any infringement of a patent granted after the commencement of this Act from any defendant who proves that at the date of the infringement he was not aware, nor had reasonable means of making himself aware, of the existence of the patent, and the marking of an article with the word "patent," "patented," or any word or words expressing or implying that a patent has been obtained for the article, stamped, engraved, impressed on, or otherwise applied to the article, shall not be deemed to constitute notice of the existence of the patent unless the word or words are accompanied by the number of the patent:

Provided that nothing in this section shall affect any proceedings for an injunction.

34. In an action for infringement of a patent, the plaintiff shall be entitled to relief by way of injunction and damages but not to an account of profits, but subject as aforesaid the court may on the application of either party make such order for an injunction or inspection, and impose such terms and give such directions respecting the same and the proceedings thereon as the court may see fit.

35. In an action for infringement of a patent, the court may certify that the validity of any claim in the specification of the patent came in question; and, if the court so certifies, then in any subsequent action for infringement of such claim the plaintiff in that action on obtaining a final order or judgment in his favour shall, unless the court trying the action otherwise directs, have his full costs, charges, and expenses as between solicitor and client so far as that claim is concerned.

36. (1) Where any person, by circulars, advertisements or otherwise, threatens any person with an action for infringement of patent or other like proceedings, then, whether the person making the threats is or is not entitled to or interested in a patent or an application for a patent, any person aggrieved thereby may bring an action against him, and may obtain a declaration to the effect that such threats are unjustifiable and an injunction against the continuance of such threats and may recover such damage, if any, as he has sustained thereby, unless the person making the threats proves that the acts in respect of which the proceedings are threatened constitute or, if done, would constitute an infringement of a patent in respect of a claim in the specification which is not shown by the plaintiff to be invalid or an infringement of rights arising from the acceptance of a complete specification in respect of a claim therein which is not shown by the plaintiff to be capable of being successfully opposed.

(2) The defendant in any such action as aforesaid may apply, by way of a counterclaim in the action, for any relief to which he would be entitled in a separate action in respect of any infringement by the plaintiff of the patent to which the threats relate.

MISCELLANEOUS

37. (1) Where, after the commencement of this Act, a patent is granted to two or more persons jointly, they shall, unless otherwise specified in the patent, be treated for the purpose of the devolution of the legal interests therein as joint tenants, but, subject to any contract to the contrary, each of such persons shall be entitled to use the invention for his own profit without accounting to the others, but shall not be entitled to grant a licence otherwise than with their consent or in accordance with directions given under this section, and, if any such person dies, his beneficial interest in the patent shall devolve on his personal representatives as part of his personal estate.

(2) The comptroller may, upon application for relief under this subsection being made to him in the prescribed manner by any one or more of joint patentees, and after giving to the other joint patentees an opportunity of being heard, give such directions in accordance with the application as to the sale or lease of the patent for the invention, or as to the grant of licences in respect thereof, or otherwise as to the use and development of the rights

Digitized by Google

thereunder as appear to him to be just and expedient, and it shall be the duty of all the joint patentees to give effect to any directions so given.

(3) If any person who is under obligation to give effect to any such directions as aforesaid fails to execute any instrument or to do any act or thing requisite for giving effect thereto within fourteen days after being requested in writing so to do by any of the joint patentees, the comptroller may, by direction given under the last foregoing subsection, empower any person to execute that instrument or to do that act or thing in the name and on behalf of the person in default.

(4) Nothing in this section shall be taken to authorise the use of an invention or the giving of any directions in such manner as to prejudice or affect the mutual rights or obligations of trustees or the personal representatives of a deceased person, or any rights or obligations arising out of those relationships.

(5) An order of the comptroller giving any directions or refusing an application made under this section shall be subject to appeal to the court.

38. (1) It shall not be lawful in any contract made after the passing of this Act in relation to the sale or lease of, or licence to use or work, any article or process protected by a patent to insert a condition the effect of which will be—(*a*) to prohibit or restrict the purchaser, lessee, or licensee from using any article or class of articles, whether patented or not, or any patented process, supplied or owned by any person otber than the seller, lessor, or licensor or his nominees; or (*b*) to require the purchaser, lessee, or licensee to acquire from the seller, lessor, licensor, or his nominees, any article or class of articles not protected by the patent; and any such condition shall be null and void, as being in restraint of trade and contrary to public policy:

Provided that this subsection shall not apply if—

(i) the seller, lessor, or licensor proves that at the time the contract was entered into the purchaser, lessee, or licensee had the option of purchasing the article or obtaining a lease or licence on reasonable terms, without such conditions as aforesaid; and

(ii) the contract entitles the purchaser, lessee, or licensee to relieve himself of his liability to observe any such condition on giving the other party three months notice in writing and on payment in compensation for such relief in the case of a purchase of such sum, or in the case of a lease or licence of such rent or royalty for the residue of the term of the contract, as may be fixed by an arbitrator appointed by the Board of Trade.

In any action, application, or proceedings under this Act no person shall be estopped from applying for or obtaining relief by reason of any admission made by him as to the reasonableness of the terms offered to him under subsection (1) (i).

(2) Any contract relating to the lease of or licence to use or work any patented article or patented process, whether made before or after the passing of this Act, may at any time after the patent or all the patents by which the article or process was protected at the time of the making of the contract has or have ceased to be in force, and notwithstanding anything in the same or in any other contract to the contrary, be determined by either party on giving three months notice in writing to the other party; but where any such notice is given determining any contract made before the passing of this Act, the party giving the notice shall be liable to pay such compensation as failing agreement may be awarded by an arbitrator appointed by the Board of Trade.

(3) Any contract made before the passing of this Act relating to the lease of or licence to use or work any patented article or process and containing any condition which, had the contract been made after the passing of this Act, would by virtue of this section have been null and void may, at any time before the contract is determinable under the last preceding subsection, and notwithstanding anything in the same or any other contract to the contrary, be determined by either party on giving three months notice in writing to the other party, but where any such notice is given the party giving the notice shall be liable to pay such compensation as, failing agreement, may be awarded by an arbitrator appointed by the Board of Trade.

(4) The insertion by the patentee in a contract made after the passing of this Act of any condition which by virtue of this section is null and void shall be available as a defence to an action for infringement of the patent to which the contract relates brought while that contract is in force.

(5) Nothing in this section shall—

(*a*) affect any condition in a contract whereby a person is prohibited from selling any goods other than those of a particular person; or

Digitized by Google

(*b*) be construed as validating any contract which would, apart from this section, be invalid; or

(*c*) affect any right of determining a contract or condition in a contract exerciseable independently of this section; or

(*d*) affect any condition in a contract for the lease of or licence to use a patented article, whereby the lessor or licensor reserves to himself or his nominees the right to supply such new parts of the patented article as may be required to put or keep it in repair.

38A.[2] (1) In the case of inventions relating to substances prepared or produced by chemical processes or intended for food or medicine, the specification shall not include claims for the substance itself, except when prepared or produced by the methods or processes of manufacture particularly described and ascertained or by their obvious chemical equivalents:

Provided that in relation to a substance intended for food or medicine a mere admixture resulting only in the aggregation of the known properties of the ingredients of that substance shall not be deemed to be a method or process of manufacture.

(2) In an action for infringement of a patent where the invention relates to the production of a new substance, any substance of the same chemical composition and constitution shall in the absence of proof to the contrary be deemed to have been produced by the patented process.

(3) In the case of any patent for an invention intended for or capable of being used for the preparation or production of food or medicine, the comptroller shall, unless he sees good reason to the contrary, grant to any person applying for the same, a licence limited to the use of the invention for the purposes of the preparation or production of food or medicine but not otherwise; and, in settling the terms of such licence and fixing the amount of royalty or other consideration payable, the comptroller shall have regard to the desirability of making the food or medicine available to the public at the lowest possible price consistent with giving to the inventor due reward for the research leading to the invention.

Any decision of the comptroller under this subsection shall be subject to appeal to the court.

[*Section 39 repealed by 9 and 10 Geo. 5, c. 80, s. 12.*]

[*Section 40 omitted by 22 and 23 Geo. 5. c. 32, Schedule.*]

41. (1) An invention covered by a patent shall not be deemed to have been anticipated by reason only of its being made available to the public by publication in the United Kingdom—

(*a*) in a specification left pursuant to an application made in the United Kingdom and dated not less than fifty years before the date of the patent, or

(*b*) in a specification describing the invention for the purpose of an application for protection in any country outside the United Kingdom made not less than fifty years before that date, or

(*c*) in any abridgment of or extract from any such specification published under the authority of the comptroller or of the Government of any country outside the United Kingdom, or

(*d*) in a provisional specification of any date not followed by a complete specification.

(2) A patent shall not be held to be invalid by reason only of the invention in respect of which the patent was granted or any part thereof having been published prior to the date of the patent, if the patentee proves to the satisfaction of the court that the publication was made without the knowledge and consent of the true inventor, and that the matter published was derived or obtained from the true inventor, and if the true inventor learnt of the publication before the date of his application for the patent that he applied for and obtained protection for the invention with all reasonable diligence after learning of the publication:

Provided[3] that the protection afforded by this subsection shall not extend to a patentee who has or whose predecessors in title (which expression shall include the applicant for the patent) have commercially worked the invention

[2] This section applies only to patents applied for after the passing of the Patents and Designs Act, 1919 [9 & 10 Geo. 5, c. 80, s. 11 (2)].

[3] This proviso does not apply in the case of patents granted before the passing of the Patents and Designs Act, 1919 (9 & 10 Geo. 5, c. 80, s. 13).

Digitized by Google

in the United Kingdom otherwise than for the purpose of reasonable trial of the invention prior to the date of the application for the patent.

42. A patent shall not be held to be invalid on the ground that the complete specification claims a further or different invention to that contained in the provisional, if the invention therein claimed, so far as it is not contained in the provisional, was novel at the date when the complete specification was put in, and the applicant was the first and true inventor thereof.

43. (1) If the person claiming to be inventor of an invention dies without making an application for a patent for the invention, application may be made by, and a patent for the invention granted to, his legal representative.

(2) Every such application must contain a declaration by the legal representative that he believes the deceased to be the true and first inventor of the invention.

44. If a patent is lost or destroyed, or its nonproduction is accounted for to the satisfaction of the comptroller, the comptroller may at any time seal a duplicate thereof.

44A. A person making a request to the comptroller in the prescribed manner as respects any patent specified in the request or as respects any application for a patent so specified, for information to be furnished to him by the comptroller of any such matters as may be prescribed affecting that patent or application, shall be entitled, subject to payment of the prescribed fees, to have information furnished to him accordingly.

45. (1) The exhibition of an invention at an industrial or international exhibition, certified as such by the Board of Trade, or the publication of any description of the invention during the period of the holding of the exhibition, or the use of the invention for the purpose of the exhibition in the place where the exhibition is held, or the use of the invention during the period of the holding of the exhibition by any person elsewhere, without the privity or consent of the inventor, or the reading of a paper by an inventor before a learned society or the publication of the paper in the society's transactions, shall not prejudice the right of the inventor to apply for and obtain a patent in respect of the invention or the validity of any patent granted on the application, provided that—(*a*) the exhibitor, before exhibiting the invention, or the person reading such paper or permitting such publication, gives the comptroller the prescribed notice of his intention to do so; and (*b*) the application for a patent is made before or within six months from the date of the opening of the exhibition, or the reading or publication of such paper.

(2) His Majesty may by Order in Council apply this section to any exhibition mentioned in the Order in like manner as if it were an industrial or international exhibition certified as such by the Board of Trade, and any such Order may provide that the exhibitor shall be relieved from the condition of giving notice to the comptroller of his intention to exhibit, and shall be so relieved either absolutely or upon such terms and conditions as may be stated in the Order.

46. (1) The comptroller shall issue periodically a journal of patented inventions, as well as reports of patent cases decided by courts of law, reports of decisions of the comptroller, of the law officer, or of the Appeal Tribunal, and any other information that he may deem generally useful or important.

(2) Provision shall be made by the comptroller for keeping on sale copies of such journal, and also of all complete specifications of patents in force, with any accompanying drawings.

(3) The comptroller shall continue, in such form as he deems expedient, the indexes and abridgements of specifications hitherto published, and shall prepare and publish such other indexes, abridgements of specifications, catalogues, and other works relating to inventions, as he thinks fit.

47. (1) The control and management of the Patent Museum and its contents shall remain vested in the Board of Education, subject to such directions as His Majesty in Council may think fit to give.

(2) The Board of Education may at any time require a patentee to furnish them with a model of his invention on payment to the patentee of the cost of the manufacture of the model, the amount to be settled, in case of dispute, by the Board of Trade.

48. (1) Subject to the provisions of this section. the rights of a patentee shall not be deemed to be infringed—

Digitized by Google

(*a*) by the use on board a foreign vessel of the patented invention in the body of the vessel or in the machinery, tackle, apparatus or other accessories thereof, if the vessel comes into the territorial jurisdiction waters of the United Kingdom temporarily or accidentally only, and the invention is used exclusively for the actual needs of the vessel:

(*b*) by the use of the patented invention in the construction or working of a foreign aircraft or land vehicle or of the accessories thereof if the aircraft or vehicle comes into the United Kingdom temporarily or accidentally only.

(2) This section shall apply only to vessels, aircraft, and land vehicles of a foreign state with respect to which His Majesty by Order in Council declares that the laws thereof confer corresponding rights with respect to the use of inventions in vessels, aircraft and land vehicles of the United Kingdom when coming into the foreign state or the territorial waters thereof.

(3) For the purposes of this section—

Vessels and aircraft shall be deemed to be vessels and aircraft of the country in which they are registered, and land vehicles shall be deemed to be vehicles of the country within which the owners are ordinarily resident:

The Isle of Man shall be deemed to be part of the United Kingdom.

(4) His Majesty may by Order in Council apply this section to vessels, aircraft and land vehicles of a part of His Majesty's dominions outside the United Kingdom in like manner as to vessels, aircraft and land vehicles of a foreign state.

PART II. DESIGNS

REGISTRATION OF DESIGNS

49. (1) The comptroller may, on the application made in the prescribed form and manner of any person claiming to be the proprietor of any new or original design not previously published in the United Kingdom, register the design under this Part of this Act.

(2) The same design may be registered in more than one class, and, in case of doubt as to the class in which a design ought to be registered, the comptroller may decide the question.

(3) The comptroller may, if he thinks fit, refuse to register any design presented to him for registration, but any person aggrieved by any such refusal may appeal to the Appeal Tribunal, and the Appeal Tribunal shall, after hearing the applicant and the comptroller, if so required, make an order determining whether, and subject to what conditions, if any, registration is to be permitted.

(4) An application which, owing to any default or neglect on the part of the applicant, has not been completed so as to enable registration to be effected within the prescribed time shall be deemed to be abandoned.

(5) A design when registered shall be registered as of the date of the application for registration.

50. (1) Where a design has been registered in one or more classes of goods the application of the proprietor of the design to register it in some one or more other classes shall not be refused, nor shall the registration thereof be invalidated—

(*a*) on the ground of the design not being a new or original design, by reason only that it was so previously registered; or

(*b*) on the ground of the design having been previously published in the United Kingdom, by reason only that it has been applied to goods of any class in which it was so previously registered:

Provided that such subsequent registration shall not extend the period of copyright in the design beyond that arising from the previous registration.

(2) Where the proprietor of a registered design applies for the registration in the same class of goods of a design consisting of the registered design with modifications or variations not sufficient to alter the character or substantially to affect the identity thereof, the application shall not be refused, nor shall the registration of that other design be invalidated—

(*a*) on the ground that it is not a new or original design, by reason only of the registration of the registered design; or

(*b*) on the ground that it has been previously published in the United Kingdom, by reason only that the registered design has been applied to the goods in respect of which it is registered:

Digitized by Google

Provided that the period of copyright conferred by the registration of that design shall not extend beyond the expiration of the original and any extended period of copyright in the registered design.

51. (1) The comptroller shall grant a certificate of registration to the proprietor of the design when registered.

(2) The comptroller may, in case of loss of the original certificate, or in any other case in which he deems it expedient, furnish one or more copies of the certificate.

52. (1) There shall be kept at the Patent Office a book called the Register of Designs wherein shall be entered the names and addresses of proprietors of registered designs, notifications of assignments and of transmissions of registered designs, and such other matters as may be prescribed.

(2) The register of designs existing at the commencement of this Act shall be incorporated with and form part of the register of designs under this Act.

(3) The register of designs shall be primâ facie evidence of any matters by this Act directed or authorised to be entered therein.

COPYRIGHT IN REGISTERED DESIGNS

53. (1) When a design is registered, the registered proprietor of the design shall, subject to the provisions of this Act, have copyright in the design during five years from the date of registration.

(2) If before the expiration of the said five years or within such further time (not exceeding three months) as the comptroller may allow application for the extension of the period of copyright is made to the comptroller in the prescribed manner, the comptroller shall on payment of the prescribed fee extend the period of copyright for a second period of five years from the expiration of the original period of five years.

(3) If before the expiration of such second period of five years or within such further time (not exceeding three months) as the comptroller may allow application for the extension of the period of copyright is made to the comptroller in the prescribed manner, the comptroller may, subject to any rules under this Act, on payment of the prescribed fee, extend the period of copyright for a third period of five years from the expiration of the second period of five years.

54. (1) Before delivery on sale of any articles to which a registered design has been applied, the proprietor shall cause each such article to be marked with the prescribed mark, or with the prescribed words or figures denoting that the design is registered; and if he fails to do so the proprietor shall not be entitled to recover any penalty or damages in respect of any infringement of his copyright in the design unless he shows that he took all proper steps to ensure the marking of the article, or unless he shows that the infringement took place after the person guilty thereof knew or had received notice of the existence of the copyright in the design.

(2) Where a representation is made to the Board of Trade by or on behalf of any trade or industry that in the interests of the trade or industry it is expedient to dispense with or modify as regards any class or description of articles any of the requirements of this section as to marking, the Board may, if they think fit, by rule under this Act dispense with or modify such requirements as regards any such class or description of articles to such extent and subject to such conditions as they think fit.

55. The disclosure of a design by the proprietor to any other person, in such circumstances as would make it contrary to good faith for that other person to use or publish the design, and the disclosure of a design in breach of good faith by any person other than the proprietor of the design, and the acceptance of a first and confidential order for goods bearing a new or original textile design intended for registration, shall not be deemed to be a publication of the design sufficient to invalidate the copyright thereof if registration thereof is obtained subsequently to the disclosure or acceptance.

56. (1) During the existence of copyright in a design, or such shorter period as may be prescribed, the design shall not be open to inspection except by the proprietor or a person authorised in writing by him, or a person authorised by the comptroller or by the court, and furnishing such infomation as may enable the comptroller to identify the design, and shall not be open to the inspection of any person except in the presence of the comptroller, or of an officer acting under him, and on payment of the prescribed fee; and the per-

Digitized by Google

son making the inspection shall not be entitled to take any copy of the design, or of any part thereof:

Provided that where registration of a design is refused on the ground of identity with a design already registered, the applicant for registration shall be entitled to inspect the design so registered.

(2) After the expiration of the copyright in a design or such shorter period as aforesaid, the design shall be open to inspection, and copies thereof may be taken by any person on payment of the prescribed fee.

(3) Different periods may be prescribed under this section for different classes of goods.

57. On the request of any person furnishing such information as may enable the comptroller to identify the design, and on payment of the prescribed fee, the comptroller shall inform such person whether the registration still exists in respect of the design, and if so, in respect of what classes of goods, and shall state the date of registration, and the name and address of the registered proprietor.

58. (1) At any time after the registration of a design any person interested may apply to the comptroller—

(*a*) for the cancellation of the registration of the design on the ground that the design has been published in the United Kingdom prior to the date of the registration;

(*b*) for the grant of a compulsory licence on the ground that the design is applied by manufacture to any article in a country outside the United Kingdom and is not so applied by manufacture in the United Kingdom to such an extent as is reasonable in the circumstances of the case

and the comptroller may make such order on the application as he considers just:

Provided that the comptroller shall not make any order under paragraph (*b*) of this subsection which is at variance with any treaty, convention, arrangement, or engagement with any country outside the United Kingdom.

(2) An appeal shall lie from any order of the comptroller under this section to the Appeal Tribunal, and the comptroller may at any time refer any such application to the Appeal Tribunal for trial.

58A. The registration of a design shall have to all intents the like effect as against His Majesty the King as it has against a subject:

Provided that the provisions of section twenty-nine of this Act shall apply to registered designs as though those provisions were herein re-enacted and in terms made applicable to registered designs.

INDUSTRIAL AND INTERNATIONAL EXHIBITIONS

59. (1) The exhibition at an industrial or international exhibition certified as such by the Board of Trade, or the exhibition elsewhere during the period of the holding of the exhibition without the privity or consent of the proprietor, of a design, or of any article to which a design is applied, or the publication, during the holding of any such exhibition, of a description of a design, shall not prevent the design from being registered, or invalidate the registration thereof: Provided that—

(*a*) The exhibitor, before exhibiting the design or article, or publishing a description of the design, gives the comptroller the prescribed notice of his intention to do so; and

(*b*) The application for registration is made before or within six months from the date of the opening of the exhibition.

(2) His Majesty may, by Order in Council, apply this section to any exhibition mentioned in the Order in like manner as if it were an industrial or international exhibition certified as such by the Board of Trade, and any such Order may provide that the exhibitor shall be relieved from the condition of giving notice to the comtproller of his intention to exhibit, and shall be so relieved either absolutely or upon such terms and conditions as may be stated in the Order.

LEGAL PROCEEDINGS

60.—(1) During the existence of copyright in any design it shall not be lawful for any person—

(*a*) For the purposes of sale to apply or cause to be applied to any article in any class of goods in which the design is registered the design or any frau-

Digitized by Google

dulent or obvious imitation thereof, except with the licence or written consent of the registered proprietor, or to do anything with a view to enable the design to be so applied; or

(*b*) Knowing that the design or any fraudulent or obvious imitation thereof has been applied to any article without the consent of the registered proprietor to publish or expose or cause to be published or exposed for sale that article.

(2) If any person acts in contravention of this section he shall be liable for every contravention to pay to the registered proprietor of the design a sum not exceeding fifty pounds, recoverable as a simple contract debt, or if the proprietor elects to bring an action for the recovery of damages for such contravention, and for an injunction against the repetition thereof, he shall be liable to pay such damages as may he awarded and to be restrained by injunction accordingly:

Provided that the total sum recoverable as a simple contract debt in respect of any one design shall not exceed one hundred pounds.

61. The provisions of this Act with regard to certificates of the validity of a patent, and to the remedy in case of groundless threats of legal proceedings by a patentee, shall apply with the necessary modifications in the case of registered designs in like manner as they apply in the case of patents.

PART III. GENERAL

PATENT OFFICE, AND PROCEEDINGS THEREAT

62. (1) The Treasury may continue to provide for the purposes of this Act and the Trade Marks Act, 1905, an office with all requisite buildings and conveniences, which shall be called, and is in this Act referred to as, the Patent Office.

(2) The Patent Office shall be under the immediate control of the comptroller, who shall act under the superintendence and direction of the Board of Trade.

(3) Any act or thing directed to be done by or to the comptroller may be done by or to any officer authorised by the Board of Trade.

(4) Rules under this Act may provide for the establishment of branch offices for designs at Manchester or elsewhere, and for any document or thing required by this Act to be sent to or done at the Patent Office being sent to or done at any branch office which may be established.

63. (1) There shall continue to be a comptroller-general of patents, designs, and trade marks, and the Board of Trade may, subject to the approval of the Treasury, appoint the comptroller, and so many examiners and other officers and clerks, with such designations and duties as the Board of Trade think fit, and may remove any of those officers and clerks.

(2) The salaries of those officers and clerks shall be appointed by the Board of Trade, with the concurrence of the Treasury, and those salaries and the other expenses of the execution of this Act and the Trade Marks Act, 1905, shall continue to be paid out of money provided by Parliament.

64. Impressions of the seal of the Patent Office shall be judicially noticed and admitted in evidence.

FEES

65. There shall be paid in respect of the grant of patents and the registration of designs, and applications therefor, and in respect of other matters with relation to patents and designs under this Act, such fees as may be with the sanction of the Treasury, prescribed by the Board of Trade, so however that the fees prescribed in respect of the instruments and matters mentioned in the First Schedule to this Act shall not exceed those specified in that Schedule.

PROVISIONS AS TO REGISTERS AND OTHER DOCUMENTS IN PATENT OFFICE

66. There shall not be entered in any register kept under this Act, or be receivable by the comptroller, any notice of any trust expressed implied or constructive.

67. Every register kept under this Act shall at all convenient times be open to the inspection of the public, subject to the provisions of this Act and to such regulations as may be prescribed; and certified copies, sealed with the

Digitized by Google

seal of the Patent Office, of any entry in any such register shall be given to any person requiring the same on payment of the prescribed fee.

68. Reports of examiners made under this Act shall not in any case be published or be open to public inspection, and shall not be liable to production or inspection in any legal proceeding, unless the court or officer having power to order discovery in such legal proceeding certifies that such production or inspection is desirable in the interests of justice, and ought to be allowed:

Provided that, on application being made by any person in the prescribed form, the comptroller may disclose the result of a search made under section seven or eight of this Act on any particular application for the grant a patent where either—(*a*) the complete specification has been accepted; or (*b*) the complete specification has been published and the application has become void.

69. (1) Where an application for a patent has been abandoned, or become void, the application, the specifications and the drawings samples and specimens (if any) accompanying or left in connection with such application, shall not, save as otherwise expressly provided by this Act, at any time be open to public inspection or be published by the comptroller.

(2) Where an application for a design has been abandoned or refused the application and any drawings, photographs, tracings, representations, or specimens left in connection with the application shall not at any time be open to public inspection or be published by the comptroller.

70. The comptroller may, on request in writing accompanied by the prescribed fee,—

(*a*) correct any clerical error in or in connection with an application for a patent or in any patent or any specification;

(*b*) cancel the registration of a design either wholly or in respect of any particular goods in connection with which the design is registered;

(*c*) correct any error in an application for the registration of or in the representation of a design or in the name or address of the proprietor of any patent or design, or in any other matter which is entered upon the register of patents or the register of designs:

Provided that where a request is made for a correction under paragraph (*a*) of this section and it appears to the comptroller that the correction would materially alter the meaning or scope of the document to which the request relates, and ought not to be made without notice to persons affected thereby, he shall require a notice of the nature of the proposed correction to be advertised in the prescribed manner, and any person may within the prescribed time and in the prescribed manner give notice at the Patent Office of opposition to the request and, where any such notice is given, the comptroller shall, after giving notice of the opposition to the applicant and after giving to the applicant and to the opponent an opportunity of being heard, decide on the case.

71. (1) Where a person becomes entitled by assignment, transmission, or other operation of law to a patent or to the copyright in a registered design, he shall make application to the comptroller in the prescribed manner to register his title, and the comptroller shall, on receipt of such application and on proof of title to his satisfaction, register him as the proprietor of such patent or design and shall cause an entry to be made on the register of the assignment, transmission or other instrument affecting the title.

(2) Where any person becomes entitled as mortgagee, licensee, or otherwise to any interest in a patent or design, he shall make application to the comptroller in the prescribed manner to register his title, and the comptroller shall, on receipt of such application and on proof of title to his satisfaction, cause notice of the interest to be entered in the register of patents or designs, as the case may be, with particulars of the instrument, if any, creating such interest.

(3) The person registered as the proprietor of a patent or design shall, subject to the provisions of the Act and to any rights appearing from the register to be vested in any other person, have power absolutely to assign, grant licenses as to or otherwise deal with the patent or design, and to give effectual receipts for any consideration for any such assignment, license or dealing:

Provided that any equities in respect of the patent or design may be enforced in like manner as in respect of any other personal property.

(4) Except in applications made under section seventy-two of this Act, a document or instrument in respect of which no entry has been made in the register in accordance with the provisions of subsections (1) and (2) aforesaid, shall not be admitted in evidence in any court in proof of the title to a

Digitized by Google

patent or copyright in a design or to any interest therein unless the court otherwise directs.

72. (1) The court may, on the application in the prescribed manner of any person aggrieved by the noninsertion in or omission from the register of patents or designs of any entry or by any entry made in either such register without sufficient cause, or by any entry wrongly remaining on either such register, or by an error or defect in any entry in either such register, make such order for making, expunging, or varying such entry as it may think fit.

(2) The court may in any proceeding under this section decide any question that it may be necessary or expedient to decide in connection with the rectification of a register.

(3) The prescribed notice of any application under this section shall be given to the comptroller, who shall have the right to appear and be heard thereon, and shall appear if so directed by the court.

(4) Any order of the court rectifying a register shall direct that notice of the rectification be served on the comptroller in the prescribed manner, who shall upon the receipt of such notice rectify the register accordingly.

POWERS AND DUTIES OF COMPTROLLER

73. Where any discretionary power is by or under this Act given to the comptroller, he shall not exercise that power adversely to the applicant for a patent, or for amendment of a specification, or for registration of a design without (if so required within the prescribed time by the applicant) giving the applicant an opportunity of being heard.

73A. (1) The comptroller shall, in any proceedings before him under this Act, have power by order to award to any party such costs as he may consider reasonable, and to direct how and by what parties they are to be paid, and any such order may be made a rule of court.

(2) If any party giving notice of any opposition under this Act, or applying to the comptroller for the revocation of a patent or for the cancellation of the registration of a design or for the grant of a compulsory license in relation to a patent or to a registered design or giving notice of appeal from any decision of the comptroller under this Act, neither resides nor carries on business in the United Kingdom or the Isle of Man, the comptroller, or in the case of appeal to the Appeal Tribunal or the court, the Appeal Tribunal or the court may require such party to give security for the costs of the proceedings or appeal, and in default of such security being given may proceed to treat the proceedings or appeal as abandoned.

[*Section 74 omitted by 22 and 23 Geo. 5. c. 32, Schedule.*]

75. If any application is made to the comptroller to grant a patent for an invention which is so obviously contrary to well-established natural laws that the application is frivolous or to grant a patent for an invention, or to register a design, of which the use would, in his opinion, be contrary to law or morality the comptroller may refuse the application, or may, in the case of an invention any particular use of which would, in his opinion, be contrary to law, require as a condition of granting a patent the insertion in the specification of such disclaimer as respects that particular use of the invention or any such other reference to the illegality thereof as he thinks fit.

An appeal shall lie from the decision of the comptroller under this section to the Appeal Tribunal.

76. The comptroller shall, before the first day of June in every year, cause a report respecting the execution by or under him of this Act to be laid before both Houses of Parliament, and therein shall include for the year to which the report relates an account of all fees, salaries, and allowances, and other money received and paid under this Act.

EVIDENCE, &C.

77. (1) Subject to rules under this Act in any proceeding under this Act before the comptroller the evidence shall be given by statutory declaration in the absence of directions to the contrary; but in any case in which the comptroller thinks it right so to do, he may take evidence vivâ voce in lieu of or in addition to evidence by declaration or allow any declarant to be cross-examined on his declaration. Any such statutory declaration may in the case of appeal be used before the court in lieu of evidence by affidavit, but if so used shall have all the incidents and consequences of evidence by affidavit.

Digitized by Google

(2) The comptroller shall in respect of discovery and production of documents and, where any evidence is taken viva voce, in respect of requiring the attendance of witnesses and taking evidence on oath, be in the same position in all respects as an official referee of the Supreme Court.

78. A certificate purporting to be under the hand of the comptroller as to any entry, matter, or thing which he is authorised by this Act, or any general rules made thereunder, to make or do, shall be prima facie evidence of the entry having been made, and of the contents thereof, and of the matter or thing having been done or left undone.

79. Printed or written copies or extracts, purporting to be certified by the comptroller and sealed with the seal of the Patent Office, of or from patents, specifications, and other documents in the Patent Office, and of or from registers and other books kept there, shall be admitted in evidence in all courts in His Majesty's dominions, and in all proceedings, without further proof or production of the originals.

[*Section 80 omitted by 22 and 23 Geo. 5. c. 32, Schedule.*]

81. Any aplication, notice, or other document authorised or required to be left, made, or given at the Patent Office or to the comptroller, or to any other person under this Act, may be sent by post.

82. Where the last day fixed by this Act for doing anything under this Act falls on any day specified in rules under this Act as an excluded day, the rules may provide for the thing being done on the next following day not being an excluded day.

83. (1) If any person is, by reason of infancy, unsoundness of mind, or other disability, incapable of making any declaration or doing anything required or permitted by or under this Act, the guardian or committee (if any) of the person subject to the disability, or, if there be none, any person appointed by any court possessing jurisdiction in respect of his property, may make such declaration or a declaration as nearly corresponding thereto as circumstances permit, and do such thing in the name and on behalf of the person subject to the disability.

(2) An appointment may be made by the court for the purposes of this section upon the petition of any person acting on behalf of the person subject to the disability or of any other person interested in the making of the declaration or the doing of the thing.

83A. Any order for the grant of a licence under this Act shall, without prejudice to any other method of enforcement, operate as if it were embodied in a deed granting a licence executed by the patentee or proprietor of a registered design as the case may be and all other necessary parties.

REGISTER OF PATENT AGENTS

84. (1) No person shall practise, describe himself, or hold himself out, or permit himself to be described or held out, as a patent agent, unless—

(*a*) in the case of an individual, he is registered as a patent agent in the register of patent agents;

(*b*) in the case of a firm, every partner of the firm is so registered:

(*c*) in the case of a company which commenced to carry on business as a patent agent after the seventeenth day of November, nineteen hundred and seventeen, every director and the manager (if any) of the company is so registered;

(*d*) in the case of a company which commenced to carry on business as a patent agent before that date, a manager or a director of the company is so registered:

Provided that in the last-mentioned case the name of such manager or director shall be mentioned as being a registered patent agent in all professional advertisements, circulars or letters in which the name of the company appears.

(2) If any person contravenes the provisions of this section, he shall be liable on conviction under the Summary Jurisdiction Acts to a fine not exceeding twenty pounds or in the case of a second or subsequent conviction to a fine not exceeding fifty pounds, and in the case of a company every director, manager, secretary, or other officer of the company who is knowingly a party to the contravention shall be guilty of a like offence and liable to a like fine.

(3) Notwithstanding anything in any enactment prescribing the time within which proceedings may be brought before a court of summary jurisdiction, proceedings for an offence under this section may be commenced at any time

Digitized by Google

within twelve months from the date on which the alleged offence was committed.

(4) For the purposes of this section, the expression "patent agent" means a person, firm, or company carrying on for gain in the United Kingdom the business of applying for or obtaining patents in the United Kingdom or elsewhere.

(5) Nothing in this section shall be taken to prohibit solicitors from taking such part as they have heretofore taken in any proceedings under this Act.

(6) No person not registered before the fifteenth day of July, nineteen hundred and nineteen, shall be registered at a patent agent unless he be a British subject.

85. (1) Rules under this Act may authorise the comptroller to refuse to recognise as agent in respect of any business under this Act any person whose name has been erased from the register of patent agents, or (during the term of his suspension) any person who has been suspended from acting as a patent agent, or who is proved to the satisfaction of the Board of Trade, after being given an opportunity of being heard, to have been convicted of such an offence or to have been guilty of such misconduct as would have rendered him liable, if his name had been on the register of patent agents, to have his name erased therefrom, and may authorise the comptroller to refuse to recognise as agent in respect of any business under this Act any company which, if it had been an individual, the comptroller could refuse to recognise as such agent.

(2) When a company or firm acts as agents, such rules as aforesaid may authorise the comptroller to refuse to recognise the company or firm as agent if any person whom the comptroller could refuse to recognise as an agent acts as director or manager of the company or is a partner in the firm.

(3) The comptroller shall refuse to recognise as agent in respect of any business under this Act any person who neither resides nor has a place of business in the United Kingdom or the Isle of Man.

POWERS, &C. OF BOARD OF TRADE

86. (1) The Board of Trade may make such general rules and do such things as they think expedient, subject to the provisions of this Act—

(*a*) For regulating the practice of registration under this Act:

(*b*) For classifying goods for the purposes of designs:

(*c*) For making or requiring duplicates of specifications, drawings, and other documents:

(*d*) For securing and regulating the publishing and selling of copies, at such prices and in such manner as the Board of Trade think fit, of specifications, drawings, and other documents:

(*e*) For securing and regulating the making, printing, publishing, and selling of indexes to, and abridgments of, specifications and other documents in the Patent Office; and providing for the inspection of indexes and abridgments and other documents:

(*f*) For regulating (with the approval of the Treasury) the presentation of copies of Patent Office publications to patentees and to public authorities, bodies, and institutions at home and abroad:

(*g*) For regulating the keeping of the register of patent agents under this Act:

(*h*) Generally for regulating the business of the Patent Office, and all things by this Act placed under the direction or control of the comptroller, or of the Board of Trade.

(2) General rules shall whilst in force be of the same effect as if they were contained in this Act.

(3) Any rules made in pursuance of this section shall be advertised twice in the Official Journal (Patents), and shall be laid before both Houses of Parliament as soon as practicable after they are made, and if either House of Parliament, within the next forty days after any rules have been so laid before that House, resolves that the rules or any of them ought to be annulled, the rules or those to which the resolution applies shall after the date of such resolution be of no effect, without prejudice to the validity of anything done in the meantime under the rules or to the making of any new rules.

87. (1) All things required or authorised under this Act to be done by, to, or before the Board of Trade, of the Board may be done by, to, or before the President or a secretary or an assistant secretary of the Board.

Digitized by Google

(2) All documents purporting to be orders made by the Board of Trade and to be sealed with the seal of the Board, or to be signed by a secretary or assistant secretary of the Board, or by any person authorised in that behalf by the President of the Board, shall be received in evidence, and shall be deemed to be such orders without further proof, unless the contrary is shown.

(3) A certificate, signed by the President of the Board of Trade, that any order made or act done is the order or act of the Board, shall be conclusive evidence of the fact so certified.

88. An Order in Council under this Act shall, from a date to be mentioned for the purpose in the Order, take effect as if it had been contained in this Act; but may be revoked or varied by a subsequent Order.

OFFENCES

89. (1) If any person makes or causes to be made a false entry in any register kept under this Act, or a writing falsely purporting to be a copy of an entry in any such register, or produces or tenders or causes to be produced or tendered in evidence any such writing, knowing the entry or writing to be false, he shall be guilty of a misdemeanour.

(2) If any person falsely represents that any article sold by him is a patented article, or falsely describes any design applied to any article sold by him as registered, he shall be liable for every offence, on conviction under the Summary Jurisdiction Acts, to a fine not exceeding five pounds.

(3) If any person sells an article having stamped, engraved, or impressed thereon or otherwise applied thereto the word "patent", "patented", "registered", or any other word expressing or implying that the article is patented or that the design applied thereto is registered, he shall be deemed for the purposes of this section to represent that the article is a patented article or that the design applied thereto is a registered design.

(4) Any person who, after the copyright in a design has expired, puts or causes to be put on any article to which the design has been applied the word "registered," or any word or words implying that there is a subsisting copyright in the design, shall be liable on conviction under the Summary Jurisdiction Acts to a fine not exceeding five pounds.

(5) If any person uses on his place of business, or on any document issued by him, or otherwise, the words "Patent Office," or any other words suggesting that his place of business is officially connected with, or is, the Patent Office, he shall be liable on conviction under the Summary Jurisdiction Acts to a fine not exceeding twenty pounds.

90. (1) The grant of a patent under this Act shall not be deemed to authorise the patentee to use the Royal Arms or to place the Royal Arms on any patented article.

(2) If any person, without the authority of His Majesty, uses in connection with any business, trade, calling, or profession the Royal Arms (or arms so nearly resembling them as to be calculated to deceive) in such manner as to be calculated to lead to the belief that he is duly authorised to use the Royal Arms, he shall be liable on conviction under the Summary Jurisdiction Acts to a fine not exceeding twenty pounds:

Provided that nothing in this section shall be construed as affecting the right, if any, of the proprietor of a trade mark containing such arms to continue to use such trade mark.

INTERNATIONAL AND COLONIAL ARRANGEMENTS

91. (1) If His Majesty is pleased to make any arrangement with the government of any foreign state for mutual protection of inventions, or designs, or trade marks, then any person who has applied for protection for any invention, design, or trade mark in that state or his legal representative or assignee shall be entitled to a patent for his invention or to registration of his design or trade mark under this Act or the Trade Marks Act, 1905, in priority to other applicants; and the patent or registration shall have the same date as the date of the application in the foreign state.

Provided that—

(*a*) The application is dated, in the case of a patent within twelve months, and in the case of a design or trade mark within six months, from the application for protection in the foreign state; and

Digitized by Google

(*b*) Nothing in this section shall entitle the patentee or proprietor of the design or trade mark to recover damages for infringements happening prior to the actual date on which his complete specification is accepted, or his design or trade mark is registered, in this country.

(2) Where the same applicant has made two or more applications for protection of inventions in any foreign state to which the provisions of this section apply, and the comptroller is of opinion that the whole of the inventions in respect of which the applications were made are such as to constitute a single invention and may properly be included in one patent, he may, if a separate application dated within twelve months from the date of the earliest of the foreign applications is made in respect of each of the foreign applications, accept one complete specification in respect of the whole of those inventions and grant a single patent thereon. The patent shall bear the date of the earliest of the foreign applications, but in considering the validity thereof and in determining other questions under this Act, the court or the comptroller, as the case may be, shall have regard to the respective dates of the foreign applications relating to the several matters claimed in the specification.

(3) The patent granted for the invention or the registration of a design or trade mark shall not be invalidated—

(*a*) in the case of a patent, by reason only of the publication of a description of, or use of, the invention; or

(*b*) in the case of a design, by reason only of the exhibition or use of, or the publication of a description or representation of, the design; or

(*c*) in the case of a trade mark, by reason only of the use of the trade mark,

in the United Kingdom or the Isle of Man during the period specified in this section as that within which the application may be made.

(4) The application for the grant of a patent, or the registration of a design, or the registration of a trade mark under this section, must be made in the same manner as an ordinary application under this Act or the Trade Marks Act, 1905: Provided that—

(*a*) In the case of patents the application shall be accompanied by a complete specification, which, if it is not accepted within eighteen months from the application for protection in the foreign state, or in the case of applications made in accordance with the provisions of subsection (2) of this section from the earliest of the applications for protection in the foreign state, shall with the drawings, samples and specimens (if any) be open to public inspection at the expiration of that period; and

(*b*) In the case of trade marks, any trade mark the registration of which has been duly applied for in the country of origin may be registered under the Trade Marks Act, 1905.

(5) The provisions of this section shall apply only in the case of those foreign states with respect to which His Majesty by Order in Council declares them to be applicable, and so long only in the case of each state as the Order in Council continues in force with respect to that state.

(6) Where it is made to appear to His Majesty that the legislature of any part of His Majesty's dominions outside the United Kingdom has made satisfactory provision for the protection of inventions, designs, or trade marks, patented or registered in this country, it shall be lawful for His Majesty, by Order in Council, to apply the provisions of this section to that of His Majesty's dominions, with such variations or additions, if any, as may be stated in the Order.

DEFINITIONS

92. (1) In this Act, unless the context otherwise requires, "the court" means, subject to the provisions as to Scotland, Northern Ireland, and the Isle of Man, the High Court in England.

(2) Where by virtue of this Act a decision of the comptroller is subject to an appeal to the court, or a petition may be referred or presented to the court, the appeal shall, except in the case of a petition for the revocation of a patent under section twenty-five of this Act, and subject to and in accordance with rules of the Supreme Court, be made and the petition referred or presented to such judge of the High Court as the Lord Chancellor may select for the purpose. An appeal shall not lie from any decision of such judge except in the case of an order revoking or confirming the revocation of a patent.

Digitized by Google

92A. (1) For the purpose of hearing appeals from decisions of the comptroller, which, by virtue of this Act, are subject to an appeal to the Appeal Tribunal, there shall be constituted a tribunal (in this Act referred to as the "Appeal Tribunal") to consist of a judge of the High Court to be nominated by the Lord Chancellor.

(2) The expenses of the Appeal Tribunal shall be defrayed and the fees to be taken therein may be fixed as if the Tribunal were a court of the High Court, but subject as aforesaid appeals to the Tribunal shall not be deemed to be proceedings in the High Court.

(3) The Appeal Tribunal may—

(*a*) examine witnesses on oath and administer oaths for that purpose:

(*b*) make rules regulating appeals to the Tribunal and the practice and proceedings before the Tribunal under this Act; and

(*c*) in any proceedings under this Act by order award to any party such costs as the Tribunal consider reasonable and direct how and by what parties they are to be paid and any such order may be made a rule of court;

so however that, as respects rights of audience and the awarding of costs, the like practice shall be observed as, before the commencement of the Patents and Designs Act, 1932, was observed in the hearing of appeals by the law officer.

(4) The Appeal Tribunal may, if it thinks fit, obtain the assistance of an expert, who shall be paid such remuneration as the Tribunal, with the consent of the Treasury, may determine.

93. In this Act, unless the context otherwise requires,—

"Prescribed" means prescribed by general rules under this Act:

"His Majesty's dominions outside the United Kingdom" includes any territory under His Majesty's protection, or in respect of which a mandate on behalf of the League of Nations is being exercised by His Majesty, but does not include the Isle of Man or the Channel Islands:

"Patent" means letters patent for an invention:

"Patentee" means the person for the time being entered on the register as the grantee or proprietor of the patent:

"Invention" means any manner of new manufacture the subject of letters patent and grant of privilege within section six of the Statute of Monopolies, and includes an alleged invention:

"Inventor" and "applicant" shall, subject to the provisions of this Act, include the legal representative of a deceased inventor or applicant:

"Design" means only the features of shape, configuration, pattern, or ornament applied to any article by any industrial process or means, whether manual, mechanical, or chemical, separate or combined, which in the finished article appeal to and are judged solely by the eye; but does not include any mode or principle of construction, or anything which is in substance a mere mechanical device:

"Article" means (as respects designs) any article of manufacture and any substance artificial or natural, or partly artificial and partly natural:

"Copyright" means the exclusive right to apply a design to any article in any class in which the design is registered:

"Proprietor of a new or original design"—

(*a*) Where the author of the design, for good consideration, executes the work for some other person, means the person for whom the design is so executed; and

(*b*) Where any person acquires the design or the right to apply the design to any article either exclusively of any other person or otherwise, means, in the respect and to the extent in and to which the design or right has been so acquired, the person by whom the design or right is so acquired; and

(*c*) In any other case, means the author of the design;

and where the property in, or the right to apply, the design has devolved from the original proprietor upon any other person, includes that other person:

"Working on a commercial scale" means the manufacture of the article or the carrying on of the process described and claimed in a specification for a patent in or by means of a definite and substantial establishment or organisation, and on a scale which is adequate and reasonable under all the circumstances.

"The comptroller" means the Comptroller General of Patents, Designs and Trade Marks.

Digitized by Google

"Date of application" has the meaning assigned to it in section four of this Act.

"Patent of addition" means a patent granted under the provisions of section nineteen of this Act.

"The Appeal Tribunal" means the tribunal constituted under the provisions of section 92A of this Act.

"The Statute of Monopolies" means the Act of the twenty-first year of the reign of King James the First chapter three, intituled "An Act concerning monopolies and dispensations with penal laws and the forfeiture thereof."

APPLICATION TO SCOTLAND, NORTHERN IRELAND, AND THE ISLE OF MAN

94. In the application of this Act to Scotland—

(1) In any action for infringement of a patent in Scotland the provisions of this Act with respect to calling in the aid of an assessor shall apply, and the action shall be tried without a jury unless the court otherwise direct, but otherwise nothing shall affect the jurisdiction and forms of process of the courts in Scotland in such an action or in any action or proceeding respecting a patent hitherto competent to those courts; and for the purposes of the provisions so applied "court of appeal" shall mean any court to which such action is appealed:

(2) Any offence under this Act declared to be punishable on conviction under the Summary Jurisdiction Acts may be prosecuted in the sheriff court:

(3) Proceedings for revocation of a patent shall be in the form of an action of reduction at the instance of the Lord Advocate, or at the instance of a party having interest with his concurrence, which concurrence may be given on just cause shown only, and service of all writs and summonses in that action shall be made according to the forms and practice existing at the commencement of this Act:

(4) The provisions of this Act conferring a special jurisdiction on the court as defined by this Act shall not, except so far as the jurisdiction extends, affect the jurisdiction of any court in Scotland in any proceedings relating to patents or to designs; and with reference to any such proceedings, the term "the Court" shall mean any Lord Ordinary of the Court of Session, and the term "Court of Appeal" shall mean either Division of that Court:

(5) Notwithstanding anything in this Act, the expression "the Court" shall in reference to proceedings in Scotland for the extension of the term of a patent mean any Lord Ordinary of the Court of Session:

(6) The expression "Rules of the Supreme Court" shall, except in section ninety-two of this Act, mean act of sederunt:

(7) If any rectification of a register under this Act is required in pursuance of any proceeding in a court, a copy of the order, decree, or other authority for the rectification, shall be served on the comptroller, and he shall rectify the register accordingly:

(8) The expression "injunction" means "interdict."

95. In the application of this Act to Northern Ireland—

(1) All parties shall, notwithstanding anything in this Act, have in Northern Ireland their remedies under or in respect of a patent as if the same had been granted to extend to Northern Ireland only:

(2) The provisions of this Act conferring a special jurisdiction on the court, as defined by this Act, shall not, except so far as the jurisdiction extends, affect the jurisdiction of any court in Northern Ireland in any proceedings relating to patents or to designs; and with reference to any such proceedings the term "the Court" means the High Court in Northern Ireland:

(3) If any rectification of a register under this Act is required in pursuance of any proceeding in a court, a copy of the order, decree, or other authority for the rectification shall be served on the comptroller, and he shall rectify the register accordingly.

96. This Act shall extend to the Isle of Man, subject to the following modifications:

(1) Nothing in this Act shall affect the jurisdiction of the courts in the Isle of Man in proceedings for infringement or in any action or proceeding respecting a patent or design competent to those courts:

(2) The punishment for a misdemeanour under this Act in the Isle of Man shall be imprisonment for any term not exceeding two years, with or without

Digitized by Google

hard labour, and with or without a fine not exceeding one hundred pounds, at the discretion of the court:

(3) Any offence under this Act committed in the Isle of Man which would in England be punishable on summary conviction may be prosecuted, and any fine in respect thereof recovered, at the instance of any person aggrieved, in the manner in which offences punishable on summary conviction may for the time being be prosecuted.

REPEAL, SAVINGS, AND SHORT TITLE

97. Nothing in this Act shall take away, abridge, or prejudicially affect the prerogative of the Crown in relation to the granting of any letters patent or to the withholding of a grant thereof.

98. (1) The enactments mentioned in the Second Schedule to this Act are hereby repealed to the extent specified in the third column of that schedule—

(*a*) As respects the enactments mentioned in Part I of that schedule, as from the commencement of this Act;

(*b*) As respects the enactments mentioned in Part II of that schedule, as from the date when rules of the Supreme Court regulating the matters dealt with in those enactments come into operation;

(*c*) As respects the enactments mentioned in Part III of that schedule, as from the date when rules under this Act regulating the matters dealt with in those enactments come into operation;

and the enactments mentioned in Part II and Part III of that schedule shall, until so repealed, have effect as if they formed part of this Act:

Provided that this repeal shall not affect any convention, Order in Council, rule, or table of fees having effect under any enactment so repealed, but any such convention, Order in Council, rule, or table of fees in force at the commencement of this Act shall continue in force, and may be repealed, altered, or amended, as if it had been made under this Act.

(2) Except where otherwise expressly provided, this Act shall extend to all patents granted and all designs registered before the commencement of this Act, and to applications then pending, in substitution for such enactments as would have applied thereto if this Act had not been passed.

99.[4] This Act may be cited as the Patents and Designs Act, 1907, and shall, save as otherwise expressly provided, come into operation on the first day of January, one thousand nine hundred and eight.

SCHEDULES.

FIRST SCHEDULE.

Fees on Instruments for Obtaining Patents and Renewal.

	£	s.	d.	£	s.	d.
(*a*) *Up to sealing.*						
On application for provisional protection	1	0	0			
On filing complete specification	4	0	0			
				5	0	0
or						
On filing complete specification with first application				5	0	0
On the sealing of the patent in respect of investigations as to anticipation				1	0	0
(*b*) *Further before end of four years from date of patent.*						
On certificate of renewal				50	0	0
(*c*) *Further before end of eight years from date of patent.*						
On certificate of renewal				100	0	0

[4] The Patents and Designs Act, 1907 (7 Edw. 7. c. 29), the Patents and Designs Act, 1914 (4 & 5 Geo. 5. c. 18), the Patents and Designs Act, 1919 (9 & 10 Geo. 5. c. 80), the Patents and Designs (Convention) Act, 1928 (18 Geo. 5. c. 3), and the Patents and Designs Act, 1932 (22 & 23 Geo. 5. c. 32), may be cited together as the Patents and Designs Acts, 1907 to 1932. (*See* 9 & 10 Geo. 5. c. 80, s. 22, 18 Geo. 5. c. 3, s. 5 and 22 & 23 Geo. 5. c. 32, s. 15.)

Digitized by Google

Or in lieu of the fees of £50 and £100 the following annual fees:

Before the expiration of the—						
fourth year	from the date of the patent			10	0	0
fifth	"	"	"	10	0	0
sixth	"	"	"	10	0	0
seventh	"	"	"	10	0	0
eighth	"	"	"	15	0	0
ninth	"	"	"	15	0	0
tenth	"	"	"	20	0	0
eleventh	"	"	"	20	0	0
twelfth	"	"	"	20	0	0
thirteenth	"	"	"	20	0	0

SECOND SCHEDULE

Enactments repealed

PART I

Session and Chapter.	Short Title.	Extent of Repeal.
46 & 47 Vict. c. 57.	The Patents, Designs, and Trade Marks Act, 1883.	The Whole Act, except subsections (5), (6), and (7) of section twenty-six, section twenty-nine, subsections (2) and (3) of section forty-seven and section forty-eight.
48 & 49 Vict. c. 63.	The Patents, Designs, and Trade Marks (Amendment) Act, 1885.	The whole Act.
49 & 50 Vict. c. 37.	The Patents Act, 1886	The whole Act.
51 & 52 Vict. c. 50.	The Patents, Designs, and Trade Marks Act, 1888.	The whole Act.
1 Edw. 7. c. 18.	The Patents Act, 1901	The whole Act.
2 Edw. 7. c. 34.	The Patents Act, 1902	The whole Act.
7 Edw. 7. c. 28.	The Patents and Designs (Amendment) Act, 1907.	The whole Act.
8 Edw. 7. c. 4.	The Patents and Designs Act, 1908.*	The whole Act.

* Repealed by 9 & 10 Geo. 5. c. 80, s. 21.

PART II

46 & 47 Vict. c. 57.	The Patents, Designs, and Trade Marks Act, 1883.	Subsections (5), (6), and (7) of section twenty-six, and section twenty-nine.

PART III

46 & 47 Vict. c. 57.	The Patents, Designs, and Trade Marks Act, 1883.	Subsections (2) and (3) of section forty-seven and section forty-eight.

[Official pamphlet—No charge]

INSTRUCTIONS TO APPLICANTS FOR PATENTS.

1. *General.*—The grant of Patents for inventions is now governed by the Patents and Designs Acts, 1907 to 1932, and the Patents Rules, 1932. For information as to obtaining copies of the Acts and Rules, see para. 31.

The address of The Patent Office is 25, Southampton Buildings, London, W. C. 2. (*Telegraphic Address:*—Patent Office, London. *Telephone No:*—Holborn 8721.) Communications should be addressed to The Comptroller. The office hours are 10 a. m.—4 p. m. on week days, Saturdays 10 a. m.—1 p. m.

2. *Who may apply for a Patent in the United Kingdom.*—Any person, whether a British subject or not, may make an application for a Patent for an invention provided that he is the true and first inventor, or applies

Digitized by Google

jointly with the true and first inventor or inventors, or has received the invention from abroad.

Except in the case of an invention received from abroad or of an application under International Arrangements (see paras. 8 and 27), the true and first inventor (or inventors) must be a party (or parties) to the application.

A Company or other corporate body may apply for a Patent as joint applicant with the inventor, but not as sole applicant, unless the application is made in respect of an invention communicated from abroad or under the International or Colonial Arrangements (see para. 27). An application to which a Company is a party should be made under its seal.

Firms, partnerships or other unincorporate bodies cannot apply as such but must apply in the names of the partners constituting the firm, &c., and the application must be signed by all such partners.

If an inventor dies without making an application for a Patent for an invention, his legal representative may apply for a Patent for such invention.

3. *What may be patented.*—Patents are only granted for inventions the subject-matter of which is "a manner of new manufacture" within the meaning of Section 93 of the Acts.

Applications for Patents would not be accepted in the following cases:—

(a) Where no material product of a substantial character is realised or effected by the alleged invention, or where the only material product is a printed sheet, ticket, coupon, or its equivalent, for use in carrying out some scheme of business or the like.

(b) Where it is proposed to use, modify, or imitate natural conditions existing on the earth's surface, there being no invention as to the means or apparatus applied to these purposes.

(c) Where the alleged invention is so obviously contrary to well-established natural laws that the application is frivolous.

(d) Where the invention is of such a character that its use would be contrary to law or morality.

Patents for inventions relating to substances prepared or produced by chemical processes, or intended for food or medicine, are only granted subject to the provisions of Section 38A of the Acts.

An application for a Patent must be restricted to one invention. Several distinct matters are not deemed to constitute one invention merely because they are all applicable to or may form parts of an existing machine, apparatus, or process.

4. *Manner of Applying for a Patent.*—

All applications and communications must be made in English.

Applicants must apply in their real names and not under assumed or trade names.

An application can be made either by direct communication with the Office or through an agent duly authorised to the satisfaction of the Comptroller and resident or having a place of business in Great Britain or Northern Ireland. In every case an address for service in Great Britain or Northern Ireland must be given. (See also paras. 6 and 28 (4).)

No models are required.

Applications for Patents should be left at the Patent Office by hand or sent by post, addressed to the Comptroller, The Patent Office, 25, Southampton Buildings, London, W.C.2.

Applicants must use the appropriate Stamped Forms (see para. 5) as fees cannot be accepted if tendered by cheque or Money Order or in cash.

5. *Patent Forms and Fees.*—The following Forms and Fees are prescribed under the Patents Rules, 1932. A Specimen of each of these Forms will be found in the Second Schedule to these Rules (see para. 31).

Digitized by Google

Forms No.		Fee.
1	Application for Patent	£1
1A	Application for Patent for invention communicated from abroad	£1
1B	Application for Patent under International and Colonial arrangements	£1
1B*	Application for Patent by Legal Representatives or Assignees under International and Colonial arrangements	£1
1C	Application for Patent of Addition	£1
1C*	Application or Patent of Addition under International and Colonial arrangements	£1
1C**	Application for Patent of Addition for invention communicated from abroad	£1
1C*†	Application for Patent of Addition by Legal Representatives or Assignees under International and Colonial arrangements	£1
1C***	Application for Patent of Addition (for improvement or modification of patent as already improved or modified by a patent of addition	£1
1E	Application under Section 12 (1) (*b*) for grant of Patent to an Assignee	£1
2	Provisional Specification	
3	Complete Specification	£4
4	Request for the post-dating of an Application:	
	Not exceeding one month	£2
	Not exceeding two months	£4
	Not exceeding three months	£6
	Not exceeding four months	£8
	Not exceeding five months	£10
	Not exceeding six months	£12
5	Application for extension of Time under Rule 15:	
	Not exceeding one month	£2
	Not exceeding two months	£4
	Not exceeding three months	£6
6	Application for extension of Time for leaving Complete Specification	£2
7	Application for extension of Time for leaving an amended Specification under Rules 29 or 33 or notifying acceptance of alternative offered under Rules 30 or 34:	
	Not exceeding one month	10*s.*
	Each succeeding month	10*s.*
8	Application for extension of Time for acceptance of Complete Specification:	
	Not exceeding one month	£2
	Not exceeding two months	£4
	Not exceeding three months	£6
9	Application for disclosure of result of search under Sections 7 and 8	£1
10	Notice of Opposition to Grant of Patent	£1
10A	Application for extension of Time for filing a Notice of Opposition	£1
11	Notice that Hearing will be attended	£2
12	Notice of Desire to have Patent Sealed	£1
13	Application for extension of Time for sealing of Patent other than extension under Section 12(4) (d):	
	Not exceeding one month	£2
	Not exceeding two months	£4
	Not exceeding three months	£6
13A	Application for extension of Time for Sealing of Patent under Section 12 (4) (d)	£2 for each month's extension.
13B	Application for the grant of a Patent of Addition in lieu of an independent Patent	£5
14	Application for Certificate of Payment of Renewal Fee:	
	Before the expiration of the 4th year from date of Patent, and in respect of the 5th year	£5
	Before the expiration of the 5th year from date of Patent, and in respect of the 6th year	£6
	Before the expiration of the 6th year from date of Patent, and in respect of the 7th year	£7
	Before the expiration of the 7th year from date of Patent, and in respect of the 8th year	£8
	Before the expiration of the 8th year from date of Patent, and in respect of the 9th year	£9
	Before the expiration of the 9th year from date of Patent, and in respect of the 10th year	£10
	Before the expiration of the 10th year from date of Patent, and in respect of the 11th year	£11
	Before the expiration of the 11th year from date of Patent, and in respect of the 12th year	£12
	Before the expiration of the 12th year from date of Patent, and in respect of the 13th year	£13
	Before the expiration of the 13th year from date of Patent, and in respect of the 14th year	£14
	Before the expiration of the 14th year from date of Patent, and in respect of the 15th year	£15
	Before the expiration of the 15th year from date of Patent, and in respect of the 16th year	£16
	One moiety only of the above fees payable on Patents indorsed "Licences of Right."	

Digitized by Google

Forms No.		Fee.
15	Application for Enlargement of Time for payment of Renewal Fee:	
	Not exceeding one month	£2
	Not exceeding two months	£4
	Not exceeding three months	£6
16	Application for restoration of a lapsed Patent	£20
17	Notice of opposition to an application for restoration of a lapsed Patent	£1
18	Application for amendment of Specification after acceptance:	
	Up to Sealing—by applicant	£1 10s.
	After Sealing—by patentee	£3
18A	Application for amendment of a Specification not yet accepted	£1 10s.
18B	Application for amendment of an application for Patent	£1 10s.
19	Notice of Opposition to Amendment of Specification	£1
20	Request for indorsement of Patent "Licences of Right"	£1
21	Application for refusal of request for indorsement of Patent "Licences of Right"	£2
22	Application for settlement of terms of Licence under Patent indorsed "Licences of Right"	£5
23	Application by patentee for cancellation of indorsement of Patent "Licences of Right"	£2
24	Notice of Opposition to cancellation of indorsement of Patent "Licences of Right"	£2
25	Application for the Revocation of a Patent under Section 26	£2
26	Offer to Surrender a Patent under Section 26	£1
26A	Notice of Opposition to surrender of a Patent under Section 26	
27	Application for Grant of Compulsory Licence or Revocation of a Patent under Section 27	£5
28	Request for Hearing under Section 27 (10)	£2
29	Application for Licence under Section 38A (3)	£5
30	Request for Alteration of Name or Address, or Address for Service in Register	5s.
31	Request for entry of two Addresses for Service in Register	5s.
32	Application for entry of name of proprietor or part proprietor in Register:—	
	If made within 6 months from date of acquisition of proprietorship.	
	In respect of one patent	£1
	For each additional patent devolving under the same title	2s. 6d.
	If made after 6 months from date of acquisition of proprietorship.	
	In respect of one patent	£10
	For each additional patent devolving under the same title	2s. 6d.
33	Application for entry of notice of Mortgage or Licence in Register:—	
	If made within 6 months from date of acquisition of interest or sealing of patent.	
	In respect of one patent	£1
	For each additional patent devolving under the same title	2s.6d.
	If made after 6 months from date of acquisition of interest or sealing of patent.	
	In respect of one patent	£10
	For each additional patent devolving under the same title	2s. 6d.
34	Application for entry of Notification of Document in Register:—	
	If made within 6 months from date of document, or sealing of patent.	
	In respect of one patent	£1
	For each additional patent devolving under the same title	2s. 6d.
	If made after 6 months from date of document, or sealing of patent.	
	In respect of one patent	£10
	For each additional patent devolving under the same title	2s. 6d.
35	Request for Correction of Clerical Error:—	
	Up to Sealing	10s.
	After Sealing	£1
35A	Notice of Opposition to Correction of Clerical Error	£1
36	Request for Certificate of Comptroller	10s.
36A	Request for information affecting a Patent or an application therefor	10s.
37	Application for Duplicate of Letters Patent	£2
38	Notice of Intended Exhibition or Publication of Unpatented Invention	£1
39	Application for Entry of Order of Court in Register	10s.
40	Application for direction under Section 37 (2)	£5
	MISCELLANEOUS FEES	
	For inspection of Register, original or Convention documents, and samples or specimens	1s.
	For typewritten office copies, every 100 words (but never less than than shilling)	6d.
	For photographic office copies and office copies of drawings, cost according to Agreement	
	For office copies of Letters Patent	4s. 6d.
	For certifying office copies, M. S. or printed, each	2s. 6d.
	NOTE.—An additional stamp duty of one shilling is also charged under the Stamp Act upon certified copies of registers or of stamped legal documents.	

5 (*a*). *Manner of obtaining Forms.—Stamped Forms.*—Stamped forms ***can not be sent by post from the Patent Office***, but may be obtained, ***on personal application only***, at the Inland Revenue Stamp Office (Room 28), The Patent Office, 25, Southampton Buildings, Chancery Lane, London, W. C. 2.

They may also be obtained, at a few days' notice and ***upon prepayment of the value of the stamp***, at any Money Order Office in Great Britain or Northern Ireland.

Digitized by Google

Further, stamped forms can be ordered by post from the Controller of Stamps, Room 5, Inland Revenue Dept., Somerset House, London, W. C. 2. A bankers' draft or a Money or Postal Order payable to the Commissioners of Inland Revenue and crossed "Bank of England," to cover the value of the stamps and the cost of transmitting the forms in a registered envelope by post, must be forwarded to Somerset House with the order.

Cheques will not be accepted either by the Inland Revenue Department or the Patent Office.

Unstamped Forms.—When ordering stamped forms, any unstamped forms required for use therewith should be ordered at the same time. No charge is made for such forms.

6. *Documents required on application for a Patent.*—An application for a Patent consists of an application form and a specification (either provisional or complete). The Forms must bear the prescribed stamp fees, and the specification must be in duplicate.

The application form must be signed by the applicant or applicants, and an address for service in Great Britain or Northern Ireland must be given.

In an ordinary case an application for a Patent may be made in either of two ways:

(1) The applicant may apply in the first instance with a provisional specification, using Patents Form No. 1 (stamped £1), accompanied by two Patents Forms No. 2 (unstamped); and may leave his complete specification (stamped £4) at any later date within twelve months, or, with application for extension of time on Patents Form No. 6 (stamped £2), within thirteen months.

(2) The applicant may leave his complete specification at the time of making his application, using Patents Form No. 1 (stamped £1), accompanied by two Patents Forms No. 3 (one copy stamped £4 and one unstamped).

In any other case one of the Forms No. 1A, 1B, &c. (see para. 5), should be used instead of Form No. 1.

The title of the invention should cover the whole subject matter, and is not intended to be the name under which the invention is to be sold.

In the title of the invention the following forms are not allowable:—

(a) Fancy names or titles, e. g., "The Simplex Wheel;" "The Hercules Braces."

(b) The use of the inventor's name, or of the word "Patent."

(c) The abbreviation "&c." This should be replaced by words expressing whatever is intended to be covered by the term, or by the phrase "and the like."

The Specifications and all other documents, except drawings, must be written, typewritten, lithographed or printed in large and legible characters with deep permanent black ink on one side only of sheets of strong wide-ruled white paper measuring approximately 13 inches by 8 inches, leaving a margin of at least one inch and a half on the left-hand side thereof; and the signatures thereto must be written in ink in a large and legible hand, and the several sheets should be fastened together at the top left-hand corner. At the top of the first page of a specification a space of about 2 inches should be left blank. The work of the Office is facilitated when specifications are printed or typewritten. Carbon copies of typewritten documents will be accepted as duplicates provided they are on paper of good quality and that the typing is black and distinct.

Provisional Specification.—The provisional specification must contain the full name, address, and nationality of each applicant, and the title of the invention (all of which must be identical with those given on the application form), and must fairly describe the nature of the invention.

The specification should be begun on Patents Form No. 2, and continued if necessary on foolscap paper. The duplicate must be an exact copy. The applicant should in this document give a clear description of the invention, but he need not enter into minute details as to the manner in which the invention is to be carried into effect, and no claims are necessary or allowable. It should be noted, however, that, unless the nature of the invention be fairly described in the provisional specification, postdating of the application to the date on which an adequate description is received may be necessary. Drawings (in duplicate) may be furnished if desired, but are not necessary except when an adequate description of the invention cannot be given without their aid. The specification must be dated at the end, and signed by each applicant or by the authorised agents. The signature of a corporate body to a specification is not required to be under seal.

Digitized by Google

Unless a complete specification, stamped £4 is left within 12 months, or with extension of time 13 months (see para. 5, Patents Form No. 6), from the date of application, an application for a Patent is deemed to be abandoned.

Complete Specification.—The complete specification must contain the full name, address, and nationality of each applicant, and the title of the invention, all of which must be identical with those given on the application form.

The complete specification must be begun upon Patents Form No. 3 (stamped £4), and continued, if necessary, on foolscap paper. The duplicate must be an exact copy, but unstamped. The specification should contain a full and detailed description of the invention, of such a nature that the invention could be carried into practical effect by a competent workman from the directions of the document alone. Drawings (in duplicate) are required to accompany a complete specification in all cases where they are necessary to a clear and ready understanding of the invention described and claimed.

A complete specification left after a provisional specification should refer to the number and date of the provisional specification, should contain a full and detailed description of the invention, independent of the description given in the provisional specification, and should be confined to substantially the same invention as described in the provisional specification.

It is necessary at the end of the complete specification to make a distinct and proper statement of claims, which must be clear and succinct as well as separate and distinct from the body of the specification. The claims should be preceded by the prescribed preamble given on Patents Form No. 3, and should form in brief a clear statement of that which constitutes the invention, and inventors should be careful that their claims include neither more nor less than they desire to protect by their Patent. Any unnecessary multiplicity of claims or prolixity of language should be avoided.

Claims should not be made for the efficiency or advantages of the invention.

The specification must be dated at the end, and signed by each applicant or by the authorised agents. The signature of a corporate body to a specification is not required to be under seal.

Use of mathematical formulae in specifications.—In order to avoid errors in printing where mathematical expressions and equations are employed in specifications, care should be taken to arrange such matter as simply and clearly as possible; the various characters employed should be of the correct relative size and in proper alignment, and where typewritten characters might cause confusion, as in the case of the letter l and the figure 1, the character should be written in. Dots over letters and bars above or below expressions should be avoided. Thus $\sqrt{(ax + by)}$ or $(ax + by)^{\frac{1}{2}}$ is to be preferred to $\sqrt{ax + by}$. Generally the use of the solidus / is to be preferred to the horizontal rule ——, thus (a + b) / (c + d) is preferred to $\frac{a + b}{c + d}$. Advice on this matter is contained in a pamphlet "Notes on the preparation of mathematical papers" issued by the London Mathematical Society and obtainable from the printers, Messrs. C. F. Hodgson & Son, Ltd., 2, Newton Street, London, W. C. 2.

Drawings.—As the drawings are printed by a photo-lithographic process after the acceptance of the complete specification, the character of each original drawing must be brought as nearly as possible to a uniform standard of excellence, suited to the requirements of such process and calculated to give the best results in the interest of inventors, of the Patent Office, and of the public. The statutory requirements (see Rules 18–25 of the Patents Rules, 1932) should, therefore, be strictly observed, as non-compliance therewith will cause delay in the progress of an application for a Patent.

A pamphlet containing full instructions as to the preparation of drawings will be sent free on application.

6a. *Post-dating of Applications.*—Applications are recorded and dated as of the date of their receipt, but an applicant may, before the acceptance of the complete specification of his application, request that the application be post-dated to a date not later than six months from the date when the application was made. Such request should be made on Patents Form No. 4 duly stamped (for stamp fees see para. 5). In the case of an application accompanied by a provisional specification in respect of which no complete specification has been left, the request for post-dating must be made within twelve months from the date of the application or, if accompanied by Form 6 (stamped £2), within thirteen months.

Digitized by Google

7. *Communication from Abroad.*—In cases of applications for Patents for inventions communicated from abroad, the person to whom the invention is communicated will be treated in all respects as the actual applicant, and the Patent will be issued to such person. Where, however, he has agreed to assign the patent when granted to the communicator, the latter may request the grant to be made to him (see para. 16).

8. *Applications under International Arrangements (Convention Applications).* (See para. 27).—An application in the United Kingdom for a Patent claiming priority of date under International Arrangements must be made on the apppropriate form (see para. 5) within 12 months from the date of the *first* application in a country which has such an arrangement with this country. The application must be made and signed by the person or persons by whom the first foreign application was made or by his or their legal representatives or assignees, and must be accompanied by a complete specification, and, *in addition*, by copies of the specification and drawings or documents filed abroad in respect of the first foreign application duly certified by the official chief of the foreign Patent Office, or otherwise verified to the satisfaction of the Comptroller; and if such specification or any document relating to the application is in a foreign language, by a translation verified by statutory declaration or otherwise to the satisfaction of the Comptroller.

One complete specification may be filed in respect of two or more applications under these Arrangements provided that the separate applications and the complete specification are filed at the Patent Office on the same date, that the applications are all made within 12 months from the earliest of the foreign applications and that all the foreign applications were made in the same country. The Comptroller must be satisfied that the whole of the inventions covered by the foreign applications constitute a single invention and may properly be included in one Patent. (See Section 91 (2) of the Acts.)

If an extension of time is required for leaving the copies of the foreign specification, translation, drawings or documents, application should be made on Patents Form No. 5, duly stamped. Such extension may be for one, two, or three months but cannot exceed three months.

9. *Patent of Addition.*—Where a Patent for an invention has been applied for or granted, the applicant or patentee may apply either by himself or jointly with other persons for a Patent to be called a "Patent of Addition" in respect of any improvement in or modification of the invention.

The Patent of Addition if granted will be granted for the unexpired term of the original Patent, and no renewal fees will be payable on such Patent of Addition, which will remain in force only so long as the original Patent remains in force. (See Section 19 of the Acts.)

Where an independent Patent has been granted for an invention which is an improvement in or modification of an original invention, and the patentee is also the patentee of the original invention, he may make application on Patent Form 13B (stamped £5) for revocation of the independent Patent and the grant to him in lieu thereof of a Patent of Addition.

10. *Single Patent for Cognate Inventions.*—As applicant who has put in two or more applications accompanied by Provisional Specifications for inventions which are cognate or modifications one of the other may put in one complete specification in respect of all such applications; and if the whole of the inventions are such as to constitute a single invention, he may obtain a single Patent therefor. (See Section 16 of the Acts.)

11. *Patents for Inventions relating to Munitions of War.*—The attention of applicants for Patents is drawn to the desirability of avoiding publication of inventions which relate to munitions of war as defined in the Official Secrets Acts, 1911 and 1920.

In such cases, after lodging an application at the Patent Office and thus obtaining protection, the inventor is advised to submit the details of his invention confidentially to the departments concerned, i. e., Admiralty, War Office, or Air Ministry, in good time before publication takes place, in order that, if considered necessary by such Departments, steps may be taken for the invention, and any Patent to be granted thereon, to be kept secret under the provisions of Section 30 of the Acts, on such terms as may be arranged.

12. *Official Examination.*—Every application is referred to an Examiner who is required to report (a) whe her the nature of the invention is fairly described, (b) as respects a complete specification whether the nature of the invention and the manner in which it is to be performed are particularly

Digitized by Google

described and ascertained, (c) whether the application, specification, and drawings (if any) have been prepared in the prescribed manner, (d) whether the title sufficiently indicates the subject-matter of the invention, (e) whether the specification comprises one invention only, and, (f) in the case of a complete specification left after a provisional specification, whether the invention in the complete specification is substantially the same as in the provisional specification. If this report is adverse, the Comptroller may refuse to accept the application, or may require that the application, specification, or drawings be amended before he proceeds with the application, and in the latter case he may direct that the application be postdated.

In the case of an application accompanied by a complete specification the Comptroller may also, if the applicant so requests, treat the specification as a provisional specification and proceed with the application accordingly.

When a complete specification has been filed, a search is made to ascertain whether the invention claimed has been wholly or in part anticipated in any published specification (other than a provisional specification not followed by a complete specification) filed pursuant to any application made in the United Kingdom within the preceding fifty years or has been made available to the public in any document within the Comptroller's knowledge published in the United Kingdom. If any such anticipation be found and the applicant is unable suitably to amend his pecification, the specification will be accepted only after the insertion of a reference to the prior specification or other document by way of notice to the public; and, in cases where the Comptroller is satisfied that the invention claimed has been wholly and specifically claimed or described in any specification or other document to which the investigation has extended, he may, in lieu of requiring references to be made in the applicant's specification, refuse to grant a Patent. The official search is not, of course, exhaustive and the procedure must not be regarded as conveying in any way a guarantee of the validity of the Patent.

12a. *Searches.*—Searches, other than the official search made in respect of complete specifications filed upon applications for Patents, cannot be undertaken by the Patent Office, but must be made by the person requiring information or by his agent. A list of places where specifications of Patents and other Patent Office publications may be consulted, is given in para. 31.

After a complete specification has been accepted, or a Convention application, the specification of which is open to public inspection, has become void, any person may make application to the Comptroller upon Patents Form No. 9, stamped £1, to be informed of the result of the official search in connection with that specification.

13. *Acceptance of Complete Specifications.*—A complete specification must be accepted within 18 months or, with extension of time (see para. 5, Patents Form No. 8) 19, 20, or 21 months from the date of application. If not so accepted the application becomes void and cannot be further proceeded with.

On the acceptance of a complete specification, the Comptroller gives notice thereof to the applicant, and the acceptance is advertised in the Official Journal (Patents).

Any other person who desires immediate notification of the acceptance should previously make a request for such information on Patents Form No. 36A (stamped 10s.).

An application for Patent is allotted a serial number when the complete specification is accepted. The serial number is used instead of the original application number in all subsequent proceedings.

14. *Public Inspection of Specifications.*—The provisional specification (if any) and the complete specification are not open to public inspection, for searches or for copying, until after the acceptance of the complete specification, except in the case of a Convention application (see paras. 8 and 27). In such case the complete specification, if not already accepted, becomes open to public inspection at the end of 18 months from the priority date claimed, but is not printed in that form unless the application becomes void. The specifications of other void applications or of abandoned applications are not printed or open to inspection.

Upon the acceptance of a complete specification, the application, specification or specifications with the drawings (if any) may be inspected at the Patent Office upon payment of the prescribed fee of one shilling. A similar fee is payable for inspection of the specification of a Convention application open to public inspection under Section 91 (4) of the Acts.

Digitized by Google

Specifications are printed fifteen days after the advertisement of the acceptance of the complete specification, and may be obtained as indicated in para. 31.

15. *Opposition to the Grant of a Patent.*—A Patent is granted, subject to the payment of a sealing fee, upon an application which passes the prescribed stages and is unopposed.

Any person may at any time within two months from the date of the advertisement in the Official Journal (Patents) of the acceptance of a complete specification, or within such further period not exceeding one month as may be allowed on application being made within the two months period, give notice of opposition to the grant of the patent on any of the following grounds, *but on no other ground:*—

(a) that the applicant obtained the invention or any part thereof from him, or from a person of whom he is the legal representative; or

(b) that the invention has, prior to the date which the Patent applied for would bear if granted, been published in any complete specification, or in any provisional specification followed by a complete specification, deposited pursuant to any application made in the United Kingdom and dated within fifty years next before such date, or has been made available to the public by publication in any document (other than a United Kingdom specification or a specification describing the invention for the purpose of an application for protection made in any country outside the United Kingdom more than fifty years next before such date, or any abridgment of, or extract from any such specification published under the authority of the Comptroller or of the Government of any country outside the United Kingdom) published in the United Kingdom before such date; or

(bb) that the invention has been claimed in any complete specification for a United Kingdom Patent which, though not published at the date which the Patent applied for would bear if granted, was deposited pursuant to an application for a Patent which is or will be of prior date to such Patent; or

(c) that the nature of the invention, or the manner in which it is to be performed is not sufficiently and fairly described and ascertained in the complete specification; or

(d) that the complete specification describes or claims an invention other than that described in the provisional specification, and that such other invention forms the subject of an application made by the opponent for a Patent which if granted would bear a date in the interval between the date of the application and the leaving of the complete specification or has been made available to the public by publication in any document published in the United Kingdom in the interval; or

(e) that in the case of an application under section ninety-one of the Acts the specification describes or claims an invention other than that for which protection has been applied for in a foreign state or any part of His Majesty's dominions outside the United Kingdom, and that such other invention either forms the subject of an application made by the opponent for a Patent which if granted would bear a date in the interval between the leaving of the application in the foreign state or part of His Majesty's dominions outside the United Kingdom and the date of the application in the United Kingdom, or has been made available to the public by publication in any document published in the United Kingdom in that interval.

The notice of opposition must be given on Patents Form No. 10, stamped £1, and must state the grounds (i. e., one or more of the grounds (a) to (e) shown above) on which the person giving the notice intends to oppose the grant, and must be signed by him. The notice must also state his address for service in Great Britain or Northern Ireland, and be accompanied by an unstamped copy and a statement in duplicate setting out fully the nature of his interest, the facts upon which he bases his case, and the relief which he seeks. One copy of the notice and of the statement will be transmitted by the Comptroller to the applicant.

The subsequent procedure is regulated by Rules 44–50 of the Patents Rules, 1932.

Where an extension of time for giving notice of opposition is desired, application for such extension should be made on Patents Form No. 10A (stamped £1) before the expiry of the normal period of two months.

16. *Grant and Sealing of Patent.*—A Patent is granted only to the applicant except in the following cases:

Digitized by Google

(a) Where an applicant has agreed in writing to assign the Patent when granted, or in the case of a joint application, his interest in the Patent when granted. In such cases the Patent may, on application being made on Patents Form No. 1E (stamped £1), be granted to the assignee either alone or jointly with the remaining applicant or applicants as the case may be.

(b) Where the applicant has died, the Patent may be granted to his legal representative, and where an applicant in a joint application has died the Patent may be granted either (1) to the surviving applicant or applicants and the legal representative of the deceased, or (2) with the consent of the legal representative of the deceased, to the surviving applicant or applicants.

(c) Where disputes arise between joint applicants as to proceeding with an application, the Comptroller may, after giving all parties interested an opportunity of being heard, allow the application to proceed in the names of one or more of the parties, and may grant the Patent to him or them.

Except in certain special cases a Patent must be sealed within 21 months, or, if extension of time has been allowed for leaving or accepting a complete specification 25 months, from the date of the application for the Patent. A sealing fee of £1 is payable, and should be paid by leaving at the Patent Office Patents Form No. 12, stamped £1 (see para. 5).

Great care must be taken to ensure that the form, duly stamped, is left at the Office at such a date as to permit of the sealing of the Patent within the prescribed time. The applicant for a Patent is advised to pay the sealing fee after the date of the acceptance of the complete specification and before the expiration of the period allowed for opposition. If this be done, the Patent will as a rule be sealed about 10 weeks after the date of the acceptance of the complete specification. If the payment has been omitted, application may be made to the Comptroller on Patents Form. No. 13 (see para. 5) for an extension of time for one, two or three months to make such payment, but no extension can be allowed beyond three months except in cases where hardship would arise in connection with the prosecution by the applicant of applications in foreign countries. In such cases an applicant who has already obtained the maximum extension of time otherwise allowable may, before the expiry of such extension, apply for a further extension on Patents Form No. 13A duly stamped.

17. *Duration of Patent and payment of Renewal Fees for the continuance of Patent.*—Every Patent (other than a Patent of Addition) is granted for the term of 16 years from the date of application, subject to the payment, before the expiration of the 4th and each succeeding year during the term of the Patent, of the prescribed fee. The patentee may pay all or any of such prescribed annual fees in advance.

In the case of Patents granted on Convention applications (see para. 27) the term of the Patent is reckoned as from the date of the first foreign application, and not from the date of application in this country.

Payment of the annual fee must be made by way of Patents Form No. 14 duly stamped (see para. 5), which must be lodged at the Patent Office not later than the date on which payment is due. The production of the Letters Patent at the Patent Office is not required.

As the payment of these renewal fees is regulated by Act of Parliament, a fee cannot ordinarily be accepted a *single day* after it is due: but if the payment has been omitted, application may be made to the Comptroller, on Patents Form No. 15 (see para. 5), for an enlargement of time of one, two, or three months, as the case may be, within which to make such payment, but no enlargement can be allowed beyond three months.

In every case an address for service in Great Britain or Northern Ireland must be given.

18. *Extension of term of Patent.*—A patentee may petition the Court for an extension of the term of his Patent, but such petition must be presented a least six months before the time limited for the expiration of the Patent or at such other time not later than the date of expiration as the Court may in its discretion allow. Notice may be given to the Court of opposition thereto.

When a patentee has suffered loss or damage by reason of hostilities between His Majesty and any foreign state, application for an extension of the term of a Patent may be made by originating summons, instead of by petition.

The procedure to be followed in applying for an extension of term is laid down in the Rules of the Supreme Court (Patents and Designs), 1925. (Statutory Rules and Orders, 1925, No. 650/L8), and in the Rules of the Supreme Court (No. 2), 1933, (Statutory Rules and Orders, 1933, No. 645/L18), copies

Digitized by Google

of which may be obtained from H.M. Stationery Office, Adastral House, Kingsway, London, W.C.2, price 3d. each, by post, 3½d.

19. *Restoration of Letters Patent.*—If a Patent has expired owing to failure to pay a renewal fee within the prescribed time, application may be made to the Comptroller by the patentee on Patents Form No. 16 (stamped £20) for an Order restoring the Patent, provided that the omission to pay the fee was unintentional and that no undue delay has occurred in making the application for restoration. The application must be accompanied by one or more statutory declarations giving full details of the circumstances which led to the non-payment of the fee and to the subsequent discovery of the omission.

The application is advertised in the Official Journal (Patents) and any person desiring to oppose the application may give notice of opposition on Patents Form No. 17 within two months from the date of advertisement. If no notice of opposition is given within the prescribed period, a formal hearing is appointed, and if the Comptroller is satisfied with the evidence an Order for restoration will be issued upon payment of all overdue renewal fees.

20. *Amendment of Specification.*—A request for leave to amend an accepted complete specification by way of disclaimer, correction or explanation must be made on Patents Form No. 18 and signed by the applicant or patentee, and must be accompanied by a King's Printer's or official printed copy of the specification showing clearly in red ink the proposed amendments. Care should be taken to indicate clearly what part of the printed description it is proposed to omit, and at what points interlineations are to be inserted. Additional matter which cannot be written upon the printed copy should be written upon a separate sheet and attached to the print.

It should be remembered that proposed amendments, whether allowable or not, are made public and advertised, and that this publication may be a bar to the obtaining of a valid Patent for matter disallowed by way of amendment.

Any person desiring immediate notification of a request to amend any particular specification should make application for such information on Patents Form No. 36_A (stamped 10s).

21. *Correction of Clerical Errors.*—A request for the correction of a clerical error in or in connexion with an application for a Patent, or in any Patent or specification, or in the name or address of the proprietor of any Patent, or in any matter which is entered upon the Register of Patents, should be made on Patents Form No. 35. See para. 5.

22. *Licenses of Right.*—A patentee may apply for the indorsement of his Patent "Licences of Right." Patents so indorsed are subject to the grant of Licences to any person making application therefor, and the terms of the Licence will be settled by the Comptroller, failing agreement between the parties. *As from the date of such indorsement, however, only half the ordinary renewal fees are payable.*

Applications for indorsement must be made on Patents Form No. 20, stamped £1 (see para. 5), accompanied by a statutory declaration that the patentee is not precluded by contract from making the request, and by the Letters Patent. The application must include any Patents of Addition.

Unless an application for indorsement, fully complying with official requirements, is received at least six weeks before the date on which a renewal fee will become due, the indorsement cannot be effected before such date, and the full fee will therefore be payable. In no case can a half renewal fee be accepted unless the Patent was actually indorsed "Licences of Right" before the date on which the fee became payable.

Any person desiring to oppose an application for indorsement may give notice to the Comptroller upon Patents Form No. 21, stamped £2 (see para. 5) *within one month* from the date of the advertisement in the Official Journal (Patents).

All indorsements of Patents are entered on the Register of Patents and are advertised in the Official Journal (Patents) and the Board of Trade Journal for the purpose of bringing the invention to the notice of manufacturers. Any Patents of Addition granted on an indorsed Patent are automatically indorsed at the time of grant.

23. *Assignments, Mortgages, Licenses, &c.*—The Acts require application to be made to the Comptroller for entry on the Register of Patents of deeds of assignment of Patents, and other documents affecting the proprietorship of Patents, and licenses to manufacture or use patented inventions. A document not entered on the Register will not be admitted in evidence in any Court in proof

Digitized by Google

of title to a Patent or to any interest in a Patent unless the Court otherwise directs. No document can, however, be entered on the Register until the Patent to which it relates has been actually sealed.

Any person who becomes entitled to a Patent, or to any interest in a Patent, under such documents, should therefore make application on—

(a) Patents Form No. 32, for the entry of his name as proprietor or part proprietor in the Register of Patents; or

(b) Patents Form No. 33, for the entry of a notice of a mortgage or license in the Register of Patents; or

(c) Patents Form No. 34, for the entry in the Register of a notification of any document affecting a Patent and not coming under heads (a) or (b);

whichever is the appropriate form. (For fees, see para. 5.)

Where, however, an applicant for a Patent has agreed to assign the Patent when granted, the assignee may apply upon Patents Form 1E (stamped £1) for the grant of the Patent to be made to him instead of to the applicant.

In the case of firms, partnerships, or other unincorporate bodies, the application must be made in the names of the partners constituting the firm &c. A statement as to the nationality of the parties to the transaction should be supplied in all cases.

The stamped form must be accompanied by the original document, which must have been duly stamped in accordance with the provisions of the Stamp Act, 1891, together with an attested copy written, typewritten, or printed, on foolscap paper, on one side only, and bearing a 1s. impressed stamp.

24. *Certificates.*—A request for a certificate of the Comptroller as to any entry, matter or thing which he is authorized by the Acts or Rules to make or do, should be made on Patents Form No. 36. See paragraphs 5 and 28 (1).

Certified copies of any entry in the Register of Patents, or certified copies of, or extracts from, Patents, specifications, disclaimers, affidavits, statutory declarations, and other public documents in the Office, or of or from registers and other books kept there, may be furnished by the Comptroller on payment of the prescribed fee. See para. 5.

25. *Exhibition of Unpatented Inventions.*—An unpatented invention may be exhibited, published or used at an exhibition certified by the Board of Trade as industrial, during the period of the holding of the exhibition, or a paper describing an unpatented invention may be read before a learned Society or published in the Society's transactions, without prejudicing the right of the inventor to apply for and obtain a Patent in respect of the invention, or the validity of any Patent granted on the application, provided, (a) that he gives the prescribed notice on Patents Form No. 38 stamped £1 (see para. 5) to the Comptroller of his intention so to exhibit the invention, or to read or publish the paper, and (b) that the application for a Patent is made before or within six months from the date of the opening of the exhibition or of the reading or publication of the paper. It should be noted that the filing of Patents Form No. 38 does not confer any priority of date on the subsequent application for a Patent, which would be recorded and dated at the Patent Office on the day of actual receipt.

Notice on Form No. 38 need not be given if an application for a Patent for the invention has been made before the opening of the exhibition or the reading or publication of the paper.

26. *Applications for Patents, &c. in His Majesty's Dominions and in Foreign States.*—The rights conferred by a Patent do not extend outside Great Britain and Northern Ireland and the Isle of Man. Application for Patents in other parts of His Majesty's Dominions and in foreign states must be made to the Government of the country in which protection is desired. (See also para. 27.) A collection of the patent, design, and trade mark laws of British Dominions and Colonies and of foreign states may be seen in the Free Library of the Patent Office.

The procedure for obtaining such Patents varies considerably in the different countries, and applicants therefore may find it desirable in their own interests to consult a Patent Agent before making their applications.

27. *International Arrangements.*—Under the terms of the International Convention for the Protection of Industrial Property, any person who has made application for a Patent in a country which is a party to the Convention (or his legal representative or assignee) has the right, within twelve months from

Digitized by Google

the date of the first application in a Convention country to claim priority of date for applications in respect of the same invention in any other Convention country.

The following countries are parties to this Convention:—

Great Britain with Ceylon, Palestine, and Trinidad and Tobago.
Canada.
Australia with Papua and New Guinea.
New Zealand, with Western Samoa.
Irish Free State.
Austria.
Belgium.
Brazil.
Bulgaria.
Cuba.
Czecho-slovakia.
Danzig (Free City).
Denmark with the Farõe Islands.
Dominican Republic.
Esthonia.
Finland.
France with Algeria and colonies.
Germany.
Greece.
Hungary.
Italy, with Libia, Eritrea and the Italian Aegean Islands.
Japan.
Latvia.
Luxemburg.
Mexico.
Morocco (French zone.)
Morocco (Spanish zone).
Netherlands, with the Dutch East Indies, Surinam and Curaçao.
Norway.
Poland.
Porutgal, with the Azores and Madeira.
Roumania.
Serb—Croat—Slovene State.
Spain.
Sweden.
Switzerland.
Syria and Lebanon.
Tunis.
Turkey.
United States of America.

Mutual arrangements for the grant of priority rights to applications for Patents have also been made between Great Britain on the one hand and British India and the Union of South Africa on the other.

28. *Miscellaneous Matters relating to Patents and the Patent Office.*—

(1) *Information as to a particular patent or application for patent.*

Any person requiring information in respect of any one of the following matters:

(*a*) when a complete specification following a provisional specification has been left or when an application for a patent has become abandoned,

(*b*) when a complete specification has been accepted or when an application for a patent has become void,

(*c*) when a patent has been sealed or when the time for payment of the sealing fee has expired,

(*d*) when a renewal fee has been paid,

(*e*) when a patent has expired,

(*f*) when an entry has been made on the register or application has been made for the making of such entry, or

(*g*) when any application is made or action taken involving an entry on the register or advertisement in the Journal

should make request therefor on Patents Form No. 36A (stamped 10s.).

(2) *Information by Post.*—Any person wishing to know whether a particular Patent is still in force, the name of the present proprietor of a Patent, or any similar details, may obtain an extract from the Register of Patents upon stating the number and year of the Patent and forwarding by postal order the prescribed fee of one shilling in respect of each Patent. No information with reference to the contents of unpublished specifications can be given to any person other than the applicant for the Patent.

(3) *Photographic Copies of Drawings.*—Photographic copies of Patent specification drawings may be obtained at the rates shown in para. 28 (10).

Where several copies of the same drawing are required, estimates for reproduction by photo-lithography will be furnished on application.

(4) *Advice on Patent Matters, &c.*—The Patent Office does not undertake to give legal advice or opinions on any subject connected with Patent Law, or to examine or express opinions on specifications, agreement or other documents before they are lodged in connection with formal proceedings.

Applicants for Patents who are not familiar with the practice and procedure of the Patent Office are advised, in their own interests, to employ a Patent

Digitized by Google

Agent, as the value of Patents depends largely upon the skilful preparation of specifications and claims.

The Patent Office cannot recommend any particular Patent Agent for employment by applicants, but a list of Registered Patent Agents may be obtained from Messrs. Eyre and Spottiswoode (Publishers), Ltd., 6 Great New Street, London, E.C.4, or through any bookseller. Price (including postage) 6d.

No person can be recognised by the Comptroller as an agent unless his name is entered on the Register of Patent Agents.

(5) *Application for Assistance, Reduction of Fees, &c.*—It is not within the power of the Comptroller to comply with any of the following requests:

For pecuniary assistance to obtain Patents.

For reduction or remission of any fee.

For purchase or acquirement of any interest in patented or other inventions.

For recommendation of any invention for purchase or use by a Government Department or by the public.

(6) *Provisional Protection.*—An invention may, during the period between the date of an application for a Patent therefor and the date of sealing a Patent on that application, be used and published without prejudice to that Patent; but an applicant is not entitled to institute proceedings for infringement until the Patent has been granted, and no proceedings can be taken in respect of an infringement committed before the acceptance of the complete specification.

(7) *Use of the word "Patent."*—The marking of an article with the word "patent," "patented," or any words implying that a Patent has been obtained for the article does not constitute notice of the existence of the Patent unless the number of the Patent is also specified. See Section 33 of the Acts.

Any person who falsely represents that an article sold by him is a patented article is liable for every offence on summary conviction to a fine not exceeding five pounds. In a case decided by a Police Magistrate, it was held, however, that a person was entitled to mark goods with the word "patent" after the complete specification had been accepted. (See Sections 10 and 89 of the Acts, and Reports of Patent Cases, Vol. 13, No. 17, page 265.)

(8) *Use of the Royal Arms.*—The grant of a Patent is not to be deemed to authorise a patentee to use the Royal Arms or to place the Royal Arms on any patented article.

(9) *Patent Medicines.*—Communications with respect to the preparation and supply of Medicine Stamps appropriated to a particular medicine, or as to the liability to stamp duty of so-called "Patent Medicines", should be addressed to the Secretary of Excise, Custom House, Lower Thames Street, London, E. C. 3.

The use of Medicine Stamps does not have the effect of Letters Patent.

(10) *Photographic Copies.*—Photographic copies of out-of-print Specifications and other documents are supplied at the following rates:—

		Per copy.
(a) Negative Copies:		
(i) Out-of-print British Patent Specifications not more than 50 years old		1s.
		Per page or sheet.
(ii) Other out-of-print Patent Office publications.	Letter press or drawings (small sheets)	4d.
	Drawings (large sheets)	8d.
(iii) Other documents	up to 13 in. × 9 in	6d.
	up to 13 in. × 18 in	1s. 0d.

(b) Positive Copies.—The charge for a positive copy of a document is twice that for a negative copy, but when two or more positive copies of the same document are ordered, the second and subsequent positive copies are supplied at the same price as negative copies.

(c) Minimum charge for a copy of any document or publication ..... 1s.

Orders for photographic copies must be prepaid, or the cost may be charged to a Deposit Account.

The prices quoted include inland postage only. Postage to places abroad is extra in all cases.

29. *Patent Office Museum.*—The contents of the Museum were transferred in 1883 to what is now the Science Museum at South Kensington, where they have been added to the general collections of that Museum. All communica-

Digitized by Google

tions relating to the Museum should be addressed to the Director and Secretary, Science Museum, South Kensington, London, S. W. 7.

30. *Patent Office Library.*—The Free Library of the Patent Office, 25, Southampton Buildings, Chancery Lane, London, W. C. 2, is open daily, from 10 a. m. to 9 p. m., except on Sundays, Christmas Day, Good Friday, Easter Eve, and Bank Holidays. On Whitsun Eve and Christmas Eve the Library is closed at 4 p. m.

In addition to the printed specifications, indexes, and other publications of the Patent Office, the Library contains a collection of the leading British and foreign scientific journals, transactions of learned societies, and textbooks of science and art, and the full or abridged patent specifications of the principal foreign countries and British Dominions.

31. *Patent Office Publications.*—These may be consulted daily at the Free Public Library of the Patent Office, and at the following places each of which is supplied free of charge with a complete set:

Belfast—Central Public Library, Royal.
Birmingham—The Patents Library, Council House, Great Charles Street.
Bolton—Little Bolton Library.
Bradford, Yorkshire—Commercial Reference Library, 53, Market Street.
Bristol—Central Public Libraries, College Green.
Cardiff—Central Free Library, Reference Department.
Dundee—Public Library, Albert Institute.
Edinburgh—Royal Scottish Museum.
Glasgow—The Commercial Library, 21, Miller Street.
Halifax—Public Library, Akroyd Park.
Huddersfield—Public Library and Art Gallery.
Hull—Central Public Library, Albion Street.
Keighley—Public Library.
Leeds—Public Library.
Leicester—Central Municipal Library, Bishop Street.
Liverpool—Free Public Libraries, William Brown Street.
London—British Museum.
Science Museum Library, South Kensington.
Manchester—Patents Library, Reference Library, Piccadilly.
[1] Newcastle-on-Tyne—Public Library, New Bridge Street.
Nottingham—Public Library.
Preston—Harris Free Public Library and Museum.
[1] Rochdale—Free Public Library, Esplanade.
Sheffield—Free Public Library, Surrey Street.

A separate leaflet containing a full list of all places receiving complete or partial sets of these publications will be supplied free on application.

They are also on sale at the Patent Office, 25, Southampton Buildings, London, W. C. 2, and will be forwarded by post on receipt of the price paid and of the postage (if any is charged). *Sums amounting to 6d. or more should be remitted by Postal or Money Order payable to the Comptroller-General, Patent Office, and crossed "Bank of England."* Deposit accounts may be opened, the minimum amount receivable on deposit being £4, which may be drawn on so long as a sufficient balance remains in hand to cover an order for publications.

The following are the principal official publications relating to patents:

Patents and Designs Act, 1907 (as amended up to 12th July, 1932), 1s. 3d. by post 1s. 4d.

Patents Rules, 1932, 2s. 1d., by post 2s. 2d.

Specifications of British Patents, per copy, 1s. (inland), 1s. 1d. (abroad). See *Note below.*

Official Journal (Patents)—published weekly, price 1s. (inland), 1s. 2d. (abroad). Annual Subscription, £2 1s. (inland), £2 15s. (abroad). Quarterly Subscription in proportion.

A complete list of publications can be obtained free on application.

NOTE.—In ordering copies of specifications, the *year as well as the number* of the application must be stated in the case of specifications relating to applications made prior to 1916, but in the case of subsequent applications, the *serial number* of the specification must be quoted.

[1] Specifications for last 16 years only.

Digitized by Google

FRENCH EMBASSY IN THE UNITED STATES,
OFFICE OF THE COMMERCIAL ATTACHÉ,
MAISON FRANÇAISE,
610 Fifth Avenue, New York, January 15, 1936.

In your reply please quote Ref. 1817, No. 343.
Texte loi française sur brevets.

Mr. WILLIAM I. SIROVICH,
Chairman, Committee on Patents, House of Representatives,
Congress of the United States, Washington, D. C.

DEAR SIR: Following my letter of November 20, I am pleased to send you herewith a copy of the French Patent Law (act of 1844). I am very sorry not to have been able to obtain an English translation for you, as I understand it has not yet been made.

I hope this will meet your requirements, and remain,

Very truly yours,

M. GABREAU-DOMBASLE,
Commercial Attaché.

BREVETS D'INVENTION

Loi du 5 Juillet 1844 Modifiée par la Loi du 7 Avril 1902

(Les modifications sont imprimées en caractères gras)

TITRE PREMIER. DISPOSITIONS GÉNÉRALES

ARTICLE PREMIER. Toute nouvelle découverte ou invention dans tous les genres d'industries, confère à son auteur, sous les conditions et pour le temps ci-après déterminés, le droit exclusif d'exploiter à son profit ladite découverte ou invention.

Ce droit est constaté par des titres délivrés par le gouvernement, sous le nom de brevets d'invention.

ART. 2. Seront considérées comme inventions ou découvertes nouvelles:

L'invention de nouveaux produits industriels;

L'invention de nouveaux moyens ou l'application nouvelle de moyens connus, pour l'obtention d'un résultat ou d'un produit industriel.

ART. 3. Ne sont pas susceptibles d'être brevetés:

1° Les compositions pharmaceutiques ou remèdes de toute espèce, lesdits objets demeurant soumis aux lois et règlements spéciaux sur la matière, et notamment au décret du 18 août 1810, relatifs aux remèdes secrets;

2° Les plans et combinaisons de crédit ou de finances.

ART. 4. La durée des brevets sera de cinq, dix ou quinze années.

Chaque brevet donnera lieu au payement d'une taxe, qui est fixée ainsi qu'il suit:

300 Fr pour chacune des 2è, 3è, 4è, 5è annuités. 400 Fr pour chacune des 6è, 7è, 8è, 9è, 10è annuités. 500 Fr pour chacune des 11è, 12è, 13è, 14è, 15è annuités. (décret du 6 Décembre 1926).

TITRE II. DES FORMALITÉS RELATIVES À LA DÉLIVRANCE DES BREVETS

SECTION PREMIÈRE. DES DEMANDES DE BREVETS

ART. 5. Quiconque voudra prendre un brevet d'invention devra déposer, sous cachet, au secrétariat de la préfecture, dans le département où il est domicilié, ou dans tout autre département, en y élisant domicile:

1° Sa demande au ministre de l'agriculture et du commerce;

2° Une description de la découverte, invention ou application faisant l'objet du brevet demandé;

3° Les dessins ou échantillons qui seraient nécessaires pour l'intelligence de la description;

Et 4° un bordereau des pièces déposées.

ART. 6. La demande sera limitée à un seul objet principal, avec les objets de détail qui le constituent, et les applications qui auront été indiquées.

Elle mentionnera la durée que les demandeurs entendent assigner à leur brevet dans les limites fixées par l'article 4, et ne contiendra ni restrictions, ni conditions, ni réserves.

Digitized by Google

Elle indiquera un titre renfermant la désignation sommaire et précise de l'objet de l'invention.

La description ne pourra être écrite en langue étrangère. Elle devra être sans altérations ni surcharges. Les mots rayés comme nuls seront comptés et constatés, les pages et les renvois paraphés. Elle ne devra contenir aucune dénomination de poids ou de mesures autre que celles qui sont portées au tableau annexé à la loi du 4 juillet 1837.

Les dessins seront tracés à l'encre et d'après une échelle métrique.

Un duplicata de la description et des dessins sera joint à la demande.

Toutes les pieces seront signées par le demandeur ou par un mandataire, dont le pouvoir restera annexé à la demande.

ART. 7. Aucun dépôt ne sera recu que sur la production d'un récépissé constatant le versement d'une somme de 350f francs à valoir sur le montant de la taxe du brevet (décret du 27-12-1927).

Un procès-verbal, dressé sans frais par le secrétaire général de la préfecture, sur un registre à ce destiné, et signé par le demandeur, constatera chaque dépôt, en énoçant le jour et l'heure de la remise des pièces.

Une expédition dudit procès-verbal sera remise au déposant, moyennant le remboursement des frais de timbre.

ART. 8. La durée du brevet courra du jour du dépôt prescrit par l'article 5.

SECTION II. DE LA DÉLIVRANCE DES BREVETS

ART. 9. Aussitôt après l'enregistrement des demandes, et dans les cinq jours de la date du dépôt, les prefets, transmettront les pièces, sous le cachet de l'inventeur, au ministre de l'agriculture et du commerce, en y joignant une copie certifiée du procès-verbal de dépôt, le récépissé constatant le versement de la taxe, et, s'il y a lieu, le pouvoir mentionné dans l'article 6.

ART. 10. A l'arrivée des pièces au ministère de l'agriculture et du commerce, il sera procédé à l'ouverture, à l'enregistrement des demandes et à l'expédition des brevets, dans l'ordre de la réception desdites demandes.

ART. 11. **Les brevets dont la demande aura été régulièrement formée seront délivrés sans examen préalable, aux risques et périls des demandeurs et sans garantie, soit de la réalité, de la nouveauté ou du mérite de l'invention, soit de la fidélité ou de l'exactitude de la description.**

Un arrêté du ministre, constatant la régularité de la demande, sera délivré au demandeur et constituera le brevet d'invention.

A cet arrêté sera joint un exemplaire imprimé de la description et des dessins mentionnés dans l'article 24, après que la conformité avec l'expédition originale en aura été reconnue et établie au besoin.

La première expédition des brevets sera délivrée sans frais.

Toute expédition ultérieure, demandée par le breveté ou ses ayants cause, donnera lieu au payement d'une taxe de 30 francs.

Les frais de dessin, s'il y a lieu, demeureront à la charge de l'impétrant.

La délivrance n'aura lieu qu'un an après le jour de dépôt de la demande, si ladite demande renferme une réquisition expresse à cet effet.

Le bénéfice de la disposition qui précède ne pourra être réclamé par ceux qui auraient déjà profité des délais de priorité accordés par des traités de réciprocité, notamment par l'article 4 de la Convention internationale pour la protection de la propriété industrielle, du 20 mars 1883.

ART. 12. Toute demande dans laquelle n'auraient pas été observées les formalités prescrites par les numéros 2 et 3 de l'article 5, et par l'article 6, sera rejetée.

La moitié de la somme versée restera acquise au Trésor, mais il sera tenu compte de la totalité de cette somme au demandeur s'il reproduit sa demande dans un délai de trois mois, à compter de la date de la notification du rejet de sa requête.

ART. 13. Lorsque, par application de l'article 3, il n'y aura pas lieu de délivrer un brevet, la taxe sera restituée.

ART. 14. Une ordonnance royale, insérée au *Bulletin des Lois*, proclamera, tous les trois mois, les brevets délivrés.

ART. 15. La durée des brevets ne pourra être prolongée que par une loi.

Digitized by Google

SECTION III—DES CERTIFICATS D'ADDITION

ART. 16. Le breveté ou les ayants droit au brevet, auront, pendant toute la durée du brevet, le droit d'apporter à l'invention des changements, perfectionnements ou additions, en remplissant, pour le dépôt de la demande, les formalités déterminées par les articles 5, 6 et 7.

Ces changements, perfectionnements ou additions seront constatés par des certificats délivrés dans la même forme que le brevet principal, et qui produiront, à partir des dates respectives des demandes et de leur expédition, les mêmes effets que ledit brevet principal, avec lequel il prendront fin.

Chaque demande de certificat d'addition donnera lieu au payement d'une taxe de 35 francs.

Les certificats d'addition pris par un des ayants droit profiteront à tous les autres.

ART. 17. Tout breveté qui, pour un changement, perfectionnement ou addition, voudra prendre un brevet principal de cinq, dix ou quinze années, au lieu d'un certificat d'addition expirant avec le brevet primitif, devra remplir les formalités prescrites par les articles 5, 6 et 7, et acquitter la taxe mentionnée dans l'article 4.

ART. 18. Nul autre que le breveté ou ses ayants droit, agissant comme il est dit ci-dessus, ne pourra, pendant une année, prendre la lablement un brevet pour un changement, perfectionnement ou addition à l'invention qui fait l'objet du brevet primitif.

Neanmoins, toute personne qui voudra prendre un brevet pour changement, addition ou perfectionnement à une découverte déjà brevetée, pourra, dans le cours de ladite année, former une demande quit sera transmise, et restera déposée sous cachet, au ministère de l'agriculture et du commerce.

L'année expirée le cachet sera brisé et le brevet délivré.

Toutefois, le breveté principal aura la préférence pour les changements, perfectionnements et additions pour lesquels il aurait lui-même, pendant l'année, demandé un certificat d'addition ou un brevet.

ART. 19. Quiconque auras pris un brevet pour une découverte, invention ou application se rattachant à l'objet d'un autre brevet, n'aura aucun droit d'exploiter l'invention déjà brevetée, et réciproquement le titulaire du brevet primitif ne pourra exploiter l'invention objet du nouveau brevet.

SECTION IV. DE LA TRANSMISSION ET DE LA CESSION DES BREVETS

ART. 20. Tout breveté pourra céder la totalité ou partie de la propriété de son brevet.

La cession totale ou partielle d'un brevet, soit à titre gratuit, soit à titre onéreux, ne pourra être faite que par acte notarié et après le payment de la totalité de la taxe déterminée par l'article 4.

Aucune cession ne sera valable, à l'égard des tiers, qu'après avoir été enregistrée au secrétariat de la préfecture du département dans lequel l'acte aura été passé.

L'enregistrement des cessions et de tous autres actes emportant mutation, sera fait sur la production et le dépôt d'un extrait authentique de l'acte de cession on de mutation.

Une expédition de chaque procès-verbal d'enristrement accompagnée de l'extrait de l'acte ci-dessus mentionné, sera transmise par les préfets au ministre de l'agriculture et du commerce, dans les cinq jours de la date du procès-verbal.

ART. 21. Il sera tenu, au ministère de l'agriculture et du commerce, un registre sur lequel seront inscrites les mutations intervenues sur chaque brevet, et tous les trois mois, une ordonnance royale proclamera, dans la forme déterminée par l'article 14, les mutations enregistrées pendant le trimestre expiré.

ART. 22. Les cessionnaires d'un brevet, et ceux qui auront acquis d'uu breveté ou de ses ayants droit la faculté d'exploiter la découverte ou l'inveution, profiteront, de plein droit, des certificats d'addition qui seront ultérieurement délivrés au breveté ou à ses ayants droit. Réclproquement, le breveté ou ses ayants droit profiteront des certificats d'addition qui seront ultérieurement délivrés aux cessionnaires.

Tous ceux qui auront droit de profiter des certificats d'addition pourront en lever une expédition au ministère de l'agriculture et du commerce, moyennant un droit de vingt francs.

Digitized by Google

SECTION V. DE LA COMMUNICATION ET DE LA PUBLICATION DES DESCRIPTIONS ET DESSINS DE BREVETS

ART. 23. Les descriptions, dessins, échantillons et modèles des brevets délivrés, resteront, jusqu'à l'expiration des brevets, déposés au ministère de l'agriculture et du commerce, où ils seront communiqués, sans frais, à toute réquisition.

Toute personne pourra obtenir, à ses frais, copie desdites descriptions et dessins, suivant les formes qui seront déterminées dans le règlement rendu en exécution de l'article 50.

ART. 24. **Les descriptions et dessins de tous les brevets d'invention et certificats d'addition seront publiés *in extenso*, par fascicules séparés, dans leur ordre d'enregistrement.**

Cette publication, relativement aux descriptions et dessins des brevets pour la délivrance desquels aura été requis le délai d'un an prévu par l'article 11, n'aura lieu qu'après l'expiration de ce délai.

Il sera, en outre, publié un catalogue des brevets d'invention délivrés.

Un arrêté du ministre du commerce et de l'industrie déterminera: 1° les conditions de forme, dimensions et rédaction que devront présenter les descriptions et dessins, ainsi que les prix de vente des fascicules imprimés et les conditions de publication du catalogue; 2° les conditions à remplir par ceux qui, ayant déposé une demande de brevet en France et désirant déposer à l'étranger des demandes analogues avant la délivrance du brevet français, voudront obtenir une copie officielle des documents afférents à leur demande en France. Toute expedition de cette nature donnera lieu au payment d'une taxe de 25 francs; les frais de dessin, s'il y a lieu, seront à la charge de l'impétrant.

Seront publiés, conformément aux prescriptions du présent article, les descriptions et les dessins des brevets d'invention et certificats d'addition qui auront été demandés depuis le 1^er^ janvier 1902.

ART. 25. Le recueil des descriptions et dessins et le catalogue publiés en exécution de l'article précédent seront déposés au ministère de l'agriculture et du commerce, et au secrétariat de la préfecture de chaque département, où ils pourront être consultés sans frais.

ART. 26. A l'expiration des brevets, les originaux des descriptions et dessins seront déposés au Conservatoire royal des arts et métiers.

TITRE III. DES DROITS DES ÉTRANGERS

ART. 27. Les étrangers pourront obtenir en France des brevets d'invention.

ART. 28. Les formalités et conditions déterminées par la présente loi seront applicables aux brevets demandés ou délivrés en exécution de l'article précédent.

ART. 29. L'auteur d'une invention ou découverte déjà brevetée à l'étranger pourra obtenir un brevet en France; mais la durée de ce brevet ne pourra excéder celle des brevets antérieurement pris à l'étranger.

TITRE IV. DES NULLITÉS ET DÉCHÉANCES, ET DES ACTIONS Y RELATIVES.

SECTION PREMIÈRE. DES NULLITÉS ET DÉCHÉANCES

ART. 30. Seront nuls, et de nul effet, les brevets délivrés dans les cas suivants, savoir:

1° Si la découverte, invention ou application n'est par nouvelle;

2° Si la découverte, invention ou application n'est pas, aux termes de l'article 3, susceptibles d'être brevetée;

3° Si les brevets portent sur des principes, méthodes, systèmes, découvertes et conceptions théoriques ou purement scientifiques, dont on n'a pas indiqué les applications industrielles;

4° Si la découverte, invention ou application est reconnue contraire à l'ordre ou à la sûreté publique, aux bonnes mœurs ou aux lois du royaume, sans préjudice, dans ce cas et dans celui du paragraphe précédent, des peines qui pourraient être encourues pour la fabrication ou le débit d'objets prohibés;

5° Si le titre sous lequel le brevet a été demandé indique frauduleusement un objet autre que le véritable objet de l'invention;

6° Si la description jointe au brevet n'est pas suffisante pour l'exécution de l'invention, ou si elle n'indique pas, d'une manière complète et loyale, les véritables moyens de l'inventeur;

7° Si la brevet a été obtenu contrairement aux dispositions de l'article 18.

Digitized by Google

Seront également nuls, et de nul effet, les certificats comprenant des changements, perfectionnements ou additions qui ne se rattacheraient pas au brevet principal.

ART 31. Ne sera pas réputée nouvelle toute découverte, invention ou application qui, en France ou à l'étranger, et antérieurement à la date du dépôt de la demande, aura reçu une publicité suffisante pour pouvoir être exécutée.

ART. 32. **Sera déchu de tous ses droits:**

1° Le breveté qui n'aura pas acquitté son annuité, avant le commencement de chacune des années de la durée de son brevet.

L'intéressé aura toutefois un délai de trois mois au plus pour effectuer valablement le payement de son annuité, mais il devra verser en outre une taxe supplémentaire de 5 francs, s'il effectue le payement dans le premier mois; de 10 francs, s'il effectue le payement dans le second mois, et de 15 francs, s'il effectue le payement dans le traisième mois.

Cette taxe supplémentaire devra être acquittée en même temps que l'annuité en retard;

2° Le breveté qui n'aura pas mis en exploitation sa découverte ou invention en France dans le délai de deux ans, à dater du jour de la signature du brevet, ou qui aura cessé de l'exploiter pendant deux années consécutives, à moins que, dans l'un ou l'autre cas, il ne justifie des causes de son inaction;

3° Le Breveté qui aura introduit en France des objets fabriqués en pays étranger et semblables à ceux qui sont garantis par son brevet.

Néanmoins, le ministre du commerce et de l'industrie pourra autoriser l'introduction;

1° Des modèles de machines;

2° Des objets fabriqués à l'étranger, destinés à des expositions publiques ou à des essais faits avec l'assentiment du gouvernement.

ART. 33. Quiconque, dans des enseignes, annonces, prospectus, affiches, marques ou estampilles, prendra la qualité de breveté sans posséder un brevet délivré conformément aux lois, ou après l'expiration d'un brevet antérieur; ou qui, étant breveté, mentionnera sa qualité de breveté ou son brevet sans y ajouter ces mots: sans garantie du gouvernement, sera puni d'une amende de cinquante à mille francs.

En cas de récidive, l'amende pourra être porté au double.

SECTION II. DES ACTIONS EN NULLITÉ ET EN DÉCHÉANCE

ART. 34. L'action en nullité et l'action en déchéance pourront être exercées par toute personne y ayant intérêt.

Ces actions, ainsi que toutes contestations relatives à la propriété des brevets, seront portées devant les tribunaux civils de première instance.

ART. 35. Si la demande est dirigée en même temps contre le titulaire du brevet et contre un ou plusieurs cessionnaires partiels, elle sera porté devant le tribunal du domicile du titulaire du brevet.

ART. 36. L'affaire sera instruite et jugée dans la forme prescrite pour les matières sommaries par les articles 405 et suivants du Code de procédure civile. Elle sera communiquée au procureur du roi.

ART. 37. Dans toute instance tendant à faire prononcer la nullité ou la déchéance d'un brevet, le ministère public pourra se rendre partie intervenante et prendre des réquisitions pour faire prononcer la nullité ou la déchéance absolue du brevet.

Il pourra même se pourvoir directement par action principale pour faire prononcer la nullité, dans les cas prévus aux n°° 2, 4 et 5 de l'article 30.

ART. 38. Dans les cas prévus par l'article 37, tous les ayants droit au brevet dont les titres auront été enregistrés au ministère de l'agriculture et du commerce, conformément à l'article 21, devront être mis en cause.

ART. 39. Lorsque la nullité ou la déchéance absolue d'un brevet aura été prononcée par jugement ou arrêt ayant acquis force de chose jugée, il en sera donné avis au ministre de l'agriculture et du commerce, et la nullité ou la déchéance sera publiée dans la forme déterminée par l'article 14 pour la proclamation des brevets.

TITRE V. DE LA CONTREFAÇON, DES POURSUITES ET DES PEINES

ART. 40. Toute atteinte portée aux droits du breveté, soit par la fabrication de produits, soit par l'emploi de moyens faisant l'objet de son brevet, constitue le délit de contrefaçon.

Digitized by Google

Ce délit sera puni d'une amende de cent à deux mille francs.

ART. 41. Ceux qui auront sciemment recélé, vendu ou exposé en vente, ou introduit sur le territoire français, un ou plusieurs objets contrefaits, seront punis des mêmes peines que les contrefacteurs.

ART. 42. Les peines établies par la présente loi ne pourront être cumulées.

La peine la plus forte sera seule prononcée pour tous les faits antérieurs au premier acte de poursuite.

ART. 43. Dans le cas de récidive, il sera prononcé, outre l'amende portée aux articles 40 et 41, un emprisonnement d'un mois à six mois.

Il y a récidive lorsqu'il a été rendu contre le prévenu, dans les cinq années antérieures, une première condamnation pour un des délits prévus par la présente loi.

Un emprisonnement d'un mois à six mois pourra aussi être prononcé, si le contrefacteur est un ouvrier ou un employé ayant travaillé dans les ateliers ou dans l'etablissement du breveté, ou si le contrefacteur, s'étant associé avec un ouvrier ou un employé du breveté, a eu connaissance, par ce dernier, des procédés décrits au brevet.

Dans ce dernier cas, l'ouvrier ou l'employé pourra être poursuivi comme complice.

ART. 44. L'article 463 du Code pénal pourra être appliqué aux délits prévus par les dispositions qui précèdent.

ART. 45. L'action correctionnelle, pour l'application des peines cidessus, ne pourra être exercée par le ministère public que sur la plainte de la partie lésée.

ART. 46. Le tribunal correctionnel, saisi d'une action pour délit de contrefaçon, statuera sur les exceptions qui seraient tirées par la prévenu, soit de la nullité ou de la déchéance du brevet, soit des questions relatives à la propriété dudit brevet.

ART. 47. Les propriétaires de brevets pourront, en vertu d'une ordonnance du président du tribunal de première instance, faire procéder, par tous huissiers, à la désignation et description détaillées, avec ou sans saisie, des objets prétendus contrefaits.

L'ordonnance sera rendue sur simple requête, et sur la représentation du brevet; elle contiendra, s'il y a lieu, la nomination d'un expert pour aider l'huissier dans sa description.

Lorsqu'il y aura lieu à la saisie, ladite ordonnance pourra imposer au requérant un cautionnement qu'il sera tenu de consigner avant d'y faire procéder.

Le cautionnement sera toujours imposé à l'étranger breveté qui requerra la saisie.

Il sera laissé copie au détenteur des objets décrits ou saisis, tant de l'ordonnance que de l'acte constatant de dépôt du cautionnement, le cas échéant; le tout, à peine de nullité et dommages-intérêts contre l'huissier.

ART. 48. A défaut, par le requérant, de s'être pourvu, soit par la voie civile, soit par la voie correctionnelle, dans le délai de huitaine, outre un jour par trois myriamètres de distance entre le lieu où se trouvent les objets saisis ou décrits, et le domicile du contrefacteur, recéleur, introducteur ou débitant, la saisie ou description sera nulle de plein droit, sans préjudice des dommages-intérêts qui pourront être réclamés, s'il y a lieu, dans la forme prescrite par l'article 36.

ART. 49. La confiscation des objets reconnus rontrefaits, et, le cas échéant, celle des instruments on ustensiles destinés spécialemen à leur fabrication, seront, même en cas d'acquittement, prononcée contre le contrefacteur, le recéleur l'introducteur ou le débitant.

Les objets confisqués seront remis au propriétaire du brevet, sans préjudice de plus amples dommages-intérêts et de l'affiche du jugement, s'il y a lieu.

TITRE VI. DISPOSITIONS PARTICULIÈRES ET TRANSITOIRES

ART. 50. Des ordonnances royales, portant règlement d'administration publique, arrêteront les dispositions nécessaires pour l'exécution de la présente loi, qui n'aura effet que trois mois après sa promulgation.

ART. 51. Des ordonnances rendues dans la même forme pourront régler l'application de la présente loi dans les colonies, avec les modifications qui seront jugées nécessaires.

ART. 52. Seront abrogés, à compter du jour où la présente loi sera devenue exécutoire, les lois des 7 janvier et 25 mai 1791, celle du 20 septembre 1792, l'arrêté du 17 vendémiaire an VII, l'arrêté du 5 vendémiaire an IX, les décrets des 25 novembre 1806 et 25 janvier 1807, et toutes les dispositions antérieures à

Digitized by Google

la présente loi relatives aux brevets d'invention, d'importation et de perfectionnement.

ART. 53. Les brevets d'invention, d'importation et de perfectionnement actuellement en exercise, délivrés conformément aux lois antérieures à la présente, ou prorogés par ordonnance royale, conserveront leur effet pendant tout le temps qui aura été assigné à leur durée.

ART. 54. Les procédures commencées avant la promulgation de la présente loi seront mises à fin conformément aux lois antérieures.

Toute action, soit en contrefaçon, soit en nullité ou déchéance de brevet, non encore intentée, sera suivie conformément aux dispositions de la présente loi, alors même qui'll s'agirait de brevets délivrés antérieurement.

THE SOVIET PATENT LAW

Full text of the decree of April 9, 1931, concerning inventions and technical improvements

DECREE ON INVENTIONS AND TECHNICAL IMPROVEMENTS

During the period of reconstruction, the mastering of technique and its further development are of decisive importance for the success of socialist construction. Socialist industrialisation affords an enormous scope for the development of the creative ability of the working masses in the field of technique, a scope impossible under a capitalist regime. Mass inventions constitute one of the most important forms of immediate participation of the workers in socialist rationalisation of production and in the introduction of new technique into the national economy of the U. S. S. R.

However, so far the attention paid to inventions and especially to workers' inventions has been altogether inadequate, owing to bureaucratic distortions, inertia, red tape, and in many instances downright sabotage.

In spite of the enormous importance of mass inventions to the cause of the struggle for the speed-up of industrialisation, the exploitation of inventions and the exchange of technical experience are most unsatisfactory. The work of the bodies set up to assist inventions is inadequate. The creative initiative of the workers-inventors is not sufficiently encouraged.

It is necessary within the shortest possible period of time to bring about a decisive change in this field. The organisation and utilisation of mass inventions must become the most important concern of the economic bodies, of the trade unions, and other social organisations.

The patent legislation which has existed until now and has protected the interest of the inventor by granting him an exclusive right to his invention no longer satisfies the aspirations of the foremost inventors—the class-conscious builders of socialist society.

It has become necessary to create other forms of interrelation between the worker-inventor and the socialist state, which will be in keeping with the role of the worker-inventor as an immediate participant in socialist construction. Along with the guarantees of early and full exploitation of the inventions, it is necessary to create conditions which will further mass inventions and will guarantee a proper remuneration (on a fixed scale) to the worker-inventor, securing him a number of exemptions and privileges (housing privileges; preference in entering schools; the preferential right to be appointed as a scientific worker in enterprises and institutions devoted to scientific experimentation and research; the utilisation of the best inventors for exclusive work on inventions; extra vacations; the right to a personal pension, etc.).

Moved by these considerations the Central Executive Committee and the Council of People's Commissars of the Union of Socialist Soviet Republics decree:

1. To confirm the regulations concerning inventions and technical improvements and to let them become operative one month after their promulgation.

2. To charge the Council of Labour and Defence within the period of one month:

(*a*) to form a Committee to be attached to it dealing with inventions and to confirm a set of regulations governing it;

Digitized by Google

(*b*) to issue a decree governing the amount and the procedure in the payment of fees with respect to patent cases (Sec. 7 of the regulations).

3. Inventors who hold patents covering inventions under former laws may enjoy all or some of the privileges granted under the new regulations if these inventions are used by the State bodies and organizations of the socialised sector, provided an order to that effect is issued by the Inventions Committee of the Council of Labour and Defence or by the Committees of the governments of the Union, in each individual case.

4. The following procedure governs applications filed prior to the time when the regulations concerning inventions and technical improvements went into effect, and on which patents have not yet been granted:

(*a*) applications not accompanied by application fees will be regarded as applications for the issuance of author's certificates unless the applicant within a month and a half of the date of publication of the regulations expresses his desire to obtain a patent and pays the application fee;

(*b*) applications on which fees have been paid are regarded as applications for the issuance of patents, unless the applicant within a month and a half of the date of publication of the regulations expresses his desire to obtain an author's certificate. If he makes such a declaration the fee is returned to him.

As regards applications filed after the publication of the regulations but before they have gone into effect, the applicant has the option of stating whether he wishes to obtain an author's certificate or a patent.

5. The Committee of Inventions of the Council of Labour and Defence determines in what cases and in what manner inventors who obtained patents prior to the time when the regulations concerning inventions and technical improvements went into effect may exchange them for author's certificates.

The Committee also settles all other questions connected with the going into effect of these regulations.

6. To request the Central Executive Committees of the Union republics to incorporate within one month measures of social defence in their respective criminal codes to provide against the violation of any of the regulations concerning inventions and technical improvements.

In this connection and on the basis of Part 2, Sec. 3, of the fundamental principles of the criminal laws of the U. S. S. R. and of the allied republics (Statutes of the U. S. S. R., 1927, No. 12, Sec. 122), the Central Executive Committees of the Union republics are requested to provide penalties as follows:

(*a*) for applying without proper permission for a patent covering any invention made within the U. S. S. R. or any invention made abroad by a Soviet citizen sent on a mission by the State; compulsory labour for a period not exceeding one year or a fine not exceeding 1,000 rubles;

(*b*) for taking abroad without proper permission any invention mentioned in Clause a — deprivation of freedom for a period up to ten years with confiscation of all or part of the property of the delinquent.

The application for a patent for, or the taking abroad of, any invention or improvement relating to the defence of the State or any other invention or improvement recognized as secret is punishable under Sec. 6 of the regulations concerning State offences (Statutes of the U. S. S. R., 1927, No. 12, Sec. 123).

7. To charge the Council of People's Commissars of the Union of Socialist Soviet Republics and the Councils of People's Commissars of the Union republics to confirm within two months' time the changes in the laws of the U. S. S. R. and of the Union republics necessitated by these regulations concerning inventions and technical improvements.

8. To charge the People's Commissariat of Workers' and Peasants' Inspection of the U. S. S. R. within two months' time to issue regulations governing the procedure in registering, selecting, and encouraging useful suggestions which do not fall within the scope of the regulations concerning inventions and technical improvements in all spheres of national economy, of social-cultural construction, and national defence.

M. KALININ,
President of the Central Executive Committee of the U. S. S. R.
V. MOLOTOV (SKRYABIN),
President of the Council of People's Commissars of the U. S. S. R.
A. YENUKIDZE,
Secretary of the Central Executive Committee of the U. S. S. R.

49629—pt. III—36——31

Digitized by Google

THE SOVIET PATENT LAWS

PART I. GENERAL PRINCIPLES

1. The present regulations are intended to cover—
(*a*) New inventions.
(*b*) All other technical improvements.
2. The author of a new invention may demand either—
(*a*) that his authorship alone be recognised;
(*b*) that he be granted also exclusive rights to his invention.
In the former case an author's certificate covering the invention is issued; in the latter case a patent is granted.
The application itself must state whether the inventor wishes to obtain an author's certificate or a patent.
3. Author's certificates and patents are granted only for new inventions which can be used in production.
Author's certificates and patents are granted for new methods in the preparation of medicinal, alimentary, gustatory, or other substances obtained by chemical means, but not for the substances themselves.
4. The following rules apply where an author's certificate is issued for an invention:
(*a*) the right to make use of the invention within the U. S. S. R. belongs to the State;
(*b*) cooperatives and other organisations of the socialised sector may use those inventions which fall within their sphere of activity on the same basis as State organs;
(*c*) the inventor himself (or his heir), if he is a handicraftsman or a private businessman, may utilise the invention in his business;
(*d*) all other private persons and cooperatives not forming part of the cooperative system may use the invention with the permission of the State branch industrial board competent to deal with the invention in question and on terms prescribed by this board;
(*e*) if the invention is recognised as useful for the national economy of the Union of Socialist Soviet Republics, the inventor is entitled to receive a remuneration from the State or from the corresponding organisation having jurisdiction;
(*f*) if an invention, not recognised as useful for the national economy, is applied in some enterprise, the inventor or his heir is entitled to receive a remuneration from that enterprise. The amount of the remuneration in that case is fixed by agreement and in the absence of an agreement is fixed by the court;
(*g*) a worker-inventor is entitled to the privileges stated in the present regulations (Sections 93–104).
5. When an exclusive right (patent) is claimed for an invention the following rules apply:
(*a*) no one may make use of the invention without the consent of the patent-holder. The patent-holder himself may exploit his invention with due observance of the laws regulating the conduct of private enterprise; foreigners and foreign juridical persons may work inventions with due observance of the laws governing the procedure in admitting foreign capital to engage in economic activities within the U. S. S. R.;
(*b*) patents are issued for a period of 15 years, which period is calculated from the date of the final decision to grant the patent, but the rights of the patent-holder are protected as of the date from which the priority of his claim is calculated (Sec. 43);
(*c*) the person to whom a patent belongs (the patent-holder) may grant to another person (the licensee) permission (a license) to exploit the invention either fully or in part;
(*d*) institutions, enterprises, and persons who, prior to the application for a patent covering an invention, have applied the invention in question within the U. S. S. R. independently of the inventor, or have made all the preparations necessary to do so, retain the right to the further use of the invention (right of prior user);
(*e*) a patent-holder must within 3 years of the date of the issuance of the patent either personally or through a licensee make practical use of his invention within the U. S. S. R. on an industrial scale. The importation of the object of the invention from abroad read-made or in separate parts to be

Digitized by Google

assembled within the U. S. S. R. is not considered putting the invention to practical use. If the invention has not been put to practical use within the period stated the Inventions Committee of the Council of Labour and Defence, on the application of the body, organisation, or person interested, issues a compulsory license for putting the invention to practical use and fixes the amount of remuneration to be paid to the patent-holder;

(*f*) if the invention is of substantial importance to the State and no agreement is reached with the patent-holder, the Inventions Committee of the Council of Labour and Defence is empowered to enter a decree for the compulsory alienation of the patent or for the issuance of a license (permission to use the invention) to the State body concerned. The amount of remuneration, which in such case is to be paid to the patent-holder, is fixed by the Inventions Committee;

(*g*) fees are charged in connection with the patenting of inventions in accordance with the present regulations (Sec. 67);

(*h*) an inventor to whom a patent is issued does not enjoy the privileges which under the present regulations are granted to an inventor who holds an author's certificate;

(*i*) an inventor who owns a patent may, before the expiration of the period during which the patent is valid, exchange it for an author's certificate. The conditions and procedure in effecting such an exchange are prescribed by the Inventions Committee of the Council of Labour and Defence;

(*j*) an inventor who holds an author's certificate for some of his inventions and patents for others may enjoy the privileges incident to author's certificates if he releases the patents in favour of the State or exchanges them for author's certificates.

6. No patents are granted, but author's certificates are issued in the following cases:

(*a*) if the invention was made in connection with the work of the inventor in scientific research institutes, construction bureaus, test shops, laboratories, and similar bodies of the socialised sector for the exploration, preparation, and testing of the inventions;

(*b*) if the invention was made at the express instance of a State body or organisation of the socialised sector;

(*c*) if the inventor received material assistance from the State or an organisation of the socialised sector to work out the invention.

7. The right to obtain an author's certificate or a patent as well as an author's certificate or patent already granted may be inherited.

The right to obtain a patent as well as a patent that has already been granted may be assigned by the inventor or his heirs to any person and may pass from person to person both by agreement and by inheritance.

The author's certificate or patent, even if not granted to the inventor personally, must state the name of the inventor.

Note.—Assignments of and licenses under patents (Sec. 5, Clause *c*) must be registered in the Originality Bureau of the Inventions Committee of the Council of Labour and Defence. Otherwise such agreements are considered null and void.

8. An agreement between an inventor and a private person granting rights to future inventions is considered null and void.

9. Any one who knowingly makes a false statement in his application as to who is the author of the invention may be criminally prosecuted.

Likewise any one who unlawfully makes use of an invention the exploitation of which is reserved to the State may be criminally prosecuted.

Any one who infringes the exclusive right of a patent-holder must compensate the latter for any losses incurred.

10. Persons who have suggested technical improvements which are not original inventions to a State body or organisation of the socialised sector, in case such suggestions are accepted, receive a premium according to a special scale (Sec. 90). They also enjoy the privileges stated in Sec. 105.

They may obtain certificates attesting that the technical improvements have been accepted at their suggestion. These certificates are issued by the bodies and organisations making use of the suggestions.

11. Foreigners enjoy the rights granted under the present regulations on the same basis as citizens of the Union of Socialist Soviet Republics.

The Inventions Committee of the Council of Labour and Defence, in agreement with the People's Commissariat for Foreign Affairs, is empowered to

Digitized by Google

lay down special restrictions for citizens and juridical persons of those states which do not grant reciprocity to citizens and juridical persons of the U. S. N. R.

12. Instructions on how to apply the present regulations are issued by the Inventions Committee of the Council of Labour and Defence.

PART II. PUBLIC BODIES DEALING WITH INVENTIONS

13. The Inventions Committee of the Council of Labour and Defence is set up for the purpose of assisting inventors, of exercising general control over the bodies dealing with inventions, and of supervising their activities.

The following bodies are attached to it: the Originality Bureau, which determines whether an invention is original and issues author's certificates and patents covering the same; and the Council for the Review of Appeals, which reviews appeals from the decisions of the Originality Bureau.

The regulations governing the Inventions Committee are confined by the Council of Labour and Defence.

Inventions Committees may also be formed, attached to the Council of People's Commissars of the Economic Councils (conferences) of the Union republics in conformity with the laws of these republics based on the regulations governing the Inventions Committee of the Council of Labour and Defence.

14. In order to encourage inventive genius and for the purpose of organising the best and most expeditious exploitation of inventions and technical improvements, boards dealing with inventions are set up, attached to the People's Commissariats of the U. S. S. R. and the Union republics, to the combines of branches of industry and administration offices, the co-operative centres, individual manufacturing and transportation enterprises employing more than 500 workers (including the soviet farms and the Machine-Tractor Stations), big constructions and, if necessary, other enterprises and organisations.

Standard regulations to govern such boards are drawn up by the respective People's Commissariats and co-operative centres in agreement with the All-Union Central Council of Trade Unions and are confirmed by the Inventions Committee of the Council of Labour and Defence; as regards separate People's Commissariats of the Union republics, these regulations are drawn up and confirmed in accordance with the procedure prescribed by the laws of the Union republics.

15. The boards of inventions attached to the combines of branches of industry, to administration offices and to the co-operative centres (industrial branch boards of inventions)[1] perform the following functions:

(*a*) select the inventions that are useful to the national economy of the U. S. S. R.;

(*b*) work on and test useful inventions and assist in applying them;

(*c*) organise an exchange of inventions and useful technical improvements between the enterprises of any one branch of industry;

(*d*) organise the work of investigating new inventions and technical improvements, connecting them with the general plans of rationalisation and reconstruction of any one branch;

(*e*) study foreign patent and technical literature generally for the purpose of making use of the achievements of foreign technique in the branch of national economy in question;

(*f*) assist the authors of useful inventions and technical improvements;

(*g*) guide the lower bodies dealing with inventions.

16. The bodies dealing with inventions, attached to the separate enterprises, perform the following functions:

(*a*) lend assistance to the workers of their respective enterprise in the technical working out of inventions and improvements; also to other persons who offer suggestions within the scope of activity of the enterprise in question; assist in drawing up the applications, in obtaining author's certificates and in securing the privileges provided by law; at the request of the inventor, these bodies must take care of all details incident to establishing the rights of the inventor, up to and including the receipt of an author's certificate in his name;

(*b*) take such steps as are calculated to further inventions in enterprises; in particular they work out the problems to be solved by the inventors, connecting them with the general plans of rationalisation and reconstruction of the enterprise concerned; assist the inventors' collectives, etc.;

[1] Industrial branch boards of inventions—boards dealing with inventions applying to any particular branch of industry.—*Ed.*

Digitized by Google

(c) take steps to assure early and full utilisation of every useful invention and technical improvement;

(d) for the purpose of exchanging experiences, inform the higher body dealing with inventions of the inventions and technical improvements used at the enterprise in question.

17. Factory laboratories, experimental plants and departments, construction bureaus, etc., are set up for the scientific and technical testing of inventions and improvements and for the planned research for new inventions and improvements. The scientific research institutes must also be fully utilised for that purpose.

18. Boards of inventions connected with departments, branches of industry or enterprises, combine with the rationalisation organisations. The forms of their combination are prescribed by the People's Commissariat of Workers' and Peasants' Inspection of the U. S. S. R.

19. Boards of inventions—those connected with departments, branches of industry, and those attached to enterprises—must be equipped with the necessary skeleton staffs consisting of inventors, shock brigade workers, and public-spirited specialists.

PART III. THE SELECTION AND UTILISATION OF USEFUL INVENTIONS AND OF TECHNICAL IMPROVEMENTS

20. The selection of inventions useful to the national economy of the U. S. S. R. from among the inventions for which application for a patent has been made to the Originality Bureau of the Inventions Committee of the Council of Labour and Defence, is entrusted to industrial branch boards of inventions (Sec. 15). These boards, after obtaining from the Originality Bureau a copy of the application with the necessary exhibits, decide on the usefulness of the invention within one month.

The Originality Bureau, on making its experts' investigation into the originality of the invention, must draw the attention of the bodies appraising its usefulness to those inventions which, in the opinion of the Originality Bureau, may be of great importance to the national economy of the U. S. S. R.

Note.—An accurate list of the industrial branch boards which are entrusted with the duty of appraising the usefulness of inventions, including the procedure to follow in the appraisal and the drafting of the plans for the utilisation of inventions, where the invention affects the interest of several branches of industry, and where there are several combines in the same branch of industry, is drawn up pursuant to instructions of the Inventions Committee of the Council of Labour and Defence.

In those departments in which it is deemed inexpedient to form industrial branch boards of inventions, their place is to be taken by the boards of inventions attached to the People's Commissariats.

21. The above-mentioned decision concerning the usefulness of an invention is final in cases where the invention has already been tested or does not require testing; it is provisional in all other cases.

On the strength of the provisional recognition of an invention as useful, the industrial branch boards of inventions immediately, without awaiting any particulars as to its originality, take all the necessary steps to have it worked out and tested. The final appraisal of the usefulness of the invention is made after the results of the test have become known.

22. The board organises in experimental shops or departments or at one of its enterprises, etc., the working out of the invention, the production of a model or of a sample specimen, and the testing of the invention. Whenever necessary the working out and testing of the more complicated and more important inventions is entrusted to the corresponding scientific research institutes and is included in their plan of work.

Where an invention has already been tested by an enterprise or some other interested body, the industrial branch board of inventions explains the results obtained and decides whether the invention is to be subjected to additional testing or experimentation.

23. The inventor is entitled to be present at the examination (both preliminary and final) of the question of the usefulness of his invention. If he resides in the locality where the question of the usefulness of his invention is considered, he is notified in due time of the date when the question will be considered. If the presence of the inventor is necessary he is called in for consultation irrespective of his place of residence, the summons stating

Digitized by Google

that his presence is necessary; in such event all expenses connected with such summons must be refunded to him.

The representatives of the corresponding trade union organisations and of the leagues of inventors have the right to take part in the discussion of the usefulness of the invention.

24. The inventor is invited to attend the working out and testing of his invention.

The procedure in inviting the inventor and the time of such invitation are prescribed by the body which does the working out and testing of the invention.

An inventor who is a wage earner retains his employment throughout the entire period during which he has been taken away to take part in the working out and testing of his invention.

If the working out and testing is done in the same enterprise or institution where the inventor is a wage worker, he continues to receive from the enterprise wages in the amount of his average wage. If, on the other hand, the working out and testing of the enterprise is done at another institution or enterprise, and also in cases where the inventor is not working for wages, he receives a remuneration from the body that has organised the working out and the testing for the period that he is called upon to work out and test the invention. The amount of remuneration in this case is fixed in accordance with the instructions of the Inventions Committee of the Council of Labour and Defense, and the remuneration of persons working for wages is to be not lower than their average wage.

25. The industrial branch board communicates to the applicant its decision (both preliminary and final) on the question of the usefulness of the invention, stating its reasons therefor.

If a suggestion is not considered useful, owing to the fact that it is already being used in the branch of industry in question, independently of the applicant, the industrial branch board sends a copy of the decision also to the Originality Bureau.

26. The decision of the industrial branch board on the question of the usefulness of the invention may be appealed within a period of three months to the board of inventions attached to the corresponding People's Commissariat. Inventors' organisations may file appeals also after the expiration of the said period.

The decision of the central department board, where there is no industrial branch board of inventions (Sec. 20, note), may be appealed to the collegium of the people's commissariat concerned.

27. After an invention has been finally recognised as useful, the economic body concerned draws up a plan for the utilisation of the invention and an estimate of the funds necessary therefor and carries out that plan.

The inventor himself must be called in on drawing up the plans for the utilisation of those inventions which have been recognised as being of great importance (except secret inventions).

Every useful invention must be put to practical use in all enterprises of the branch of industry concerned in which it can be usefully applied.

The industrial branch board of inventions exercises control over the practical application of inventions.

28. Whenever necessary the manager of the industrial branch combine or administration office or the departmental board of inventions must take all the necessary measures in due time so that the work on which the turning out of the invention depends may be included in the production and financial plans of the enterprises belonging to other branches of industry and to other departments.

29. If an invention made at an enterprise or in a trust, or submitted to the enterprise or trust, may be usefully applied by it, such enterprise or trust ought to test and make use of such invention, without waiting for the industrial branch board to appraise it. However, it must notify the latter in such event.

30. If an invention for which a patent is applied for is recognised as useful the industrial branch board must enter into negotiations with the inventor or his lawful successor concerning the release of his rights to the invention. However, until the patent is granted no remuneration for the release of his rights to the invention may be paid in excess of the premium for an improvement (Sec. 90).

Where a test is required for the final appraisal of the usefulness of an invention for which a patent is claimed, and where it is necessary to work out the invention, such tests and working out take place after an agreement is reached with the applicant concerning the release of his rights to the invention.

Digitized by Google

If the invention according to the preliminary appraisal may be of substantial importance to the State and no agreement is reached with the applicant, the testing and working out are allowed with the permission of the Inventions Bureau of the Council of Labour and Defence.

Where the invention is of substantial importance to the State but no agreement has been reached concerning the release of his rights with the inventor or his lawful successors, the industrial branch board, through the departmental board of inventions, applies to the Inventions Bureau of the Council of Labour and Defence for a compulsory alienation of the patent or for the issuance of a compulsory license (Sec. 5, Clause f).

31. Suggestions of technical improvements which do not constitute new inventions are accepted by the boards of inventions attached to enterprises or trusts both from the workers of such enterprise or trust and from outsiders (from the latter only if the suggestion refers to the work of the enterprise or trust in question). These boards decide the question of the usefulness of all suggestions referring to the work of the enterprise or trust concerned and take steps toward applying the useful suggestions.

32. The boards of inventions attached to enterprises and trusts must inform the industrial branch boards of inventions of all the more important improvements which have been accepted for exploitation at the enterprise or trust.

These suggestions are governed by Sections 23, 25, 26, 27, and 28; where an additional test or work-out is required, also Sections 21, 22, and 24.

If a suggestion has been submitted directly to the industrial branch board, the latter either passes it on to the enterprise or trust concerned or decides its usefulness independently, makes arrangements, whenever necessary, for testing it and working it out, and takes steps to work it, following the same procedure as that prescribed for inventions, all dependent upon the importance of the suggestion.

33. In selecting useful inventions and improvements those of great importance for the national economy of the U. S. S. R. must be specially singled out.

34. The manager (management) of an industrial branch combine appoints a person responsible for applying each invention of great importance and informs the Inventions Bureau of the Council of Labour and Defence and the central departmental board of inventions.

35. If an invention recognised as useful for the national economy has not been put into practical use within half a year from the date it has been recognised as useful, the industrial branch board of inventions must notify the Inventions Bureau of the Council of Labour and Defence and the central departmental board of inventions. The information transmitted must state the reason why the invention is not being applied.

If an invention or improvement of great importance has not been put into practical use within half a year's time, a similar notification must be sent to the People's Commissariat of the Workers' and Peasants' Inspection of the U. S. S. R.

Note.—Where a preliminary appraisal of usefulness is made (Sec. 21) this half-yearly period begins to run from the date of the preliminary decision.

36. The manager (management) of the combine, trust, or enterprise is responsible for the rapid, complete, and proper exploitation of inventions and improvements in his branch of industry.

37. Expenses for furthering inventions, for working out and testing inventions and improvements, and for the remuneration of their authors are defrayed out of special funds.

The procedure in collecting and expending these funds is established by a special law.

The means required to realise inventions and improvements are provided in the industrial-financial plans.

PART IV. APPLICATION AND EXPERTS' EXAMINATION OF THE ORIGINALITY OF INVENTIONS WHERE AUTHOR'S CERTIFICATES OF INVENTION ARE APPLIED FOR

38. An application for an author's certificate of invention can only be made by the inventor himself, or in case of his death by his heirs.

If it is authorised by the inventor or his heirs, the application for an author's certificate should be made in their name by the enterprise or institution where they are working or by any organisation dealing with inventions to which the invention in question by its nature appertains.

Digitized by Google

Note.—Hereinafter the term "applicant" will be taken to mean the person in whose name the application is made, *i. e.*, the inventor or his heir.

39. To file an application in the matter of an invention, a declaration in writing must be filed with the Originality Bureau of the Inventions Committee of the Council of Labour and Defence.

The declaration must state the name of the author of the invention, the object of the invention, and the name and address of the applicant.

The declaration must be accompanied by a description of the invention with the necessary drawings.

The description must set out the essence of the invention so clearly, precisely, and fully as to enable competent persons to realise the invention on the basis of this description. Particularly those principal distinguishing features must be indicated which the applicant regards as constituting the originality of his invention (the invention formula).

At the same time the applicant may state his ideas on the realisability of his invention, the extent of its application, and the importance of the invention.

The declaration and the description attached to it are filed with the Originality Bureau in triplicate.

If the application does not satisfy the requirements set forth in this section, a letter is sent within ten days to the applicant requesting him to supplement his application in those respects in which it was deficient, for which purpose the necessary time will be allowed, but not more than two months.

40. Within a month after the day of filing the application, the applicant may supplement or correct the description and drawings submitted without changing the substance of the application. Supplements and corrections are submitted in triplicate.

At the request of the applicant the Originality Bureau may prolong the time allowed for filing supplements or corrections to three months.

41. If at the preliminary examination of the application the Originality Bureau finds that the subject matter submitted is faulty, palpably impracticable, or palpably not original, the Bureau quashes the examination of the case. The applicant is informed of this by a letter which sets forth the grounds on which the case is quashed.

The decision to quash the case may be appealed within a month from the date of its receipt to the Council for the Review of Appeals of the Inventions Bureau.

42. If the application contains all the necessary information and material, even though it be in a single copy, and if at the preliminary examination it is not adjudged faulty, palpably impracticable, or palpably not original, the Originality Bureau issues a memorandum of priority of claim to the applicant. The memorandum states the appellation of the invention applied for, the names of the author, and the applicant and the date of application.

At the same time the Originality Bureau forwards one copy of the declaration, of the description, and of the drawings of the invention to the industrial branch board of inventions (Sec. 15, Sec. 20, note), indicating the date of application.

A copy of the application, the description, and the drawings is sent to the industrial branch board even where the Originality Bureau enjoins all production under the application in view of a palpable lack of originality.

Note.—If the application and the necessary exhibits are offered in less than three copies, the Originality Bureau passes the missing copies on to the industrial branch board when it receives them from the applicant, and in case the invention is of great importance, it itself makes copies of the said documents.

43. The date from which priority is calculated is the day when the application reaches the Originality Bureau; in case of dispute, it is the day when application was mailed. If the description and necessary drawings were not attached to the application, the date of application is taken to be the day when the description and drawings reached the Bureau or when they were mailed.

44. The memorandum of priority of application, or the request to supplement the application, or the notification that the case was quashed at the preliminary examination (Sec. 41), must be forwarded to the applicant not later than ten days from the day the application was received.

45. A search is made at the Originality Bureau in the case of every application, the purpose of which search is to ascertain whether the subject matter submitted is an original invention.

46. An invention will not be recognised as original if before the date of application it was in use within the U. S. S. R. or abroad, or was described in a printed work, or was made accessible to the general public in any other way, so that any competent person could apply the invention.

Digitized by Google

An author's certificate, however, may be issued in the following cases:

(*a*) where the inventor has made oral or written reports not more than six months before the filing of his application within the territory of the U. S. S. R. about his invention to any scientific research institution, to any board of inventions or to any one of the enterprises where the invention might be prepared, tested, or exploited;

(*b*) where within the same period of time the invention has been applied within the territory of the U. S. S. R. for the purpose of testing or improving it.

Making an invention public before an application has been filed, without the consent of its inventor, is punishable as a criminal offence; such publication does not deprive the inventor of the right to receive an author's certificate.

47. The investigating experts should be guided by the previously issued author's certificates and patents, both Soviet and pre-Soviet, by the applications for patents previously made, by the foreign literature at the disposal of the Originality Bureau, and by the technical literature published within the U. S. S. R. and foreign technical literature accessible to the experts.

48. Persons who have jointly made an invention (co-inventors) are entitled to one author's certificate in the names of all of them.

Persons who have given technical assistance to the inventor are not considered co-inventors.

49. If an invention is made at an enterprise or at an organisation and its author cannot be established (factory invention), the author's certificate is issued in the name of the enterprise or organisation. The remuneration for the invention is paid in such case to the workers' collective of that enterprise.

50. The searches to establish originality are made in the order in which the applications were made, and must be completed within six months of the date of application.

51. The decision of the Originality Bureau on the issuance of an author's certificate is sent to the applicant within five days.

If the applicant does not agree with the declaration of the essence of the invention (invention formula) as set forth by the Bureau, he is entitled to send his objections to the Bureau within one month after receiving the decision. The applicant has the right to acquaint himself either personally or through persons or organisations authorised by him with all the material on which the decision of the Bureau was based; he may also demand that copies of the said material be sent to him free of charge. In the latter case the period for sending in his objections begins to run from the date the applicant receives such material.

If the applicant does not raise any objections within the period prescribed, the Originality Bureau issues an author's certificate to him and sends a copy of the certificate to the industrial branch board of inventions.

The Originality Bureau reviews the objections of the applicant within one month's time and enters a decree which is communicated to the applicant. The applicant may within one month's time appeal this decision to the Council for the Review of Appeals, which must review the appeal within a month from the date it reaches the Board.

If required by the terms of the decisions of the appeal the Originality Bureau issues an author's certificate and sends a copy of it to the industrial branch board of inventions.

52. The decisions of the Originality Bureau to refuse an author's certificate should be communicated to the applicant, who is allowed three months' time to appeal this refusal to the Council for the Review of Appeals.

The applicant has the right personally or through persons or organisations authorised by him to acquaint himself with the material on the strength of which the Originality Bureau refused to issue the certificate, and he may also demand that copies of this material be sent to him free of charge.

53. Any State body, co-operative or other public organisation, or any person may before the expiration of three years from the date of publication of the issuance of an author's certificate, enter a protest against the issuance of an author's certificate and dispute the validity of the certificate issued for the invention by proving that it is not original.

Where no public announcement is made, the period for entering the protest is calculated from the date of the issuance of the author's certificate.

Protests made prior to the issuance of the certificate are filed with the Originality Bureau, but those made after the issuance of the certificate are filed with the Council for the Review of Appeals.

54. Any State body or public organisation or individual person interested may, from the date of application until the expiration of three years after the

Digitized by Google

publication of the issuance of the author's certificate, contest the issuance of the certificate by proving that a different person or group of persons is the real author of the invention.

Where no publication is made, the issue of the author's certificate may be contested within three years from the date it was issued.

Such claims are made by instituting an ordinary law suit, giving notice to the Originality Bureau at the same time.

55. If a claim contesting authorship is filed before the author's certificate is issued, the Originality Bureau does everything necessary to establish the originality of the invention, but suspends the issuance of the author's certificate until the claim has been decided by the court.

If the claim is filed after the author's certificate has been issued and the court adjudges the person named in the application not the author of the invention, the certificate issued is declared invalid. In such case the Originality Bureau issues an author's certificate to the person whom the court has adjudged the real author with priority as of the date of the original application.

56. The decisions of the Council for the Review of Appeals are final and cannot be appealed.

These decisions may, however, be re-examined by the Inventions Bureau in the due exercise of their supervisory jurisdiction.

57. All petitions and documents filed in connection with the issuance of author's certificates are free of charge.

PART V.—PROCEDURE IN PATENT CASES

58. The procedure mentioned in Part IV is applicable to the filing of applications for patents and to their examination by experts, subject to the special rules set forth hereinafter.

59. The application for a patent may be made by the inventor himself or by his lawful successors, *i. e.*, by his heirs or by any person to whom the inventor or his heirs assigned the right to the invention (Sec. 7).

60. Persons permanently resident abroad should authorise some person permanently resident in the Union of Socialist Soviet Republics to act as their representative in the matter of procuring the patent.

The categories of persons who may act as such representatives are determined by the Inventions Bureau of the Council of Labour and Defence.

61. In the declaration for the grant of a patent the inventor or his lawful successor must state that there are no bars to granting a patent as stated in Sec. 6 of the present regulations.

Such statement is not required if the inventor is a foreigner residing abroad.

State boards and social organizations interested may prove in an ordinary law suit that the inventor has no right to obtain a patent, for reasons stated in Sec. 6, and they may demand on this ground that the patent granted be declared invalid. Likewise suits may be instituted at all times during the validity of the patent.

62. Each application must refer to one invention only. If this condition is not complied with, the applicant must, in order to retain the priority of his application, at the demand of the Originality Bureau subdivide his application within a period of time set by the Bureau.

63. In case an applicant who disagrees with the patent formula or who was refused a patent, demands that copies of the material on the basis of which the decision of the Originality Bureau was rendered be forwarded to him, he must pay the expenses incident to it.

64. In case the experts' investigation considers the granting of a patent possible and an agreement is reached with the applicant concerning the invention formula, the Originality Bureau makes a preliminary publication of the name of the applicant and of the invention formula in the "Messenger of the Inventions Committee of the Council of Labour and Defence."

At the same time the description and drawings referring to the application are exhibited at the Originality Bureau for the inspection of all persons desiring to do so.

Within three months of the date of the preliminary publication of the invention formula any state body, cooperative or other organisation, or any person, may enter a protest against granting the patent.

The protest must be presented in writing, stating in detail the reasons for the protest, and must be accompanied by the necessary exhibits.

Digitized by Google

If no protest is filed within the said period, the Originality Bureau grants the patent.

If a protest is filed, it must be examined by the Originality Bureau within two months.

65. The forwarding of one copy of the application to the industrial branch board of inventions for examination as to its usefulness is postponed, if the applicant so requests, until the preliminary publication of the invention formula (sec. 64).

66. The patent may be contested on the ground that the invention is not original or that a wrong person has been adjudged its inventor at any time during the validity of the patent.

67. The following fees are charged in patent matters:

(*a*) an application fee for each application for a patent;

(*b*) an annual patent fee for each patent granted;

(*c*) a fee for each appeal from a decision of the Originality Bureau;

(*d*) a fee for each application to record in the register of inventions a full or partial assignment of the rights to the invention.

The amounts of the fees and the procedure in paying them are prescribed by the Council of Labour and Defence.

The Inventions Committee of the Council of Labour and Defence may, in individual cases, exempt workers-inventors from the payment of fees.

The non-payment in due time of the annual patent fee terminates the operation of the patent.

PART VI. SUPPLEMENTARY INVENTIONS

68. An invention is deemed supplementary if it is an improvement of another (basic) invention for which an author's certificate or a patent has been granted and if it cannot be exploited independently without using that basic invention.

69. If an author's certificate has been issued for the basic invention, a dependent author's certificate is issued for the invention supplementing it. Moreover, the application covering a supplementary invention made by the author of the basic invention before the expiration of four months from the date of the grant of the author's certificate enjoys priority over an application for the same invention made by another person during that period.

70. Where the basic invention for which an author's certificate was issued was in itself not recognised as useful for the national economy but is recognised as useful in conjunction with the supplementary invention, the remuneration is paid to the authors of both the basic and the supplementary inventions.

The instructions of the Inventions Committee of the Council of Labour and Defence prescribe the procedure in paying the remuneration in such case (Sec. 90).

71. Where the basic invention is protected by a patent, either a dependent patent or a dependent author's certificate is issued to cover the supplementary invention, at the option of the applicant. Moreover, the supplementary invention may be worked only with the consent of the holder of the patent for the basic invention.

No remuneration is paid to the person to whom a dependent author's certificate was issued according to general principles before the State receives the right to put the basic invention to practical use.

The dependent patent is granted for the duration of the validity of the basic patent.

72. If the basic patent ceases to be valid before its regular termination through causes not affecting the supplementary invention, the dependent patent or author's certificate will be converted to an independent patent or certificate. In such event the dependent patent will be valid only for the period for which the basic patent has been granted.

In all other respects a dependent patent shall be treated as equivalent to an independent patent.

PART VII. PUBLICATION AND REGISTER OF INVENTIONS

73. All applications, except those which are secret, which have been filed with the Originality Bureau and on which memorandum of priority of application has been issued, are announced in the "Messenger of the Inventions

Digitized by Google

Committee of the Council of Labour and Defence." The announcement must state the appellation of the invention, the names of the author and the applicant, the date of application and the name of industrial branch board to which a copy of the application has been sent to have its usefulness appraised.

74. All decisions that have become effective and that concern the issuance of author's certificates and patents for inventions, except those that are secret, are published in the "Messenger of the Inventions Committee of the Council of Labour and Defence."

75. The descriptions and drawings of inventions for which author's certificates or patents have been granted, except those that are secret, are published by the Inventions Committee in the form of pamphlets which in their totality constitute a digest of inventions of the U. S. S. R.

76. The Originality Bureau of the Inventions Committee of the Council of Labour and Defence keeps a register of inventions (except those that are secret). Any one desiring to do so may acquaint himself with this register as well as with the descriptions and drawings of the inventions on which author's certificates or patents have been granted.

77. The publication of decisions concerning the issuance of author's certificates and patents as well as the publication of descriptions and drawings may, upon the demand of organisations or persons interested, be postponed for a definite period of time, or, with the sanction of the Inventions Committee, be omitted altogether.

The Inventions Committee may also postpone for a definite period of time, or abrogate altogether, the inspection of the descriptions and drawings of individual inventions by all persons.

PART VIII. SECRET INVENTIONS AND IMPROVEMENTS

78. Inventions and improvements referring to the defence all persons.

Moreover, the Inventions Committee may, in its discretion or at the suggestion of the department of the industrial branch board concerned, recognise any invention as secret, if its secrecy is demanded in the interests of the State.

An improvement which does not amount to an original invention may be recognised as secret by decree of the People's Commissariat or of the industrial branch combine or the administration concerned.

79. The decree declaring an invention secret is immediately communicated to the applicant, to the author and to the industrial branch board of inventions concerned, which in its turn informs the corresponding enterprises, institutes of scientific research, etc. Similarly the People's Commissariat or the industrial branch board concerned informs the persons, his representative and the corresponding enterprises that the technical improvement has been recognised as secret.

80. The publication in the press of any information concerning secret inventions or improvements or the disclosure of their essential content in any manner whatsoever is punishable as a criminal offence.

81. A secret invention or improvement may be submitted only to the State body of the U. S. S. R. interested in it. Likewise a secret invention or improvement may be exploited only by the State body of the U. S. S. R. interested in it.

82. The secrecy attached to an invention or improvement may be removed in a proceeding similar to the one in which it was established.

83. The author of an invention which may be of importance to the defence of the State must file his application personally with the special department of the Inventions Committee of the Council of Labour and Defence, or with the local branch of the United State Political Administration (O. G. P. U.), or with the local military authorities, to be forwarded immediately and secretly to the Inventions Committee of the Council of Labour and Defence.

84. The procedure in selecting useful inventions and improvements referring to the defence of the country, the procedure in establishing their originality, of removing their secrecy, as well as the procedure in appeals from the decisions rendered in such cases are prescribed in special instructions.

These instructions are issued by the Inventions Committee of the Council of Labour and Defence in agreement with the People's Commissariat for Military and Naval Affairs.

Digitized by Google

PART IX. THE PATENTING AND REALISATION OF INVENTIONS ABROAD

85. The patenting and realisation abroad of inventions made within the U. S. S. R., and also of inventions made abroad by Soviet citizens sent by the State on missions, can be effected only with the permission of the Inventions Committee of the Council of Labour and Defence and under the procedure prescribed by it.

Any violation of this rule is punishable as a criminal offence.

86. For purposes of protecting the rights of inventors abroad, an author's certificate is deemed equivalent to a patent.

PART X. REMUNERATION AND PRIVILEGES OF INVENTORS WHO ARE GRANTED AUTHOR'S CERTIFICATES AND OF PERSONS WHO SUGGEST TECHNICAL IMPROVEMENTS

87. The industrial branch board of inventions determines and pays the remuneration to the author of a useful invention for which an author's certificate is issued.

88. If the enterprise starts to exploit the invention before the industrial branch board has determined its usefulness, it pays the inventor a remuneration according to the rules governing the payment of premiums for improvements (Sec. 90).

89. The premium for technical improvements is paid by the enterprise exploiting it. If the improvement is exploited by several enterprises of the branch of industry in question, the premium is determined and paid by the industrial branch board of inventions after deduction of the sums that have already been received.

90. The amount of the remuneration is determined on the basis of the instruction of the Inventions Committee of the Council of Labour and Defence.

The instruction should provide for various rates of remuneration; (a) for new inventions; (b) for all other improvements.

91. A commission is set up at the corresponding People's Commissariat consisting of the representatives of the People's Commissariat, the trade union, and the Workers' and Peasants' Inspection, under the chairmanship of the representative of the Workers' and Peasants' Inspection, to review appeals involving questions of the amount of, or procedure in, obtaining remuneration.

Note.—By agreement between the People's Commissariat on the one hand and the All-Union Central Council of Trade Unions and the People's Commissariat of the Workers' and Peasants' Inspection of the Union of Socialist Soviet Republics (and for the People's Commissariats of the Union republics, the Republican Council of Trade Unions and the People's Commissariat of the Workers' and Peasants' Inspection of the Union republic) on the other hand, commissions may be attached to industrial branch combines in place of the commissions attached to the People's Commissariats to consider appeals. Such commissions consist of representatives of the combine, of the Trade Union and of the Workers' and Peasants' Inspection, the latter representative acting as chairman.

92. Where an invention or an improvement is made by several persons jointly, the remuneration for the exploitation of the invention is shared between them as they agree. In the absence of an agreement the question is decided by the court or by a public organisation, if they so request.

93. Remuneration received for an invention or an improvement is equivalent in all respects to wages, whether the person in question is a wage-earner or not.

94. In calculating the income tax on the remuneration received for an invention or improvement, remuneration up to 6,000 rubles a year is absolutely exempt. If the remuneration is more than 6,000 rubles, income tax is paid only on the excess over 6,000 rubles a year.

95. Inventors who have distinguished themselves by useful inventions enjoy housing privileges on an equal basis with scientific workers.

Inventors working in enterprises and institutions who have distinguished themselves by useful inventions, in case they have no living quarters or live under unsatisfactory conditions, have the right to receive housing quarters in preference to others, out of the housing fund of the enterprise or institution in question.

In industrial centres the local Soviets must reserve a definite number of quarters for inventors.

Digitized by Google

96. No worker-inventor who is qualified to enter higher and secondary technical schools may be refused admittance as a student.

Inventors who are not workers are admitted to these schools on the same basis as industrial workers.

97. Inventors have a preferential right, *ceteris paribus*, to occupy posts of scientific workers at appropriate institutions and enterprises for scientific research and experimentation (institutes, laboratories, experimental plants and departments, etc.).

A definite number of posts for scientific workers should be reserved in these institutions and enterprises for inventors.

98. The industrial branch board of inventions, by agreement with the All-Union Society of Inventors, selects workers who have become noted as important inventors, to utilise them exclusively on inventions in institutes for scientific research, laboratories, construction bureaus, experimental plants and departments, etc.

They work according to a plan confirmed by the industrial branch board and receive a corresponding salary.

99. The economic bodies should provide a certain number of posts for inventors, in the annual plan of commissions sent to various places in the U. S. S. R. and abroad to study production and to improve their qualifications.

The selection of inventors who are to be offered places on such commissions is made by the industrial branch board of inventions in agreement with the corresponding organisations.

100. Inventors who work on inventions and perform their principal work as wage-earners at the same time are entitled to an additional two weeks' vacation.

101. Inventors who have become incapacitated are granted personal pensions upon applications to the appropriate public organisations or boards of inventions.

102. Inventors working in enterprises or institutions are sent to sanatoriums, health resorts, and houses of rest, with priority over other persons, *ceteris paribus*.

103. Inventors not falling within the social insurance scheme, as well as their families, are entitled to every description of medical relief on the same basis as insured workers and their families.

104. Children of workers-inventors who meet the requirements for admission to educational institutions must be accepted.

Children of inventors who are not workers are admitted to educational institutions and may fill vacancies without charge in children's homes, colonies, and similar institutions on the same basis as children of workers.

Children of dead inventors are given priority over all others in being admitted without charge to vacancies in children's homes, colonies, etc.

105. The privileges set forth in Sections 93–104 are granted to those workers-inventors who possess an author's certificate and whose inventions after having been tested have been recognised as useful to the national economy of the Union of Socialist Soviet Republics.

Persons who have suggested technical improvements enjoy privileges on the same basis as inventors, provided these improvements are of considerable importance, otherwise the conditions attached to, and the extent of their privileges, are set forth in the instructions of the Inventions Committee of the Council of Labour and Defence.

The privileges set forth in Sections 93 and 94 are conferred on all workers who receive remunerations for inventions or improvements.

Privileges are conferred on the basis of certificates issued by the corresponding bodies dealing with inventions.

106. In case of death of the inventor or of the person who suggested the improvement, the right to remuneration passes to his heirs. No rights to privileges pass to heirs except those provided in Sections 93 and 94.

President of the Central Executive Committee of the U. S. S. R.:
M. KALININ.

President of the Council of People's Commissars of the U. S. S. R.:
V. MOLOTOV (SKRYABIN).

Secretary of the Central Executive Committee of the U. S. S. R.:
A. YENUKIDZE.

Kremlin, Moscow, April 9, 1931.

Published in the "Collection of Laws of the U. S. S. R.," 1931, No. 21, Sections 180 and 181.

Digitized by Google

INDUSTRIAL FELLOWSHIPS

Officers of Administration of Mellon Institute of Industrial Research

BOARD OF TRUSTEES

Officers: John G. Bowman, president; Edward R. Weidlein, vice-president; Henry A. Phillips, secretary.

Members: Andrew W. Mellon, Pittsburgh, Pa.; Richard K. Mellon, Pittsburgh, Pa.; John G. Bowman, Pittsburgh, Pa.; Henry A. Phillips, Pittsburgh, Pa.; Edward R. Weidlein, Pittsburgh, Pa.

EXECUTIVE STAFF

Edward R. Weidlein, director; E. Ward Tillotson, assistant director; William A. Hamor, assistant director; Harry S. Coleman, assistant director; George D. Beal, assistant director; Leonard H. Cretcher, assistant director and head, Department of Research in Pure Chemistry; Henry A. Phillips, treasurer.

Lois B. Whittle, secretary to the director; Henrietta Kornhauser, Edith Portman, librarians; William W. Mills, head, analytical department; Howard C. Davies, head, accounting department; William H. Child, head curator.

The Industrial Fellowships of Mellon Institute of Industrial Research

The essential aim of Mellon Institute of Industrial Research of the University of Pittsburgh is the creation of new knowledge by scientific investigation, in accordance with the Industrial Fellowship System of Dr. Robert Kennedy Duncan. The institution was founded by Messrs. Andrew W. Mellon and Richard B. Mellon, whose constant interest has brought success to the application of the System.

The industrial research of the Institute is organized on a contract basis, the problem being set by a person, firm, or association interested in its solution, the scientific worker being found and engaged by the Institute, and an Industrial Fellowship being assigned for a period of at least one year. Each holder of an Industrial Fellowship is given for the time being the broadest facilities for accomplishing a definite piece of research, and all results obtained by him belong exclusively to the founder (donor) of the Fellowship. Only one investigation is carried out on a particular subject at any one time, and hence there is no duplication of the research activities of the Fellowships in operation.

The Institute is primarily an industrial experiment station, but the nature of its investigational procedure enables broad training of young scientists in research methods and in special subjects of technology. It also recognizes the need of fundamental scientific research as a background and source of stimulus for industrial research. It has funds that are devoted to the prosecution of investigations not suggested by industry, but planned within the Institute and directed towards the study of more fundamental problems than those usually investigated for direct industrial purposes.

HISTORY OF THE INDUSTRIAL FELLOWSHIP SYSTEM

In his allegorical romance, The New Atlantis, written before 1617, Francis Bacon planned a palace of invention, a great temple of science, where the pursuit of natural knowledge in all its branches was to be organized on principles of the highest efficiency. The story of his Solomon's House was a vision of the practical results to be anticipated from diligent and systematic research. By the formulation of his Industrial Fellowship System, Dr. Duncan provided for the creation and maintenance of a body of experimenters on this design, but in a modern laboratory of science.

The idea of this System was conceived by Dr. Duncan in 1906, while in attendance at the Sixth International Congress of Applied Chemistry in Rome. For some time previous to this Congress, Dr. Duncan had been in Europe gathering material for several books on chemistry. Through visits of inspection to factories, laboratories, and universities of some European countries, and through conversations with industrialists and scientists, he had become impressed at various places with the spirit of cooperation that existed between technology and science which made for the advancement of both. At the same time he became aware, more than ever before, of the fact that much of Ameri-

Digitized by Google

can chemical industry, from the standpoint of manufacturing efficiency, was in a weak condition. The absence of the application of scientific research methods was one reason for this state of affairs, and Dr. Duncan was led to propose a remedy in industrial Fellowships. His plan was to assist manufacturers who desired to break away from tradition and to make even more scientific that production already well on the road from tradition to science.

Upon his return from Europe to accept the chair of industrial chemistry in the University of Kansas, Dr. Duncan arranged for the establishment of the first Industrial Fellowship in January 1907. The System was described by him in an article entitled "Temporary Industrial Fellowships", in the *North American Review* for May 1909, and a little later in his book on "The Chemistry of Commerce", an interpretation of some new chemistry in its relation to modern industry. Dr. Duncan's gifts of narration had an important part in interesting American manufacturers in science and in encouraging recognition of the economic value of industrial research.

In 1911, Dr. Duncan was called to the University of Pittsburgh to inaugurate his System in the Department of Industrial Research, and the operation of the Fellowships was begun in a temporary building on March 1 of that year. Messrs. Andrew W. Mellon and Richard B. Mellon, citizens of Pittsburgh and sons of Judge Thomas Mellon of the class of 1837 at the University of Pittsburgh, noted the practical success of this educational experiment and saw in the System an apparently sound method of benefiting American industry by the systematic study of manufacturing problems under suitable conditions and by training young men for technical service. In consequence of this interest, in March 1913 they founded Mellon Institute of Industrial Research of the University of Pittsburgh and later placed the Industrial Fellowship System on a permanent basis, as a memorial to their father (1813–1908) and to Dr. Dunnan (1868–1914). The present home of the Institute, which is a part of the central group of the University of Pittsburgh, was occupied in February 1915 by twenty-three Fellowships then in operation. Within eight years the building became filled to approximate capacity with fifty Fellowships, covering a wide variety of different problems. The continued financial support of the Messrs. Mellon has made it possible to develop the System to its present strong position.

By the application of the Industrial Fellowship System, the Institute has been successful in demonstrating to American manufacturers, irrespective of size, that industrial research, properly carried out, is profitable to them. Eighty-five per cent of the problems accepted for study, 1911–1935, have been solved satisfactorily, and many chemists and chemical engineers have been trained in research methods and then placed in useful industrial positions. The Institute has also been active in stimulating research in other laboratories and in cooperating with other research establishments, both in the United States and abroad. It is, however, best known by the successful commercial processes which it has developed and by its contributions to the literature of chemistry and allied sciences. Lists (*Bibliographic Bulletin* No. 1 and its *Annual Supplements*) of the books, bulletins, journal articles, and patents by the membership of the Institute, 1911 to date, may be had upon request. At the close of each fiscal year, on March 1, the Institute publishes a list of the Industrial Fellowships in operation, copies of which are distributed to all persons interested in the System.

Notable investigations have been carried out by Industrial Fellowships on subjects in the following fields: bread, byproduct coking, carbon dioxide, cellulose, citrus products, composition flooring, corrosion, dental products, edible gelatin, electrical precipitation, enameled ware, fertilizers, fiber containers, fish products, flotation of ores, food and beverage flavors, fuels, galvanizing, garment cleaning, glass, glue, heat insulation, hydrometallurgy of copper, inks, insecticides, laundering, magnesia products, matches, natural gas, nickel, olefine gases, organic synthesis, petroleum, protected metals, refractories, roofing materials, rubber compounding, smoke abatement, sodium silicate, stove enamels, sulfur, synthetic resins, vitamins, vitrified tile, wood chemicals, wrought iron, and zinc.

GENERAL PRINCIPLES OF THE INDUSTRIAL FELLOWSHIP SYSTEM

In accordance with the System of the Institute, an individual industrialist, a company, or an association of manufacturers that has a suitable problem or

Digitized by Google

group of problems that requires investigation may become the donor of an Industrial Fellowship, provided the problems are of sufficient scope to warrant the services of at least one man for a period of not less than one year, provided no other investigation is in progress in the Institute on the research topic that is of interest to the prospective donor, and also provided the Institute can give accommodation to the work that is necessary to solve the problems.

The Industrial Fellowships of the Institute are of two general types, namely, Individual and Multiple. An Individual Industrial Fellowship utllizes the services of one research chemist or engineer (with assistants when necessary), who is responsible directly to the executive staff of the Institute. A Multiple Industrial Fellowship has the services of one or more research men (Junior Fellows) under the direction of a Senior Fellow, who, in turn, is responsible to the executive staff.

The Institute is not of a commercial nature, being entirely independent and deriving no financial profit from the investigations conducted under its auspices. Moreover, members of the executive staff devote their time and ability to the interests of the Institute and of the University of Pittsburgh without outside remuneration.

The donor, on his part, provides a foundation sum that is adequate to cover the annual cost of maintenance of the Industrial Fellowship, comprising operating charges, the purchase of all necessary special apparatus or other equipment, and the salary of the research man or men selected to work on the particular problem, the solution of which is of concern to the donor. This sum of money is approximately $5,000 for each research man needed on the Fellowship.

Cooperation by sympathetic encouragement and practical suggestion is essential on the part of the donating company or association for the successful conduct of the Industrial Fellowship work.

The Institute, in due order, selects the Industrial Fellow, and the investigation to be carried out is entrusted to this qualified man, who devotes his entire time to it.

The Institute furnishes laboratory, library, and consultative facilities, the use of its permanent research equipment, direction to the progress of the work, and an environment that stimulates productive investigation. All results obtained by the Industrial Fellowship are the property of its donor.

Each Industrial Fellowship is a case of trust and is operated in strict accordance with the terms of the agreement governing its operation (see page 17). Information pertaining to its subject matter and progress is not released to the public unless the donor so desires. Further, the knowledge gained by one Industrial Fellow along one investigational line becomes available to another man, *provided such cooperation does not violate a trust.*

The Institute has a tried system of reporting, and all records, reports, and correspondence are given secure guardianship.

Reports on progress made and difficulties encountered are submitted weekly from each Industrial Fellowship to the executive staff. These private reports are considered for purposes of advice and guidance and serve to record all research observations and results. Confidential monthly reports are transmitted to the donors, and yearly summary reports are prepared and placed in the archives of the Institute, to be released for publication at such times as will not injure the interests of the donors. The Institute has definite instructions governing the preparation of all types of reports. Scientific or technical papers are not prepared for publication without the consent and approval of the donor concerned. Moreover, the donor decides as to whether patent protection shall be sought for new processes or products that are developed.

For the benefit of donors, the Institute secures, through proper connections, systematic and prompt advices concerning improvements in American and European technical practice that may be of value to its Industrial Fellowships.

Cooperation is a large factor in the success of the Institute. Teamwork and high creative ability go together—an idea that was made vital by Dr. Duncan and is now a valued heritage of the Institute. The Robert Kennedy Duncan Club is an organization of the Institute in which this idea especially lives. All Industrial Fellows are expected to take part in the activities of the Club, which arranges annual programs of social and athletic events and special lectures. The members of the Institute are also eligible for membership in the University Faculty Club, with its social life, and many of the unmarried Fellows reside there. Chemical research colloquia are held weekly by an organized

Digitized by Google

group of Fellows of the Institute, to discuss progress in the field of pure chemistry. These meetings are open to all members of the Institute.

The System of the Institute enables a manufacturer to obtain results in a shorter period of time and at less cost than is ordinarily possible. The co-operative and research facilities of the Institute hasten results.

All advertising or publicity matter referring to the Institute or to any of its activities is by agreement with donors submitted to the Director for approval before release.

OUTLINE OF INDUSTRIAL FELLOWSHIP PROCEDURE

There are three definite stages of Industrial Fellowship work, namely preparatory, experimental, and developmental.

The preparatory stage includes a critical study of the literature of the subject, preliminary conferences with the donor, and visits to his plant, in order to familiarize the Industrial Fellow and the executive staff with the problem in all its aspects. Each incumbent of an Industrial Fellowship, who is getting ready to undertake a piece of research, submits a report on his plans for investigation and on whot has been found on the subject in the literature before he actually begins experimental work. Most of the troubles of the industries have a chemical origin. Most of the Institute's researches are therefore in the closely related provinces of chemistry and chemical engineering; but the solution of many problems requires the cooperative efforts of the chemist and the physicist or the biologist.

Following the approval of the executive staff to a definite program of research, the experimental stage is entered. It embraces laboratory work and contact with the donor through regular progress reports and necessary conferences.

The developmental stage, which follows the laboratory or experimental investigation, includes the working-out of processes or the preparation of products on first a unit-plant scale and then in the donor's factory. It is essentially chemical engineering in character, and stress is placed on those chemical and physical facts that are of direct economic interest. A process may be carried out on a laboratory scale with entire success; but just as soon as it is put in operation under semi-commercial conditions, or on an industrial plant scale, it may fail through inadvertent neglect of engineering factors. Hence plant-size investigations, involving considerable financial outlay, are often necessary in industrial research.

Research at the institute is not of the individual type, carried out for the personal gratification and advancement of scholarship of the Industrial Fellows. It is institutional in that it is conducted by scientists, working independently or in varying measure of cooperation, as members of an organized agency, designed to serve industry. The effort is made to administer the Industrial Fellowships in such a way as to enable their holders to put forth their best efforts. The aim of the Institute is to select good men, and then to give them requisite freedom and sustained support, financial, sympathetic and advisory. In competent research men, the maintenance of freshness of view, enthusiasm and diligence leads to effective work, in overcoming difficulties and in pointing out new lines of advance.

The renewal of many Industrial Fellowships, year after year, attests to their productivity and to the confidence that their donors have in the Institute. It is of interest to mention here that the incumbents of the larger and older Industrial Fellowships are recognized generally as specialists in the particular branches of technology in which they are conducting investigations.

ASSOCIATION FELLOWSHIPS

The United States Department of Commerce has expressed the opinion that "among constructive activities of trade associations none is more fitting nor more profitable than scientific research." Mellon Institute has been engaged in research for a number of associations of manufacturers since 1914—at present there are fourteen association Fellowships in operation—and its experience shows convincingly the valuable relation of industrial research to the advancement of business in the manufacturing fields thus covered.

Each association of manufacturers that is maintaining an Industrial Fellowship in the Institute consists of those firms in an industry having problems of common interest which are so basic or of such general application that

Digitized by Google

the results of research thereon are of importance to all company-members. This type of investigational work may be carried on without interfering with competitive interests or the relative commercial positions of the cooperating firms. It has been demonstrated that competitors can work harmoniously on a research program, provided the problems selected are of concern to all members of the association and do not require the disclosure of confidential information by any member of the organization.

An association Fellowship enables direct research service to a number of industrial concerns instead of to an individual company. Its activities also give rise to stable relations of cooperation among the members of the association by the exchange of technical experience and research results. An association Fellowship usually acts as a clearing-house of information for the sustaining organization, and gives technical assistance and scientific advice to the company-members. One of the prominent advantages of association research is that it enables a small manufacturer, who cannot afford to have a reserch laboratory of his own, to profit from the investigational work in the same way as a larger manufacturer. Association research reduces the cost factor to a minimum and thus promotes the welfare of manufacturers in the field concerned, without respect to size. Moreover, problems may be studied that require more time and expense than should be borne by a single manufacturer or company, in view of the wider application of the results. The correlation of research effort, such as is done in the Fellowships supported by associations, prevents unnecessary duplication in scientific inquiries.

For the most part, the Institute's researches for associations have for their purpose the advancement of basic knowledge of the industries, their processes and products. It has been especially successful in work on standardization of factory practice and manufactured products and on extending uses of various chemicals and commodities. The Industrial Fellowships are advised by committees chosen from the membership of the associations. These committees of three or more technical specialists obtain suggestions from members of the associations, select for study the outstanding problems, keep the Industrial Fellows in touch with the manufacturing phases of the work, and aid them in the interpretation of results in terms of factory practice and in having individual manufacturers act upon their recommendations. In addition to participating actively in the direction of research work, these committees therefore assist in training men for industrial service.

SCOPE AND SPIRIT OF INDUSTRIAL RESEARCH

The purpose of industrial research is to promote success in manufacturing practice through scientific investigation; in other words, to find new materials, new processes, and new uses of products for industrial development and to advance manufacturing operations through the application of scientific methods to industry. Before things can be used in any way they must be discovered, and it is the particular function of science to reveal them. It is the business of the scientific investigator to discover and of the engineer or inventor to recognize and apply the results achieved.

Chemistry, physics, and biology, the sciences that unite to make the basis of industrial research, depend upon observation, experiment, and comparison, or upon a combination of these methods, setting out, in their studies, from fundamental principles. The chemist, by observation and experiment, that is, by systematic examination of organic and inorganic substances, determines the properties of matter, describes the structure of compounds, and studies the processes of synthesis. The chemical engineer, by physical means, by analytical control, by observation of materials, and by experiment upon processes, gains insight into the nature of manufacturing operations and is enabled to develop industrial procedures. The physicist, by making accurate measurements with instruments of precision, by observing changes in properties under definite conditions, and by comparing results, discovers verifiable facts about natural and manufactured products. The biologist investigates by microscopic methods, by examination of vital products, by experimentation upon animals, the nature and effects of ferments, foods and drugs; his research is bacteriological, physiological, or pharmacodynamic, depending upon its purpose. The results that each scientist obtains and the methods he employs must be confirmable by other investigators. The equipment necessary for industrial research depends upon the field in which it is pursued. Most types of investigational work involve the use of special apparatus and are conducted in laboratories provided

Digitized by Google

with the esential equipment and operating on such a scale as may be deemed advisable for the successful industrial application of the information acquired.

The industrial research man may have the dual task of discovering the cause of a difficulty in manufacturing and of eliminating or correcting it. This type of problem is frequently complicated. The scientist working on it must secure all the data that modern methods can furnish, in the laboratory as well as in the plant, and then he must interpret these facts by a careful process of logical reasoning and organize them into a usable recommendation. Investigational work in and for industry demands sound preparation, correct scientific attitude, active optimism, and constant hospitality to suggestions of others and to new knowledge and improved methods.

The spirit of all industrial research is sincerely scientific. It seeks to be open-minded toward new truth. It recognizes the intricacy of its problems, it does not hesitate to admit ignorance nor to suspend judgment. Its constant aim is the discovery of truth and its application to human need. Its scope is as wide as the range of influences, chemical, physical, biological, and economic, which affect technology.

The effects of the influence of scientific investigation on behalf of technology are so broad and beneficial that they are interwoven intimately with everyday life and contribute constantly to human progress. Industrial research is one of the greatest gifts of science to mankind.

INDUSTRIAL FELLOWSHIP AGREEMENT

Each Industrial Fellowship that is accepted by the Institute is the subject of a definite agreement between the industrialist, company, or association of manufacturers concerned and the Institute. The following form of agreement for Individual Fellowships is in use by the Institute.[1]

Agreements for_____Industrial Fellowship No._____(Mellon Institute Industrial Fellowship No._____).

This Agreement, made and entered into this_____day of_____, 19____, between Mellon Institute of Industrial Research of the University of Pittsburgh, of the City of Pittsburgh, Pennsylvania, hereinafter called the "Institute", and_____, a corporation of_____, having head offices in_____, hereinafter called the "Donor,"

Witnesseth: That, for the purpose of promoting the increase of useful knowledge and in consideration of the mutual promises and covenants herein contained, the parties hereto agree as follows:

1. The Donor shall pay to the Institute in_____payments in advance, for a period of_____year , beginning on_____, 19__ (the date on which work of this Fellowship is commenced), the total sum of_____dollars ($_____), for the foundation of an Industrial Fellowship to be known as_____Industrial Fellowship No. _____, the exclusive purpose of which is_____; and the study of such other problems connected with the Donor's business as in the opinion of the Director of the Institute can be accepted by the Institute. In case the Donor desires problems other than those specifically mentioned above to be included under this Fellowship, written permission to include such problems shall first be obtained from the Director of the Institute.

2. The Institute shall accept the sums so to be furnished by the Donor and shall devote them as herein indicated to the furtherance of the problems of this Fellowship: to this end, out of the money received from the Donor under this Agreement, the Institute shall pay over as compensation to the incumbent of this Fellowship such amounts from time to time as may be agreed upon by the Institute and said incumbent; and the Institute shall, also out of said money, purchase such apparatus, chemicals, and other supplies related to this research as the Director of the Institute may deem necessary for its efficient operation, and defray traveling expenses and other expenses incident

[1] If a bonus is to be provided by the donor of an Industrial Fellowship, as a reward to its incumbent for the accomplishment of results, it is the subject of a separate agreement.

Digitized by Google

and related to the elucidation of the problems concerned; and the remainder shall be retained and applied by the Institute toward its reimbursement for expenditures for water, light, heat, gas, and other general overhead expenses incurred by the Institute. The Fellow shall be provided, at the expense of the Institute, with adequate laboratory facilities, with the general facilities of the Institute, and with the advice and direction of the executive officers of the Institute. The Donor, on its part, shall coöperate with the Institute in this research by providing the Director thereof and the Fellow of this Fellowship with its sympathy and with whatever knowledge of the subjects of research it may possess, and, with the approval of the Donor, with its facilities for large-scale experimentation. In the event that experimental plant work shall be recommended by the Director and approved of by the Donor, such additional expense, including traveling expenses, as may be incidental thereto, shall be borne by the Donor.

3. The incumbent of the Fellowship provided hereunder shall be appointed by the Director of the Institute, upon such terms as the Director and he may agree upon, and he shall give his whole time and attention to the object of the Fellowship, with the exception, if the Director so elect, of three hours a week, which he shall give to instructional work in the University of Pittsburgh. The Fellow shall work under the advice and direction of the Director, and shall from time to time through the Director forward to the Donor reports of the progress of his work. During the existence of the Fellowship provided hereunder, the Donor shall have the right, through and with the acquiescence of the Director, to employ and take into its regular service the Fellow of this Fellowship, upon terms to be agreed upon between the Fellow and the Donor, and the Institute shall appoint a successor to the Fellowship, vacated by reason of the regular employment of the Fellow by the Donor, provided the condition of the research work shall, in the opinion of the Donor and the Director, make necessary or advisable the appointment of such successor.

4. Any and all discoveries, germane to the subjects of this investigation, made during the term of this Fellowship, as well as all relevant information obtained, by the Fellow of this Fellowship, or the Executive Staff of the Institute, separately or conjointly, shall become the property of the Donor, subject to the terms and provisions of this Agreement, and such member of the Institute making such discovery or obtaining such information shall promptly and without demand make revelation of all such information and discoveries. Such revelations shall be made to the duly designated representatives of the Donor directly, or through the Director, as the Director may determine.

5. The members of the Institute, as referred to in Paragraph 4 of this Agreement, making a discovery or invention germane to the subjects of the Donor's investigation, shall at any time, upon the request and at the expense of the Donor, apply for letters patent, and shall assign such letters patent and any and all rights to such invention to the Donor under the conditions of this Agreement. In case the Donor desires to keep secret any discovery or invention, or for any reason desires that letters patent shall not be applied for, such member of the Institute making such discovery or invention shall not at any time apply for patent or patents in his own name and shall not disclose such discovery or invention to others except as herein provided.

6. In the event of any difference of opinion between the parties hereto as to the interpretation of this Agreement, or the rights of the respective parties to this Agreement, the matters in issue shall be referred to a Board of Arbitration, which Board shall consist of a representative of the Institute and a representative of the Donor and a third person whom these two shall select. The decision of this Board shall be obtained without recourse to the Courts and, when rendered, shall be binding upon the parties hereto.

7. During the term of this Fellowship, the incumbent thereof may publish such results of his investigation as do not, in the opinion of the Donor, injure the Donor's interests. It is contemplated that, on or before _____, 19____, the said incumbent shall have completed a comprehensive monograph on the subject of his researches. The subject matter of such monograph shall not contain specific information of the process or methods of the Donor, but it shall be confined to a statement of new discoveries of scientific fact obtained

Digitized by Google

by this Fellowship. A copy of this monograph shall be forwarded to the Donor and a copy shall be signed and placed in the archives of the Institute until the expiration of three years from the time hereinafter provided for the termination of this Fellowship, when the Institute shall be at liberty to publish it for the use and benefit of the public. Such monograph, when published, shall not contain data nor information in regard to the cost of manufacture by any process revealed in such monograph.

In the event that, in the opinion of the Donor, such publication at such time will unduly injure the Donor's interests, the Donor shall have the privilege of appealing at any time for an extension of time of such publication to the Board of Arbitration provided for herein, which, after considering the appeal, shall, if in its opinion such publication will unduly injure the Donor's interests, extend the time of publication to a time when, in the Board's opinion, publication will not unduly injure the interests of the Donor.

It is also agreed that no advertising or other publicity matter having or containing any reference to the Institute, or in which the name of the Institute is mentioned, shall be made use of by the Donor or anyone in the Donor's behalf, unless and until the same shall have first been submitted to and received the approval of the Director of the Institute.

8. The Fellowship provided for in this Agreement shall terminate on the _____ day of _____, 19____. It is understood and agreed that the Donor may renew this Fellowship upon such payments and terms as may be agreed upon.

In witness whereof, the parties hereto have caused this Agreement to be duly executed under the seal the day and year first above mentioned.

MELLON INSTITUTE OF INDUSTRIAL RESEARCH
OF THE UNIVERSITY OF PITTSBURGH,

By _____,
Director.

Witness:

_____

(Donor)_____

_____

By_____

_____

[Reprinted from news edition Industrial and Engineering Chemistry, vol. 18, p. 162, Apr. 20, 1935]

PROGRESS AT MELLON INSTITUTE DURING 1934–35[1]

THE GROWTH OF MELLON INSTITUTE during the past twenty-four years is a striking illustration of the rising esteem for research. One of the first organizations in this country founded expressly for investigating the problems of the industries, the industrial fellowships of the institute have now passed the one-thousand mark and have served 3,600 companies, either as independent firms or as members of industrial associations. In ten instances, fellowship inventions have created new industries, and many new branches have been added to existing manufactures as a result of other research accomplishments. The further development of industry will be effected only through the greater accumulation of scientific knowledge. Science has now so greatly expanded its boundaries that significant contributions to its future enlargement can be made only with well-equipped laboratories, adequate libraries, and tools of intricate mechanism. The founders of research laboratories are therefore among the greatest contributors to the progress of science and are classed with the great benefactors of mankind. Fortunately, there have arisen in this country a few conspicuous men of this type, and as a result the march of science is steadily on and always to the ultimate enrichment, and not impoverishment of the human race.

---

[1] Abstract of the Twenty-second Annual Report of the director, E. R. Weidlein, to the trustees of the institution.

Digitized by Google

It is generally recognized that chemical research is a factor in aiding the unemployment situation; and it has often demonstrated its capability of bringing new employment, thereby compensating for the displacement resulting from increased mechanical efficiency or other technological changes. The cooperation of science with the industries has been directly responsible for our higher standard of living. Our present standard not only can be maintained, but can be progressively improved by creating the proper conditions for the industries, whereby they can plan for the future and show the way through a continuous development of products and an expansion of activities, so that the consumer is offered new and better commodities at lower costs.

The chemical industry as a whole has maintained its research organizations and has been gradually expanding during the past year. The institute has been extending its own activities in the field of pure scientific research, as well as in industrial work. In addition to its wide investigational program, the institute has, since the beginning of the depression, aided in the employment of scientists and engineers, and it is becoming more difficult to fill the recent demands for specialists. It is also encouraging to note that an increasing number of opportunities are opening up for the younger technical graduates. As in the preceding years, the organization has been helpful to scientific professions and to the industries by presenting facts respecting the utility of applied science, in addresses before business groups, and in popular articles. In addition, a series of lectures on important subjects in industrial chemistry and chemical engineering is presented by specialists of the institute. These discourses are open to the students of industrial chemistry and chemical engineering in the University of Pittsburgh, as well as to interested scientists and engineers in the Pittsburgh district.

One of the functions of the institute is to act as a clearing house on specific scientific information for the public. Where it is possible this is supplied direct, and in other cases the inquirer is referred to the proper sources—specialists in various fields; research laboratories working along specific lines; commercial laboratories; and to pertinent books and periodicals.

PROGRESS IN THE CONSTRUCTION OF THE INSTITUTE'S NEW BUILDING

The first use of the new Mellon Institute building was to house the Science Exhibition held in connection with the Pittsburgh meeting of the American Association for the Advancement of Science. More than 25,000 people visited the exhibition, which was open from December 27 to December 30, 1934. The success of the display was due to the many eminent scientific men who personally devoted their time to exhibits and demonstrations. The new building will be gradually occupied during the year. The chemical engineering quarters are practically completed and many of the new laboratories will be ready for occupancy within the next few months. It is planned to have the building entirely completed by the end of 1935.

GENERAL CONDITION OF THE INSTITUTE'S INTERNAL AFFAIRS

Financial Information.—In the fiscal year, March 1, 1934, to March 1, 1935, the total sum of $596,937.68 has been received by the institute from industrial fellowship donors to defray the cost of scientific investigations being carried on for these companies and associations. The money appropriated by donors during the past twenty-four years amounts to $10,029,544.

Industrial Fellowships, Fellows, and Assistants.—Throughout the last fiscal year 62 industrial fellowships—17 multiple and 45 individual fellowships—have been at work (see appended list). These different investigations have required the services of 97 fellows and 48 assistants during all or part of the year. At the close of the year 56 industrial fellowships—16 multiple and 40 individual fellowships—were in operation, and 87 fellows and 29 assistants held positions thereon. Twenty-eight fellowships have been working for five years or more, and of this number 14 have concluded 10 years of research, 8 have been active for 15 years or more, and 8 fellowships are 20 years of age or older.

Digitized by Google

CHANGES IN INDUSTRIAL FELLOWSHIPS DURING 1934–35

New Industrial Fellowships.—Seven fellowships began operation during 1934–35: Starch (980); Stone (990); Closure (997); Zymology (1011); Demulcent (1017); Laboratory (1025); and Thread (1028).

The institute also accepted a new fellowship on soy bean, which began operation on March 1, 1935.

Industrial Fellowships Terminated.—The following fellowships concluded their investigational programs during the year: Cleaning (931); Velvet (950); Vanadium (951); Sugar (958); Phosphates (960); and Paper Finishing (963).

The incumbents of fellowships 951, 960, and 963 have been appointed to fellowships 990, 1017, and 997, respectively. The holders of fellowships 931 and 950 have been transferred to the plants of their donors.

NOTABLE INDUSTRIAL RESEARCH RESULTS

The activities of the fellowships have been so extensive that it is necessary to study the appended fellowship list and the annual supplement to our Bibliographic Bulletin No. 2 to comprehend the scope of the work. Many of the fellowship findings have been published during the year in scientific and trade journals. The following brief summaries cover new releasable facts regarding recent research progress:

Results of Fundamental Research on Carbon Blacks.—Since 1927 the Carbon Black Fellowship (982), sustained by the Columbian Carbon Co., New York, N. Y., has been studying the physical, chemical, and colloidal properties of carbon black pigments. It has also been concerned with the application of this fundamental work to the development of new carbon blacks, new uses for carbon blacks, and improvements of various products in which carbon blacks are at present used. The fellowship incumbent, C. W. Sweitzer, has collaborated in all these studies with the Research and Development Department of the Binney and Smith Co., which is allied with the donor.

The fellowship's basic investigation of the dispersion properties of carbon blacks has led to the development of a method for colloidally dispersing carbon black pigments in lacquer vehicles, this colloidal dispersion resulting in markedly improved properties for the black lacquer. The preparation of black lacquers by this method involves two operations. In the first, the carbon black is colloidally dispersed in a lacquer body of nitrocellulose plus some plasticizer, the product of this operation being a dry, brittle lacquer intermediate in which carbon black is dispersed to its ultimate fineness. The second consists of the solution of this dry product in suitable lacquer solvents and the formulation of this solution with stock lacquer components to give the final finished black lacquer. This dry lacquer intermediate is being manufactured by the Binney and Smith Co. and is offered to the trade under the name of "Coblac." The process and product of this development are both fully covered by United States Letters Patent, recently granted.

The use of Coblac enables the manufacturer to prepare superior black lacquers by simply dissolving the Coblac and formulating this solution with stock solutions to give the desired product. It also elimnates the troublesome and unsatisfactory pebble mill grinding of carbon blacks, since the carbon black is dispersed in Coblac and retains this colloidal dispersion during subsequent solution and formulation. The superiority of such black lacquers is amply demonstrated. Compared with the best carbon black pigmented lacquers available on the market prior to the introduction of Coblac, these lacquers show remarkable improvement in color (blackness), color tone (black instead of the usual brown or gray cast), stability of pigment dispersion, remarkably increased resistance to ultraviolet exposure and weathering, and surprisingly superior gloss properties. In brief, by the use of Coblac the lacquer manufacturer is able readily to prepare black lacquers showing the maximum development of all the properties most desired.

In recent years some states have specified the use of dark and light traffic lanes in new highway construction, the purpose being to cut down road glare and to afford more contrast between the lanes. The darkened concrete is obtained by coloring with black pigments, carbon black being found most satisfactory for this purpose. Fellowship studies showed that, by the use of aqueous

Digitized by Google

dispersions of carbon black, maximum darkening of concrete could be obtained with minimum pigment content (2 per cent carbon black). Furthermore, various physical tests on concrete containing 2 per cent dispersed black showed in every instance improved strength, this improvement being as much as 25 per cent in some cases. Undoubtedly, the colloidal black besides coloring the concrete improves, in some manner, the bond between the hydrated cement and aggregate, thereby increasing the strength of the concrete. It seems quite probable that these aqueous dispersions of carbon black will have a considerable use, not only for darkening but also for increasing the strength of all compositions, such as concrete, mortars, and artificial stone. Aqueous dispersions of carbon blacks for these purposes are being manufactured and sold under the name of "Hiblak."

This strength improvement in aggregate-containing compositions resulting from the addition of carbon black was demonstrated strikingly in a study of the effect of carbon blacks on sulfur cements. The discovery was made that the addition of 2 to 5 per cent carbon black to sulfur-sand compositions improved markedly the workability of the mixtures and furthermore increased very appreciably their strength and stability. In fact the strength of certain sulfur cements containing 2 per cent carbon black was found to be as much as 50 per cent greater than the strength of the same cement without the carbon black.

Advance in Enamel Procedure.—The O. Hommel Co.'s fellowship on enameling (1014) has given attention to several aspects of enameling procedure and W. J. Baldwin, the incumbent, has carried into the plant stage of development an improved enameling process.

Recognizing the practical necessity of employing cobalt in the ground coat to insure maximum adherence of the enamel to the steel and for the purpose of eliminating the usual ground coat, a procedure has been developed by which a special ground coat and the first cover coat are applied in one firing. As a consequence of the absence of the customary dark ground coat, one or two light cover coats are adequate for the desired finish and, in addition, one firing operation is eliminated. Thus a simplification and a saving have been effected in operation and in materials and, at the same time, the quality of the product has been maintained.

Mr. Baldwin has also studied the problem of stabilizing certain colors which have an inherent tendency to change in appearance during the firing operation. As a result, several new frit compositions have been developed that minimize this color change.

Development of New Building Materials.—Hard-Finished Robertson Protected Metal, which was described in an earlier report, has been renamed "Tile-Faced Robertson Protected Metal." This building material was developed by D. S. Hubbell, one of the incumbents of the H. H. Robertson Co.'s fellowship (992), and is manufactured under U. S. Patent 1,973,193 and corresponding foreign patents. The second year of commercial production has been devoted largely to simplification of plant operation and to the improvement of equipment design.

During two years of commercial production, the ready acceptance of Tile-Faced Robertson Metal has demonstrated that a broad, immediate market exists for this novel building material, owing to the fortunate combination of an attractive ceramic surface upon a core of asphalt-asbestos protected steel.

The comprehensive program of research upon the fundamentals of plastic cements has been continued and during the past year has resulted in an innovation in these cements. A simple change in composition effects the synthesis of a rock-forming mineral found in nature and results in what is virtually a new cement, whose physical characteristics qualify it for many other fields of usefulness.

New Method for Testing Refractories.—The multiple industrial fellowship (985) of the American Refractories Institute has continued, under S. M. Phelps, senior fellow, work on developing new test methods for evaluating progress in developmental work, as well as for the control of commercial products while being manufactured.

One of the most important causes for failure of refractories in service is spalling. It was realized some years ago that the test methods then in use

Digitized by Google

were not satisfactory, so the problem of designing a special test which would actually simulate service conditions was studied. This work has led to the development of what is known as the panel spalling test.

The principle of this test is to expose for treatment a section of a furnace wall rather than individual brick. The surface of the panel is heated for a 24-hour period under suitable conditions so as to reproduce the depth and degree of vitrification found in many types of industrial furnaces. The heat-treated panel is then given a series of severe thermal shocks by an alternate heating and cooling, the cooling being accomplished by means of an air blast. The test was conducted on a large number and variety of commercial products, and the data were correlated with the actual behavior of these brands in service. The results were so promising that the test has been accepted by the industry and is now part of the A. S. T. M. test methods. The rather extensive testing equipment necessary for the procedure has also been adopted. Suitable spalling procedures have been incorporated in three A. S. T. M. specifications covering refractories for malleable iron furnaces, stationary boilers, and incinerators.

The accurate determination of alkalies in refractory materials high in alumina has long been a problem. The J. Lawrence Smith method is not entirely satisfactory because the samples are not readily decomposed by the usual procedure. A systematic investigation was made of the procedure, devoting considerable attention to the time and temperature of the fusion. This work showed that it was necessary to control the temperatures accurately in order to obtain complete decomposition of the sample. Loss of alkali by volatilization was overcome by cooling the top portion of the crucible.

Another part of the study had to do with the decomposition of samples by means of a hydrofluoric acid method. After the initial hydrofluoric acid treatment, the R_2O_3 is precipitated in the usual manner, the calcium as oxalate, and the magnesium by 8-hydroxyquinoline. The alkalies are then weighed as sulfates, and, by determining the sulfur trioxide, the alkali content as oxides can be calculated. The details of these methods are to be published.

The question of the effect of furnace gas pressure on the behavior of refractories in industrial furnaces has always been an interesting subject for discussion. During the past year the fellowship conducted experimental work to show the effect of positive and negative furnace pressures on two types of clay refractories. The bricks under test were laid up with joints of a high-shrinking kaolin to allow leakage of gases through the joints, and, for the sake of comparison, some tests were made, using a joint material which produced a monolithic structure. In this study it was clearly demonstrated that positive pressures within the furnace cause the brick to vitrify to a much greater depth, and this results in a subsequent high spalling loss. As would be expected, reduced pressures within the furnace allow cold air to filter through the brickwork, reducing the depth of vitrification, which results in a smaller spalling loss. The use of well-sealed joints reduces the furnace pressure effect but, even so, there is a great difference between positive and negative pressure. For example, with Brand A, the spalling loss resulting from the negative pressure was 2.9 per cent, while positive pressure showed 16.7 per cent loss; and with Brand B, the order was 5.4 per cent and 14.6 per cent. Both of these tests were conducted with the open type of joint material. The results of this study also will be published.

Research on Sodium Hexametaphosphate.—During the past two years Bernard H. Gilmore, as the incumbent of the Calgonizing Fellowship (995), has conducted an extended investigation of the role of this salt in sequestering calicum and magnesium ions as they affect detergent operations in which soap is used or formed. By removing these ions from solution without precipitation, the curdling effect of hard water upon soap is completely inhibited, and all of the soap used in washing operations is held in solution to exercise its full detergent effect. Published contributions from the fellowship have included reports on the use of sodium hexametaphosphate in laundering and in mechanical dishwashing, the cleaning of the foliage of evergreen shrubbery, its use as a veterinary wash for the removal of medication, and for pet-washing in general, and a broad theoretical discussion of the use of sodium hexametaphosphate as an adjuvant to soap in detergency operations. Dr. Gilmore has also investigated the

Digitized by Google

methods for the determination of calcium soap on textile fibers, has pointed out a number of fallacies that have arisen out of the past use of faulty methods, and has recommended an analytical procedure by which trustworthy results may be obtained. This study promises to be of much assistance in the solution of difficulties in textile-dyeing operations.

New Sulfur Cements.—The multiple industrial fellowship (988) sustained by the Texas Gulf Sulphur Co., Inc., New York, N. Y. (incumbents: W. W. Duecker, senior fellow, and C. R. Payne) has continued its broad investigation of problems relating to the utilization of sulfur.

During the year it was announced that acid-resistant cements, made by combining sulfur with an aggregate, could be improved by the addition of certain olefin polysulfides. With the aid of these sulfides, sulfur cement can be made resistant to deterioration by fluctuating temperatures and can also be produced in varying degrees of plasticity. Such cements can be applied as bonding agents or as protective coatings in structures subjected to acids or corrosive solutions. The production of such modified sulfur cements has been undertaken by a commercial company.

Among its other activities the fellowship also rendered assistance to the donor in the preparation of a booklet dealing with the history, production, and uses of sulfur and containing tabulated scientific data of value in the application of this element. The booklet was widely distributed and favorably received.

Improvement of Safety Razors.—E. J. Casselman, on the Magazine Repeating Razor Co.'s Industrial Fellowship (1029), has been engaged in a study of improvements of safety razors, including guard-bar design and razor-blade quality. He has developed a procedure that has resulted in the advancement of the technic of controlling factory methods for sharpening safety razor blades, as well as enabling the manufacturer to specify the correct quality of razor-blade steel.

Organic Synthesis.—The Perkin Medal for 1935 was presented to George O. Curme, Jr., vice president and director of research of the Carbide and Carbon Chemicals Corp., on January 11, 1935, at a joint meeting of scientific societies under the auspices of the American Section of the Society of Chemical Industry. The Carbide and Carbon Chemicals Corp. was formed on a basis of Dr. Curme's research work in the institute in the field of aliphatic chemistry. His achievements emphasize the value of carefully organized and fundamental research work. The research work is still being conducted at the institute by the Carbide and Carbon Chemicals Corp. (fellowship 1019) under the supervision of E. W. Reid, senior fellow.

This fellowship has developed and improved methods for the production of glycol ethers, and several new products of this type were synthesized and their properties examined. Several new plasticizers of the ether-ester type were prepared and tested. The work on the development of new types of vinyl resins was continued. A group of polyethylene amine derivatives of ethylene diamine, particularly triethylene tetramine, was developed for use in the gas purification field for the removal and/or recovery of acid vapors, such as hydrogen sulfide or carbon dioxide. These products are now being produced on a semicommercial scale. The production of morpholine and certain derivatives, such as morpholine ethanol, methyl morpholine, and phenyl morpholine, has been realized and will permit their commercial utilization. New uses have been discovered for the ethylene and morpholine amines. These materials can be used in the purification of liquids in the manufacture of polishes, in new types of medicinals, as textile and dye assistants, and as corrosion inhibitors.

Dental Caries Investigation.—Some studies of the fundamental causes of tooth decay have been made by G. J. Cox and Mary L. Dodds, of the multiple industrial fellowship (958) sustained by The Sugar Institute, Inc. A new type of experimental dental caries has been observed in rats and seems to be related to the diet of the animal—i. e., of the nursing mother at the time of formation of the enamel in the young. The appearance and location of the initial lesions indicate that the decay is not caused by fracture arising from coarse particles of food. As the lesions first appear as opaque areas and later become open cavities, they closely resemble typical enamel caries in the human subject and therefore probably arise by the same process in both species. As susceptibility

Digitized by Google

to tooth decay in the rat seemed to be related to the diet during tooth formation, modifications of the maternal diet were made to determine if caries incidence could be controlled. It was found that caries appeared on diets made up with all the presently recognized essential constituents; but, if such diets were supplemented with certain milk fraction, or with milk itself, the incidence of caries was markedly reduced. These results suggest the existence of a factor which, if present in the diet during a critical period of tooth formation, will aid in the construction of teeth resistant to decay.

Arrangements have been completed with an industrial organization to manufacture and market the chemicals derived from sugar, such as sucrose octaacetate, calcium, levulinate, and the esters of levulinic acid.

Food Research.—The multiple industrial fellowship of the H. J. Heinz Co. (1022), E. R. Harding, senior fellow, developed two new strained foods during 1934. One is a strained cereal for use in the feeding of babies and in special diets. The other is strained apricots, prepared from fresh, undried fruit.

A great deal of work was done on vitamin C with relation to its distribution in vegetable varieties, effect of harvesting and storage of the vegetable, and its destruction in various processes in the manufacture of food products.

Air Hygiene (793).—The Owens automatic filter was kept in operation during the year, so that the continuous record of solid atmospheric pollution at the fellowship's station could be maintained. During the first half of the year there was opportunity to make particle counts with the Owens dust counter and the Hill dust counter. The C. W. A. project mentioned in the last report was continued intermittently to August 2, when it was discontinued until December 6. The work included a study of 2,500 autopsy cases to determine degrees of anthracosis, complicated or uncomplicated by tuberculosis and/or pneumonia; attempts to simplify methods and instrumentation for the study of suspended solids; the building of a spectrograph to be used with photoelectric cells to measure energy from natural light in specific regions; a critical study of circuits for amplification of minute currents; and chemical analyses of fuels as well as of air pollution. The project will continue into 1935.

At the request of the Pennsylvania Railroad, a survey was made to determine the amount and effects of volatile sulfur compounds emitted from stacks of locomotives transferring mail to and from the new post office building in Pittsburgh. A preliminary study of air pollution in Scranton, Pa., with recommendations for abatement, was made by request.

In coöperation with the Smoke Abatement Fellowship (1024), addresses were made on invitation and these and some other activities of the two fellowships were publicized in the continued compaign for general education in the effects of, and rational remedies for, excessive smoke and dust. In particular, Mr. Meller and Mr. Sisson have been keeping closely in touch with government-financed housing projects and the development of building materials and of fuel-burning and air-conditioning equipment.

DEPARTMENT OF RESEARCH IN PURE CHEMISTRY

Studies in the field of cinchona alkaloids have been continued with particular emphasis on following lines which might lead to compounds of value therapeutically in pneumonia. To date fifty-nine different preparations have been tested for toxicity, protection against lethal doses of pneumococci in animals and pneumococcocidal power, in vitro. Many biological and clinical data are being accumulated by Dr. W. W. G. Maclachlan and his associates, Drs. H. H. Permar, John M. Johnston, Joseph R. Kenny, and H. B. Burchell. One paper, "Some Effects of Quinine Derivatives in Experimental Pneumococcus Studies", has been published.

The chemical staff has been enlarged by the addition of B. L. Souther and Mary Hosler during the year.

A paper (at present in press, C. L. Butler, W. L. Nelson, Alice G. Renfrew, and Leonard H. Cretcher) on "Cinchona Alkaloids in Pneumonia" was presented at the September 1934 meeting of the American Chemical Society. A completed research on the action of sodium and sodium amide has been accepted for publication (Alice G. Renfrew and Leonard H. Cretcher). Studies on the preparation of apoquinine and its ethyl and hydroxyethyl ethers are practically

Digitized by Google

ready for publication. Other aqoquinine ethers, such as the methyl, isopropyl, and higher alkyl ethers, will be studied further. The preparation and alkylation of cinchona alkaloid oxides are under way. To date the most interesting compounds studied, from the medical point of view, have been hydroxyethylhydrocupreine, apoquinine, ethylapoquinine, and hydroxyethylapoquinine.

Revision of the United States Pharmacopeia.—The institute has taken an active part, during the past five years, in the preparation of the Eleventh Revision of the United States Pharmacopeia. This work is of particular importance at this time because of new responsibilities that will be placed upon manufacturers should pending food and drug legislation be enacted by the Congress. G. D. Beal during this period has served as chairman of the Revision Committee's Subcommittee on Organic Chemicals, in which he has been assisted by C. R. Szalkowski, assistant in the Department of Research in Pure Chemistry. Dr. Beal is also a member of the Subcommittees on Proximate Assays and Reagents and Test Solutions, and has taken an active part in the deliberations of the Subcommittee on Inorganic Chemicals.

U. S. P. XI will contain among its official titles standards for about 200 substances classified as organic chemicals, of which approximately 10 percent are receiving pharmacopeial recognition for the first time. Changes in manufacturing procedures, newly discovered scientific data and therapeutic needs, and the necessity in some cases for more rigid standardization have made imperative the revision of many assays and tests for purity, and the development of new assay processes for the elimination of hitherto unrecognized inaccuracies.

Included in the studies that have been completed during the five-year period are: A critical study of the melting point of acetylsalicylic acid, the determination of aldehydes and peroxides in ether, the detection of gelatin in agar, a volumetric (iodometric) assay for organic nitrites and nitroglycerin, the detection of rosin and rosin oil in balsams, the differentiation between barbital and phenobarbital, a gravimetric method for the assay of camphor and its preparations made necessary by the admission of optically inactive synthetic camphor, the detection of acetone in chloroform, the assay of chloroformic preparations, the detection of carnauba wax in beeswax, the assay of compound solution of cresol, two methods for the chemical evaluation of methylene blue, an investigation of the water of crystallization of quinine sulfate, the evaluation of the adsorptive properties of medicinal charcoal, the detection of antipyrine in amidopyrine, the revision of the pharmacopeial standards for soap, and a critical study of the methods for the chemical assay of thyroid preparations. Many other tests and assays have been carefully rechecked. Six papers have been published and as many more will appear within the next few months.

RESEARCH AT WESTERN PENNSYLVANIA HOSPITAL

The coöperative work with the Institute of Pathology of the Western Pennsylvania Hospital in Pittsburgh, made through arrangements with Dr. C. B. Schildecker, has been continued. These studies are being carried out by twelve scientists under the direction of Dr. R. R. Mellon. This work covers a broad investigaton of pneumonia and allied pulmonary diseases. Considerable advancement has been made in an anti-pneumococcic serum and an anti-streptococcic serum.

BIBLIOGRAPHIC INFORMATION

During the calendar year 1934, 11 bulletins, 19 research reports, and 41 other papers were contributed to the literature by members of the institute. Fifty-two U. S. patents and 49 foreign patents were issued to fellows. The total publications for the 24 years ended December 31, 1934, have been 18 books, 122 bulletins, 704 research reports, 1,023 other articles, and 582 U. S. patents.

The seventh annual supplement to Bulletin No. 2 of the Institute's Bibliographic Series was printed and distributed. The eighth supplement is being prepared for publication by Henrietta Kornhauser, librarian. Copies of this bulletin and its supplements, which list the books, bulletins, journal contributions, and patents (U. S. and foreign) of the institute's membership, 1911–35, will be supplied, gratis, to laboratory directors, librarians, and science teachers upon request.

Digitized by Google

Industrial fellowships in operation at Mellon Institute during the fiscal year, Mar. 1, 1934, to Mar. 1, 1935

Fellowship no.	Fellowship name (with foundation year)	Fellows and assistants	End of fellowship year
793	Air Pollution (1928)	H. B. Meller (E. M., University of Pittsburgh)	Sept. 15, 1935
931	Cleaning (1921)	L. E. Jackson (B. S., University of Kansas)	May 1, 1934
936	Phytochemistry (1932)	C. F. Bailey (Ph. D., University of Wisconsin)	June 1, 1935
950	Velvet (1928)	G. S. Hiers (Ph. D., University of Illinois)	Sept. 1, 1934
951	Vanadium (1933)	R. C. Briant (B. S., Lafayette College)	May 1, 1934
958	Sugar (1930)	G. J. Cox (Ph. D., University of Illinois), senior fellow.	Oct. 1, 1934
		May L. Dodds (M. S., University of Pittsburgh).	
		W. E. Walker, assistant.	
		J. J. Enright (Ph. D., Yale University), assistant, to July 1, 1934.	
960	Phosphates (1933)	Adolphus Koenig (M. D., University of Pittsburgh).	Nov. 1, 1934
963	Paper Finishing (1923)	Marc Darrin (M. S., University of Washington)	June 15, 1934
		V. H. Hayden, assistant.	
974	Tire Bead (1931)	H. E. Foote (Ph. D., Brown University)	Apr. 1, 1935
		John Metschl (Ph. D., University of Wisconsin), assistant, from Apr. 3, 1934, to Mar. 1, 1935.	
		T. R. LeCompte (Ph. D., Columbia University), assistant, to Mar. 3, 1934.	
978	Slag (1921)	Tracy Bartholomew (E. M., Colorado School of Mines).	Sept. 21, 1935
979	Cosmetics (1933)	W. L. Nelson (Ph. D., University of Pittsburgh).	Nov. 15, 1935
980	Starch (1934)	D. L. Sherk (Ph. D., University of Wisconsin)	Apr. 15, 1935
982	Carbon Black (1927)	C. W. Sweitzer (Ph. D., University of Toronto)	Apr. 1, 1935
983	Pressing Machinery (1928)	E. R. Clark (M. S., University of Pittsburgh)	Apr. 1, 1935
984	Nitrogen Compounds (1933)	P. J. Wilson, Jr. (B. S., University of Michigan), senior fellow.	May 1, 1935
		J. H. Wells (Ph. D., Cornell University)	
985	Refractories (1917)	S. M. Phelps, senior fellow	May 1, 1935
		E. B. Read (B. S., Kenyon College).	
		Vance Cartwright (M. S., University of Washington).	
		E. C. Petrie (B. Cer. E., Ohio State University).	
986	Safety Fuse (1930)	D. E. Pearsall (Ch. E., University of Pennsylvania).	May 1, 1935
987	Bread (1930)	H. A. Kohman (Ph. D., University of Kansas)	May 1, 1935
988	Sulfur (1931)	W. W. Duecker (Ph. D., Iowa State College) senior fellow.	May 15, 1935
		C. R. Payne (Ph. D., University of Pittsburgh)	
989	Cotton Yarns (1925)	C. F. Goldthwait (B. S., Worcester Polytechnic Institute), senior fellow.	May 16, 1935
		E. R. McLean (B. T. C., Lowell Textile Institute).	
990	Stone (1934)	R. C. Briant (B. S., Lafayette College)	May 1, 1935
991	Detergent (1932)	R. R. Fulton (A. B., University of Kansas)	June 1, 1935
		Pauline M. Hopfer (B. S., University of Pittsburgh), assistant, from July 16 to Dec. 13, 1934.	
992	Protected Metals (1918)	J. H. Young (Ph. D., Ohio State University), senior fellow.	June 1, 1935
		P. W. Jenkins (B. S., University of Pittsburgh)	
		A. W. Coffman (Ph. D., University of Illinois)	
		D. S. Hubbell (M. S., Ohio State University)	
993	Cottonseed Products (1930)	A. W. Harvey (Ph. D., University of Pittsburgh).	June 15, 1935
994	Abrasives (1930)	A. P. Thompson (Ph. D., University of Illinois)	Jan. 1, 1936
995	Calgonizing (1933)	B. H. Gilmore (Ph. D., Ohio State University)	June 15, 1935
996	New Plastics (1933)	E. H. Balz (Ph. D., University of Pittsburgh)	July 1, 1935
997	Closure (1934)	Marc Darrin (M. S., University of Washington)	June 15, 1935
		Elinor A. Sackter (B. S., University of Pittsburgh), assistant, from Oct. 18, 1934.	
998	Rayon (1933)	W. B. Burnett (Ph. D., University of Illinois), senior fellow.	July 15, 1935
		L. V. Clark (B. S., Grove City College)	
999	Pharmaceuticals (1922)	H. W. Coles (Ph. D., Iowa State College)	July 1, 1935
1000	Insecticides (1917)	O. F. Hedenburg (Ph. D., University of Chicago).	July 1, 1935
		Elinor A. Sackter (B. S., University of Pittsburgh), assistant, from Mar. 5 to June 1, 1934.	
1001	Yeast (1931)	R. R. Irvin (M. S., University of Kansas), senior fellow.	Aug. 1, 1935
		M. W. Mead (Ph. D., University of Pittsburgh)	
1002	Steel (1927)	S. A. Braley (Ph. D., University of Illinois)	Aug. 1, 1935
1003	Anthracite (1932)	H. J. Rose (Sc. D., Yankton College,) senior fellow.	Aug. 15, 1935
		F. P. Lasseter (Ph. D., Columbia University)	
		Minnie Griffith, assistant	

Digitized by Google

Industrial fellowships in operation at Mellon Institute during the fiscal year, Mar. 1, 1934, to Mar. 1, 1935—Continued

Fellowship no.	Fellowship name (with foundation year)	Fellows and assistants	End of fellowship year
1004A	Petroleum Refining (1911)	W. A. Gruse (Ph. D., University of Wisconsin), senior fellow. D. R. Stevens (Ph. D., University of Chicago) E. B. Hjerpe (B. S., Knox College) O. L. Brandes (A. M., Syracuse University) N. J. Beaber (Ph. D., Iowa State College) assistant. W. P Ridenour (A. M., Columbia University) assistant. W. E. Walker, assistant, from Dec. 11, 1934 F. F. Rupert (Ph. D., Massachusetts Institute of Techonology), assistant, from Nov. 5, 1934, to Jan. 15. 1935.	Sept. 1, 1935
1004B	Petroleum Production (1924)	I. E. Muskat (Ph. D., University of Chicago), head, Organic Division. A. J. Teplitz (B. S., University of Kansas) H. C. Lawton (M. S., University of Pittsburgh) W. W. Weinrich (M. S., Massachusetts Institute of Technology). Walter Brooks (B. S., University of Chicago) C. W. Montgomery (Ph. D., University of California). J. M. Boggs, assistant, from Sept. 10, 1934 J. M. Fulton (M. S., University of Illinois), assistant, from Oct. 1, 1934. J. D. Benedito (B. S., Yale University), assistant, from Oct. 1, 1934. C. K. Hunt (Ph. D., University of Michigan), assistant, from Oct. 15, 1934. G. L. Bennett, assistant, from Oct. 11, 1934 G. H. Stillson (Ph. D., University of Chicago), assistant, from Oct. 24, 1934. L. T. Jenkins (B. S., University of Pittsburgh), assistant, from Nov. 1, 1934. A. H. Orr (B. S., Massachusetts Institute of Technology), assistant, from Nov. 1, 1934. J. F. Allison (B. S., Grove City College), assistant, from Nov. 26, 1934. H. J. R. Gaspari (B. S., Carnegie Institute of Technology), assistant, from Nov. 26, 1934. M. J. Boegel (B. S., University of Pittsburgh), assistant, from Dec. 6, 1934. D. W. Sawyer (B. S., University of Pittsburgh), assistant, from Dec. 11, 1934. E. H. Epprecht, assistant, from Feb. 16, 1935 W. S. Miller (B. S., Lehigh University), assistant, from Feb. 18, 1935. W. A. Owens, assistant, from Feb. 18, 1935 H. A. Ambrose (Ph. D., Massachusetts Institute of Technology), to Nov. 1, 1934. H. C. Hunter (B. S., Pennsylvania State College), from July 1 to Oct. 1, 1934.	Sept. 1, 1935
1005	Dairy Technology (1931)	H. K. Salzberg (Ph. D., University of Wisconsin).	Oct. 1, 1935
1006	Illuminating Gas (1931)	R. R. McGregor (Ph. D., University of Illinois) Mary E. Warga (M. S., University of Pittsburgh), assistant, to May 1, 1934.	Sept. 1, 1935
1007	Natural Gas (1915)	J. B. Garner (Ph. D., University of Chicago) J. T. Stearn (Sc. D., Federal Polytechnic Institute of Switzerland), assistant, from Nov. 23, 1934. M. G. Garner, assistant, to May 14, 1934.	Sept. 15, 1935
1008	Food Merchandising (1933)	M. D. Coulter (Ph. D., Ohio State University) Mary A. Clapp (B. S., University of Pittsburgh) assistant, from June 1 to Sept. 9, 1934. Elinor A. Sackter (B. S., University of Pittsburgh), assistant, to Mar. 15, 1934.	Oct. 10, 1935
1009	Paper (1928)	P. B. Davidson (Ph. D., Columbia University)	Oct. 1, 1935
1010	Can (1929)	R. B. McKinnis (Ph. D., University of Pittsburgh), senior fellow. J. M. Boyd (M. S., University of Florida).	Oct. 1, 1935
1011	Zymology (1934)	J. J. Enright (Ph. D., Yale University)	Oct. 1, 1935
1012	Shoes (1930)	C. H. Geister (M. S., Iowa State College)	Oct. 15, 1935
1013	Tar Acids (1933)	E. B. Kester (Ph. D., Northwestern University).	Nov. 21, 1935
1014	Ceramic Chemicals (1933)	W. J. Baldwin (B. S., University of Buffalo), from Oct. 1, 1934. J. H. Waggoner (B. S., University of Kansas), to Dec. 1, 1934.	Dec. 1, 1935

Digitized by Google

Industrial fellowships in operation at Mellon Institute during the fiscal year, Mar. 1, 1934, to Mar. 1, 1935—Continued

Fellowship no.	Fellowship name (with foundation year)	Fellows and assistants	End of fellowship year	
1015	Garment (1929)	T. H. Swan (Ph. D., Ohio State University), senior fellow. H. C. Donaldson (B. S., University of Pittsburgh).	Dec.	1, 1935
1016	Silicate (1917)	L. C. Hewitt (B. S., Iowa State College)	Dec.	1, 1935
1017	Demulcent (1934)	Adolphus Koenig (M. D., University of Pittsburgh).	Dec.	19, 1935
1018	Nitrogenous Resins (1928)	M. H. Bigelow (Ph. D., University of Pittsburgh).	Jan.	1, 1936
1019	Organic Synthesis (1914)	E. W. Reid (Ph. D., University of Pittsburgh), senior fellow. F. H. Robertson (B. A. Sc., University of Toronto). H. R. Fife (M. S., West Virginia University) B. G. Wilkes (Ph. D., Columbia University) A. G. Boese, Jr. (Ph. D., Princeton University). H. D. Cogan (A. M., University of Illinois) A. H. Tenney (Ch. E., Columbia University) John Curry, assistant. E. C. Martin, assistant. F. M. Strasler (B. S., University of Pittsburgh), assistant. R. G. Ruark, assistant. H. G. Goodman, Jr. (M. S., Virginia Polytechnic Institute), assistant. H. P. White (B. S., University of Pittsburgh), assistant, to Feb. 1, 1935. C. P. Carhart (A. B., Princeton University), assistant, to Dec. 1, 1934. H. W. Peyser (B. S., Yale University), assistant, to Dec. 1, 1934. C. C. Donovan (B. S., Yale University), assistant, to Dec. 1, 1934. T. W. Sharp (A. B., Harvard University), assistant, to Oct. 1, 1934. M. W. Lewis (M. S., University of Pittsburgh), assistant, to Apr. 1, 1934. V. H. Boden (A. B., Wesleyan University), assistant, to Apr. 1, 1934.	Jan.	1, 1936
1020	Enamels (1925)	D. G. Bennett (B. S., University of Illinois)	Jan.	1, 1936
1021	Optical Glass (1931)	F. L. Jones (Ph. D., Columbia University)	Jan.	1, 1936
1022	Food Varieties (1921)	E. R. Harding (A. M., Stanford University), senior fellow. Helen B. Wigman (B. S., University of Pittsburgh). W. C. Bell, assistant.	Jan.	1, 1936
1023	Insulation and Roofing (1916).	R. H. Heilman (M. E., University of Pittsburgh), senior fellow. R. W. Ortmiller (M. S., University of Pittsburgh).	Jan.	1, 1936
1024	Smoke Abatement (1932)	L. B. Sisson	Jan.	1, 1936
1025	Laboratory (1935)	E. E. Marbaker (Ph. D., University of Pennsylvania).	Jan.	10, 1936
1026	Commodity Standards (1931)	Jules Labarthe, Jr. (Ph. D., University of Pittsburgh), senior fellow. A. F. Tesi (B. S., University of Pittsburgh). M. S. Morgan, assistant, from June 1, 1934.	Jan.	19, 1936
1027	Heating (1929)	J. L. Young (Ph. D., University of Pittsburgh)	Feb.	1, 1936
1028	Thread (1935)	T. A. Wilson (Ph. D., University of Illinois)	Feb.	4, 1936
1029	Shaving (1932)	E. J. Casselman (B. S., Massachusetts Institute of Technology).	Feb.	15, 1936
1030	Textile Finishing (1934)	R. N. Wenzel (Ph. D., Stanford University) J. K. Yohe (B. S., Princeton University), assistant, from July 2 to Sept. 1, 1934.	Feb.	12, 1936

Digitized by Google

ANTITRUST LAWS WITH AMENDMENTS, 1890–1923

[PUBLIC—No. 190]

AN ACT To protect trade and commerce against unlawful restraints and monopolies

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SEC. 1. Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is hereby declared to be illegal. Every person who shall make any such contract or engage in any such combination or conspiracy, shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by fine not exceeding five thousand dollars, or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the court.

SEC. 2. Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monoplize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by fine not exceeding five thousand dollars, or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the court.

SEC. 3. Every contract, combination in form of trust or otherwise, or conspiracy, in restraint of trade or commerce in any Territory of the United States or of the District of Columbia, or in restraint of trade or commerce between any such Territory and another, or between any such Territory or Territories and any State or States or the District of Columbia, or with foreign nations, or between the District of Columbia and any State or States or foreign nations, is hereby declared illegal. Every person who shall make any such contract or engage in any such combination or conspiracy, shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by fine not exceeding five thousand dollars, or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the court.

SEC. 4. The several circuit courts of the United States are hereby invested with jurisdiction to prevent and restrain violations of this act; and it shall be the duty of the several district attorneys of the United States, in their respective districts, under the direction of the Attorney General, to institute proceedings in equity to prevent and restrain such violations. Such proceedings may be by way of petition setting forth the case and praying that such violation shall be enjoined or otherwise prohibited. When the parties complained of shall have been duly notified of such petition the court shall proceed, as soon as may be, to the hearing and determination of the case; and pending such petition and before final decree, the court may at any time make such temporary restraining order or prohibition as shall be deemed just in the premises.

SEC. 5. Whenever it shall appear to the court before which any proceeding under section four of this act may be pending, that the ends of justice require that other parties should be brought before the court, the court may cause them to be summoned, whether they reside in the district in which the court is held or not; and subpœnas to that end may be served in any district by the marshal thereof.

SEC. 6. Any property owned under any contract or by any combination, or pursuant to any conspiracy (and being the subject thereof) mentioned in section one of this act, and being in the course of transportation from one State to another, or to a foreign country, shall be forfeited to the United States, and may be seized and condemned by like proceedings as those provided by law for the forfeiture, seizure, and condemnation of property imported into the United States contrary to law.

Digitized by Google

SEC. 7. Any person who shall be injured in his business or property by any other person or corporation by reason of any thing forbidden or declared to be unlawful by this act, may sue therefor in any circuit court of the United States in the district in which the defendant resides or is found, without respect to the amount in controversy, and shall recover threefold the damages by him sustained, and the costs of suit, including a reasonable attorney's fee.

SEC. 8. That the word "person," or "persons," wherever used in this act shall be deemed to include corporations and associations existing under or authorized by the laws of either the United States, the laws of any of the Territories, the laws of any State, or the laws of any foreign country.

Approved, July 2, 1890.

[PUBLIC LAW No. 227—53d CONGRESS]

(Extract from)

SEC. 73. That every combination, conspiracy, trust, agreement, or contract is hereby declared to be contrary to public policy, illegal, and void, when the same is made by or between two or more persons or corporations either of whom is engaged in importing any article from any foreign country into the United States, and when such combination, conspiracy, trust, agreement, or contract is intended to operate in restraint of lawful trade, or free competition in lawful trade or commerce, or to increase the market price in any part of the United States of any article or articles imported or intended to be imported into the United States, or of any manufacture into which such imported article enters or is intended to enter. Every person who is or shall hereafter be engaged in the importation of goods or any commodity from any foreign country in violation of this section of this Act, or who shall combine or conspire with another to violate the same, is guilty of a misdemeanor, and, on conviction thereof in any court of the United States, such person shall be fined in a sum not less than one hundred dollars and not exceeding five thousand dollars, and shall be further punished by imprisonment, in the discretion of the court, for a term not less than three months nor exceeding twelve months.

SEC. 74. That the several circuit courts of the United States are hereby invested with jurisdiction to prevent and restrain violations of section seventy-three of this Act; and it shall be the duty of the several district attorneys of the United Staets, in their respective districts, under the direction of the Attorney General, to institute proceedings in equity to prevent and restrain such violations. Such proceedings may be by way of petitions setting forth the case and praying that such violations shall be enjoined or otherwise prohibited. When the parties complained of shall have been duly notified of such petition the court shall proceed, as soon as may be, to the hearing and determination of the case; and pending such petition and before final decree, the court may at any time make such temporary restraining order or prohibition as shall be deemed just in the premises.

SEC. 75. That whenever it shall appear to the court before which any proceeding under the seventy-fourth section of this Act may be pending, that the ends of justice require that other parties should be brought before the court, the court may cause them to be summoned, whether they reside in the district in which the court is held or not; and subpœnas to that end may be served in any district by the marshal thereof.

SEC. 76. That any property owned under any contract or by any combination, or pursuant to any conspiracy (and being the subject thereof) mentioned in section seventy-three of this Act, and being in the course of transportation from one State to another, or to or from a Territory, or the District of Columbia, shall be forfeited to the United States, and may be seized and condemned by like proceedings as those provided by law for the forfeiture, seizure, and condemnation of property imported into the United States contrary to law.

SEC. 77. That any person who shall be injured in his business or property by any other person or corporation by reason of anything forbidden or declared to be unlawful by this Act may sue therefor in any circuit court of the United States in the district in which the defendant resides or is found, without respect to the amount in controversy, and shall recover threefold the damages by him sustained, and the costs of suit, including a reasonable attorney's fee.

Received by the President, August 15, 1894.

Digitized by Google

[NOTE BY THE DEPARTMENT OF STATE.—The foregoing act having been presented to the President of the United States for his approval, and not having been returned by him to the house of Congress in which it originated within the time prescribed by the Constitution of the United States, has become a law without his approval.]

[PUBLIC LAW No. 11—55TH CONGRESS]

(Extract from)

And provided further, That nothing in this Act shall be construed to repeal or in any manner affect the sections numbered seventy-three, seventy-four, seventy-five, seventy-six, and seventy-seven of an Act entitled "An Act to reduce taxation, to provide revenue for the Government, and for other purposes," which became a law on the twenty-eighth[1] day of August, eighteen hundred and ninety-four.

Approved, July 24, 1897.

[PUBLIC—No. 82]

AN ACT To expedite the hearing and determination of suits in equity pending or hereafter brought under the Act of July second, eighteen hundred and ninety, entitled "An Act to protect trade and commerce against unlawful restraints and monopolies," "An Act to regulate commerce," approved February fourth, eighteen hundred and eighty-seven, or any other Acts having a like purpose that may be hereafter enacted

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That in any suit in equity pending or hereafter brought in any circuit court of the United States under the Act entitled "An Act to protect trade and commerce against unlawful restraints and monopolies," approved July second, eighteen hundred and ninety, "An Act to regulate commerce," approved February fourth, eighteen hundred and eighty-seven, or any other Acts having a like purpose that hereafter may be enacted, wherein the United States is complainant, the Attorney General may file with the clerk of such court a certificate that, in his opinion, the case is of general public importance, a copy of which shall be immediately furnished by such clerk to each of the circuit judges of the circuit in which the case is pending. Thereupon such case shall be given precedence over others and in every way expedited, and be assigned for hearing at the earliest practicable day, before not less than three of the circuit judges of said circuit, if there be three or more; and if there be not more than two circuit judges, then before them and such district judge as they may select. In the event the judges sitting in such case shall be divided in opinion, the case shall be certified to the Supreme Court for review in like manner as if taken there by appeal as hereinafter provided.

SEC. 2. That in every suit in equity pending or hereafter brought in any circuit court of the United States under any of said Acts, wherein the United States is complainant, including cases submitted but not yet decided, an appeal from the final decree of the circuit court will lie only to the Supreme Court and must be taken within sixty days from the entry thereof: *Provided*, That in any case where an appeal may have been taken from the final decree of a circuit court to the circuit court of appeals before this Act takes effect, the case shall proceed to a final decree therein, and an appeal may be taken from such decree to the Supreme Court in the manner now provided by law.

Approved, February 11, 1903.

[PUBLIC LAW No. 87—57TH CONGRESS]

(Extract from)

SEC. 6. That there shall be in the Department of Commerce and Labor a bureau to be called the Bureau of Corporations, and a Commissioner of Corporations, who shall be the head of said bureau, to be appointed by the Presi-

[1] Date is incorrect. It should read August 27, 1894. See Supp. Rev. Stat., vol. 2, p. 334.

Digitized by Google

dent, who shall receive a salary of five thousand dollars per annum. There shall also be in said bureau a deputy commissioner, who shall receive a salary of three thousand five hundred dollars per annum, and who shall, in the absence of the Commissioner, act as and perform the duties of the Commissioner of Corporations, and who shall perform such other duties as may be assigned to him by the Secretary of Commerce and Labor or by the said Commissioner. There shall also be in the said bureau a chief clerk and such special agents, clerks, and other employees as may be authorized by law.

The said Commissioner shall have power and authority to make, under the direction and control of the Secretary of Commerce and Labor, diligent investigation into the organization, conduct, and management of the business of any corporation, joint stock company, or corporate combination engaged in the commerce among the several States and with foreign nations, excepting common carriers subject to "An act to regulate Commerce," approved February fourth, eighteen hundred and eighty-seven, and to gather such information and data as will enable the President of the United States to make recommendations to Congress for legislation for the regulation of such commerce, and to report such data to the President from time to time as he shall require; and the information so obtained or as much thereof as the President may direct shall be made public.

In order to accomplish the purposes declared in the foregoing part of this section, the said Commissioner shall have and exercise the same power and authority in respect to corporations, joint stock companies, and combinations subject to the provisions hereof, as is conferred on the Interstate Commerce Commission in said "Act to regulate commerce" and the amendments thereto in respect to common carriers so far as the same may be applicable, including the right to subpœna and compel the attendance and testimony of witnesses and the production of documentary evidence and to administer oaths. All the requirements, obligations, liabilities, and immunities imposed or conferred by said "Act to regulate commerce" and by "An Act in relation to testimony before the Interstate Commerce Commission," and so forth, approved February eleventh, eighteen hundred and ninety-three, supplemental to said "Act to regulate commerce," shall also apply to all persons who may be subpœnaed to testify as witnesses or to produce documentary evidence in pursuance of the authority conferred by this section.

It shall also be the province and duty of said bureau, under the direction of the Secretary of Commerce and Labor, to gather, compile, publish, and supply useful information concerning corporations doing business within the limits of the United States as shall engage in interstate commerce or in commerce between the United States and any foreign country, including corporations engaged in insurance, and to attend to such other duties as may be hereafter provided by law.

Approved, February 14, 1903.

[PUBLIC RESOLUTION—No. 8]

JOINT RESOLUTION Instructing the Interstate Commerce Commission to make examinations into the subject of railroad discriminations and monopolies in coal and oil, and report on the same from time to time

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the Interstate Commerce Commission be, and is hereby, authorized and instructed immediately to inquire, investigate, and report to Congress, or to the President when Congress is not in session, from time to time as the investigation proceeds—

First. Whether any common carriers by railroad, subject to the interstate-commerce Act, or either of them, own or have any interest in, by means of stock ownership in other corporations or otherwise, any of the coal or oil which they, or either of them, directly or through other companies which they control or in which they have an interest, carry over their or any of their lines as common carriers, or in any manner own, control, or have any interest in coal lands or properties or oil land or properties.

Second. Whether the officers of any of the carrier companies aforesaid, or any of them, or any person or persons charged with the duty of distributing cars or furnishing facilities to shippers are interested, either directly or in-

Digitized by Google

directly, by means of stock ownership or otherwise in corporations or companies owning, operating, leasing, or otherwise interested in any coal mines, coal properties, or coal traffic, oil, oil properties, or oil traffic over the railroads with which they or any of them are connected or by which they or any of them are employed.

Third. Whether there is any contract, combination in the form of trust, or otherwise, or conspiracy in restraint of trade or commerce among the several States, in which any common carrier engaged in the transportation of coal or oil is interested, or to which it is a party; and whether any such common carrier monopolizes, or attempts to monopolize, or combines or conspires with any other carrier, company or companies, person or persons to monopolize any part of the trade or commerce in coal or oil, or traffic therein among the several States or with foreign nations, and whether or not, and if so, to what extent, such carriers, or any of them, limit or control, directly or indirectly, the output of coal mines or the price of coal and oil fields or the price of oil.

Fourth. If the Interstate Commerce Commission shall find that the facts or any of them set forth in the three paragraphs above do exist, then that it be further required to report as to the effect of such relationship, ownership, or interest in coal or coal properties and coal traffic, or oil, oil properties, or oil traffic aforesaid, or such contracts or combinations in form of trust or otherwise, or conspiracy or such monopoly or attempt to monopolize or combine or conspire as aforesaid, upon such person or persons as may be engaged independently of any other persons in mining coal or producing oil and shipping the same, or other products, who may desire to so engage, or upon the general public as consumers of such coal or oil.

Fifth. That said Commission be also required to investigate and report the system of car supply and distribution in effect upon the several railway lines engaged in the transportation of coal or oil as aforesaid, and whether said systems are fair and equitable, and whether the same are carried out fairly and properly; and whether said carriers, or any of them, discriminate against shippers or parties wishing to become shippers over their several lines, either in the matter of distribution of cars or in furnishing facilities or instrumentalities connected with receiving, forwarding, or carrying coal or oil as aforesaid.

Sixth. That said Commission be also required to report as to what remedy it can suggest to cure the evils above set forth, if they exist.

Seventh. That said Commission be also required to report any facts or conclusions which it may think pertinent to the general inquiry above set forth.

Eighth. That said Commission be required to make this investigation at its earliest possible convenience and to furnish the information above required from time to time and as soon as it can be done consistent with the performance of its public duty.

Approved, March 7, 1906.

[PUBLIC LAW No. 105—59TH CONGRESS]

(Extract from)

To enable the Interstate Commerce Commission to give effect to the provisions of the Act to regulate commerce and all Acts and amendments supplementary thereto, including the joint resolution "instructing the Interstate Commerce Commission to make examinations into the subject of railroad discriminations and monopolies in coal and oil, and report on the same from time to time," approved March seventh, nineteen hundred and six, the sum of forty-five thousand dollars is hereby transferred to said Commission and made available for the remainder of the fiscal year nineteen hundred and six, from the balance of the appropriation of five hundred thousand dollars for the enforcement of "An Act to regulate commerce" and all Acts amendatory thereof or supplemental thereto, and other Acts mentioned in said appropriation, made in the legislative, executive, and judicial appropriation Act for the fiscal year nineteen hundred and four, and reappropriated for the fiscal year nineteen hundred and six by the sundry civil appropriation Act, under the Department of Justice: *Provided*, That the total amount that may be expended in the employment of counsel by the Interstate Commerce Commission shall not exceed the sum of forty-five thousand dollars during the fiscal year nineteen hundred and six.

Approved, April 16, 1906.

Digitized by Google

[PUBLIC—No. 389]

AN ACT Defining the right of immunity of witnesses under the Act entitled "An Act in relation to testimony before the Interstate Commerce Commission," and so forth, approved February eleventh, eighteen hundred and ninety-three, and an Act entitled "An Act to establish the Department of Commerce and Labor," approved February fourteenth, nineteen hundred and three, and an Act entitled "An Act to further regulate commerce with foreign nations and among the States," approved February nineteenth, nineteen hundred and three, and an Act entitled "An Act making appropriations for the legislative, executive, and judicial expenses of the Government for the fiscal year ending June thirtieth, nineteen hundred and four, and for other purposes," approved February twenty-fifth, nineteen hundred and three

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That under the immunity provisions in the Act entitled "An Act in relation to testimony before the Interstate Commerce Commission," and so forth, approved February eleventh, eighteen hundred and ninety-three, in section six of the Act entitled "An Act to establish the Department of Commerce and Labor," approved February fourteenth, nineteen hundred and three, and in the Act entitled "An Act to further regulate commerce with foreign nations and among the States," approved February nineteen, nineteen hundred and three, and in the Act entitled "An Act making appropriations for the legislative, executive, and judicial expenses of the Government for the fiscal year ending June thirtieth, nineteen hundred and four, and for other purposes," approved February twenty-fifth, nineteen hundred and three, immunity shall extend only to a natural person who, in obedience to a subpœna, gives testimony under oath or produces evidence, documentary or otherwise, under oath.

Approved, June 30, 1906.

[PUBLIC—No. 310]

(H. R. 26233)

AN ACT To amend an Act entitled "An Act to expedite the hearing and determination of suits in equity pending or hereafter brought under the Act of July second, eighteen hundred and ninety, entitled 'An Act to protect trade and commerce against unlawful restraints and monopolies,' 'An Act to regulate commerce,' approved February fourth, eighteen hundred and eighty-seven, or any other Acts having a like purpose that may be hereafter enacted," approved February eleventh, nineteen hundred and three

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section one of the Act entitled "An Act to expedite the hearing and determination of suits in equity pending or hereafter brought under the Act of July second, eighteen hundred and ninety, entitled 'An Act to protect trade and commerce against unlawful restraints and monopolies,' 'An Act to regulate commerce,' approved February fourth, eighteen hundred and eighty-seven, or any other Acts having a like purpose that may be hereafter enacted," approved February eelventh, nineteen hundred and three, be, and the same is hereby, amended so as to read as follows:

"That in any suit in equity pending or hereafter brought in any circuit court of the United States under the Act entitled 'An Act to protect trade and commerce against unlawful restraints and monopolies,' approved July second, eighteen hundred and ninety, 'An Act to regulate commerce,' approved February fourth, eighteen hundred and eighty-seven, or any other Acts having a like purpose that hereafter may be enacted, wherein the United States is complainant, the Attorney General may file with the clerk of such court a certificate that, in his opinion, the case is of general public importance, a copy of which shall be immediately furnished by such clerk to each of the circuit judges of the circuit in which the case is pending. Thereupon such case shall be given precedence over others and in every way expedited, and be assigned for hearing at the earliest practicable day, before not less than three of the circuit judges of said court, if there be three or more; and if there be not more than two circuit judges, then before them and such district judge as they may select; or, in case the full court shall not at any time be made up by reason of the necessary absence or disqualification of one or more of the said circuit judges, the justice of the Supreme Court assigned to that circuit or the other circuit judge or judges may designate a district judge or judges within the circuit who shall be competent to sit in said court at the hearing of said suit. In the event the judges sitting in such case shall be equally divided in opinion

Digitized by Google

as to the decision or disposition of said cause, or in the event that a majority of said judges shall be unable to agree upon the judgment, order, or decree finally disposing of said case in said court which should be entered in said cause, then they shall immediately certify that fact to the Chief Justice of the United States, who shall at once designate and appoint some circuit judge to sit with said judges and to assist in determining said cause. Such order of the Chief Justice shall be immediately transmitted to the clerk of the circuit court in which said cause is pending, and shall be entered upon the minutes of said court. Thereupon said cause shall at once be set down for re-argument and the parties thereto notified in writing by the clerk of said court of the action of the court and the date fixed for the reargument thereof. The provisions of this section shall apply to all causes and proceedings in all courts now pending, or which may hereafter be brought.

Approved, June 25, 1910.

[PUBLIC—No. 475—61ST CONGRESS]

(Extract from)

Twenty-third. Of all suits and proceedings arising under any law to protect trade and commerce against restraints and monopolies.

Approved, March 3, 1911.

[PUBLIC—No. 479—61ST CONGRESS]

(Extract from)

ARMOR AND ARMAMENT: Toward the armor and armament for vessels authorized, ten million five hundred and thirty-two thousand nine hundred and twenty-eight dollars: *Provided*, That no part of this appropriation shall be expended for armor for vessels except upon contracts for such armor when awarded by the Secretary of the Navy to the lowest responsible bidders, having in view the best results and most expeditious delivery: *Provided further*, That no part of this appropriation shall be expended for the purchase of armor or armament from any persons, firms or corporations, that have entered into any combination, agreement, conspiracy or understanding, the effect, object or purpose of which is to deprive the Government of fair, open and unrestricted competition in letting contracts for the furnishing of any of said armor or armament.

Approved, March 4, 1911.

[PUBLIC LAW No. 290—62D CONGRESS]

(Extract from)

That no part of any sum herein appropriated shall be expended for the purchase of structural steel, ship plates, armor, armament, or machinery from any persons, firms, or corporations who have combined or conspired to monopolize the interstate or foreign commerce or trade of the United States, or the commerce or trade between the State and any Territory or the District of Columbia, in any of the articles aforesaid, and no purchase of structural steel, ship plates, or machinery shall be made at a price in excess of a reasonable profit above the actual cost of manufacture. But this limitation shall in no case apply to any existing contract.

Approved, August 22, 1912.

[PUBLIC LAW No. 302—62D CONGRESS]

(Extract from)

Enforcement of antitrust laws: For the enforcement of antitrust laws, including not exceeding $10,000 for salaries of necessary employees at the seat of government, $200,000.

Approved, August 24, 1912.

Digitized by Google

[PUBLIC LAW No. 302—62D CONGRESS]

(Extract from)

That no part of any appropriation made under this Act for the following purposes, namely, conduct of customs cases; defending suits and claims against the United States; detection and prosecution of crime; defenses in Indian depredation claims; enforcement of antitrust laws; suits to set aside conveyances of allotted lands, Five Civilized Tribes; enforcement of acts to regulate commerce; for payment of assistants to the Attorney General and to United States district attorneys employed by the Attorney General to aid in special cases; and for payment of such miscellaneous expenditures as may be authorized by the Attorney General for the United States courts and their officers; shall be used for the payment of any salary, fee, compensation, or allowance in any form whatever to any person who holds any other office, place, position, or appointment under the United States Government, or any department thereof, or to anyone hereafter appointed, designated, or employed, who within one year next preceding the date of his appointment, designation, or employment has held any other office, place, position, or appointment under the United States Government or any department thereof: *Provided*, That this inhibition shall not apply except in cases where the persons appointed, designated, employed or paid shall have previously rendered service in connection with the same subject matter: *And provided further*, That nothing in the foregoing provision shall prevent or authorize a person who holds an office, place, position, or appointment under the United States Government, or any department thereof, from being detailed to other work falling under the appropriations for the purpose hereinbefore named, and from being paid out of said appropriations, the amount of all the payments not to exceed the amount of compensation which said person would have received from his regular office, place, position, or appointment, together with his expenses incident to the temporary detail.

Approved, August 24, 1912.

[PUBLIC LAW No. 337—62D CONGRESS]

(Extract from)

No vessel permitted to engage in the coastwise or foreign trade of the United States shall be permitted to enter or pass through said canal if such ship is owned, chartered, operated, or controlled by any person or company which is doing business in violation of the provisions of the Act of Congress approved July second, eighteen hundred and ninety, entitled "An Act to protect trade and commerce against unlawful restraints and monopolies," of the provisions of sections seventy-three to seventy-seven, both inclusive, of an Act approved August twenty-seventh, eighteen hundred and ninety-four, entitled "An Act to reduce taxation, to provide revenue for the Government, and for other purposes," or the provisions of any other Act of Congress amending or supplementing the said Act of July second, eighteen hundred and ninety, commonly known as the Sherman Anti-trust Act, and amendments thereto, or said sections of the Act of August twenty-seventh, eighteen hundred and ninety-four. The question of fact may be determined by the judgment of any court of the United States of competent jurisdiction in any cause pending before it to which the owners or operators of such ship are parties. Suit may be brought by any shipper or by the Attorney General of the United States.

Approved, August 24, 1912.

[PUBLIC—No. 370]

(H. R. 25002)

AN ACT To amend section seventy-three and section seventy-six of the Act of August twenty-seventh, eighteen hundred and ninety-four, entitled "An Act to reduce taxation, to provide revenue for the Government, and for other purposes"

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section seventy-three and section

Digitized by Google

seventy-six of the Act of August twenty-seventh, eighteen hundred and ninety-four, entitled "An Act to reduce taxation, to provide revenue for the Government, and for other purposes," be, and the same are hereby, amended to read as follows:

"SEC. 73. That every combination, conspiracy, trust, agreement, or contract is hereby declared to be contrary to public policy, illegal, and void when the same is made by or between two or more persons or corporations either of whom, as agent or principal, is engaged in importing any article from any foreign country into the United States, and when such combination, conspiracy, trust, agreement, or contract is intended to operate in restraint of lawful trade, or free competition in lawful trade or commerce, or to increase the market price in any part of the United States of any article or articles imported or intended to be imported into the United States, or of any manufacture into which such imported article enters or is intended to enter. Every person who is or shall hereafter be engaged in the importation of goods or any commodity from any foreign country in violation of this section of this Act, or who shall combine or conspire with another to violate the same, is guilty of a misdemeanor, and on conviction thereof in any court of the United States such person shall be fined in a sum not less than one hundred dollars and not exceeding five thousand dollars, and shall be further punished by imprisonment, in the discretion of the court, for a term not less than three months nor exceeding twelve months."

"SEC. 76. That any property owned under any contract or by any combination, or pursuant to any conspiracy, and being the subject thereof, mentioned in section seventy-three of this Act, imported into and being within the United States or being in the course of transportation from one State to another, or to or from a Territory or the District of Columbia, shall be forfeited to the United States, and may be seized and condemned by like proceedings as those provided by law for the forfeiture, seizure, and condemnation of property imported into the United States contrary to law."

Approved, February 12, 1913.

[PUBLIC—No. 416]

(S. 8000)

AN ACT Providing for publicity in taking evidence under Act of July second, eighteen hundred and ninety

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That in the taking of depositions of witnesses for use in any suit in equity brought by the United States under the Act entitled "An Act to protect trade and commerce against unlawful restraints and monopolies," approved July second, eighteen hundred and ninety, and in the hearings before any examiner or special master appointed to take testimony therein, the proceedings shall be open to the public as freely as are trials in open court; and no order excluding the public from attendance on any such proceedings shall be valid or enforceable.

Approved, March 3, 1913.

[PUBLIC LAW No. 433—62D CONGRESS]

(Extract from)

That no part of any sum herein appropriated shall be expended for the purchase of structural steel, ship plates, armor, armament, or machinery from any persons, firms, or corporations who have combined or conspired to monopolize the interstate or foreign commerce or trade of the United States, or the commerce or trade between the States and any Territory or the District of Columbia, in any of the articles aforesaid, and no purchase of structural steel, ship plates, or machinery shall be made at a price in excess of a reasonable profit above the actual cost of manufacture. But this limitation shall in no case apply to any existing contract.

Approved, March 4, 1913.

Digitized by Google

[PUBLIC LAW No. 3—63D CONGRESS]

(Extract from)

Enforcement of antitrust laws: For the enforcement of antitrust laws, including not exceeding $10,000 for salaries of necessary employees at the seat of government, $300,000: *Provided, however,* That no part of this money shall be spent in the prosecution of any organization or individual for entering into any combination or agreement having in view the increasing of wages, shortening of hours or bettering the conditions of labor, or for any act done in furtherance thereof, not in itself unlawful: *Provided further,* That no part of this appropriation shall be expended for the prosecution of producers of farm products and associations of farmers who cooperate and organize in an effort to and for the purpose to obtain and maintain a fair and reasonable price for their products.

Approved, June 23, 1913.

[PUBLIC LAW No. 121—63D CONGRESS]

(Extract from)

That no part of any sum herein appropriated shall be expended for the purchase of structural steel, ship plates, armor, armament, or machinery from any persons, firms, or corporations who have combined or conspired to monopolize the interstate or foreign commerce or trade of the United States, or the commerce or trade between the States and any Territory or the District of Columbia, in any of the articles aforesaid, and no purchase of structural steel, ship plates, or machinery shall be made at a price in excess of a reasonable profit above the actual cost of manufacture. But this limitation shall in no case apply to any existing contract.

Approved, June 30, 1914.

[PUBLIC LAW No. 161—63D CONGRESS]

(Extract from)

Enforcement of antitrust laws: For the enforcement of antitrust laws, including not exceeding $15,000 for salaries of necessary employees at the seat of government, $300,000: *Provided, however,* That no part of this money shall be spent in the prosecution of any organization or individual for entering into any combination or agreement having in view the increasing of wages, shortening of hours or bettering the conditions of labor, or for any act done in furtherance thereof, not in itself unlawful: *Provided further,* That no part of this appropriation shall be expended for the prosecution of producers of farm porducts and associations of farmers who cooperate and organize in an effort to and for the purpose to obtain and maintain a fair and reasonable price for their products.

Approved, August 1, 1914.

[PUBLIC—No. 203—63D CONGRESS]

(H. R. 15613)

AN ACT To create a Federal Trade Commission, to define its powers and duties, and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That a commission is hereby created and established, to be known as the Federal Trade Commission (hereinafter referred to as the commission), which shall be composed of five commissioners, who shall be appointed by the President, by and with the advice and consent of the Senate. Not more than three of the commissioners shall be members of the same political party. The first commissioners appointed shall continue in office for terms of three, four, five, six, and seven years, respectively, from the date of the taking effect of this Act, the term of each to be designated

Digitized by Google

by the President, but their successors shall be appointed for terms of seven years, except that any person chosen to fill a vacancy shall be appointed only for the unexpired term of the commissioner whom he shall succeed. The commission shall choose a chairman from its membership. No commissioner shall engage in any other business, vocation, or employment. Any commissioner may be removed by the President for inefficiency, neglect of duty, or malfeasance in office. A vacancy in the commission shall not impair the right of the remaining commissioners to exercise all the powers of the commission.

The commission shall have an official seal, which shall be judicially noticed.

SEC. 2. That each commissioner shall receive a salary of $10,000 a year, payable in the same manner as the salaries of the judges of the courts of the United States. The commission shall appoint a secretary, who shall receive a salary of $5,000 a year, payable in like manner, and it shall have authority to employ and fix the compensation of such attorneys, special experts, examiners, clerks, and other employees as it may from time to time find necessary for the proper performance of its duties and as may be from time to time appropriated for by Congress.

With the exception of the secretary, a clerk to each commissioner, the attorneys, and such special experts and examiners as the commission may from time to time find necessary for the conduct of its work, all employees of the commission shall be a part of the classified civil service, and shall enter the service under such rules and regulations as may be prescribed by the commission and by the Civil Service Commission.

All of the expenses of the commission, including all necessary expenses for transportation incurred by the commissioners or by their employees under their orders, in making any investigation, or upon official business in any other places than in the city of Washington, shall be allowed and paid on the presentation of itemized vouchers therefor approved by the commission.

Until otherwise provided, by law, the commission may rent suitable offices for its use.

The Auditor for the State and Other Departments shall receive and examine all accounts of expenditures of the commission.

SEC. 3. That upon the organization of the commission and election of its chairman, the Bureau of Corporations and the offices of Commissioner and Deputy Commissioner of Corporations shall cease to exist; and all pending investigations and proceedings of the Bureau of Corporations shall be continued by the commission.

All clerks and employees of the said bureau shall be transferred to and become clerks and employees of the commission at their present grades and salaries. All records, papers, and property of the said bureau shall become records, papers, and property of the commission, and all unexpended funds and appropriations for the use and maintenance of the said bureau, including any allotment already made to it by the Secretary of Commerce from the contingent appropriation for the Department of Commerce for the fiscal year nineteen hundred and fifteen, or from the departmental printing fund for the fiscal year nineteen hundred and fifteen, shall become funds and appropriations available to be expended by the commission in the exercise of the powers, authority, and duties conferred on it by this Act.

The principal office of the commission shall be in the city of Washington, but it may meet and exercise all its powers at any other place. The commission may, by one or more of its members, or by such examiners as it may designate, prosecute any inquiry necessary to its duties in any part of the United States.

SEC. 4. That the words defined in this section shall have the following meaning when found in this Act, to wit:

"Commerce" means commerce among the several States or with foreign nations, or in any Territory of the United States or in the District of Columbia, or between any such Territory and another, or between any such Territory and any State or foreign nation, or between the District of Columbia and any State or Territory or foreign nation.

"Corporation" means any company or association incorporated or unincorporated, which is organized to carry on business for profit and has shares of capital or capital stock, and any company or association, incorporated or unincorporated, without shares or capital stock, except partnerships, which is organized to carry on business for its own profit or that of its members.

Digitized by Google

"Documentary evidence" means all documents, papers, and correspondence in existence at and after the passage of this Act.

"Acts to regulate commerce" means the Act entitled "An Act to regulate commerce," approved February fourteenth, eighteen hundred and eighty-seven, and all Acts amendatory thereof and supplementary thereto.

"Antitrust acts" means the Act entitled "An Act to protect trade and commerce against unlawful restraints and monopolies," approved July second, eighteen hundred and ninety; also the sections seventy-three to seventy-seven, inclusive, of an Act entitled "An Act to reduce taxation to provide revenue for the Government, and for other purposes," approved August twenty-seventh, eighteen hundred and ninety-four; and also the Act entitled "An Act to amend sections seventy-three and seventy-six of the Act of August twenty-seventh, eighteen hundred and ninety-four, entitled 'An Act to reduce taxation, to provide revenue for the Government, and for other purposes,'" approved February twelfth, nineteen hundred and thirteen.

SEC. 5. That unfair methods of competition in commerce are hereby declared unlawful.

The commission is hereby empowered and directed to prevent persons, partnerships, or corporations, except banks, and common carriers subject to the Acts to regulate commerce, from using unfair methods of competition in commerce.

Whenever the commission shall have reason to believe that any such person, partnership, or corporation has been or is using any unfair methods of competition in commerce, and if it shall appear to the commission that a proceeding by it in respect thereof would be to the interest of the public, it shall issue and serve upon such person, partnership, or corporation a complaint stating its charges in that respect, and containing a notice of a hearing upon a day and at a place therein fixed at least thirty days after the service of said complaint. The person, partnership, or corporation so complained of shall have the right to appear at the place and time so fixed and show cause why an order should not be entered by the commission requiring such person, partnership, or corporation to cease and desist from the violation of the law so charged in said complaint. Any person, partnership, or corporation may make application, and upon good cause shown may be allowed by the commission, to intervene and appear in said proceeding by counsel or in person. The testimony in any such proceeding shall be reduced to writing and filed in the office of the commission. If upon such hearing the commission shall be of the opinion that the method of competition in question is prohibited by this Act, it shall make a report in writing in which it shall state its findings as to the facts, and shall issue and cause to be served on such person, partnership, or corporation an order requiring such person, partnership, or corporation to cease and desist from using such method of competition. Until a transcript of the record in such hearing shall have been filed in a circuit court of appeals of the United States, as hereinafter provided, the commission may at any time, upon such notice and in such manner as it shall deem proper, modify or set aside, in whole or in part, any report or any order made or issued by it under this section.

If such person, partnership, or corporation fails or neglects to obey such order of the commissison while the same is in effect, the commission may apply to the circuit court of appeals of the United States, within any circuit where the method of competition in question was used or where such person, partnership, or corporation resides or carries on business, for the enforcement of its order, and shall certify and file with its application a transcript of the entire record in the proceeding, including all the testimony taken and the report and order of the commission. Upon such filing of the application and transcript the court shall cause notice thereof to be served upon such person, partnership, or corporation and thereupon shall have jurisdiction of the proceeding and of the question determined therein, and shall have power to make and enter upon the pleadings, testimony, and proceedings set forth in such transcript a decree affirming, modifying, or setting aside the order of the commission. The findings of the commission as to the facts, if supported by testimony, shall be conclusive. If either party shall apply to the court for leave to adduce additional evidence, and shall show to the satisfaction of the court that such additional evidence is material and that there were reasonable grounds for the failure to adduce such evidence in the proceeding before the commission, the court may order such additional evidence to be taken before the commission and to be adduced upon the

Digitized by Google

hearing in such manner and upon such terms and conditions as to the court may seem proper. The commission may modify its findings as to the facts, or make new findings, by reason of the additional evidence so taken, and it shall file such modified or new findings, which, if supported by testimony, shall be conclusive, and its recommendation, if any, for the modification or setting aside of its original order, with the return of such additional evidence. The judgment and decree of the court shall be final, except that the same shall be subject to review by the Supreme Court upon certiorari as provided in section two hundred and forty of the Judicial Code.

Any party required by such order of the commission to cease and desist from using such method of competition may obtain a review of such order in said circuit court of appeals by filing in the court a written petition praying that the order of the commission be set aside. A copy of such petition shall be forthwith served upon the commission, and thereupon the commission forthwith shall certify and file in the court a transcript of the record as hereinbefore provided. Upon the filing of the transcript the court shall have the same jurisdiction to affirm, set aside, or modify the order of the commission as in the case of an application by the commission for the enforcement of its order, and the findings of the commission as to the facts, if supported by testimony, shall in like manner be conclusive.

The jurisdiction of the circuit court of appeals of the United States to enforce, set aside, or modify orders of the commission shall be exclusive.

Such proceedings in the circuit court of appeals shall be given precedence over other cases pending therein, and shall be in every way expedited. No order of the commission or judgment of the court to enforce the same shall in any wise relieve or absolve any person, partnership, or corporation from any liability under the antitrust acts.

Complaints, orders, and other processes of the commission under this section may be served by anyone duly authorized by the commission, either (a) by delivering a copy thereof to the person to be served, or to a member of the partnership to be served, or to the president, secretary, or other executive officers or a director of the corporation to be served; or (b) by leaving a copy thereof at the principal office or place of business of such person, partnership, or corporation; or (c) by registering and mailing a copy thereof addressed to such person, partnership, or corporation at his or its principal office or place of business. The verified return by the person so serving said complaint, order, or other process setting forth the manner of said service shall be proof of the same, and the return post-office receipt for said complaint, order, or other process registered and mailed as aforesaid shall be proof of the service of the same.

SEC. 6. That the commission shall also have power—

(a) To gather and compile information concerning, and to investigate from time to time the organization, business, conduct, practices, and management of any corporation engaged in commerce, excepting banks and common carriers subject to the Act to regulate commerce, and its relation to other corporations and to individuals, associations, and partnerships.

(b) To require, by general or special orders, corporations engaged in commerce, excepting banks, and common carriers subject to the Act to regulate commerce, or any class of them, or any of them, respectively, to file with the commission in such form as the commission may prescribe annual or special, or both annual and special, reports or answers in writing to specific questions, furnishing to the commission such information as it may require as to the organization, business, conduct, practices, management, and relation to other corporations, partnerships, and individuals of the respective corporations filing such reports or answers in writing. Such reports and answers shall be made under oath, or otherwise, as the commission may prescribe, and shall be filed with the commission within such reasonable period as the commission may prescribe, unless additional time be granted in any case by the commission.

(c) Whenever a final decree has been entered against any defendant corporation in any suit brought by the United States to prevent and restrain any violation of the antitrust Acts, to make investigations, upon its own initiative, of the manner in which the decree has been or is being carried out, and upon the application of the Attorney General it shall be its duty to make such investigation. It shall transmit to the Attorney General a report embodying its findings and recommendations as a result of any such investigation and the report shall be made public in the discretion of the commission.

Digitized by Google

(d) Upon the direction of the President or either House of Congress to investigate and report the facts relating to any alleged violations of the antitrust Acts by any corporation.

(e) Upon the application of the Attorney General to investigate and make recommendations for the readjustment of the business of any corporation alleged to be violating the antitrust Acts in order that the corporation may thereafter maintain its organization, management, and conduct of business in accordance with the law.

(f) To make public from time to time such portions of the information obtained by its hereunder, except trade secrets and names of customers, as it shall deem expedient in the public interest; and to make annual and special reports to the Congress and to submit therewith recommendations for additional legislation; and to provide for the publication of its reports and decisions in such form and manner as may be best adapted for public information and use.

(g) From time to time to classify corporations and to make rules and regulations for the purpose of carrying out the provisions of this Act.

(h) To investigate, from time to time, trade conditions in and with foreign countries where associations, combinations, or practices of manufacturers, merchants, or traders, or other conditions, may affect the foreign trade of the United States, and to report to Congress thereon, with such recommendations as it deems advisable.

SEC. 7. That in any suit in equity brought by or under the direction of the Attorney General as provided in the antitrust Acts, the court may, upon the conclusion of the testimony therein, if it shall be then of opinion that the complainant is entitled to relief, refer said suit to the commission, as a master in chancery, to ascertain and report an appropriate form of decree therein. The commission shall proceed upon such notice to the parties and under such rules of procedure as the court may prescribe, and upon the coming in of such report such exceptions may be filed and such proceedings had in relation thereto as upon the report of a master in other equity causes, but the court may adopt or reject such report, in whole or in part, and enter such decree as the nature of the case may in its judgment require.

SEC. 8. That the several departments and bureaus of the Government when directed by the President shall furnish the commisison, upon its request, all records, papers, and information in their posession relating to any corporation subject to any of the provisions of this Act, and shall detail from time to time such officials and employees to the commission as he may direct.

SEC. 9. That for the purposes of this Act the commission, or its duly authorized agent or agents, shall at all reasonable times have access to, for the purpose of examination, and the right to copy any documentary evidence of any corporation being investigated or proceeded against; and the commission shall have power to require by subpœna the attendance and testimony of witnesess and the production of all such documentary evidence relating to any matter under investigation. Any member of the commission may sign subpœnas, and members and examiners of the commission may administer oaths and affirmations, examine witnesess, and receive evidence.

Such attendance of witnesses, and the production of such documentary evidence, may be required from any place in the United States, at any designated place of hearing. And in case of disobedience to a subpœna the commission may invoke the aid of any court of the United States in requiring the attendance and testimony of witnesses and the production of documentary evidence.

Any of the district courts of the United States within the jurisdiction of which such inquiry is carried on may, in case of contumacy or refusal to obey a subpœna issued to any corporation or other person, issue an order requiring such corporation or other person to appear before the commission, or to produce documentary evidence if so ordered, or to give evidence touching the matter in question; and any failure to obey such order of the court may be punished by such court as a contempt thereof.

Upon the application of the Attorney General of the United States, at the request of the commission, the district courts of the United States shall have jurisdiction to issue writs of mandamus commanding any person or corporation to comply with the provisions of this Act or any order of the commission made in pursuance thereof.

The commission may order testimony to be taken by deposition in any proceeding or investigation pending under this Act at any stage of such proceeding or investigation. Such depositions may be taken before any person designated by the commission and having power to administer oaths. Such testimony

Digitized by Google

shall be reduced to writing by the person taking the deposition, or under his direction, and shall then be subscribed by the deponent. Any person may be compelled to appear and depose and to produce documentary evidence in the same manner as witnesses may be compelled to appear and testify and produce documentary evidence before the commission as hereinbefore provided.

Witnesses summoned before the commission shall be paid the same fees and mileage that are paid witnesses in the courts of the United States, and witnesses whose depositions are taken and the persons taking the same shall severally be entitled to the same fees as are paid for like services in the courts of the United States.

No person shall be excused from attending and testifying or from producing documentary evidence before the commission or in obedience to the subpœna of the commission on the ground or for the reason that the testimony or evidence, documentary or otherwise, required of him may tend to criminate him or subject him to a penalty or forfeiture. But no natural person shall be prosecuted or subjected to any penalty or forfeiture for or on account of any transaction, matter, or thing concerning which he may testify, or produce evidence, documentary or otherwise, before the commission in obedience to a subpœna issued by it: *Provided*, That no natural person so testifying shall be exempt from prosecution and punishment for perjury committed in so testifying.

SEC. 10. That any person who shall neglect or refuse to attend and testify, or to answer any lawful inquiry, or to produce documentary evidence, if in his power to do so, in obedience to the subpœna or unlawful requirement of the commission, shall be guilty of an offense and upon conviction thereof by a court of competent jurisdiction shall be punished by a fine of not less than $1,000 nor more than $5,000, or by imprisonment for not more than one year, or by both such fine and imprisonment.

Any person who shall willfully make, or cause to be made, any false entry or statement of fact in any report required to be made under this Act, or who shall willfully make, or cause to be made, any false entry in any account, record, or memorandum kept by any corporation subject to this Act, or who shall willfully neglect or fail to make, or cause to be made, full, true, and correct entries in such accounts, records, or memoranda of all facts and transactions appertaining to the business of such corporation, or who shall willfully remove out of the jurisdiction of the United States, or willfully mutilate, alter, or by any other means falsify any documentary evidence of such corporation, or who shall willfully refuse to submit to the commission or to any of its authorized agents, for the purpose of inspection and taking copies, any documentary evidence of such corporation in his possession or within his control, shall be deemed guilty of an offense against the United States, and shall be subject, upon conviction in any court of the United States of competent jurisdiction, to a fine of not less than $1,000 nor more than $5,000, or to imprisonment for a term of not more than three years, or to both such fine and imprisonment.

If any corporation required by this Act to file any annual or special report shall fail so to do within the time fixed by the commission for filing the same, and such failure shall continue for thirty days after notice of such default, the corporation shall forfeit to the United States the sum of $100 for each and every day of the continuance of such failure, which forfeiture shall be payable into the Treasury of the United States, and shall be recoverable in a civil suit in the name of the United States brought in the district where the corporation has its principal office or in any district in which it shall do business. It shall be the duty of the various district attorneys, under the direction of the Attorney General of the United States, to prosecute for the recovery of forfeitures. The costs and expenses of such prosecution shall be paid out of the appropriation for the expenses of the courts of the United States.

Any officer or employee of the commission who shall make public any information obtained by the commission without its authority, unless directed by a court, shall be deemed guilty of a misdemeanor, and, upon conviction thereof, shall be punished by a fine not exceeding $5,000, or by imprisonment not exceeding one year, or by fine and imprisonment, in the discretion of the court.

SEC. 11. Nothing contained in this Act shall be construed to prevent or interfere with the enforcement of the provisions of the antitrust Acts or the Acts to regulate commerce, nor shall anything contained in the Act be construed to alter, modify, or repeal the said antitrust Acts or the Acts to regulate commerce or any part or parts thereof.

Approved, September 26, 1914.

Digitized by Google

[PUBLIC—No. 212—63D CONGRESS]

(H. R. 15657)

AN ACT To supplement existing laws against unlawful restraints and monopolies, and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That "antitrust laws," as used herein, includes the Act entitled "An Act to protect trade and commerce against unlawful restraints and monopolies," approved July second, eighteen hundred and ninety; sections seventy-three to seventy-seven, inclusive, of an Act entitled "An Act to reduce taxation, to provide revenue for the Government, and for other purposes," of August twenty-seventh, eighteen hundred and ninety-four; an Act entitled "An Act to amend sections seventy-three and seventy-six of the Act of August twenty-seventh, eighteen hundred and ninety-four, entitled 'An Act to reduce taxation, to provide revenue for the Government, and for other purposes,'" approved February twelfth, nineteen hundred and thirteen; and also this Act.

"Commerce," as used herein, means trade or commerce among the several States and with foreign nations, or between the District of Columbia or any Territory of the United States and any State, Territory, or foreign nation, or between any insular possessions or other places under the jurisdiction of the United States, or between any such possession or place and any State or Territory of the United States or the District of Columbia or any foreign nation, or within the District of Columbia or any Territory or any insular possession or other place under the jurisdiction of the United States: *Provided*, That nothing in this Act contained shall apply to the Philippine Islands.

The word "person" or "persons" wherever used in this Act shall be deemed to include corporations and associations existing under or authorized by the laws of either the United States, the laws of any of the Territories, the laws of any State, or the laws of any foreign country.

SEC. 2. That it shall be unlawful for any person engaged in commerce, in the course of such commerce, either directly or indirectly, to discriminate in price between different purchasers of commodities, which commodities are sold for use, consumption, or resale within the United States or any Territory thereof or the District of Columbia or any insular possession or other place under the jurisdiction of the United States, where the effect of such discrimination may be to substantially lessen competition or tend to create a monopoly in any line of commerce: *Provided*, That nothing herein contained shall prevent discrimination in price between purchasers of commodities on account of differences in the grade, quality, or quantity of the commodity sold, or that makes only due allowance for differences in the cost of selling or transportation, or discrimination in price in the same or different communities made in good faith to meet competition: *And provided further*, That nothing herein contained shall prevent persons engaged in selling goods, wares, or merchandise in commerce from selecting their own customers in bona fide transactions and not in restraint of trade.

SEC. 3. That it shall be unlawful for any person engaged in commerce, in the course of such commerce, to lease or make a sale or contract for sale of goods, wares, merchandise, machinery, supplies or other commodities, whether patented or unpatented, for use, consumption, or resale within the United States or any Territory thereof or the District of Columbia or any insular possession or other place under the jurisdiction of the United States, or fix a price charged therefor, or discount from, or rebate upon, such price, on the condition, agreement, or understanding that the lessee or purchaser thereof shall not use or deal in the goods, wares, merchandise, machinery, supplies, or other commodity of a competitor or competitors of the lessor or seller, where the effect of such lease, sale, or contract for sale or such condition, agreement, or understanding may be to substantially lessen competition or tend to create a monopoly in any line of commerce.

SEC. 4. That any person who shall be injured in his business or property by reason of anything forbidden in the antitrust laws may sue therefor in any district court of the United States in the district in which the defendant resides or is found or has an agent, without respect to the amount in controversy, and shall recover threefold the damages by him sustained, and the cost of suit, including a reasonable attorney's fee.

Digitized by Google

SEC. 5. That a final judgment or decree hereafter rendered in any criminal prosecution or in any suit or proceeding in equity brought by or on behalf of the United States under the antitrust laws to the effect that a defendant has violated said laws shall be prima facie evidence against such defendant in any suit or proceeding brought by any other party against such defendant under said laws as to all matters respecting which said judgment or decree would be an estoppel as between the parties thereto: *Provided*, This section shall not apply to consent judgments or decrees entered before any testimony has been taken: *Provided further*, This section shall not apply to consent judgments or decrees rendered in criminal proceedings or suits in equity, now pending, in which the taking of testimony has been commenced but has not been concluded, provided such judgments or decrees are rendered before any further testimony is taken.

Whenever any suit or proceeding in equity or criminal prosecution is instituted by the United States to prevent, restrain, or punish violations of any of the antitrust laws the running of the statute of limitations in respect of each and every private right of action arising under said laws and based in whole or in part on any matter complained of in said suit or proceeding shall be suspended during the pendency thereof.

SEC. 6. That the labor of a human being is not a commodity or article of commerce. Nothing contained in the antitrust laws shall be construed to forbid the existence and operation of labor, agricultural, or horticultural organizations, instituted for the purposes of mutual help, and not having capital stock or conducted for profit, or to forbid or restrain individual members of such organizations from lawfully carrying out the legitimate objects thereof; nor shall such organizations, or the members thereof, be held or construed to be illegal combinations or conspiracies in restraint of trade, under the antitrust laws.

SEC. 7. That no corporation engaged in commerce shall acquire, directly or indirectly, the whole or any part of the stock or other share capital of another corporation engaged also in commerce, where the effect of such acquisition may be to substantially lessen competition between the corporation whose stock is so acquired and the corporation making the acquisition, or to restrain such commerce in any section or community, or tend to create a monopoly of any line of commerce.

No corporation shall acquire, directly or indirectly, the whole or any part of the stock or other share capital of two or more corporations engaged in commerce where the effect of such acquisition, or the use of such stock by the voting or granting of proxies or otherwise, may be to substantially lessen competition between such corporations, or any of them, whose stock or other share capital is so acquired, or to restrain such commerce in any section or community, or tend to create a monopoly of any line of commerce.

This section shall not apply to corporations purchasing such stock solely for investment and not using the same by voting or otherwise to bring about, or in attempting to bring about, the substantial lessening of competition. Nor shall anything contained in this section prevent a corporation engaged in commerce from causing the formation of subsidiary corporations for the actual carrying on of their immediate lawful business, or the natural and legitimate branches or extensions thereof, or from owning and holding all or a part of the stock of such subsidiary corporations, when the effect of such formation is not to substantially lessen competition.

Nor shall anything herein contained be construed to prohibit any common carrier subject to the laws to regulate commerce from aiding in the construction of branches or short lines so located as to become feeders to the main line of the company so aiding in such construction or from acquiring or owning all or any part of the stock of such branch lines, nor to prevent any such common carrier from acquiring and owning all or any part of the stock of a branch or short line constructed by an independent company where there is no substantial competition between the company owning the branch line so constructed and the company owning the main line acquiring the property or an interest therein, nor to prevent such common carrier from extending any of its lines through the medium of the acquisition of stock or otherwise of any other such common carrier where there is no substantial competition between the company extending its lines and the company whose stock, property, or an interest therein is so acquired.

Digitized by Google

Nothing contained in this section shall be held to affect or impair any right heretofore legally acquired: *Provided*, That nothing in this section shall be held or construed to authorize or make lawful anything heretofore prohibited or made illegal by the antitrust laws, nor to exempt any person from the penal provisions thereof or the civil remedies therein provided.

SEC. 8. That from and after two years from the date of the approval of this Act no person shall at the same time be a director or other officer or employee of more than one bank, banking association or trust company, organized or operating under the laws of the United States, either of which has deposits, capital, surplus, and undivided profits aggregating more than $5,000,000; and no private banker or person who is a director in any bank or trust company, organized and operating under the laws of a State, having deposits, capital, surplus, and undivided profits aggregating more than $5,000,000, shall be eligible to be a director in any bank or banking association organized or operating under the laws of the United States. The eligibility of a director, officer, or employee under the foregoing provisions shall be determined by the overage amount of deposits, capital, surplus, and undivided profits as shown in the official statements of such bank, banking association, or trust company filed as provided by law during the fiscal year next preceding the date set for the annual election of directors, and when a director, officer, or employee has been elected or selected in accordance with the provisions of this Act it shall be lawful for him to continue as such for one year thereafter under said election or employment.

No bank, banking association or trust company, organized or operating under the laws of the United States, in any city or incorporated town or village of more than two hundred thousand inhabitants, as shown by the last preceding decennial census of the United States, shall have as a director or other officer or employee any private banker or any director or other officer or employee of any other bank, banking association or trust company located in the same place: *Provided*, That nothing in this section shall apply to mutual savings banks not having a capital stock represented by shares: *Provided further*, That a director or other officer or employee of such bank, banking association, or trust company may be a director or other officer or employee of not more than one other bank or trust company organized under the laws of the United States or any State where the entire capital stock of one is owned by stockholders in the other: *And provided further*, That nothing contained in this section shall forbid a director of class A of a Federal reserve bank, as defined in the Federal Reserve Act, from being an officer or director or both an officer and director in one member bank.

That from and after two years from the date of the approval of this Act no person at the same time shall be a director in any two or more corporations, any one of which has capital, surplus, and undivided profits aggregating more than $1,000,000, engaged in whole or in part in commerce, other than banks, banking associations, trust companies and common carriers subject to the Act to regulate commerce, approved February fourth, eighteen hundred and eighty-seven, if such corporations are or shall have been theretofore, by virtue of their business and location of operation, competitors, so that the elimination of competition by agreement between them would constitute a violation of any of the provisions of any of the antitrust laws. The eligibility of a director under the foregoing provision shall be determined by the aggregate amount of the capital, surplus, and undivided profits, exclusive of dividends declared but not paid to stockholders, at the end of the fiscal year of said corporation next preceding the election of directors, and when a director has been elected in accordance with the provisions of this Act it shall be lawful for him to continue as such for one year thereafter.

When any person elected or chosen as a director or officer or selected as an employee of any bank or other corporation subject to the provisions of this Act is eligible at the time of his election or selection to act for such bank or other corporation in such capacity his eligibility to act in such capacity shall not be affected and he shall not become or be deemed amenable to any of the provisions hereof by reason of any change in the affairs of such bank or other corporation from whatsoever cause, whether specifically excepted by any of the provisions hereof or not, until the expiration of one year from the date of his election or employment.

SEC. 9. Every president, director, officer or manager of any firm, association or corporation engaged in commerce as a common carrier, who embezzles, steals, abstracts or willfully misapplies, or willfully permits to be misapplied, any

Digitized by Google

of the moneys, funds, credits, securities, property or assets of such firm, association or corporation, arising or accruing from, or used in, such commerce, in whole or in part, or willfully or knowingly converts the same to his own use or to the use of another, shall be deemed guilty of a felony and upon conviction shall be fined not less than $500 or confined in the penitentiary not less than one year nor more than ten years, or both, in the discretion of the court.

Prosecutions hereunder may be in the district court of the United States for the district wherein the offense may have been committed.

That nothing in this section shall be held to take away or impair the jurisdiction of the courts of the several States under the laws thereof; and a judgment of conviction or acquittal on the merits under the laws of any State shall be a bar to any prosecution hereunder for the same act or acts.

SEC. 10. That after two years from the approval of this Act no common carrier engaged in commerce shall have any dealings in securities, supplies or other articles of commerce, or shall make or have any contracts for construction or maintenance of any kind, to the amount of more than $50,000, in the aggregate, in any one year, with another corporation, firm, partnership or association when the said common carrier shall have upon its board of directors or as its president, manager or as its purchasing or selling officer, or agent in the particular transaction, any person who is at the same time a director, manager, or purchasing or selling officer of, or who has any substantial interest in, such other corporation, firm, partnership or association, unless and except such purchases shall be made from, or such dealings shall be with, the bidder whose bid is the most favorable to such common carrier, to be ascertained by competitive bidding under regulations to be prescribed by rule or otherwise by the Interstate Commerce Commission. No bid shall be received unless the name and address of the bidder or the names and addresses of the officers, directors, and general managers thereof, if the bidder be a corporation, or of the members, if it be a partnership or firm, be given with the bid.

Any person who shall, directly or indirectly, do or attempt to do anything to prevent anyone from bidding or shall do any act to prevent free and fair competition among the bidders or those desiring to bid shall be punished as prescribed in this section in the case of an officer or director.

Every such common carrier having any such transactions or making any such purchases shall within thirty days after making the same file with the Interstate Commerce Commission a full and detailed statement of the transaction showing the manner of the competitive bidding, who were the bidders, and the names and addresses of the directors and officers of the corporations and the members of the firm or partnership bidding; and whenever the said commission shall, after investigation or hearing, have reason to believe that the law has been violated in and about the said purchases or transactions it shall transmit all papers and documents and its own views or findings regarding the transaction to the Attorney General.

If any common carrier shall violate this section it shall be fined not exceeding $25,000; and every such director, agent, manager or officer thereof who shall have knowingly voted for or directed the act constituting such violation or who shall have aided or abetted in such violation shall be deemed guilty of a misdemeanor and shall be fined not exceeding $5,000, or confined in jail not exceeding one year, or both, in the discretion of the court.

SEC. 11. That authority to enforce compliance with sections two, three, seven and eight of this act by the persons respectively subject thereto is hereby vested: in the Interstate Commerce Commission where applicable to common carriers, in the Federal Reserve Board where applicable to banks, banking associations and trust companies, and in the Federal Trade Commission where applicable to all other character of commerce, to be exercised as follows:

Whenever the commission or board vested with jurisdiction thereof shall have reason to believe that any person is violating or has violated any of the provisions of sections two, three, seven and eight of this Act, it shall issue and serve upon such person a complaint stating its charges in that respect, and containing a notice of a hearing upon a day and at a place therein fixed at least thirty days after the service of said complaint. The person so complained of shall have the right to appear at the place and time so fixed and show cause why an order should not be entered by the commission or board requiring such person to cease and desist from the violation of the law so charged in said complaint. Any person may make application, and upon good cause shown may be allowed by the commission or board, to intervene and appear in said proceeding by counsel or in person. The testimony in any such

Digitized by Google

proceeding shall be reduced to writing and filed in the office of the commission or board. If upon such hearing the commission or board, as the case may be, shall be of the opinion that any of the provisions of said sections have been or are being violated, it shall make a report in writing in which it shall state its findings as to the facts, and shall issue and cause to be served on such person an order requiring such person to cease and desist from such violations, and divest itself of the stock held or rid itself of the directors chosen contrary to the provisions of sections seven and eight of this Act, if any there be, in the manner and within the time fixed by said order. Until a transcript of the record in such hearing shall have been filed in a circuit court of appeals of the United States, as hereinafter provided, the commission or board may at any time, upon such notice and in such manner as it shall deem proper, modify or set aside, in whole or in part, any report or any order made or issued by it under this section.

If such person fails or neglects to obey such order of the commission or board while the same is in effect, the commission or board may apply to the circuit court of appeals of the United States, within any circuit where the violation, complained of was or is being committed or where such person resides or carries on business, for the enforcement of its order, and shall certify and file with its application a transcript of the entire record in the proceeding, including all the testimony taken and the report and order of the commission or board. Upon such filing of the application and transcript the court shall cause notice thereof to be served upon such person and thereupon shall have jurisdiction of the proceeding and of the question determined therein, and shall have power to make and enter upon the pleadings, testimony, and proceedings set forth in such transcript a decree affirming, modifying, or setting aside the order of the commission or board. The findings of the commission or board as to the facts, if supported by testimony, shall be conclusive. If either party shall apply to the court for leave to adduce additional evidence, and shall show to the satisfaction of the court that such additional evidence is material and that there were reasonable grounds for the failure to adduce such evidence in the proceeding before the commission or board, the court may order such additional evidence to be taken before the commission or board and to be adduced upon the hearings in such manner and upon such terms and conditions as to the court may seem proper. The commission or board may modify its findings as to the facts, or make new findings, by reason of the additional evidence so taken, and it shall file such modified or new findings, which, if supported by testimony, shall be conclusive, and its recommendation, if any, for the modification or setting aside of its original order, with the return of such additional evidence. The judgment and decree of the court shall be final, except that the same shall be subject to review by the Supreme Court upon certiorari as provided in section two hundred and forty of the Judicial Code.

Any party required by such order of the commission or board to cease and desist from a violation charged may obtain a review of such order in said circuit court of appeals by filing in the court a written petition praying that the order of the commission or board be set aside. A copy of such petition shall be forthwith served upon the commission or board, and thereupon the commission or board forthwith shall certify and file in the court a transcript of the record as hereinbefore provided. Upon the filing of the transcript the court shall have the same jurisdiction to affirm, set aside, or modify the order of the commission or board as in the case of an application by the commission or board for the enforcement of its order, and the findings of the commission or board as to the facts, if supported by testimony, shall in like manner be conclusive.

The jurisdiction of the circuit court of appeals of the United States to enforce, set aside, or modify orders of the commission or board shall be exclusive.

Such proceedings in the circuit court of appeals shall be given precedence over other cases pending therein, and shall be in every way expedited. No order of the commission or board or the judgment of the court to enforce the same shall in any wise relieve or absolve any person from any liability under the antitrust Acts.

Complaints, orders, and other processes of the commission or board under this section may be served by anyone duly authorized by the commission or board, either (a) by delivering a copy thereof to the person to be served, or to a member of the partnership to be served, or to the president, secre-

Digitized by Google

tary, or other executive officer or a director of the corporation to be served; or (b) by leaving a copy thereof at the principal office or place of business of such person; or (c) by registering and mailing a copy thereof addressed to such person at his principal office or place of business. The verified return by the person so serving said complaint, order, or other process setting forth the manner of said service shall be proof of the same, and the return post-office receipt for said complaint, order, or other process registered and mailed as aforesaid shall be proof of the service of the same.

SEC. 12. That any suit, action, or proceeding under the antitrust laws against a corporation may be brought not only in the judicial district whereof it is an inhabitant, but also in any district wherein it may be found or transacts business; and all process in such cases may be served in the district of which it is an inhabitant, or wherever it may be found.

SEC. 13. That in any suit, action, or proceeding brought by or on behalf of the United States subpœnas for witnesses who are required to attend a court of the United States in any judicial district in any case, civil or criminal, arising under the antitrust laws may run into any other district: *Provided*, That in civil cases no writ of subpœna shall issue for witnesses living out of the district in which the court is held at a greater distance than one hundred miles from the place of holding the same without the permission of the trial court being first had upon proper application and cause shown.

SEC. 14. That whenever a corporation shall violate any of the penal provisions of the antitrust laws, such violation shall be deemed to be also that of the individual directors, officers, or agents of such corporation who shall have authorized, ordered, or done any of the acts constituting in whole or in part such violation, and such violation shall be deemed a misdemeanor, and upon conviction therefor of any such director, officer, or agent he shall be punished by a fine of not exceeding $5,000 or by imprisonment for not exceeding one year, or by both, in the discretion of the court.

SEC. 15. That the several district courts of the United States are hereby invested with jurisdiction to prevent and restrain violations of this Act, and it shall be the duty of the several district attorneys of the United States, in their respective districts, under the direction of the Attorney General, to institute proceedings in equity to prevent and restrain such violations. Such proceedings may be by way of petition setting forth the case and praying that such violation shall be enjoined or otherwise prohibited. When the parties complained of shall have been duly notified of such petition, the court shall proceed, as soon as may be, to the hearing and determination of the case; and pending such petition, and before final decree, the court may at any time make temporary restraining order or prohibition as shall be deemed just in the premises. Whenever it shall appear to the court before which any such proceeding may be pending that the ends of justice require that other parties should be brought before the court, the court may cause them to be summoned whether they reside in the district in which the court is held or not, and subpœnas to that end may be served in any district by the marshal thereof.

SEC. 16. That any person, firm, corporation, or association shall be entitled to sue for and have injunctive relief, in any court of the United States having jurisdiction over the parties, against threatened loss or damage by a violation of the antitrust laws, including sections two, three, seven and eight of this Act, when and under the same conditions and principles as injunctive relief against threatened conduct that will cause loss or damage is granted by courts of equity, under the rules governing such proceedings, and upon the execution of proper bond against damages for an injunction improvidently granted and a showing that the danger of irreparable loss or damage is immediate, a preliminary injunction may issue: *Provided*, That nothing herein contained shall be construed to entitle any person, firm, corporation, or association, except the United States, to bring suit in equity for injunctive relief against any common carrier subject to the provisions of the Act to regulate commerce, approved February fourth, eighteen hundred and eighty-seven, in respect of any matter subject to the regulation, supervision, or other jurisdiction of the Interstate Commerce Commission.

SEC. 17. That no preliminary injunction shall be issued without notice to the opposite party.

No temporary restraining order shall be granted without notice to the opposite party unless it shall clearly appear from specific facts shown by affidavit or by the verified bill that immediate and irreparable injury, loss, or damage will result to the applicant before notice can be served and a hearing had thereon.

Digitized by Google

Every such temporary restraining order shall be indorsed with the date and hour of issuance, shall be forthwith filed in the clerk's office and entered of record, shall define the injury and state why it is irreparable and why the order was granted without notice, and shall by its terms expire within such time after entry, not to exceed ten days, as the court or judge may fix, unless within the time so fixed the order is extended for a like period for good cause shown, and the reasons for such extension shall be entered of record. In case a temporary restraining order shall be granted without notice in the contingency specified, the matter of the issuance of a preliminary injunction shall be set down for a hearing at the earliest possible time and shall take precedence of all matters except older matters of the same character; and when the same comes up for hearing the party obtaining the temporary restraining order shall proceed with the application for a preliminary injunction, and if he does not do so the court shall dissolve the temporary restraining order. Upon two days' notice to the party obtaining such temporary restraining order the opposite party may appear and move the dissolution or modification of the order, and in that event the court or judge shall proceed to hear and determine the motion as expeditiously as the ends of justice may require.

Section two hundred and sixty-three of an Act entitled "An Act to codify, revise, and amend the laws relating to the judiciary," approved March third, nineteen hundred and eleven, is hereby repealed.

Nothing in this section contained shall be deemed to alter, repeal, or amend section two hundred and sixty-six of an Act entitled "An Act to codify, revise, and amend the laws relating to the judiciary," approved March third, nineteen hundred and eleven.

SEC. 18. That, except as otherwise provided in section 16 of this Act, no restraining order or interlocutory order of injunction shall issue, except upon the giving of security by the applicant in such sum as the court or judge may deem proper, conditioned upon the payment of such costs and damages as may be incurred or suffered by any party who may be found to have been wrongfully enjoined or restrained thereby.

SEC. 19. That every order of injunction or restraining order shall set forth the reasons for the issuance of the same, shall be specific in terms, and shall describe in reasonable detail, and not by reference to the bill of complaint or other document, the act or acts sought to be restrained, and shall be binding only upon the parties to the suit, their officers, agents, servants, employees, and attorneys, or those in active concert or participating with them, and who shall, by personal service or otherwise, have received actual notice of the same.

SEC. 20. That no restraining order or injunction shall be granted by any court of the United States, or a judge or the judges thereof, in any case between an employer and employees, or between employers and employees, or between employees, or between persons employed and persons seeking employment, involving, or growing out of, a dispute concerning terms or conditions of employment, unless necessary to prevent irreparable injury to property, or to a property right, of the party making the application, for which injury there is no adequate remedy at law, and such property or property right must be described with particularity in the application, which must be in writing and sworn to by the applicant or by his agent or attorney.

And no such restraining order or injunction shall prohibit any person or persons, whether singly or in concert, from terminating any relation of employment, or from ceasing to perform any work or labor, or from recommending, advising, or persuading others by peaceful means so to do; or from attending at any place where any such person or persons may lawfully be, for the purpose of peacefully obtaining or communicating information, or from peacefully persuading any person to work or to abstain from working; or from ceasing to patronize or to employ any party to such dispute, or from recommending, advising, or persuading others by peaceful and lawful means so to do; or from paying or giving to, or withholding from, any person engaged in such dispute, any strike benefits or other moneys or things of value; or from peaceably assembling in a lawful manner, and for lawful purposes; or from doing any act or thing which might lawfully be done in the absence of such dispute by any party thereto; nor shall any of the acts specified in this paragraph be considered or held to be violations of any law of the United States.

SEC. 21. That any person who shall willfully disobey any lawful writ, process, order, rule, decree, or command of any district court of the United States

Digitized by Google

or any court of the District of Columbia by doing any act or thing therein, or thereby forbidden to be done by him, if the act or thing so done by him be of such character as to constitute also a criminal offense under any statute of the United States or under the laws of any State in which the act was committed, shall be proceeded against for his said contempt as hereinafter provided.

SEC. 22. That whenever it shall be made to appear to any district court or judge thereof, or to any judge therein sitting, by the return of a proper officer on lawful process, or upon the affidavit of some credible person, or by information filed by any district attorney, that there is reasonable ground to believe that any person has been guilty of such contempt, the court or judge thereof, or any judge therein sitting, may issue a rule requiring the said person so charged to show cause upon a day certain why he should not be punished therefor, which rule, together with a copy of the affidavit or information, shall be served upon the person charged, with sufficient promptness to enable him to prepare for and make return to the order at the time fixed therein. If upon or by such return, in the judgment of the court, the alleged contempt be not sufficiently purged, a trial shall be directed at a time and place fixed by the court: *Provided, however,* That if the accused, being a natural person, fail or refuse to make return to the rule to show cause, an attachment may issue against his person to compel an answer, and in case of his continued failure or refusal, or if for any reason it be impracticable to dispose of the matter on the return day, he may be required to give reasonable bail for his attendance at the trial and his submission to the final judgment of the court. Where the accused is a body corporate, an attachment for the sequestration of its property may be issued upon like refusal or failure to answer.

In all cases within the purview of this Act such trial may be by the court, or, upon demand of the accused, by a jury; in which latter event the court may impanel a jury from the jurors then in attendance, or the court or the judge thereof in chambers may cause a sufficient number of jurors to be selected and summoned, as provided by law, to attend at the time and place of trial, at which time a jury shall be selected and impaneled as upon a trial for misdemeanor; and such trial shall conform, as near as may be, to the practice in criminal cases prosecuted by indictment or upon information.

If the accused be found guilty, judgment shall be entered accordingly, prescribing the punishment, either by fine or imprisonment, or both, in the discretion of the court. Such fine shall be paid to the United States or to the complainant or other party injured by the act constituting the contempt, or may, where more than one is so damaged, be divided or apportioned among them as the court may direct, but in no case shall the fine to be paid to the United States exceed, in case the accused is a natural person, the sum of $1,000, nor shall such imprisonment exceed the term of six months: *Provided,* That in any case the court or a judge thereof may, for good cause shown, by affidavit or proof taken in open court or before such judge and filed with the papers in the case, dispense with the rule to show cause, and may issue an attachment for the arrest of the person charged with contempt; in which event such person, when arrested, shall be brought before such court or a judge thereof without unnecessary delay and shall be admitted to bail in a reasonable penalty for his appearance to answer to the charge or for trial for the contempt; and thereafter the proceedings shall be the same as provided herein in case the rule had issued in the first instance.

SEC. 23. That the evidence taken upon the trial of any persons so accused may be preserved by bill of exceptions, and any judgment of conviction may be reviewed upon writ of error in all respects as now provided by law in criminal cases, and may be affirmed, reversed, or modified as justice may require. Upon the granting of such writ of error, execution of judgment shall be stayed, and the accused, if thereby sentenced to imprisonment, shall be admitted to bail in such reasonable sum as may be required by the court, or by any justice, or any judge of any district court of the United States or any court of the District of Columbia.

SEC. 24. That nothing herein contained shall be construed to relate to contempts committed in the presence of the court, or so near thereto as to obstruct the administration of justice, nor to contempts committed in disobedience of any lawful writ, process, order, rule, decree, or command entered in any suit or action brought or prosecuted in the name of, or on behalf of, the United

Digitized by Google

States, but the same, and all other cases of contempt not specifically embraced within section twenty-one of this Act, may be punished in conformity to the usages at law and in equity now prevailing.

SEC. 25. That no proceeding for contempt shall be instituted against any person unless begun within one year from the date of the act complained of; nor shall any such proceeding be a bar to any criminal prosecution for the same act or acts; but nothing herein contained shall affect any proceedings in contempt pending at the time of the passage of this Act.

SEC. 26. If any clause, sentence, paragraph, or part of this Act shall, for any reason, be adjudged by any court of competent jurisdiction to be invalid, such judgment shall not affect, impair, or invalidate the remainder thereof, but shall be confined in its operation to the clause, sentence, paragraph, or part thereof directly involved in the controversy in which such judgment shall have been rendered.

Approved, October 15, 1914.

[PUBLIC LAW No. 263—63D CONGRESS]

(Extract from)

Enforcement of antitrust laws: For the enforcement of antitrust laws, including not exceeding $15,000 for salaries of necessary employees at the seat of government, $300,000: *Provided, however*, That on[1] part of this money shall be spent in the prosecution of any organization or individual for entering into any combination or agreement having in view the increasing of wages, shortening of hours or bettering the conditions of labor, or for any act done in furtherance thereof, not in itself unlawful: *Provided further*, That no part of this appropriation shall be expended for the prosecution of producers of farm products and associations of farmers who cooperate and organize in an effort to and for the purpose to obtain and maintain a fair and reasonable price for their products.

Approved, March 3, 1915.

[PUBLIC LAW No. 271—63D CONGRESS]

(Extract from)

That no part of any sum herein, appropriated shall be expended for the purchase of structural steel, ship plates, armor, armament, or machinery from any persons, firms, or corporations who have combined or conspired to monopolize the interstate or foreign commerce or trade of the United States, or the commerce or trade between the States and any Territory or the District of Columbia, in any of the articles aforesaid, and no purchase of structural steel, ship plates, or machinery shall be made at a price in excess of a reasonable profit above the actual cost of manufacture. But this limitation shall in no case apply to any existing contract.

Approved, March 3, 1915.

[PUBLIC—No. 75—64TH CONGRESS]

(S. 4432)

AN ACT To amend section eight of an Act entitled "An Act to supplement existing laws against unlawful restraints and monopolies, and for other purposes," approved October fifteenth, nineteen hundred and fourteen

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section eight of an Act entitled "An Act to supplement existing laws against unlawful restraint and monopolies, and for other purposes," approved October fifteenth, nineteen hundred and fourteen, be, and the same is hereby, amended by striking out the period at the

[1] The word "on" should read "no."

Digitized by Google

end of the second clause of said section, inserting in lieu thereof a colon, and adding to said clause the following:

"*And provided further*, That nothing in this Act shall prohibit any officer, director, or employee of any member bank or class A director of a Federal reserve bank, who shall first procure the consent of the Federal Reserve Board, which board is hereby authorized, at its discretion, to grant, withhold, or revoke such consent, from being an officer, director, or employee of not more than two other banks, banking associations, or trust companies, whether organized under the laws of the United States or any State, if such other bank, banking association, or trust company is not in substantial competition with such member bank.

"The consent of the Federal Reserve Board may be procured before the person applying therefor has been elected as a class A director of a Federal reserve bank or as a director of any member bank."

Approved, May 15, 1916.

[PUBLIC LAW—No. 132—64TH CONGRESS]

(Extract from)

Enforcement of antitrust laws: For the enforcement of antitrust laws, including not exceeding $15,000 for salaries of necessary employees at the seat of government, $250,000: *Provided, however*, That no part of this money shall be spent in the prosecution of any organization or individual for entering into any combination or agreement having in view the increasing of wages, shortening of hours, or bettering the conditions of labor, or for any act done in furtherance thereof, not in itself unlawful: *Provided further*, That no part of this appropriation shall be expended for the prosecution of producers of farm products and associations of farmers who cooperate and organize in an effort to and for the purpose to obtain and maintain a fair and reasonable price for their products.

Approved, July 1, 1916.

[PUBLIC LAW—No. 241—64TH CONGRESS]

(Extract from)

That no part of any sum herein appropriated shall be expended for the purchase of structural steel, ship plates, armor, armament, or machinery from any persons, firms, or corporations who are parties to any existing combination or conspiracy to monopolize the interstate or foreign commerce or trade of the United States, or the commerce or trade between the States and any Territory or the District of Columbia, in any of the articles aforesaid, and no purchase of structural steel, ship plates, or machinery shall be made at a price in excess of a reasonable profit above the actual cost of manufacture. But this limitation shall in no case apply to any existing contract.

Approved, August 29, 1916.

[PUBLIC RESOLUTION—No. 33—64TH CONGRESS]

(S. J. Res. 129)

JOINT RESOLUTION Extending until April fifteenth, nineteen hundred and seventeen, the effective date of section ten of the Act entitled "An Act to supplement existing laws against unlawful restraints and monopolies, and for other purposes," approved October fifteenth, nineteen hundred and fourteen

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the effective date on and after which the provisions of section ten of the Act entitled "An Act to supplement existing laws against unlawful restraints and monopolies, and for other purposes," approved October fifteenth, nineteenth hundred and fourteen, shall become and be effective is hereby deferred and extended to April fifteenth, nineteen hundred and seventeen.

Approved, August 31, 1916.

Digitized by Google

[PUBLIC LAW 270—64TH CONGRESS]

(Extract from)

Any director or other officer, agent, or employee of any member bank may, with the approval of the Federal Reserve Board, be a director or other officer, agent, or employee of any such bank or corporation above mentioned in the capital stock of which such member bank shall bave invested as hereinbefore provided, without being subject to the provisions of section eight of the Act approved October fifteenth, nineteen hundred and fourteen, entitled "An Act to supplement existing laws against unlawful restraints and monopolies, and for other purposes."

Approved, September 7, 1916.

[PUBLIC LAW No. 391—64TH CONGRESS]

(Extract from)

That no part of any sum herein appropriated shall be expended for the purchase of structural steel, ship plates, armor, armament, or machinery from any person, firms, or corporations who are parties to any existing combination or conspiracy to monopolize the interstate or foreign commerce or trade of the United States, or the commerce or trade between the States and any Territory or the District of Columbia, in any of the articles aforesaid, and no purchase of structural steel, ship plates, or machinery shall be made at a price in excess of a reasonable profit above the actual cost of manufacture. But this limitation shall in no case apply to any existing contract.

Approved, March 4, 1917.

[PUBLIC RESOLUTION—No. 55—64TH CONGRESS]

[S. J. Res. 206]

JOINT RESOLUTION Extending until January eighth, nienteen hundred and eighteen, the effective date of section ten of the Act entitled "An Act to supplement existing laws against unlawful restraints and monopolies, and for other purposes," approved October fifteenth, nineteen hundred and fourteen

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the effective date on and after which the provisions of section ten of the Act entitled "An Act to supplement existing laws against unlawful restraints and monopolies, and for other purposes," approved October fifteenth, nineteen hundred and fourteen, shall become and be effective is hereby deferred and extended to January eighth, nineteen hundred and eighteen.

Approved, March 4, 1917.

[PUBLIC LAW No. 21—65TH CONGRESS]

(Extract from)

For all expenses necessary to carry out the order of the President of the United States to investigate within the scope of its powers and to report the facts relating to any alleged violations of the antitrust Acts by any corporation in the production, ownership, manufacture, storage, and distribution of foodstuffs and the products or by-products arising from or in connection with their preparation and manufacture, $250,000.

Approved, June 12, 1917.

[PUBLIC LAW No. 21—65TH CONGRESS]

(Extract from)

Enforcement of antitrust laws: For the enforcement of antitrust laws, including not exceeding $15,000 for salaries of necessary employees at the seat of government, $200,000: *Provided, however*, That no part of this money shall be

Digitized by Google

spent in the prosecution of any organization or individual for entering into any combination or agreement having in view the increasing of wages, shortening of hours or bettering the conditions of labor, or for any act done in furtherance thereof, not in itself unlawful: *Provided further*, That no part of this appropriation shall be expended for the prosecution of producers of farm products and associations of farmers who cooperate and organize in an effort to and for the purpose to obtain and maintain a fair and reasonable price for their products.

Approved, June 12, 1917.

[PUBLIC RESOLUTION—No. 20—65TH CONGRESS]

[S. J. Res. 106]

JOINT RESOLUTION Extending until aJnuary first, nineteen hundred and nineteen, the effective date of section ten of the Act entitled "An Act to supplement existing laws against unlawful restrains and monopolies, and for other purposes," approved October fifteen, nineteen hundred and fourteen

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the effective date on and after which the provisions of section ten of the Act entitled "An Act to supplement existing laws against unlawful restraints and monopolies, and for other purposes," approved October fifteenth, nineteen hundred and fourteen, shall become and be effective is hereby deferred and extended to January first, nineteen hundred and nineteen: *Provided*, That said section shall become effective on January eighth, nineteen hundred and eighteen, as to any corporations hereafter organized.

Approved, January 12, 1918.

[PUBLIC LAW No. 107—65TH CONGRESS]

(Extract from)

SEC. 13. That all pending cases in the courts of the United States affecting railroads or other transportation systems brought under the Act to regulate commerce, approved February fourth, eighteen hundred and eighty-seven, as amended and supplemented, including the commodities clause, so called, or under the Act to protect trade and commerce against unlawful restrains and monopolies, approved July second, eighteen hundred and ninety, and amendments thereto, shall proceed to final determination as soon as may be, as if the United States had not assumed control of transportation system; but in any such case the court having jurisdiction may, upon the application of the United States, stay execution of final judgment or decree until such time as it shall deem proper.

Approved, March 21, 1918.

[PUBLIC—No. 126—65TH CONGRESS]

[H. R. 2316]

AN ACT To promote export trade, and for other purposes

Be it enacted by the Senate and House of Representatives of the United of America in Congress assembled, That the words "export trade" wherever used in this Act mean soley trade or commerce in goods, wares, or merchandise exported, or in the course of being exported from the United States or any Territory thereof to any foreign nation; but the words "export trade" shall not be deemed to include the production, manufacture, or selling for consumption or for resale, within the United States or any Territory thereof, of such goods, wares, or merchandise, or any act in the course of such production, manufacture, or selling for consumption or for resale.

That the words "trade within the United States" wherever used in this Act mean trade or commerce among the several States or in any Territory of the United States, or in the District of Columbia, or between any such Territory and another, or between any such Territory or Territories and any State or

Digitized by Google

States or the District of Columbia, or between the District of Columbia and any State or States.

That the word "association" wherever used in this Act means any corporation or combination, by contract or otherwise, of two or more persons, partnerships, or corporations.

SEC. 2. That nothing contained in the Act entitled "An Act to protect trade and commerce against unlawful restraints and monopolies," approved July second, eighteen hundred and ninety, shall be construed as declaring to be illegal an association entered into for the sole purpose of engaging in export trade and actually engaged solely in such export trade, or an agreement made or act done in the course of export trade by such association, provided such association, agreement, or act is not in restraint of trade within the United States, and is not in restraint of the export trade of any domestic competitor of such associaion: *And provided further*, That such association does not, either in the United States or elsewhere, enter into any agreement, understanding, or conspiracy, or do any act which artificially or intentionally enhances or depresses prices within the United States of commodities of the class exported by such association, or which substantially lessens competition within the United States or otherwise restrains trade therein.

SEC. 3. That nothing contained in section seven of the Act entitled "An Act to supplement existing laws against unlawful restraints and mopopolies, and for other purposes," approved October fifteenth, nineteen hundred and fourteen, shall be construed to forbid the acquisition or ownership by any corporation of the whole or any part of the stock or other capital of any corporation organized solely for the purpose of engaging in export trade, and actually engaged solely in such export trade, unless the effect of such acquisition or ownership may be to restrain trade or substantially lessen competition within the United States.

SEC. 4. That the prohibition against "unfair methods of competition" and the remedies provided for enforcing said prohibition contained in the Act entitled "An Act to create a Federal Trade Commission, to define its powers and duties, and for other purposes," approved September twenty-sixth, nineteen hundred and fourteen, shall be construed as extending to unfair methods of competition used in export trade against competitors engaged in export trade, even though the acts constituting such unfair methods are done without the terriorial jurisdicion of the United States.

SEC. 5. That every association now engaged solely in export trade, within sixty days after the passage of this Act, and every association entered into hereafter which engages solely in export trade, within thirty days after its creation, shall file with the Federal Trade Commissioner a verified written statement setting forth the location of its offices or places of business and the names and addresses of all its officers and of all its stockholders or members, and if a corporation, a copy of its certificate or articles of incorporation and by-laws, and if unincorporated, a copy of its articles or contract of association, and on the first day of January of each year thereafter it shall make a like statement of the location of its offices or places of business and the names and addresses of all its officers and of all its stockholders or members and of all amendments to and changes in its articles or certificate of incorporation or in its articles or contract of association. It shall also furnish to the commission such information as the commission may require as to its organization, business, conduct, practices, management, and relation to other associations, corporations, partnerships, and individuals. Any association which shall fail so to do shall not have the benefit of the provisions of section two and section three of this Act, and it shall also forfeit to the United States the sum of $100 for each and every day of the continuance of such failure, which forfeiture shall be payable into the Treasury of the United States, and shall be recoverable in a civil suit in the name of the United States brought in the district where the association has its principal office, or in any district in which it shall do business. It shall be the duty of the various district attorneys, under the direction of the Attorney General of the United States, to prosecute for the recovery of the forfeiture. The costs and expenses of such prosecution shall be paid out of the apporpriation for the expenses of the courts of the United States.

Whenever the Federal Trade Commission shall have reason to believe that an association or any agreement made or act done by such association is in restraint of trade within the United States or in restraint of the export trade of any domestic competitor of such association, or that an association either

Digitized by Google

in the United States or elsewhere has entered into any agreement, understanding, or conspiracy, or done any act which artificially or intentionally enhances or depresses prices within the United States of commodities of the class exported by such association, or which substantially lessens competition within the United States or otherwise restrains trade therein, it shall summon such association, its officers, and agents to appear before it, and thereafter conduct an investigation into the alleged violations of law. Upon investigation, if it shall conclude that the law has been violated, it may make to such association recommendations for the readjustment of its business, in order that it may thereafter maintain its organization and management and conduct its business in accordance with law. If such association fails to comply with the recommendations of the Federal Trade Commission, said commission shall refer its findings and recommendations to the Attorney General of the United States for such action thereon as he may deem proper.

For the purpose of enforcing these provisions the Federal Trade Commission shall have all the powers, so far as applicable, given it in "An Act to create a Federal Trade Commission, to define its powers and duties, and for other purposes."

Approved, April 10, 1918.

[PUBLIC—No. 181—65TH CONGRESS]

(Extract from)

Enforcement of antitrust laws: For the enforcement of antitrust laws, including not exceeding $15,000 for salaries of necessary employees at the seat of government, $100,000: *Provided, however*, That no part of this money shall be spent in the prosecution of any organization or individual for entering into any combination or agreement having in view the increasing of wages, shortening of hours or bettering the conditions of labor, or for any act done in furtherance thereof, not in itself unlawful: *Provided further*, That no part of this appropriation shall be expended for the prosecution of producers of farm products and associations of farmers who cooperate and organize in an effort to and for the purpose to obtain and maintain a fair and reasonable price for their products.

Approved, July 1, 1918.

[PUBLIC—No. 21—66TH CONGRESS]

(Extract from)

Enforcement of antitrust laws: For the enforcement of antitrust laws, including not exceeding $15,000 for salaries of necessary employees at the seat of government, $100,000: *Provided, however*, That no part of this money shall be spent in the prosecution of any organization or individual for entering into any combination or agreement having in view the increasing of wages, shortening of hours or bettering the conditions of labor, or for any act done in furtherance thereof, not in itself unlawful: *Provided further*, That no part of this appropriation shall be expended for the prosecution of producers of farm products and associations of farmers who cooperate and organize in an effort to and for the purpose to obtain and maintain a fair and reasonable price for their products.

Approved, July 19, 1919.

[PUBLIC—No. 73—66TH CONGRESS]

(Extract from)

Enforcement of antitrust laws: For the enforcement of antitrust laws, $200,000: *Provided, however*, That no part of this money shall be spent in the prosecution of any organization other than an organization of public officers or any individual other than a public officer for entering into any combination or agreement having in view the increasing of wages, shortening of hours, or bettering the conditions of labor, or for any act done in furtherance thereof, not in itself unlawful: *Provided further*, That no part of this

Digitized by Google

appropriation shall be expended for the prosecution of producers of farm products and associations of farmers who cooperate and organize in an effort to and for the purpose to obtain and maintain a fair and reasonable price for their products.

Approved, November 4, 1919.

[PUBLIC—No. 106—66TH CONGRESS]

[S. 2472]

AN ACT To amend the Act approved December 23, 1913, known as the Federal Reserve Act

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Act approved December 23, 1913, known as the Federal Reserve Act, as amended be further amended by adding a new section as follows:

"BANKING CORPORATIONS AUTHORIZED TO DO FOREIGN BANKING BUSINESS

"SEC. 25 (a). Corporations to be organized for the purpose of engaging in international or foreign banking or other international or foreign financial operations, or in banking or other financial operations in a dependency or insular possession of the United States, either directly or through the agency, ownership, or control of local institutions in foreign countries, or in such dependencies or insular possessions as provided by this section, and to act when required by the Secretary of the Treasury as fiscal agents of the United States, may be formed by any number of natural persons, not less in any case than five.

"Such persons shall enter into articles of association which shall specify in general terms the objects for which the association is formed and may contain any other provisions not inconsistent with law which the association may see fit to adopt for the regulation of its business and the conduct of its affairs.

"Such articles of association shall be signed by all of the persons intending to participate in the organization of the corporation and, thereafter, shall be forwarded to the Federal Reserve Board and shall be filed and preserved in its office. The persons signing the said articles of association shall, under their hands, make an organization certificate which shall specifically state:

"First. The name assumed by such corporations, which shall be subject to the approval of the Federal Reserve Board.

"Second. The place or places where its operations are to be carried on.

"Third. The place in the United States where its home office is to be located.

"Fourth. The amount of its capital stock and the number of shares into which the same shall be divided.

"Fifth. The names and places of business or residence of the persons executing the certificate and the number of shares to which each has subscribed.

"Sixth. The fact that the certificate is made to enable the persons subscribing the same, and all other persons, firms, companies, and corporations, who or which may thereafter subscribe to or purchase shares of the capital stock of such corporation, to avail themselves of the advantages of this section.

"The persons signing the organization certificate shall duly acknowledge the execution thereof before a judge of some court of record or notary public, who shall certify thereto under the seal of such court or notary, and thereafter the certificate shall be forwarded to the Federal Reserve Board to be filed and preserved in its office. Upon duly making and filing articles of association and an organization certificate, and after the Federal Reserve Board has approved the same and issued a permit to begin business, the association shall become and be a body corporate, and as such and in the name designated therein shall have power to adopt and use a corporate seal, which may be changed at the pleasure of its board of directors; to have succession for a period of twenty years unless sooner dissolved by the act of the shareholders owning two-thirds of the stock or by an Act of Congress or unless its franchises become forfeited by some violation of law; to make contracts; to sue and be sued, complain, and defend in any court of law or equity; to elect or appoint directors, all of whom shall be citizens of the United States; and, by its board of directors, to appoint such officers and employees

Digitized by Google

as may be deemed proper, define their authority and duties, require bonds of them, and fix the penalty thereof, dismiss such officers or employees, or any thereof, at pleasure and appoint others to fill their places; to prescribe, by its board of directors, by-laws not inconsistent with law or with the regulations of the Federal Reserve Board regulating the manner in which its stock shall be transferred, its directors elected or appointed, its officers and employees appointed, its property transferred, and the privileges granted to it by law exercised and enjoyed.

"Each corporation so organized shall have power, under such rules and regulations as the Federal Reserve Board may prescribe:

"(a) To purchase, sell, discount, and negotiate, with or without its indorsement or guaranty, notes, drafts, checks, bills of exchange, acceptances, including bankers' acceptances, cable transfers, and other evidences of indebtedness; to purchase and sell, with or without its indorsement or guaranty, securities, including the obligations of the United States or of any State thereof but not including shares of stock in any corporation except as herein provided; to accept bills or drafts drawn upon it subject to such limitations and restrictions as the Federal Reserve Board may impose; to issue letters of credit; to purchase and sell coin, bullion, and exchange; to borrow and to lend money; to issue debentures, bonds, and promissory notes under such general conditions as to security and such limitations as the Federal Reserve Board may prescribe, but in no event having liabilities outstanding thereon at any one time exceeding ten times its capital stock and surplus; to receive deposits outside of the United States and to receive only such deposits within the United States as may be incidental to or for the purpose of carrying out transactions in foreign countries or dependencies or insular possessions of the United States; and generally to exercise such powers as are incidental to the powers conferred by this Act or as may be usual, in the determination of the Federal Reserve Board, in connection with the transaction of the business of banking or other financial operations in the countries, colonies, dependencies, or possessions in which it shall transact business and not inconsistent with the powers specifically granted herein. Nothing contained in this section shall be construed to prohibit the Federal Reserve Board, under its power to prescribe rules and regulations, from limiting the aggregate amount of liabilities of any or all classes incurred by the corporation and outstanding at any one time. Whenever a corporation organized under this section receives deposits in the United States authorized by this section it shall carry reserves in such amounts as the Federal Reserve Board may prescribe, but in no event less than 10 per centum of its deposits.

"(b) To establish and maintain for the transaction of its business branches or agencies in foreign countries, their dependencies or colonies, and in the dependencies or insular possessions of the United States, at such places as may be approved by the Federal Reserve Board and under such rules and regulations as it may prescribe, including countries or dependencies not specified in the original organization certificate.

"(c) With the consent of the Federal Reserve Board to purchase and hold stock or other certificates of ownership in any other corporation organized under the provisions of this section, or under the laws of any foreign country or a colony or dependency thereof, or under the laws of any State, dependency, or insular possession of the United States but not engaged in the general business of buying or selling goods, wares, merchandise or commodities in the United States, and not transacting any business in the United States except such as in the judgment of the Federal Reserve Board may be incidental to its international or foreign business: *Provided, however*, That, except with the approval of the Federal Reserve Board, no corporation organized hereunder shall invest in any one corporation an amount in excess of 10 per centum of its own capital and surplus, except in a corporation engaged in the business of banking, when 15 per centum of its capital and surplus may be so invested: *Provided further*, That no corporation organized hereunder shall purchase, own, or hold stock or certificates of ownership in any other corporation organized hereunder or under the laws of any State which is in substantial competition therewith, or which holds stock or certificates of ownership in corporations which are in substantial competition with the purchasing corporation.

"Nothing contained herein shall prevent corporations organized hereunder from purchasing and holding stock in any corporation where such purchase shall be necessary to prevent a loss upon a debt previously contracted in good faith; and stock so purchased or acquired in corporations organized under this section shall within six months from such purchase be sold or disposed of at public

Digitized by Google

or private sale unless the time to so dispose of same is extended by the Federal Reserve Board.

"No corporation organized under this section shall carry on any part of its business in the United States except such as, in the judgment of the Federal Reserve Board, shall be incidental to its international or foreign business: *And provided further*, That except such as is incidental and preliminary to its organization no such corporation shall exercise any of the powers conferred by this section until it has been duly authorized by the Federal Reserve Board to commence business as a corporation organized under the provisions of this section.

"No corporation organized under this section shall engage in commerce or trade in commodities except as specifically provided in this section, nor shall it either directly or indirectly control or fix or attempt to control or fix the price of any such commodities. The charter of any corporation violating this provision shall be subject to forfeiture in the manner hereinafter provided in this section. It shall be unlawful for any director, officer, agent, or employee of any such corporation to use or to conspire to use the credit, the funds, or the power of the corporation to fix or control the price of any such commodities, and any such person violating this provision shall be liable to a fine of not less than $1,000 and not exceeding $5,000 or imprisonment not less than one year and not exceeding five years, or both, in the discretion of the court.

"No corporation shall be organized under the provisions of this section with a capital stock of less than $2,000,000, one-quarter of which must be paid in before the corporation may be authorized to begin business, and the remainder of the capital stock of such corporation shall be paid in installments of at least 10 per centum on the whole amount to which the corporation shall be limited as frequently as one installment at the end of each succeeding two months from the time of the commencement of its business operations until the whole of the capital stock shall be paid in. The capital stock of any such corporation may be increased at any time, with the approval of the Federal Reserve Board, by a vote of two-thirds of its shareholders or by unanimous consent in writing of the shareholders without a meeting and without a formal vote, but any such increase of capital shall be fully paid in within ninety days after such approval; and may be reduced in like manner, provided that in no event shall it be less than $2,000,000. No corporation, except as herein provided, shall during the time it shall continue its operations, withdraw or permit to be withdrawn, either in the form of dividends or otherwise, any portion of its capital. Any national banking association may invest in the stock of any corporation organized under the provisions of this section, but the aggregate amount of stock held in all corporations engaged in business of the kind described in this section and in section 25 of the Federal Reserve Act as amended shall not exceed 10 per centum of the subscribing bank's capital and surplus.

"A majority of the shares of the capital stock of any such corporation shall at all times be held and owned by citizens of the United States, by corporations the controlling interest in which is owned by citizens of the United States, chartered under the laws of the United States or of a State of the United States, or by firms or companies, the controlling interest in which is owned by citizens of the United States. The provisions of section 8 of the act approved October 15, 1914, entitled 'An act to supplement existing laws against unlawful restraints and monopolies, and for other purposes,' as amended by the acts of May 15, 1916, and September 7, 1916, shall be construed to apply to the directors, other officers, agents, or employees of corporations organized under the provisions of this section: *Provided, however*, That nothing herein contained shall (1) prohibit any director or other officer, agent or employee of any member bank, who has procured the approval of the Federal Reserve Board from serving at the same time as a director or other officer, agent or employee of any corporation organized under the provisions of this section in whose capital stock such member bank shall have invested; or (2) prohibit any director or other officer, agent, or employee of any corporation organized under the provisions of this section, who has procured the approval of the Federal Reserve Board, from serving at the same time as a director or other officer, agent or employee of any other corporation in whose capital stock such first-mentioned corporation shall have invested under the provisions of this section.

Digitized by Google

"No member of the Federal Reserve Board shall be an officer or director of any corporation organized under the provisions of this section, or of any corporation engaged in similar business organized under the laws of any State, nor hold stock in any such corporation, and before entering upon his duties as a member of the Federal Reserve Board he shall certify under oath to the Secretary of the Treasury that he has complied with this requirement.

"Shareholders in any corporation organized under the provisions of this section shall be liable for the amount of their unpaid stock subscriptions. No such corporation shall become a member of any Federal reserve bank.

"Should any corporation organized hereunder violate or fail to comply with any of the provisions of this section, all of its rights, privileges, and franchises derived herefrom may thereby be forfeited. Before any such corporation shall be declared dissolved, or its rights, privileges, and franchises forfeited, any noncompliance with, or violation of such laws shall, however, be determined and adjudged by a court of the United States of competent jurisdiction, in a suit brought for that purpose in the district or territory in which the home office of such corporation is located, which suit shall be brought by the United States at the instance of the Federal Reserve Board or the Attorney General. Upon adjudication of such noncompliance or violation, each director and officer who participated in, or assented to, the illegal act or acts, shall be liable in his personal or individual capacity for all damages which the said corporation shall have sustained in consequence thereof. No dissolution shall take away or impair any remedy against the corporation, its stockholders, or officers for any liability or penalty previously incurred.

"Any such corporation may go into voluntary liquidation and be closed by a vote of its shareholders owning two-thirds of its stock.

"Whenever the Federal Reserve Board shall become satisfied of the insolvency of any such corporation, it may appoint a receiver who shall take possession of all of the property and assets of the corporation and exercise the same rights, privileges, powers, and authority with respect thereto as are now exercised by receivers of national banks appointed by the Comptroller of the Currency of the United States: *Provided, however*, That the assets of the corporation subject to the laws of other countries or jurisdictions shall be dealt with in accordance with the terms of such laws.

"Every corporation organized under the provisions of this section shall hold a meeting of its stockholders annually upon a date fixed in its by-laws, such meeting to be held at its home office in the United States. Every such corporation shall keep at its home office books containing the names of all stockholders thereof, and the names and addresses of the members of its board of directors, together with copies of all reports made by it to the Federal Reserve Board. Every such corporation shall make reports to the Federal Reserve Board at such times and in such form as it may require; and shall be subject to examination once a year and at such other times as may be deemed necessary by the Federal Reserve Board by examiners appointed by the Federal Reserve Board, the cost of such examination, including the compensation of the examiners, to be fixed by the Federal Reserve Board and to be paid by the corporation examined.

"The directors of any corporation organized under the provisions of this section may, semiannually, declare a dividend of so much of the net profits of the corporation as they shall judge expedient; but each corporation shall, before the declaration of a dividend, carry one-tenth of its net profits of the preceding half year to its surplus fund until the same shall amount to 20 per centum of its capital stock.

"Any corporation organized under the provisions of this section shall be subject to tax by the State within which its home office is located in the same manner and to the same extent as other corporations organized under the laws of that State which are transacting a similar character of business. The shares of stock in such corporation shall also be subject to tax as the personal property of the owners or holders thereof in the same manner and to the same extent as the shares of stock in similar State corporations.

"Any corporation organized under the provisions of this section may at any time within the two years next previous to the date of the expiration of its corporate existence, by a vote of the shareholders owning two-thirds of its stock, apply to the Federal Reserve Board for its approval to extend the period of its corporate existence for a term of not more than twenty years, and upon

Digitized by Google

certified approval of the Federal Reserve Board such corporation shall have its corporate existence for such extended period unless sooner dissolved by the act of the shareholders owning two-thirds of its stock, or by an Act of Congress or unless its franchise becomes forfeited by some violation of law.

"Any bank or banking institution, principally engaged in foreign business, incorporated by special law of any State or of the United States or organized under the general laws of any State or of the United States and having an unimpaired capital sufficient to entitle it to become a corporation under the provisions of this section may, by the vote of the shareholders owning not less than two-thirds of the capital stock of such bank or banking association, with the approval of the Federal Reserve Board, be converted into a Federal corporation of the kind authorized by this section with any name approved by the Federal Reserve Board: *Provided, however*, That said conversion shall not be in contravention of the State law. In such case the articles of association and organization certificate may be executed by a majority of the directors of the bank or banking institution, and the certificate shall declare that the owners of at least two-thirds of the capital stock have authorized the directors to make such certificate and to change or convert the bank or banking institution into a Federal corporation. A majority of the directors, after executing the articles of association and the organization certificate, shall have power to execute all other papers and to do whatever may be required to make its organization perfect and complete as a Federal corporation. The shares of any such corporation may continue to be for the same amount each as they were before the conversion, and the directors may continue to be directors of the corporation until others are elected or appointed in accordance with the provisions of this section. When the Federal Reserve Board has given to such corporation a certificate that the provisions of this section have been complied with, such corporation and all its stockholders, officers, and employees, shall have the same powers and privileges, and shall be subject to the same duties, liabilities, and regulations, in all respects, as shall have been prescribed by this section for corporations originally organized hereunder.

"Every officer, director, clerk, employee, or agent of any corporation organized under this section who embezzles, abstracts, or willfully misapplies any of the moneys, funds, credits, securities, evidences of indebtedness or assets of any character of such corporation; or who, without authority from the directors, issues or puts forth any certificate of deposit, draws any order or bill of exchange, makes any acceptance, assigns any note, bond, debenture, draft, bill of exchange, mortgage, judgment, or decree; or who makes any false entry in any book, report, or statement of such corporation with intent, in either case, to injure or defraud such corporation or any other company, body politic or corporate, or any individual person, or to deceive any officer of such corporation, the Federal Reserve Board, or any agent or examiner appointed to examine the affairs of any such corporation and every receiver of any such corporation and every clerk or employee of such receiver who shall embezzle, abstract, or willfully misapply or wrongfully convert to his own use any moneys, funds, credits or assets of any character which may come into his possession or under his control in the execution of his trust or the performance of the duties of his employment; and every such receiver or clerk or employee of such receiver who shall, with intent to injure or defraud any person, body politic or corporate, or to deceive or mislead the Federal Reserve Board, or any agent or examiner appointed to examine the affairs of such receiver, shall make any false entry in any book, report, or record of any matter connected with the duties of such receiver; and every person who with like intent aids or abets any officer, director, clerk, employee, or agent of any corporation organized under this section, or receiver or clerk or employee of such receiver as aforesaid in any violation of this section, shall upon conviction thereof be imprisoned for not less than two years nor more than ten years, and may also be fined not more than $5,000, in the discretion of the court.

"Whoever being connected in any capacity with any corporation organized under this section represents in any way that the United States is liable for the payment of any bond or other obligation, or the interest thereon, issued or incurred by any corporation organized hereunder, or that the United States incurs any liability in respect of any act or omission of the corporation, shall be punished by a fine of not more than $10,000 and by imprisonment for not more than five years."

Approved, December 24, 1919.

Digitized by Google

[PUBLIC—No. 146—66TH CONGRESS]

(Extract from)

GENERAL PROVISIONS APPLICABLE TO COAL, PHOSPHATE, SODIUM, OIL, OIL SHALE, AND GAS LEASES

SEC. 26. That the Secretary of the Interior shall reserve and may exercise the authority to cancel any prospecting permit upon failure by the permittee to exercise due dilligence in the prosecution of the prospecting work in accordance with the terms and conditions stated in the permit, and shall insert in every such permit issued under the provisions of this Act appropriate provisions for its cancellation by him.

SEC. 27. That no person, association, or corporation, except as herein provided, shall take or hold more than one coal, phosphate, or sodium lease during the life of such lease in any one State; no person, association, or corporation shall take or hold, at one time, more than three oil or gas leases granted hereunder in any one State, and not more than one lease within the geologic structure of the same producing oil or gas field; no corporation shall hold any interest as a stockholder of another corporation in more than such number of leases; and no person or corporation shall take or hold any interest or interests as a member of an association or associations or as a stockholder of a corporation or corporations holding a lease under the provisions hereof, which, together with the area embraced in any direct holding of a leases under this Act, or which, together with any other interest or interests as a member of an association or associations or as a stockholder of a corporation or corporations holding a lease under the provisions hereof, for any kind of mineral leased hereunder, exceeds in the aggregate an amount equivalent to the maximum number of acres of the respective kinds of minerals allowed to any one lessee under this Act. Any interests held in violation of this Act shall be forfeited to the United States by appropriate proceedings instituted by the Attorney General for that purpose in the United States district court for the district in which the property, or some part thereof, is located, except that any ownership or interest forbidden in this Act which may be acquired by descent, will, judgment, or decree may be held for two years and not longer after its acquisition: *Provided*, That nothing herein contained shall be construed to limit sections 18, 18a, 19, and 22 or to prevent any number of lessees under the provisions of this Act from combining their several interests so far as may be necessary for the purposes of constructing and carrying on the business of a refinery, or of establishing and constructing as a common carrier a pipe line or lines of railroads to be operated and used by them jointly in the transportation of oil from their several wells, or from the wells of other lessees under this Act, or the transportation of coal: *Provided further*, That any combination for such purpose or purposes shall be subject to the approval of the Secretary of the Interior on application to him for permission to form the same: *And Provided further*, That if any of the lands or deposits leased under the provisions of this Act shall be subleased, trusteed, possessed, or controlled by any device permanently, temporarily, directly, indirectly, tacitly, or in any manner whatsoever, so that they form part of, or are in any wise controlled by any combination in the form of an unlawful trust, with consent of lessee, or form the subject of any contract or conspiracy in restraint of trade in the mining or selling of coal, phosphate, oil, oil shale, gas, or sodium entered into by the lessee, or any agreement or understanding, written, verbal, or otherwise to which such lessee shall be a party, of which his or its output is to be or become the subject, to control the price or prices thereof or of any holding of such lands by any individual, partnership, association, corporation, or control, in excess of the amounts of lands provided in this Act, the lease thereof shall be forfeited by appropriate proceedings.

Approved, February 25, 19 0.

[PUBLIC LAW NO. 152—66TH CONGRESS]

(Extract from)

"(8) The carriers affected by any order made under the foregoing provisions of this section and any corporation organized to effect a consolidation approved and authorized in such order shall be, and they are hereby, relieved from the

Digitized by Google

operation of the 'antitrust laws,' as designated in section 1 of the Act entitled 'An Act to supplement existing laws against unlawful restraints and monopolies, and for other purposes,' approved October 15, 1914, and of all other restraints or prohibitions by law, State or Federal, in so far as may be necessary to enable them to do anything authorized or required by any order made under and pursuant to the foregoing provisions of this section."

Approved, February 28, 1920.

[PUBLIC LAW No. 152—66TH CONGRESS]

(Extract from)

SEC. 501. The effective date on and after which the provisions of section 10 of the Act entitled "An Act to supplement existing laws against unlawful restraints and monopolies, and for other purposes," approved October 15, 1914, shall become and be effective is hereby deferred and extended to January 1, 1921: *Provided*, That such extension shall not apply in the case of any corporation organized after January 12, 1918.

Approved, February 28, 1920.

[PUBLIC LAW No. 197—66TH CONGRESS]

(Extract from)

(3) All aliens who have been or may hereafter be convicted of any offense against section 13 of the said Penal Code committed during the period of August 1, 1914, to April 6, 1917, or of a conspiracy occurring within said period to commit an offense under said section 13, or of any offense committed during said period against the Act entitled "An Act to protect trade unlawful TH TH TH TH
and commerce against unlawful restraints and monopolies," approved July 2, 1890, in aid of a belligerent in the European war.

SEC. 2. That in every case in which any such alien is ordered expelled or excluded from the United States under the provisions of this Act the decision of the Secretary of Labor shall be final.

SEC. 3. That in addition to the aliens who are by law now excluded from admission into the United States all persons who shall be expelled under any of the provisions of this Act shall also be excluded from readmission.

Approved, May 10, 1920.

[PUBLIC—No. 225—66TH CONGRESS]

[H. R. 13138]

AN ACT To amend section 8 of an Act entitled "An Act to supplement existing laws against unlawful restraints and monopolies, and for other purposes," approved October 15, 1914, as amended May 15, 1916

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section 8 of an Act entitled "An Act to supplement existing laws against unlawful restraints and monopolies, and for other purposes," approved October 15, 1914, as amended by the Act of May 15, 1916, be further amended by inserting in the proviso at the end of the second clause of said section after the word "prohibit" the words "any private banker or," so that the proviso as amended shall read:

"*And provided further*, That nothing in this Act shall prohibit any private banker or any officer, director, or employee of any member bank or class A director of a Federal reserve bank, who shall first procure the consent of the Federal Reserve Board, which board is hereby authorized, at its discretion, to grant, withhold, or revoke such consent, from being an officer, director, or employee of not more than two other banks, banking associations, or trust companies, whether organized under the laws of the United States or any State, if such other bank, banking association, or trust company is not in substantial competition with such banker or member bank.

Digitized by Google

"The consent of the Federal Reserve Board may be procured before the person applying therefor has been elected as a class A director of a Federal reserve bank or as a director of any member bank."

Approved, May 26, 1920.

[PUBLIC—No. 246—66TH CONGRESS]

(Extract from)

Enforcement of antitrust laws: For the enforcement of antitrust laws, including not exceeding $10,000 for clerical services and not exceeding $40,000 for compensation of attorneys at the seat of government, $100,000, together with the unexpended balance of the appropriation for this purpose for the fiscal year 1920: *Provided, however*, That no part of this money shall be spent in the prosecution of any organization or individual for entering into any combination or agreement having in view the increasing of wages, shortening of hours or bettering the conditions of labor, or for any act done in furtherance thereof, not in itself unlawful: *Provided further*, That no part of this appropriation shall be expended for the prosecution of producers of farm products and associations of farmers who cooperate and organize in an effort to and for the purpose to obtain and maintain a fair and reasonable price for their products.

Approved, June 5, 1920.

[PUBLIC LAW No. 261—66TH CONGRESS]

(Extract from)

(b) Nothing contained in the "antitrust laws" as designated in section 1 of the Act entitled "An Act to supplement existing laws against unlawful restraints and monopolies, and for other purposes," approved October 15, 1914, shall be construed as declaring illegal an association entered into by marine insurance companies for the following purposes: To transact a marine insurance and reinsurance business in the United States and in foreign countries and to reinsure or otherwise apportion among its membership the risks undertaken by such association or any of the component members.

Approved, June 5, 1920.

[PUBLIC LAW No. 389—66TH CONGRESS]

(Extract from)

Enforcement of antitrust laws: For the enforcement of antitrust laws, including not exceeding $10,000 for clerical services and not exceeding $40,000 for compensation of attorneys at the seat of government, $100,000, together with the unexpended balance of the appropriation for this purpose for the fiscal year 1921: *Provided, however*, That no part of this money shall be spent in the prosecution of any organization or individual for entering into any combination or agreement having in view the increasing of wages, shortening of hours or bettering the conditions of labor, or for any act done in furtherance thereof, not in itself unlawful: *Provided further*, That no part of this appropriation shall be expended for the prosecution of producers of farm products and associations of farmers who cooperate and organize in an effort to and for the purpose to obtain and maintain a fair and reasonable price for their products.

Approved, March 4, 1921.

[PUBLIC LAW No. 229—67TH CONGRESS]

(Extract from)

Enforcement of antitrust laws: For the enforcement of antitrust laws, including not exceeding $10,000 for clerical services and not exceeding $40,000 for compensation of attorneys at the seat of government, $225,000: *Provided*,

Digitized by Google

however, That no part of this money shall be spent in the prosecution of any organization or individual for entering into any combination or agreement having in view the increasing of wages, shortening of hours, or bettering the conditions of labor, or for any act done in furtherance thereof, not in itself unlawful: *Provided further*, That no part of this appropriation shall be expended for the prosecution of producers of farm products and associations of farmers who cooperate and organize in an effort to and for the purpose to obtain and maintain a fair and reasonable price for their products.

Approved, June 1, 1922.

[PUBLIC LAW No. 377—67TH CONGRESS]

(Extract from)

Enforcement of antitrust laws: For the enforcement of antitrust laws, including not exceeding $10,000 for clerical services and not exceeding $40,000 for compensation of attorneys at the seat of government, $200,000: *Provided, however*, That no part of this money shall be spent in the prosecution of any organization or individual for entering into any combination or agreement having in view the increasing of wages, shortening of hours, or bettering the conditions of labor, or for any act done in furtherance thereof, not in itself unlawful: *Provided further*, That no part of this appropriation shall be expended for the prosecution of producers of farm products and associations of farmers who cooperate and organize in an effort to and for the purpose to obtain and maintain a fair and reasonable price for their products.

Approved, January 3, 1923.

ADDITIONAL MATERIAL SUBMITTED TO THE COMMITTEE ON PATENTS BY FRANK H. RUSSELL, PRESIDENT, IN COMPLIANCE WITH SUBPENA SERVED ON HIM NOVEMBER 20, 1935, COVERING ITEMS 17 AND 19 OF MEMORANDUM ACCOMPANYING SUBPENA DATED SEPTEMBER 20, 1935, TO MANUFACTURERS AIRCRAFT ASSOCIATION, INC.

STATEMENT BY F. H. RUSSELL TO THE PATENTS COMMITTEE OF THE HOUSE OF REPRESENTATIVES REGARDING MANUFACTURERS AIRCRAFT ASSOCIATION, INC.

I am pleased to appear before you today as president of the Manufacturers Aircraft Association, Inc. Since I severed my active association with airplane and engine manufacturing in 1930, my statement must necessarily have to do with matters historical in character. Nevertheless, my years in the industry, my participation in the early aeronautical activities in the United States, and my intimate knowledge of the conditions and circumstances leading to the early days and the legislative and organizational adjustments which have taken place will, I trust, be of interest to you. From that standpoint, I hope to be able to give a very general outline of the background of the association as well as the details in regard to our history and operations. It is unnecessary to tell you that the board of directors and the president of the association place full and complete confidence in the active organization, but very definitely retain as their own function the establishment of all broad principles and policies. In this way the association has maintained its present position as one of the most useful facilities so far instituted in any industry for the protection of the inventor and the patent owner.

The original cross-license agreement was adopted in July 1917. As the years have passed by and as the cross-licensing agreement and the association continue their usefulness, the good judgment and foresight then exercised become increasingly evident. Only recently the present Federal Coordinator of Transportation, Mr. Joseph B. Eastman, has recommended that the railroads endeavor to stabilize the patent situation in the railroad field by some method of cross-licensing, both among the operators and among the suppliers of equipment thereto.

The aviation interest of most of your honorable committee has come as a corollary to the success you have attained in other fields. My interest, however, and this is true of most of those actively engaged in aviation, began in my youth and became my major activity. I have spent 21 years in this business, entering it in 1909. Those were the years in which the essential features of the airplane were being devised and in which the new facility was being

Digitized by Google

applied to the needs of commerce and the national defense. I don't like to use the word "pioneer", because it is so frequently misused, but the early days of aviation were pioneering days; we have no other word to describe them.

My interest in aviation began in 1909. I was then president of the Automatic Hook & Eye Co., of Hoboken, N. J., the company which later became the Hookless Fastener Co., manufacturing the Talon or "zipper" fastener with which you are all familiar. Through Mr. Russell A. Alger, of Detroit, I made the acquaintance of Orville and Wilbur Wright, and negotiations followed which resulted in my employment as manager of the then budding Wright Co. In that capacity I was intimately associated with these famous brothers in their early attempts to improve the airplane, and in their progress toward the commercial and military production of aeronautical equipment I employed and worked with many of the famous pilots of those days—but that is a separate story, hardly pertinent at this time.

In October 1911 I left the Wright Co. and joined the Burgess Co. and Curtiss, of Marblehead, Mass., as general manager. Its president, W. Starling Burgess, was a great designer and engineer. Of late years he designed both the *Rainbow* and the *Enterprise*, the successful defenders of the America's Cup in the last two international yacht races. During my association there, the war broke out in Europe, and the company began its war production for the British Admiralty. Certain conditions had arisen, however, which we felt would be best solved by joining the Burgess and Glenn H. Curtiss Co., and with that step I became vice president of the Curtiss Aeroplane & Motor Corporation and remained in that capacity until 1931, when I left to join the Edward G. Budd Manufacturing Co., of Philadelphia. There I became engaged in the development of the Zephyr type of light railroad trains, which it is hoped will help to solve the economic problems of our railroads. That, gentlemen, is a brief outline of my aviation background. It extends from the year 1909 to the year 1931. It brought intimate contact with all the early aircraft experimenters and producers. It brought me participation in all the aviation activities of the pre-war, war, and post-war periods. The results of that experience I gladly make available to you.

Now a few words about the Manufacturers Aircraft Association. It was formed in 1917. I was its first president and Mr. S. S. Bradley has been its general manager continuously since that time. It has filled a specific need in the industry. It has served that need economically and well. It has been of immeasurable advantage to the industry as well as to the air services of the Government. It is, however, a specialized operation.

In 1921 we felt that aviation had reached the stage where another facility was needed; that is, one to take the lead in promoting the interests of the aeronautical industry with the public and in guiding the future development of both the manufacturing and operating phases of the industry. Consequently, the Aeronautical Chamber of Commerce of America, Inc., was formed. For purposes of economy, the Manufacturers Aircraft Association and the Aeronautical Chamber of Commerce jointly occupied the same offices. In 1929, however, the two were completely divorced from one another, and Mr. Bradley withdrew from the management of the chamber. The offices of the Manufacturers Aircraft Association are still in New York. The offices of the Aeronautical Chamber of Commerce are in Washington. No connection exists between the two organizations, other than that the Manufacturers Aircraft Association is a member of the Aeronautical Chamber of Commerce.

With further reference to the Manufacturers Aircraft Association, the testimony presented to your committee during the hearings held last spring must have created the impression that the association was an exclusive organization composed of manufacturers of aircraft who were trying, through the association activities, to monopolize American aircraft production. Nothing could have been further from the truth. The most casual examination of our charter, bylaws, or the amended cross-license agreement will show the fallacy of such a premise. The Manufacturers Aircraft Association is solely an agency for the cross-licensing of airplane patents. It has no other function. It does not engage in activities of any public nature. It does no lobbying in Washington or elsewhere. It has no publicity functions. It has no interest in the placing of procurement contracts. It is simply a facility for the airplane manufacturers to use in solving problems relating to patents.

Membership in the association and participation in the patent pool is open to any reputable manufacturer or organization contemplating the manufacture of aircraft. It is a cooperative organization not entitled to be considered an ex-

Digitized by Google

clusive or a restricted one. The board of directors of the association has never refused to accept any qualified applicant for membership. In order to qualify, the only requirement is that the applicant shall be either a responsible manufacturer of aircraft; a responsible manufacturer who intends to become a bona fide producer thereof; a manufacturer to whom the United States Government has given a contract for the construction of 10 or more complete aircraft or aircraft engines; or any person, firm, or corporation holding or controlling United States patents relating to aircraft. No stockholder of the association may acquire, own, or hold at any time more than one share of stock of the association, which is sold to each new member at a cost of $1,000 per share. An applicant must further agree to give all members the benefit of any patents that it may hold on the same basis that such members are required to exchange any such rights that they may have with the new member.

The patents which are exchanged under the agreement represent very substantially the development of the art of aviation in this country during the past 25 years. Through the agreement the results of this development have been made available on a reasonable basis to all Americans who desire to take part in the business of the construction and development of aircraft. No applicant during the period of the entire existence of the association has ever been refused membership who has been willing to comply with the conditions above outlined which all members of the association have agreed to observe.

It is true that certain aircraft companies and other persons have owned or controlled aircraft patents, the use of which they have not desired to extend to the industry or to the Government at the rates of royalty provided for in the agreement. These parties have been free to enter the field and to operate independently.

The association cannot sue any nonmember for the infringement of any of the patents cross-licensed under the agreement. It can take no legal action of any kind for patent infringement against a nonmember. That responsibility rests entirely with the owner of the patent in question. No restriction whatsoever exists as to the action that patentee may take except that such patent owner has agreed with all other members that no arrangement will be entered into with other parties on more favorable terms than will accrue automatically to members through the cross-license agreement. The Government, the largest single purchaser of aircraft, has been comparatively free from aircraft patent litigation during the period of the association's existence, and has paid in royalties to the owners of the basic patents sums of money aggregating an amount which I believe to be far below the compensation paid to inventors and engineers in any other art used by the Government.

Patent suits have been brought against the Government on airplane patents, but it is interesting to note that such litigation has always resulted from the claims of nonmembers which have usually been greatly exaggerated, and in proportion to the number of patents alleged to be used by the Government, have been of little consequence. One can easily imagine the amount of litigation with attendant waste due to legal expenses, the demoralization of business, and the hardship to the Government, had there been no agreement in regard to the 750 patents cross-licensed through the association.

The Manufacturers Aircraft Association in its cross-licensing agreement has never been exclusive or restricted in any respect; it has never interfered with Government procurement by lobbying or any other activity of a public nature; nor has it ever exacted exorbitant royalties, directly or indirectly from the Government or from any of its members. Yet, over the entire history of its existence, starting almost immediately after its organization, charges of monopoly, coercion, and the like have been brought against it. Had these charges not been so serious in their effect on this industry, they would have been extremely amusing. There have been 20 or more investigations of our industry during the past 18 years. There are no less than five such investigations pending at the present time. This constant series of investigations has kept the industry in a state of unrest. These investigations have cost hundreds of thousands of dollars directly, and the indirect costs, such as the time of many men whose minds and lives are devoted to the designing and production of aircraft for the United States, are incalculable.

The association has not been previously heard before your committee. Your chairman was informed last February that it did not wish to appear to testify in regard to H. R. 4523 because compliance with the provisions of the bill as drafted did not impose any unreasonable hardship from the point of view

Digitized by Google

of the administration of the agreement, and we presumed that some good purpose was intended to be served by facilitating the reference of such matters to the Federal Trade Commission in the case of patent arrangements deemed to be against the public interest or the public welfare. Possibly we should not have permitted the kind of testimony heard by your committee at that time to go unchallenged. As has been indicated, however, such statements have been repeated at frequent intervals, usually by the same proponents, and we are appreciative of your desire to give us an opportunity to acquaint you at first hand with the activities of this association, its agreements, its personnel, and its accomplishments. We welcome your investigation of our affairs and trust that as a result of your review of our activities some constructive purpose may be accomplished. We are confident that you as a score or more of earlier aircraft investigators have done, will conclude that the association has been and will continue to be a valuable agency for our industry and the Government.

I am pleased to submit herewith three supplementary statements prepared for your consideration outlining the history and operations of the association and the aims and purposes of the cross-licensing plan; reviewing the suggestions which have been made with regard to the proposed revision of legislation affecting this subject; and analyzing the testimony which has been presented in regard to the association.

I wish to express my appreciation for the opportunity which you have given me to submit for your information all of the facts regarding the origin and operations of the Manufacturers Aircraft Association, Inc., and to rebut the misleading testimony above referred to presented by certain of the other witnesses which have been heard by your committee.

FIRST SUPPLEMENTAL STATEMENT BY F. H. RUSSELL TO THE PATENTS COMMITTEE OF THE HOUSE OF REPRESENTATIVES REGARDING THE HISTORY AND OPERATIONS OF THE MANUFACTURERS AIRCRAFT ASSOCIATION, INC.

In this statement I desire to review for your information the history and operations of the Manufacturers Aircraft Association, Inc., and to outline briefly the objects of the cross-licensing plan. By doing so, I hope that the harm done by the publication of the hearings held by your committee last February and March, may be mitigated or at any rate that the record of these proceedings may be corrected and not continue unchallenged to the injury of American aviation. Much of the record to date has no bearing whatsoever upon the subject of the bill you are considering (H. R. 4523), and the greater part of the testimony thus far printed has been devoted to the personal opinions and the unsupported and frequently false statements of two witnesses defaming many reputable and responsible persons and criticising many agencies of the Government as well as our association.

At the end of the year 1916, with the Government's serious contemplation of participation in the World War, there had developed an increasing realization of the extent to which airplanes could be used in military operations. Inventions, patents, and design rights applicable to aircraft became the subject of national interest. A number of the existing patents were basic in character and called for licenses of one thousand dollars ($1,000.00) per airplane, or more. With the concentration of engineers and designers on improved performance, it was realized that patents based upon new inventions would continue to force attention upon this subject.

By January 1917 it was recognized that aeronautical development was being and would continue to be seriously retarded by patent litigation. Because of this fact, the Navy Department, through its Acting Secretary, requested the National Advisory Committee for Aeronautics to study this question and suggest a fair solution. Shortly thereafter, a like request was made by the Acting Secretary of War. The National Advisory Committee for Aeronautics had been created by Congress in 1915 to advise the President and the Executive Departments on aeronautical questions.

On March 2, 1917, while the National Advisory Committee for Aeronautics was studying this question, Congress appropriated one million dollars ($1,000,000) to acquire by purchase, condemnation, donation, or otherwise necessary aircraft patents. Although this sum was appropriated, no offer was ever made, as it was well known that one or two of the basic Wright and Curtiss patents alone had cost several times that amount and that the essential patents in this field were worth many times that sum. The minutes of a

Digitized by Google

meeting of the National Advisory Committee for Aeronautics, held on March 22, 1917, records the fact that the chairman of its executive committee, Dr. Charles D. Walcott, who was also the secretary of the Smithsonian Institution, stated:

"It is not the desire of the National Advisory Committee * * * to condemn or purchase any patent. It believes that such action would be construed as indicating an unreasonable attitude * * * on the part of the owners of the patents condemned or purchased, besides perhaps serving to discourage invention, if a settlement was made at too low a basis, or to encourage all sorts of claims upon the industry and the Government if such settlement was on too high a basis. * * *"

On July 16, 1917, in accordance with a plan approved by the National Advisory Committee, of which Dr. Joseph S. Ames, president of Johns Hopkins University, was then chairman and Rear Admiral David W. Taylor, vice chairman, the Manufacturers Aircraft Association was incorporated under the laws of the State of New York. The association's first meeting was held on July 24, 1917, and in accordance with the plan proposed by the National Advisory Committee, a cross-license agreement was adopted by eleven (11) manufacturers of airplanes. Since that time, nearly eighty (80) other manufacturers have approved the objects of the association and enjoyed its benefits. This agreement recognized the constitutional and legal rights of inventors and patentees and also proprietary rights of airplane designs by provisions specifying the terms for the acquisition of such rights and payment therefor.

On July 27, 1917, the National Advisory Committee for Aeronautics, by letter advised Hon. Newton D. Baker, Secretary of War, and Hon. Josephus Daniels Secretary of the Navy, of the solution of this question and enclosed copies of the agreement. In acknowledging receipt of these letters, the Secretaries expressed their appreciation of the work accomplished by the committee. On the same day, the committee also wrote to the association recommending acceptance of the agreement by all manufacturers in the interests of harmony and efficiency and to permit the free expansion of the industry to meet the demands of the Government.

Early in August 1917 a few days after the publication of statements on behalf of the Secretaries of War and Navy expressing their satisfaction at the successful issue of the Government's first step relative to airplane manufacture and procurement under the cross-licensing agreement, the motives of the Government and the association were publicly attacked by a small group, including a few officers of the then moribund and now defunct Aeronautical Society. Based upon unsupported opinions and false assumptions of fact, these critics whose interest in the problem and its solution has not been indicated previously, declared the plan to be the basis of a conspiracy to defraud the Government and to delay its aircraft production program, and to be in violation of the anti-trust statutes. This was the origin of the hoax of the "air trust." Later, Government investigators reported that foreign agents inspired certain inventors and patent attorneys to instigate such an attack and that money was paid to attempt to discredit all features of the plan in principle and to do everything to harm the Government and the industry so as to prevent aeronautical development in this country.

On September 17, 1917, following the publication of the hoax of the "air trust", the Secretary of War submitted to Hon. T. W. Gregory, Attorney General of the United States, a request for an opinion as to the legal status of the association and the agreement.

On October 6, 1917, the Attorney General rendered an opinion, concluding as follows:

"Not to go into further details it suffices to say that upon the data submitted to me I am of the opinion that the association incorporated as now constituted and the cross-license agreement under which it is now operated is not in contravention of the antitrust laws of the United States."

Following the publication of the opinion of the Attorney General, the attack on the "air trust" was renewed. This time the criticism related to the amount and rates of the royalties provided by the agreement.

Following the latter criticism, the Government's Aircraft Board, composed of officers of the War, Navy, and other Departments, on December 11, 1917, appointed a special patents committee, composed of three recognized patent authorities, Frederick L. Emery, Esq., and George P. Dike, Esq., of Boston, and John C. Kerr, Esq., of New York, to investigate the report upon the patent rates and amounts of royalties covered by the agreement. The report of this com-

Digitized by Google

mittee, dated January 14, 1918, after detailed consideration of use and validity, stated:

"We would advise any client and consequently the Government to take a license under * * * any reasonable and proper basis rather than to incur the injury which would inevitably result from litigation", and that the value of the patents and the payments called for by the agreement are "entirely reasonable * * * and less than the basis of recovery a court would allow in a suit against a private individual or concern."

The Government and the industry naturally hoped that having thus concluded three aircraft investigations during 1917, production of airplanes might proceed without further interference. Unfortunately this hope was not realized.

Early in 1918, a number of new aircraft investigations were started. This caused further delay in war production and resulted in great harm, in exact accord with the plan attributed by the Government to foreign agents.

During this period, the Military Affairs Committee of the Senate investigating war production heard many witnesses, including W. H. Workman, special representative of Handley Page, advocating the establishment of a factory in this country, at Government expense, to manufacture planes of English design, John A Jordan, who subsequently became associated with Mr. Workman in attempting to exploit other Handley Page projects including the dumping in this country of war surplus by the British Aircraft Disposals Corporation, and Henry Woodhouse, whom many will recognize as one of the persistently destructive critics of all American aviation and the predecessor and sponsor of your second witness, J. V. Martin.

In submitting the report of the Military Affairs Committee on August 23, 1918, Senator Thomas quoted from that part of the report referring to cross-licensing of airplane patents, as follows: "Although this subject has been referred to a special subcommittee for investigation, it has constantly obtruded itself upon our attention * * *. The committee has not heard a word in approval of it. It is condemned by every airplane manufacturer outside of the immediate beneficiaries." Recognizing the possibility of error in connection with the criticism of the Association and the cross-license agreement which had been presented to the committee, Senator Thomas in presenting the report expressed regret that the subject had not been fully and exhaustively investigaated.

Without referring to this qualification or to the fact that no member or officer of the Government or of the Manufacturers Aircraft Association interested in and understanding the provisions of the agreement had the privilege of appearing before the committee, all subsequent critics of American aviation have continued to take from the context of that report this one reference as a starting point each time an attempt for another congressional aircraft investigation is to be made. In accordance with this custom, as you will note by referring to page 6 of your printed record, that reference was used by the first witness appearing before your committee on February 11, 1935.

Amazed at the gross errors in the news releases regarding his speech and the report of the committee, S. S. Bradley, general manager of the association, went to Washington and called upon Senator Thomas the day after that speech was made and asked what evidence, if any, he had for the misstatements of fact contained in the report. He replied that certain individuals whose names he did not recall had stated thus and so. Inquiry was then made how he as a lawyer and a man experienced in public affairs could have made these statemeuts after reading our cross-license agreement. He confessed that he had not read the agreement, and Mr. Bradley then read it aloud to him and proved that many of the statements contained in the report concerning the association were untrue. Realizing that the harm could not be entirely done away with, Senator Thomas proposed that the special subcommittee be at once instructed to go into the subject thoroughly and to report in detail at an early date, so that the actual facts might be known and publicized.

It is significant to note however, that this subcommittee never met and no report of the facts was ever made by it. The criticism continued. It became almost exclusively political in character, and President Wilson then appointed Hon. Charles E. Hughes chairman of a special committee to make a complete investigation of the questions which had been raised regarding aircraft.

On October 25, 1918, the Hughes committee submitted its report to President Wilson, in which was included the following reference to the cross-license agreement of the Manufacturers Aircraft Association:

Digitized by Google

"The agreement has been criticized upon the ground that its provisions constitute a hindrance to the progress of invention in the important airplane field and as being in restraint of trade. Whatever ground for criticism exists in this respect is to be found in the terms of the agreement itself, as these are quite definite and determine its operation and effect. * * * The question of the legality of the agreement * * * was specifically submitted by the Secretary of War to the Attorney General * * * whether the association and the agreement were in contravention of the antitrust statutes of the United States, and the opinion was expressed by the Attorney General that they were not. That disposed of the question, in the absence of a contrary decision by the courts * * *. To the question whether the patents * * * and the payments for which the agreement provides constitute a compensation for the rights conferred, it would require an exhaustive examination of the patent situation, and this inquiry has furnished no opportunity for such examination. For this reason no opinion is expressed upon the point further than to say that, if the validity of the agreement be assumed, the amount of the payments was a matter of sound administrative discretion, and there is no ground for the conclusion that the amount as fixed * * * could not be fairly allowed."

In transmitting the Hughes report to President Wilson, Attorney General Gregory referred to the agreement as follows:

"Whatever may be said of the charge that this arrangement tends to discourage future inventions, one of the results was to enable the Government, through contractors, to secure the use of all necessary patents as a fixed cost and with little friction. * * * I find no basis for the suggestion that in bringing it about the members * * * were actuated by any unlawful or dishonest motive."

In view of these authoritative statements, it would seem impossible for any honest person pretending to have knowledge of this subject, to cite the earlier incomplete and inconclusive report of the Senate Military Affairs Committee as an authoritative criticism of either the association or the cross-license agreement.

Before the Hughes report was submitted and while a number of other aircraft investigators were at work, including the Snowden Marshall committee and Gutzon Borglum and Eugene Myer, the Secretary of the Navy, in the face of the continued criticism and ensuing political disturbances, called upon the association to consider a modification of the agreement.

This suggestion started in March and resulted in the supplemental cross-license agreement of April 19, 1918. By it, payments under the original agreement were arbitrarily reduced 50 percent during the period of the war. During these negotiations, the Secretaries of War and Navy also reached an agreement with the association for licenses under all of the patents owned by members of the association covering all airplanes manufactured in Government factories or procured from foreign or nonmember sources.

After the Armistice, criticism of the association and the agreement subsided, but in the summer of 1919, when foreign markets for airplanes began to open up, it was renewed by the same group of individuals. A printed pamphlet was submitted to the Frear committee of the House investigating war-time expenditures. When the committee failed to be impressed, another pamphlet was printed criticizing Congressman Frear and his associates.

In March 1920, certain foreign countries attempted to dispose of their surplus war planes and motors in the United States. The British Aircraft Disposals Corporation, of which Handley Page was manager, prepared and launched an elaborate plan for the sale of such material in this country at about one-twentieth of the cost of manufacture in England. An antidumping bill was introduced and referred to the Ways and Means Committee of the House. Critics of the association and the Government, and other paid lobbyists, opposed this bill. Officers of the Government and of the aircraft industry appeared in favor of it. The bill was immediately favorably reported and unanimously voted by the House, but Congress adjourned next day, preventing its passage by the Senate. The dumping of the English-built airplanes was stopped by court injunctions based upon infringement of patents owned by members of our association.

I am not in a position to determine whether all of the critics of our cross-licensing plan have been inspired by ignorance or malice, but it is certain that in the first instance such criticism was promptly capitalized by foreign propagandists to the detriment of our war effort. It is equally certain that while each succeeding official aircraft inquiry has always determined

Digitized by Google

the falsity of the allegations, their recurrence has resulted in repeated injury to the progress of airplane development in the United States.

Following the injunctions preventing the dumping of airplanes, Gaston B. Means, H. L. Scaife, Gutzon Borglum, W. E. D. Stokes, Henry Woodhouse, James V. Martin, and others continued their propaganda against the Government Air Services and the aviation industry through publicity and an active lobby in Congress and before the executive departments.

In January 1923, it was reported that desks had been assigned to one or more of these men in the House Office Building so that they might more effectively cooperate with Congressmen Nelson and Woodruff in preparation of material for a renewed attack on the "air trust" and the "billion-dollar aircraft scandal." The details of this effort will be covered in another statement which I have prepared, in accordance with your request, analyzing testimony of previous witnesses before your committee concerning the Manufacturers' Aircraft Association.

In view of such other statement and the more complete historical review (item no. 1) previously submitted in response to your subpena of September 20, 1935, I shall not comment further herein upon the 20 or more investigations to which reference has been made, nor shall I comment upon the current investigation, except by a brief reference to correct two statements made last spring, as printed in "Pooling of Patents" and the Congressional Record.

The statements that the Manufacturers' Aircraft Association expressed satisfaction with the testimony heard last February and March, and that members of the association had refused or failed to respond to invitations to testify regarding "grave charges" against them clearly show that the committee must have been grossly misinformed at the time of making such statements. Therefore, it is important from the point of view of the association and its members that a positive denial of both be entered in the record. No such satisfaction was ever expressed, nor were any such invitations ever received by our members.

Furthermore, the testimony during February and March was limited almost exclusively to "grave charges" against the "air trust." This indicates that the interest of previous witnesses was not primarily centered in the provisions of H. R. 4523. We do, however, appreciate the position in which the committee found itself after such testimony had been presented and feel in fairness to all concerned, it should now be determined finally and for all time: (1) whether officers of the Government and responsible reputable professional and business men actually did conspire to establish, and did establish in July 1917, an "air trust" which has been maintained since that date for the purpose of throttling aeronautical development in the United States and to rob our Government and its citizens; and (2) whether incidental to such conspiracy, a variety of crimes, including murder, arson, theft, and perjury, have been committed.

Anyone inclined to believe the testimony as printed in the 245 pages of the record of your previous hearing, must necessarily be prepared to include as essential factors therein, a large number of well-known, responsible people. A list of the participants would include, in addition to the President of the United States, four former Presidents, together with the Secretaries of War and Navy serving under the respective administrations of each during the past 19 years. The latter would include Secretaries Baker, Weeks, Davis, Hurley, Dern, Daniels, Wilbur, Adams, and Swanson. Specific mention is made of many, if not all of these men. Such a list would also include all of the earlier aircraft investigators. In addition to Charles Evans Hughes, the names of H. Snowden Marshall, Dwight W. Morrow, and members of former Congressional aircraft investigations are mentioned many times, specifically the Lampert Committee of the Sixty-ninth Congress. Three of the latter, Representatives Lea, Perkins, and Rogers, are also members of the present Congress. The Federal Aviation Commission, appointed by President Roosevelt under authority of the present Congress, is named as having been recently controlled by the "air trust." This group, as you know, was headed by Hon. Clark Howell, of Atlanta, Ga.

In order to believe this testimony, one must assume that in addition to the War and Navy Departments and the congressional committees, the "air trust" has dominated the Department of Justice for the past 18 years during the incumbency of Attorneys General Gregory, Palmer, Daugherty, Stone, Sargent, Mitchell, and Cummings. One must also accept the premise that the National Advisory Committee for Aeronautics were the originators of the

Digitized by Google

"conspiracy" which forms the basis for all of these "grave charges." The latter would impose an analysis of the motives and acts of Dr. Charles D. Walcott, former secretary of the Smithsonian Institution; Dr. Joseph S. Ames, former president of Johns Hopkins University; Rear Admiral David W. Taylor, former chief of the Bureau of Construction and Repair, and Dr. W. F. Durand, dean of the engineering school of Leland Stanford University, and Maj. Gen. A. O. Squier, former Chief Signal Officer of the United States Army, and other men of like caliber who have been actively identified with that body. They also rest, either by specific reference or implication, against all of the members of the several Federal Patents and Design Boards, the Institute of Aeronautical Sciences, the Aeronautical Chamber of Commerce and this association. Such a list would contain the names of every noteworthy manufacturer, engineer, designer, and operator of aircraft in this country, including Orville Wright and Charles A. Lindbergh.

While our critics have directed campaigns of destruction, responsible inventors, engineers, and manufacturers have devoted their time, capable energy, and capital to the advancement of American aviation. One cannot build a "Spirit of St. Louis", a Glenn Martin or Sikorsky "Clipper", a Boeing bomber, a Douglass transport, a Lockheed airliner, a Waco or Stinson cruiser, a Vought or Curtiss fighter, or a consolidated patrol boat, while answering groundless charges of some self-appointed "expert" lobbying for Government compensation covering claimed inventions.

Some of the alleged participants in the conspiracy of the "air trust" are dead, but many are still alive and available for examination before your committee. Possibly you will ask them to appear and speak for themselves. However that may be, and absurd and needless as it seems, I request that the record of your hearings contain an emphatic denial of these "grave charges" so that (to that extent at least) they may be freed from this cruel libel. I know of no action, and I am sure that no one else knows of any action by the Manufacturers Aircraft Association, nor the result of any such action, which has been injurious to our Government, its citizens, or to aviation. On the contrary, I know, and I am convinced that every informed, reputable person knows, of results which prove beyond question, the manifold benefits derived through the principle of cross-licensing of patents as applied to the development of aviation and in the application of aviation to our national defense. Further, I have no knowledge, and I am sure that no one else has knowledge or evidence of any crime of any nature, committed by anyone at any time, in the interest of the Manufacturers Aircraft Association. In making this statement, I submit that were any such knowledge or evidence available, it should not be incorporated and published in the form in which it appears in your record as a desultory dissertation of general accusations by irresponsible misinformed or malicious persons.

General Mitchell by his statements reveals himself as woefully misinformed or ignorant concerning the subject of patents and the operations of the Manufacturers Aircraft Association as well as other matters in regard to which he has presumed to testify. His testimony before your committee sets forth his well-known arguments for an air force entirely independent of the War and the Navy Departments. You have heard his views on that subject while he was presumed to be talking about H. R. 4523 or the cross-licensing of patents. You must have been impressed with his almost complete lack of understanding of the essential relationship in patent matters between the inventor, the manufacturer, and the Government. His final recommendation regarding airplane patents was a suggestion that the Government own them. Apparently he is unaware that the Government is already empowered to purchase aircraft patents. That they have not done so must be due to definite reasons. Perhaps the patents submitted have not been necessary or sufficiently valuable, or the right to use them has been obtained more economically and equitably through licenses. Possibly the inventors have not been willing to sell within the maximum sum the Government is empowered to offer.

Ten years ago, when General Mitchell was in aviation, we worked with him toward its development. The industry did not always agree with him about what to do and how to do it but benefited by his enthusiasm in spite of his contempt for facts and details. Later General Mitchell's criticism of the Army and the Navy was not conducive to the harmonious understanding and mutual confidence required for progressive development in a pioneering enterprise. Many in the industry told him so but he chose to continue on that course. With his resignation from the Army after court martial, his attitude became more

Digitized by Google

critical, and as Grover Loening has said in his recent book, General Mitchell after "dictating every move of the Air Service, certainly proposing, approving, and even testing the types of planes to be used, with orders given only for equipment that he himself chose" also became critical of those in the industry who continued to serve the air services. He designated the manufacturers as mere "merchants" and showed other evidence of increased disfavor.

From his statements to your committee alone, it would seem conclusive that his views on patents are based upon misinformation or misunderstanding. Perhaps they are merely opinions forced upon him by others, or by circumstances or situations from which he wishes to escape. At any rate, they justify the feeling that he is not in a position to make helpful suggestions in this field.

I am firm in my belief that experience to date has taught that the principle of cross-licensing, properly applied to modern industry and administered on the basis of fairness to the public, the inventor, and the manufacturer is of great value to economic, industrial, and social development.

The fact that after our 18 years' experience practically all reputable aeronautical interests in the United States still approve and enjoy the benefits of cross-licensing should be first-hand and convincing evidence as to the value of the agreement administered by the Manufacturers Aircraft Association. There are critics of cross-licensing in principle and others of airplane cross-licensing in particular. The latter, as you will learn, have always been motivated by purely personal interests.

SECOND SUPPLEMENTAL STATEMENT BY F. H. RUSSELL TO THE PATENT COMMITTEE OF THE HOUSE OF REPRESENTATIVES REGARDING THE OBJECTS OF THE CROSS-LICENSE AGREEMENT AND ALSO CONCERNING PROPOSED LEGISLATION AFFECTING PATENTS

In this statement, it is my pleasure to discuss the constructive side of our presentation; to deal with the objects of the cross-license agreement and general principles underlying it; and to review very generally the recommendations which have already been presented to you by previous witnesses in regard to new legislation affecting the aviation patent situation. I have already commented on the first suggestion offered you, i. e., General Mitchell's recommendation that the Government take over the ownership of all aeronautical patents. I need not add anything to the views previously expressed in regard to such suggestion. It is obviously impractical.

Concerning the second recommendation which has been made, you will undoubtedly be interested to learn that we are on record as a part of our recent submission to another Federal investigating group, as favoring amendment, or repeal, of the Patent Act of July 1, 1918. Needless to say, therefore, we were quite surprised, in view of the nature of the other testimony presented by the witness J. V. Martin, to know that he has adopted the same view toward this particular legislation as has previously been urged by the association. Specifically, our recommendation has been that the act of July 1, 1918 (c. 114, 40 Stat. 705), amending the Court of Claims Act of June 25, 1910 (c. 423, 36 Stat. 851) entitled "An Act to Provide Additional Protection for Owners of Patents" be amended so as to define it specifically as war-time legislation and to limit its application to such periods as a state of war, involving the United States, is officially declared to exist.

If you will refer to the record of the passage of this act (see Congressional Record, 65th Cong., 2d sess., proceedings of June 18, 1918) you will find that the primary congressional purpose of the amendment of 1918 was to stimulate contractors to furnish what was needed for the period of the World War, without fear of becoming liable themselves for infringement to private inventors and owners of patents. The record of the passage of that act leaves no doubt that this was the occasion for it, but through an apparent oversight, it was not limited to times "when the United States is at war." The act of October 6, 1917, for example, dealing with the disclosure of certain inventions essential to the national defense, was so limited and it is just as reasonable to assume that the failure to provide similar limitations in the act of 1918 was an oversight as to attribute it to deliberate intent. Other examples can readily be given as it was the obvious intention of Congress to so limit all war-time legislation.

Just as the original act of 1910 provided a means for obtaining compensation from the Government when the power of eminent domain was exercised in obtaining the use of patents impressed with a general public utility, the amendment of 1918 also provided a means for obtaining compensation under

Digitized by Google

similar circumstances, but in addition, it limited the manner in which such compensation could be obtained. Likewise, the 1918 amendment contemplated the possibility of official error or mistake, and therefore afforded a remedy for correction and resulting compensation. It is a fact, however, which cannot be successfully refuted, that neither the act of 1910 nor the amendment of 1918 was ever intended to give the Government an automatic license to use all patents, yet, as will be shown, that has been its result.

Although the war was officially terminated in July 1921, and the emergency period had ceased to exist more than 2 years prior to that date, the practice of confiscating patents without any regard to the element of public necessity, was continued by certain departments of the Government. These departments were quick to realize that, in order to meet the exigencies of wartime conditions, Congress had given them the power (but not the right) to take over any and all patents whether necessary to the Government or not. To do this it was only necessary to let a contract to a private firm, specifying that the article covered by the patent be furnished. This practice is extremely vicious from the point of view of the individual patent owner, particularly since there is no longer any excuse for continuing the wartime measure. It operates to give the Government exactly what the Congress never intended to grant, either by the 1910 act or the 1918 amendment thereof, namely, the equivalent of a general license to use all patents irrespective of ownership, whether or not the power or eminent domain is exercised.

Furthermore, despite the fact that the amended statute would seem to have definitely placed the liability for the confiscation of such rights on the Government, when the power of eminent domain is exercised, the executive departments have also adopted the practice of including so-called "save harmless" patent clauses in all contracts. Originally, these clauses were merely a restatement of the law on the subject and were not objectionable, but during recent years, they have been modified to such an extent as to shift the burden which Congress imposed on the United States directly from the Government to the contractor. As a result, in order to do business with the Government, the manufacturer is compelled to assume complete liability for the indeterminate amounts representing the compensation which the patent owners might recover in the Court of Claims because of such infringement, plus the court costs and other expenses incurred by the Government in connection with such litigation.

Thus, we see, that although the contractor is temporarily secure because the patent owner has no immediate recourse against him, there is, in fact, no difference between the indeterminate liability incurred by the manufacturer, and measured by the extensive litigation, possibilities of prohibitive injunction, punitive damages, etc., which existed prior to the passage of the amendment, than the indeterminate liability measured by restitution under a "save harmless" patent clause. The liabilities are equivalent in every respect. The only difference is one of convenience to the Government departments in placing orders and obtaining prompt delivery of patented articles. On the other hand, a temporary security is extended to the manufacturer at the expense of individual patent owners, who are now compelled to incur the hardship and cost of litigation in the Court of Claims for every such use, before any recognition whatsoever is given to their patents, either by the Government or the contractor. As a matter of fact, the wording of the amended statute, which purports to make the Government liable for all infringments, has been advanced by such executive departments as the compelling reason for the use of the "save harmless" patent clauses in Government contracts.

It is also to be noted that the contractor is compelled to make such restitution without having had any opportunity to direct the litigation or to appear and defend in its own right. The adoption of such patent clauses, therefore, in addition to subverting the intention and purpose of Congress in passing the amendment, only means that the contractor instead of the Government must take the precaution to insure himself against these indeterminate liabilities. This can only be accomplished by sufficiently increasing the selling price of each article.

Obviously, very few manufacturers, if any but the largest, do business on a scale large enough to warrant covering this indeterminate liability with any kind of insurance, if it be assumed that a suitable method could be found for calculating and distributing the charges. As a result, representative members of the various industries having large investments in patented rights, started

Digitized by Google

a movement shortly after the war, to secure the repeal of the amended statute. A bill was drafted, conferences were held, but due to failure to appreciate the serious consequences which have ensued, no action was taken, and the amended act has been allowed to continue in force. Now, under the practices which have grown up, many of the most enterprising manufacturers investing large sums of money in developing patents stand stripped of any practical advantage over their competitors. As will be hereinafter pointed out, such concerns actually find themselves at a very serious disadvantage insofar as business with the Government is concerned.

Under the practices above referred to, which have developed as a result of the continuation of the act of July 1, 1918, the patent owner, learning of the infringement of his patent by a contractor with the Government, knows at once that it is futile to approach the contractor as he will merely be advised that his only recourse is a suit against the Government in the Court of Claims. The remedy of injunction to prohibit continued infringement of his patent is no longer open to him. Although one department of the Government grants a patent, which according to law reserves to the owner of such patent, the exclusive right to the enjoyment of the invention for a period of seventeen (17) years from the date of issue, as consideration for a complete disclosure of the invention to the public, he is now confronted with the possibility of unlimited use by any competitor who is doing business for the Government. The most that he can expect from the contractor who is openly infringing the patent in response to a notice of the alleged infringement, is to be referred to the interested Department of the Government.

Assume that the patent owner then notifies the Government of such infringement. In recent years the tendency has been for the Government, believing that their contractors are ultimately liable under the terms of the "save harmless" patent clauses, to feel secure in advising the patent owner that his only recourse is a suit in the Court of Claims. Thus the inherent right to negotiate licenses under patents, without recourse to expensive litigation, is now denied to the individual patent owner insofar as use or manufacture by or for the Government is concerned. The infringing contractor feels that he is temporarily secure because he has been led to believe that the patent owner has no immediate recourse against him, and the Government relying upon the provisions of the "save harmless" clauses, feels that it has secured itself against any compensation which may be recovered in the Court of Claims by imposing the liability on the contractor. The practical effect has been to discourage initiative on the part of private inventors and, consequently, to suppress ideas for the improvement of processes and articles purchased by the Government.

Likewise, in the case of a Government contractor, the amendment tends to lessen the incentive to improve articles sold to the Government because it has become more profitable to copy the inventions made by competitors than to undertake the expense of original research and experimentation.

Consider, for instance, the case of a patent owner who has contractual relations with the Government as a supplier of the patented articles. The patent specification, if drawn so as to comply with the law, teaches the public, including all competitors, how to practice the invention in the preferred form. A competitor, having learned the best way to practice the invention can then underbid the patent owner, since the necessary knowledge cost him only the price (10 cents) of the printed copy of the patent. The patent owner is then told that no direct recourse is open to him against the competitor, but that he may bring a suit against the Government in the Court of Claims, not for the purpose of enjoining the infringement of his patent, but only to recover reasonable compensation for use or manufacture by or for the United States. In other words, his only recourse is to bring suit against the customer upon whom it may be necessary for him to depend for future sales and for whom he may have developed the patented article at his own expense. This is particularly true if the invention is susceptible of use in connection with the national defense, such as inventions relating to the subject of aeronautics.

It is admitted by some officials that the filing of suit against the Government has a pronounced reaction prejudicial to the patent owner. Relations at once become strained, and such owner must decide whether the prosecution in the Court of Claims and the compensation which may eventually be recovered are worth more than the business he might otherwise have had with the Government during the same period. Obviously, he would lose the advantage which

Digitized by Google

he hoped to gain by having been first in the field with a worthwhile invention and having gone to the expense and trouble of patenting it.

This presentation is not going so far as to contend that the amended statute is unconstitutional. However, it does seem inconsistent that the Constitution should extend to inventors an exclusive right to their discoveries for limited times, while the congressional amendment of the act above referred to, which deals only with patents, should result in unlimited use of the inventions by all contractors with the Government. This effectively deprives the patent owner of the only substantial right reserved to him as a direct result of having disclosed his invention to the public in order to obtain a valid patent. Obviously, this practice has grown out of the continuation of the 1918 amendment and use of the "save harmless" clauses in Government contracts. It is inconsistent with the theory underlying the constitutional provision for the patent laws and is not in the public interest. Therefore, it is submitted that the 1918 act should be amended in such a manner as to define it as wartime legislation, and to limit the application thereof to periods when a state of war involving the United States is officially declared to exist. The only justifiable alternative from the point of view of the patent owner is to repeal the statute.

As an alternative, it has recently been recommended that the act of July 1, 1918 (40 Stat. 705), be repealed; that the act of June 25, 1910 (36 Stat. 851), be reinstated; and that Revised Statutes 4921 be amended to provide for direct suit against Government contractors by a patentee, but that no injunction shall issue which would interfere with the delivery of materials to the Government. Although this extends the theory of the amended act further than would seem to be warranted in order to meet peacetime requirements, it would appear that the patent owners may have modified their views on this question until a majority of them at present agree that the right to obtain injuncive relief against Government contractors should be denied. The above recommendation is essentially a repetition of one which the Lampert Committee made on the same subject in 1925.

It is not necessary, I feel certain, to call your attention to the pendency of House bill 5384 before the present Congress. Passage of this bill, which has also been referred to your committee, would put into effect the above recommendation except insofar as it relates to injunctive relief. Judging by the testimony presented to your committee by the self-appointed spokesman for the so-called independent inventors and manufacturers and by the views of the remainder of the industry, this measure apparently receives the hearty support of all persons. Therefore, we strongly commend it to your immediate attention.

Other suggested legislation referred to in your "Pooling of patents" is that relative to the repeal of certain provisions of the National Defense Act which has also been proposed by the witness Martin. Differently expressed, his idea is that inventors should be free to secure from governmental sources, aided by Government officials, whatever information they consider necessary or useful in pressing claims for damages against the Government in the Court of Claims. The reason for this recommendation by J. V. Martin is probably as apparent to you as it is to me. Documents obtained in the manner suggested would prove of great value to any litigant. This rather novel proposition has not been presented to the directors of the association, therefore, I cannot give you their considered opinion on it. I believe, however, that they would not favor it, and I can assure you that the aeronautical industry and all responsible citizens of the United States should prefer to continue this law as it now stands as a matter of public policy.

The only other proposed legislation referred to in your record is the bill now under consideration, H. R. 4523, providing for the recording in the United States Patent Office of all patent-pool agreements and for other purposes with which you are familiar. As in the case above referred to, our directors have not met in consideration of this bill. The suggested provisions, however, have been discussed by the officers and certain members of the association who agree in substance with the recent report of the special committee of the American Bar Association which unanimously disapproved the bill. This is also the opinion of all other persons with whom we have discussed it. The conditions to be obtained by its passage, however, are no different so far as the Manufacturers Aircraft Association is concerned, than the conditions which have prevailed without change ever since the organization of this association in July 1917. Ever since that date, our several successive cross-license agreements have been available to everyone including all departments of the Government. In cannot tell you offhand whether the Commissioner of Patents

Digitized by Google

has ever received copies of these agreements, but if he has asked for them, they have been sent to him. We have never refused to give complete information in regard to our operations to any official of the Government or to any other responsible person or organization, including the more than 20 investigating committees and boards who have inquired into our activities during the past 18 years. The theory and contents of all of the agreements which have been administered by the association have always been public knowledge. This is the policy of our organization, and I see no reason why it should be changed, either now or in the future.

It has always been relatively easy to make the front page of the newspapers by shouting fraud and corruption; but when such outcries are coupled with aviation, they have become double-barreled in their effectiveness. If the desired effect is not immediately realized, it has never required a master mind to add both of the military services of the Government, the Department of Justice, and various committees of Congress as a last resort. This is certain to get results. Hence, aviation has often been characterized as a puppet in the hands of publicity seekers.

I doubt if there has ever been any undertaking more closely scrutinized by the legislative, executive, and judicial branches of the Government, and by the public, than the activities of the Manufacturers Aircraft Association since the very date of its inception. Had not the objects and principles underlying the cross-license agreement and the character of its administration been what they are, undoubtedly some of these investigations would have found some feature of the plan which should be changed. The fact that they have not done so is significant, to say the least. As a matter of fact, the operations of the association have been so widely publicized for so many years that it was a distinct surprise to us to observe the direction taken by the present hearings and to read in your "Pooling of patents" another revival of this ancient hoax.

Before proceeding with a discussion of the objects of the cross-license agreement and the manner in which the same has functioned, there is one other item of the testimony before you which I desire to deny emphatically at this particular time. Both Martin and Mitchell assert or intimate in various ways that the Manufacturers Aircraft Association has sued various airplane manufacturers for the infringement of patents. Those statements are positively untrue. The association has never owned any patent. Therefore, it has never been in a position to sue anyone for patent infringement, nor has it ever been a party to any such suit. By no stretch of the imagination has the association ever possessed the right to do that which Mitchell appears to assert on page 11 and Martin does assert on page 86 of the testimony; that is, sue others for the infringement of any patent. Can you believe in view of such fact that the statement which Martin has made on page 86 of the testimony was not deliberately calculated and intended to mislead you? He states there that "* * * only recently the Manufacturers Aircraft Association as plaintiff with the Curtiss Co." brought suits against Henry Ford and Bellanca. I desire to repeat that this is entirely untrue, a deliberate falsehood.

Let me state to you the sole function of the Manufacturers Aircraft Association. It is to administer the cross-license agreement, and in doing so to render a necessary service regarding patent problems to its stockholders and subscribers. The cross-license agreement itself is a contract between members of the Association by the terms of which each member agrees to grant licenses for the use of all of its patents by all other members, and each member agrees to accept licenses under all of the patents of the other members. The Manufacturers Aircraft Association merely serves as a licensing agency and as administrator of the necessary steps in this process. The association is the common ground on which all of its members stand in handing to each other the right to use the combined inventive genius of the entire membership. They do that, through the association facilities, promptly and expeditiously. By the terms of the cross-license agreement, all patents of all members are made immediately available for use in the airplanes sold to the public for civil purposes or delivered upon contract to the United States Government. Through this instrumentality, the inventive effort of all of the manufacturers has been made available on reasonable terms to improve the quality of the products of all members, and to advance the art and science of aeronautics without resort to expensive and wasteful patent litigation. This is the principal object of the cross-licensing plan. You will note that it is recited as such in the preamble to the agreement, a copy of which has been handed to you for your records.

Digitized by Google

Now, concerning the objects of the plan, you should know that the aims and purposes of the cross-license agreement are based upon sound economic principles which have been thoroughly proven in practice. Broadly stated, these principles may be enumerated as follows:

"(*a*) To minimize legal and administrative expense incident to patent problems and to avoid insofar as practicable wasteful infringement suits, nuisance claims, and other controversies regarding patents as a direct result of providing equitable compensation to individual inventors and patent owners, thus escaping the interminable delays and losses which would result from destructive litigation;

"(*b*) To avoid unnecessary duplication of expensive research activities in regard to new developments, thereby enabling different inventors and manufacturers to profit by the research work already carried on by others with the result that better airplanes are produced at lower cost and consequent lower price to the consumer;

"(*c*) To stimulate invention through direct benefits to individual inventors, and to encourage the recognition of invention and the filing of applications for patents within the industry in order to prevent the subsequent issuance of letters patent on similar subject matter to foreign interests or other parties, which might be used to arrest and disturb the normal advancement of the art in this country; and

"(*d*) To give the public and the Government the benefit of as many patentable developments as possible, without delay, upon a basis of fair compensation determined by commercial arbitration, so as to maintain the high quality of our products and prevent any monopolistic tendency within the industry due to patent combinations."

It is interesting at this point to note that the chairman of your committee in preparing a memorandum outlining the advantages to be gained from the cross-licensing of patents has apparently framed his entire statement around assumptions which really amount to no more than a restatement of the above principles. In fact, many paragraphs of that memorandum are directed specifically to a description of the beneficial results which would be obtained if full effect were given to the principles above set forth. This is more than a mere coincidence. The cross-licensing plan as adopted by the manufacturers of aircraft in this country was designed to obtain the precise results which your chairman has so ably discussed on pages 225 to 229 of the printed record of these hearings. These results have, in a large measure, been realized by the principal manufacturers of aircraft in this country.

In 1925, the Lampert committee found that the cross-license agreement was—

"a practical business arrangement to do away with the litigation over patents and permit the members to build planes rather than try law suits against each other. Any builder could become a member upon payment of a membership fee of $1,000, and by putting in his patents get the right to use all of the patents in the control of the membership. A similar cross-license agreement has long been in use in the automobile and other industries. The feature of a trust is to keep others out. All could enter here upon payment of a membership fee costing about one-seventeenth of the average cost of a plane."

This condition is just as true today as it was then. There has been no change. In the above memorandum prepared a few weeks ago, your chairman refers to the pooling of patents in the modern industrial world as "a virtual necessity" and states regarding the same automobile agreement referred to by the Lampert committee in 1925, that—

"The assembling under common control of numerous patents covering the latest improvements in any particular line of manufacture makes possible the realization of the product which from the standpoint of economy, efficiency of operation and general merit approaches the ideal. Since in the absence of a patent pool it would be virtually impossible, in many instances, for any one manufacturer, and even more so with respect to a group of manufacturers, to build a machine having the combined virtues represented by the several patented improvements."

It can readily be seen that the above remarks are all the more true in the case of aircraft where safety and superiority of performance are paramount. In view of the conclusions already reached by your chairman, it would not seem that any more emphasis need be given to such aspect of the inquiry at this time.

Digitized by Google

Concerning the manner in which the association performs its functions, the primary and most frequent operations are those which are specifically outlined in the cross-license agreement. The periodical reports of production and payments thereon, and reports of any patents or rights under patents owned or controlled by subscribers are all described at length therein. There are, however, other rights also provided which may need some explanation, namely, those which may be exercised in regard to patents acquired after the effective date of the agreement. In reporting such a patent, the subscriber may, if he so desires, report the same to the association with a claim for extra compensation, in which case a commercial arbitration is held to determine whether the invention covered by the patent is of such a nature as to justify a monetary award. These arbitrations conform to the arbitration laws of New York, the State in which the association is incorporated. The board of arbitration consists of one arbitrator appointed by the subscriber owning the patent, another arbitrator appointed by the association, and a third arbitrator chosen by the two arbitrators thus appointed. The arbitration board may decide that the patent is not entitled to any compensation in addition to the mutual benefits flowing between subscribers and, therefore, that the same should be contributed by the owner thereof to the common benefit of all subscribers, or the arbitrators may render an award fixing the rate at which royalty or other payments shall be made for each use of the invention until the total amount specified in the award has been paid. That is, each time a member uses the particular invention covered by a patent granted extra compensation, he must pay a small sum in addition to the regular payments under the agreement.

This has been referred to by a previous witness as a vicious practice. Accordingly, it is interesting to observe that since 1928, when the present cross-license agreement went into effect, there have been a total of 45 arbitration proceedings, each of which has resulted in a unanimous vote of the arbitrators. In no instance has the subscriber owning the patent been dissatisfied, nor have any of the other subscribers expressed any dissatisfaction with the awards as rendered by the arbitrators.

This is indicative of the degree of fairness and justice which has been attained and of the understanding and honesty with which these proceedings have been attained and of the understanding and honesty with which these proceedings have been conducted. At the present time there are approximately 750 patents licensed under the agreement now being administered by the association. Since December 31, 1928, arbitrations have been held on 159 patents reported with claims for special compensation. Of that number, 87 patents have been refused extra compensation and 51 patents have received cash awards, the maximum total sum on account of an award on any single patent being $35,000. Therefore, the statement which was made, criticizing this provision of the agreement, is entirely groundless.

There is another function which falls naturally to the association. As you know, the maintenance of domestic and foreign files of patents is an expensive undertaking. Our members, practically all of them, find it impossible to maintain such a facility for their own use. The association, however, is able to fill this need and to make available for the use of its members a most complete file and record of all of the domestic aeronautical patents as well as those of England, France, and Germany. From this source our members may obtain the patent information necessary for the development of their own ideas and the protection of their activities. In this connection the association is now publishing a semimonthly digest of domestic aeronautical patents to all subscribers to the agreement and to the interested departments of the Government. This digest has proven to be of great value to all concerned. A similar digest of British patents has recently been developed which is being published bimonthly and has lasting merit and usefulness.

Of equal value is the association's aeronautical library of magazines, textbooks, photographs, and publications which is in constant use in connection with searches of the prior art, applications to practice, and other historical information. This library, I may add, is probable the most complete of its kind in the United States, if not the world. Due to the concentration of work of this character for many manufacturers in one office, a more economical result is obtained which, in turn, is reflected in reduced cost of manufacturing in the industry. Many of our members feel that the small sums paid for the association membership are more than returned by these service features alone.

Now, let us take up the matter of royalties paid for the use of this large group of patents. Except for those patents which have been awarded extra

Digitized by Google

compensation through the arbitration procedure above referred to, each member agrees to pay to the association an amount equal to one-quarter of 1 percent of the selling price of the airplane, excluding the cost of the engine and certain other accessories. At the present time there is a limitation on the amount of these payments which provides that they shall not exceed the sum of $25 per airplane. This amount is retained by the association for the purpose of administering the cross-license agreement and performing the service functions mentioned above. In addition, each member pays the sums due for each use of the nventions covered by patents which have been granted special awards, and of these sums, the association is entitled to retain up to 12½ percent for the same purposes. There are no other charges; the only sources of income which the association has are those two just given. The first, one-fourth of 1 percent of the less-engine price of the airplane with a maximum of $25, and secondly, the 12½ percent of the amounts paid under special awards. The total of these sums received by the association since the adoption of the original agreement, or in other words, during the entire 18 years, has averaged less than $30,000 per year. I believe that you will agree that this is comparatively a modest sum of money for the industry to expend for these facilities.

There is one other matter which I would like to bring to your attention which will be of immediate interest to your committee in connection with the subject at present under consideration. I have reference to the form of certain contract provisions currently stipulated by the War and Navy Departments as a condition precedent to doing business with the Government of the United States.

First, I would like to refer to the recent contentions of the Government in regard to its so-called New Features of Design clause, which reads as follows:

"The contractor agrees to accept the contract with the understanding that the Bureau of Aeronautics holds the right to maintain new features of design involved in this contract as secret, until such time as it deems it advisable to release them for other than military purposes. The contractor obligates himself to comply with this requirement to the best of his ability and agrees not to publish, divulge or sell anything pertaining thereto, until officially authorized by the Navy Department. The features of design considered to fall under this category will be mutually agreed upon during the course of development covered by the contract."

The above clause has been used in experimental contract for some time, and the contractors, recogning that certain of such inventions may be important to the national defense, have accepted the provisions of these clauses and have refrained from patenting any new features which the Government has designated as secret. Such a procedure, of course, is tantamount to an outright abandonment of these rights, but it has seemed to be necessary under the circumstances, due to the fact that the issuance of a patent by the Patent Office would constitute a publication of the invention which would be in violation of the above clause.

Within the past year, however, the Government has indicated that it will compel contractors to execute an assignment of all such inventions so that patent applications may be filed by the Government under the "Three Year Act" and the rights will not be lost. The present attitude of the Navy Department at least, is to compel the outright assignment of all of these rights whenever possible under the terms of the contract. The so-called "Three Year Act" reads as follows:

"R. S. Section 4894. All applications for patents shall be completed and prepared for examination within 6 months after the filing of the applications, and in default thereof, or upon the failure of the applicant to prosecute the same within 6 months after any action therein, of which notice shall be given to the applicant, they shall be regarded as abandoned by the parties thereto, unless it be shown to the satisfaction of the Commissioner of Patents that such delay was unavoidable: *Provided, however,* That no application shall be regarded as abandoned which has become the property of the Government of the United States and with respect to which the head of any department of the Government shall have certified to the Commissioner of Patents, within a period of 3 years, that the invention disclosed therein is important to the armament or defense of the United States: *Provided, further,* that within 90 days, and not less than 30 days, before the expiration of any such 3-year period the Commissioner of Patents shall, in writing, notify the head of the department interested in any pending application for patent, of the approaching expiration of the 3-year period within which any application for patent shall have been pending".

Digitized by Google

It is to be noted that the benefits of the above provisions are only available to the Government as regards applications which have become the property of the Government of the United States Furthermore, attention is called to the fact that under the contract clause above quoted, there is no limitation whatsoever regarding the nature or the number of such inventions which the Government may designate as secret Accordingly, if the Government continues to designate all experimental work as secret projects and in accordance with the above procedure continues to require that all of these inventions be assigned to it, the industry will be confronted with a situation in which it cannot assign such rights without violating the provisions of the cross-license agreement as well as the contract between the Manufacturers Aircraft Association and the Government, and the only alternative will be for the industry to continue to withhold the issuance of the patents for an indefinite period of time at the risk of forfeiting the right to obtain any patent protection either in this country or abroad

The hardship and injustice of such a requirement from the point of view of the contractor is readily apparent The experimental equipment is put into use and in certain cases production orders follow. These airplanes, including the secret features of design, are flown extensively, disclosing the invention. This permits third parties (who have either seen the invention or have obtained the information in some other manner, or have even developed the device without previous knowledge of the earlier discovery by the contractor) to file applications in the Patent Office, covering such features. The contractor, however, would have no way of knowing that such applications have been filed until at some later date a patent issues, and all manufacturers including the actual inventor and the Government, are confronted with claims for patent infringement. In such cases the prior secret use of the invention is not a bar to the granting of the patent to the third party, and under the statutes such use does not constitute a valid defense to any infringement suits which may ensue. Some inventors, knowing of this practice, make it a business to observe all secret projects as soon after delivery as possible and file patent applications on every new feature.

While it is true that the experimental use, above referred to, might not prevent the contractor from filing a subsequent application (providing the Government would permit such action) with a request that an interference be declared by the Patent Office to determine the question of priority of invention between such application and the issued patent, such a procedure would be expensive and highly unsatisfactory. In such cases it is much more probable that both the contractor and the Government will lose all rights to the inventions and must stand suit or pay royalties for the use of features actually developed by the contractor.

On the other hand, it is recognized that the Government should be able to suppress the disclosure of certain inventions essential to the national defense. This is just as true, however, of inventions made by others than the Government contractors. During the World War Congress recognized that all inventions of such a nature should be kept a secret and passed legislation to that effect which is still part of our laws, as follows:

"Act of October 6, 1917:

"That whenever during a time when the United States is at war the publication of an invention by the granting of a patent might, in the opinion of the Commissioner of Patents, be detrimental to the public safety or defense or might assist the enemy or endanger the successful prosecution of the war he may order that the invention be kept secret and withhold the grant of a patent until the termination of the war; *Provided*, That the invention disclosed in the application for said patent may be held abandoned upon it being established before or by the Commissioner that in violation of said order said invention has been published or that an application for a patent therefore has been filed in a foreign country by the inventor or his assigns or legal representatives, without the consent or approval of the Commissioner of Patents, or under a license of the Secretary of Commerce as provided by law. When an applicant whose patent is withheld as herein provided and who faithfully obeys the order of the Commissioner of Patents above referred to shall tender his invention to the Government of the United States for its use, he shall, if and when he ultimately receives a patent, have the right to sue for compensation in the Court of Claims, such right to compensation to begin from the date of the use of the invention by the Government."

Digitized by Google

It will be noted, however, that the above act was limited to times when the United States is at war, and that the loss of foreign rights was not involved due to the operation of the Nolan Act of March 3, 1921, and reciprocal legislation in foreign countries. It is also important to observe that provision is made in the above act for compensating the patentee for that which the Government is taking away from him. In other words, any applicant who faithfully obeys the order of the Commissioner of Patents not to publish the invention or to file an application for a patent in any foreign country based thereupon, and who shall tender the invention to the Government of the United States for its use in connection with the national defense, shall have the right to sue in the Court of Claims for such use, such right to begin from the date of the first use of the invention by the Government.

In considering this subject, it should be appreciated that efforts to maintain inventions of this nature in secrecy seldom if ever succeed for more than 2 years following the date such experimental contract is completed. Consequently, the contractor frequently is in the position of being known as the originator of a device concerning which the public has full knowledge while at the same time being unable to secure patent protection for himself in this or foreign countries due to the continued enforcement of the above clause. This fact is said to have been recognized in other industries doing business with the Government by limiting the term of such clause to a period not to exceed 2 years, thereby enabling such industries to proceed in an orderly manner to obtain patent protection. For some reason, the 2-year limitation has been omitted from the clauses which our manufacturers have been compelled to accept, with the result that valuable rights may be forfeited. This will certainly be true if the contractors are forced to assign such rights to the Government, as all rights will then be lost to the originator of the design, and the commercial rights to our most important developments would be thrown into open competition. On the other hand, a patent covering the same subject matter may have been taken by a third party in the manner heretofore indicated, in which case both the industry and the Government would ultimately be required to pay royalties to a patentee, possibly a foreigner, who was not the original inventor.

A possible explanation of the exception above referred to in the case of airplane contracts may rest in the fact that a greater possibility may exist in this highly specialized art as compared to other fields, that the results of research and experimentation may produce inventions of far-reaching importance. This is undoubtedly true, and for such reason alone, all patentable rights should be zealously guarded both by the Government and the industry, and not be dissipated in the manner above outlined, as a direct result of a shortsighted policy on the part of the military services regarding all new inventions. Our leadership today in aeronautics may be attributed directly to the individual initiative of our designers, and if such leadership is to be maintained in the future, our efforts should be directed toward the stimulation and encouragement of such individual initiative rather than to placing further obstacles in the path of any recognition or return for worthwhile accomplishments.

In view of the above, it is the feeling of the industry that this is another instance in which the great power of the Government has been used, through procurement contracts, to enforce an unjustifiable policy upon the owners of valuable property rights without just compensation. Accordingly, as president of the Manufacturers Aircraft Association, which represents practically all of the manufacturers in the field, I wish to suggest for your consideration that definite steps be taken to prevent the recurrence of a situation which may result in any such confiscation of valuable private rights. More specifically, I would recommend (1) that the act of October 6, 1917, above quoted, be amended to extend the protection afforded by it to peace time conditions, including reciprocal relations with other nations, if necessary, in regard to the period of time within which foreign applications may be filed, and (2) in view of the recent intimation by the Government that it may be necessary to compel the assignment of these inventions to it, that any such clauses in the future contain an expressed reservation to the contractor of title in all such inventions. It is thought that the adoption of these recommendations will give the Government a measure of security commensurate with its needs, while securing for the actual inventor some degree of protection in the enjoyment of the rights herein discussed.

Digitized by Google

Another matter which I desire to discuss is the form of the patent clause used by the Government in procurement contracts. In this connection, your attention is called to the fact that during the past year the language of these clauses has been modified to include in addition to the objectionable features of previous forms, all inventions and improvements incorporated in the project which were wholly or in part perfected or reduced to practice, either with the aid of the Government or with the cooperation of Government personnel. An example of hardship which such a condition imposes would be found in the requirement that an invention made prior to the contract, and consequently the sole property of the contractor, if reduced to practice during the performance of the contract, would become subject to a license to the Government to have made by any other party without the payment of any consideration other than the contract price.

The inclusion of these provisions is apparently based on the theory that since the Government is participating to some extent in the cost of the development work involved, it is entitled to free use forever of all discoveries or inventions of whatever nature, or whatever intrinsic value, and that these provisions are considered as necessary to protect the Government against any possible suits for infringement. This theory overlooks entirely the possibility that an invention made under such circumstances might be worth several times the amount paid for the whole contract, with the result that the contractor could not afford to do otherwise than to withhold the use of any invention representing a substantial advance in the art until after the contract has been completed. Even this would not suffice if the invention should be used at a later date on an airplane sold to the Government under a contract containing such a clause.

It is contrary to every principle upon which our laws are founded for the Government to obtain a free license for such invention (previously conceived and/or possibly, actually or constructively reduced to practice at the expense of the contractor) just because said device is used for the first time in an airplane manufactured under a Government contract, particularly since payment for rights under such invention comprises no part of the consideration paid by the Government. At least one instance has already been experienced in which the Government by simply altering its specifications during the performance of an experimental contract, has contended that the result arrived at by the contractor in meeting such revised specifications was not the invention of the contractor, but the joint invention of the contractor and agents of the Government, and that the patent taken by the contractor was invalid and consequently worthless.

Assume that substantially identical contracts have been awarded to competing organizations, and that both competitors deliver equally satisfactory articles, but that one of the competitors, through superior engineering skill and greater expense discovers and applies a new principle, which—although it does not result in superior performance of the particular article delivered under the contract—has inherent features, which with further development, will permit a performance and efficiency in future designs far exceeding that possible by any other known means. According to the interpretation which must be placed on a patent clause such as the one under consideration, the Government would have unlimited right immediately (and without compensation to the contractor), to pass on to any or all manufacturers the free right to embody the new principle in designs of their own manufacture. The contractor may derive a certain measure of patriotic self-satisfaction for having donated services to the national welfare, but his competitors will be able to derive a greater profit by reason of the fact of having been spared the engineering expense necessary to maintain an efficient product. Such a contractor has delivered services and material to the Government which are clearly far more valuable than that delivered by the other. Although not entitled to higher compensation for the article contracted for, it would seem that, in all equity, the former is clearly entitled to reasonable protection of its proprietary rights in new discoveries, which may prove to be immensely more valuable to the Government than the specific article delivered under the contract.

It should also be emphasized that the total cost of finally developing a new discovery or invention to a point where it is a thoroughly salable serviceable article is seldom, if ever, covered by the cost of actual design and construction of the particular article on which it is first demonstrated. Nor is it applicable exclusively to the particular class of articles which are represented by the

Digitized by Google

articles used in demonstrating it. Once a new discovery or invention has been demonstrated as potentially valuable, there ensues a period of refinement and development not covered by patent protection, the actual cost of which is usually many times the cost of production of the initial demonstration sample. When a contractor to the Government is required (immediately upon the completion of a particular contract) to accord to the Government nonexclusive and irrevocable licenses, in accordance with the provisions of the above clauses, not only has it been compelled to relinquish all proprietary rights in all new inventions, but also the only means to protect the very large investment incurred in connection with related investigations preliminary to the discovery and in perfecting the invention subsequent to the delivery of the particular article specified in the contract, as well as in applying it to other usages than that specified.

In summarization of the above, I wish to emphasize, first, that the wartime act of October 6, 1917, relative to the suppression of the public disclosure of certain inventions essential to the national defense, should be amended to extend the protection afforded by it to peacetime conditions; secondly, that the practice of including a catch-all patent-license clause in all contracts for the procurement of aircraft and aeronautical material, should be abandoned; and finally, that the existing provisions of law providing for a suit in the Court of Claims as the sole remedy of a patentee for patent infringement, should be amended to allow direct suit for damages against any manufacturer alleged to be infringing a patent in connection with work done for the Federal Government. In order to accomplish the latter, it appears desirable that the act of July 1, 1918 (40 Stat. 705) be repealed, and that the act of June 25, 1910 (36 Stat. 851), be reinstated. In other words, H. R. 5384, at present pending before your committee, should be enacted without further delay. Revised Statutes 4921 could also be amended to provide that no injunction shall issue against a contractor which would affect the delivery of materials to the Government.

I trust that the above suggestions may prove to be of some assistance to you in rendering a constructive report in regard to much needed legislation for the guidance of the Congress.

THIRD SUPPLEMENTAL STATEMENT BY F. H. RUSSELL TO THE PATENTS COMMITTEE OF THE HOUSE OF REPRESENTATIVES ANALYZING PREVIOUS TESTIMONY REGARDING MANUFACTURERS AIRCRAFT ASSOCIATION, INC.

I now desire to present the results of a study which has been made of the specific charges presented by previous witnesses before your committee, and call your attention to some of the more important phases of the many past investigations into the same subject matter.

The history of all previous aeronautical investigations has also been studied with some thoroughness. Although engaged in aeronautical activities for many years, I have found much that had been forgotten. Perhaps the most interesting forgotten facts are those relating to the conditions and circumstances by which the Lampert committee investigation into aviation was inspired in 1924. This is particularly true, just at this time, when your committee is engaged in a similar study of one phase of the aircraft industry largely growing out of charges made by James Vernon Martin.

Before I start reading from the record, you should have certain dates firmly fixed in mind. The Lampert committee was appointed by the Speaker of the House of Representatives under the authority of H. R. 192, passed March 24, 1924, and chosen largely from the House Committee on Patents. Its first hearing was held October 9, 1924, at Pasadena, Calif. Later, hearings were held in San Diego, Calif., New York, and Washington, D. C., the last public hearing being held in Washington on March 2, 1925, and their report was rendered December 14, 1925. During this period, covering 15 continuous months, 150 witnesses were examined under oath. The record comprises 6 volumes, totaling 3,558 pages. This record is frequently referred to in your past testimony, so I assume you have it available.

The first witness in the city of Washington was the Honorable John M. Nelson, a representative from the State of Wisconsin. I read from his testimony.

"I am very glad to have had some share in bringing about this investigation. * * * When first presented by me I did not expect to authorize the committee to make a full investigation. * * * But * * * I modified

Digitized by Google

my resolution so that the special committee would have full power to complete their work. * * *

"We finally worked out a compromise in this way: That a special committee should be appointed by the Speaker, to consist of nine members, taken largely if not wholly from the Committee on Patents. * * *

"I ought to perhaps state this for the record, that one of the early pioneers in this field came to my office, and I did not know the gentleman, and drew my attention to what he thought were some serious evils * * * he was a very interesting gentleman, and, as I say, one of the pioneers, not only as inventor but as an aviator * * * I became very much interested. And so when he backed up his complaints with the statement that he had upward of 10,000 documents and papers, I felt it my duty as a Member of Congress to consider the matter. * * *

"I then asked this pioneer in aeronautics, Captain Scaife, and my secretary, to select out of the mass of documentary evidence a few points * * * that I might use as the basis of a speech, to show the House that there was prima facie evidence at least warranting an investigation. * * *

"Briefly, the topics that I selected and to which I drew the attention of the House, * * * are these: The war fraud audits, * * * the character of the Manufacturers Aircraft Association itself * * * the so-called cross-license agreement * * * the so-called save harmless clause * * * the nature of the contracts. * * *

"Now, I carefully refrained from making any charges of fraud and corruption. You will find it nowhere in my speeches. I took no interest in that phase of it. Let the Department of Justice handle that * * *. I am thinking of the matter wholly in constructive terms. I hope that this committee will look into the whole field without bias for either pioneers or against the Manufacturers' Aircraft Association, divesting itself wholly of any prejudice, and I am sure you will.

"* * * Now, gentlemen, as I said in the beginning, this thing came to me and I could not turn the complaints down. The gentleman who came to me is here. He has volunteered to assist the committee. He is well informed. He may be zealous, but I hope you will bear with him. I hope you will hear him. * * * I commend you to the motto in the Scriptures: 'If ye seek the truth the truth will set you free.' All we want is the truth, all the truth, and nothing but the truth, and then this industry will be set free. * * *."

Then, under questioning by Congressman Reid, one of its members:

"Mr. REID. Give us the names of individuals who will give us the truth.

"Mr. NELSON. Well, I mentioned the pioneer in aircraft, Captain Martin; also Captain Scaife. They were the two main witnesses. The others I simply consulted incidentaly to verify the documents that these gentlemen presented. Each of them had many documents. I have not given the matter very much attention of late, but there was a man who was very familiar with aeronautics, Mr. Woodhouse. Mr. Woodhouse came to my office 1 or 2 days, and I made inquiry of him as to whether these things were correct, whether these charges could be sustained. He assured me that they could, most amply. * * *"

And, finally another question by Mr. Reid:

"Mr. REID. Can you think of anybody else we ought to call.

"Mr. NELSON. Well, there are many others, but all of them do not have information of such a nature that I would particularly suggest them. Captain Martin gave me a whole series of names of pioneers that he said would come here to testify, and I am informed by one of your clerks that during this summer these men have been seen and that they will come before your committee and give you evidence if you desire. * * *"

That testimony I had forgotten. To find it came as a surprise. We have all overlooked the undeniable fact that the Lampert committee's investigation found its inception in charges made by James Vernon Martin. Confirming that fact, is the testimony of the second Washington witness, the Hon. Roy P. Woodruff, of Michigan. His testimony covers pages 52 to 57 of the Lampert record. On page 54 the following statement is made by him:

"* * * Now, gentlemen, the purpose that I had in mind in doing whatever I have done in regard to the creation of this committee was prompted solely by the desire that out of its activities would grow something constructive * * *."

On the next page Congressman Woodruff is questioned by Mr. Perkins:

"Mr. PERKINS. When you referred to the independent inventor, what did you mean? How shall I distinguish him from other inventors?

Digitized by Google

"Mr. WOODRUFF. I simply distinguish him by saying he is a man, or if it be a manufacturing institution, that it is an institution, which is not a member of nor in sympathy with the manufacturers Aircraft Association."

Then on page 57, he is again questioned:

"Mr. FAUST. And was that independent concern that you mentioned a responsible concern?

"Mr. WOODRUFF. Yes; responsible in every way. * * *

"Mr. FAUST. Would you give us the name?

"Mr. WOODRUFF. I can. It was the Martin Aeroplane Factory, the president and general manager of which is here in the room at the present time. * * *"

The Lampert investigation took place 11 years ago. From a comparison of their record with that printed by your committee and titled the "Pooling of Patents", I find that Mr. Martin has not added much important material to the charges previously presented. The aircraft industry is familiar with all of them. He has made those charges many times. He has, of course, changed some of the detail, reworded some of the claims, and clothed old allegations in new wrappers, but I am unable to find much of essential difference on important matters. As has recently been printed, it is the same old story. What little new material there is seems to have a sensational character, such as that attributing the death of the late President Harding to some indefinite "air trust" conspiracy (p. 67); various assertions that his own life is under constant threat and physical danger (pp. 90–96–189); that a continuance of the so-called "air trust" will result in a war with Japan (p. 95); and that the death of the patent litigant, Janin, was presumably caused by poisoning at the hands of his aeronautical enemies (p. 201). These charges are merely expressions of Martin's personal opinion. If Mr. Martin has any information whatsoever which will constitute evidence tending to prove these charges, it is obviously his public duty to be specific as to names, facts, and dates, and to present such evidence to the proper authorities. I am confident, for instance, that the authorities of New York City would seek the indictment and trial of anyone against whom legal evidence could be presented as having poisoned Albert S. Janin. The health authorities of that city are now under the impression that he died of cancer of the lungs, as attested by the standard certificate of death, a certified copy of which I hand to the committee for its record. I secured this certificate for my own information, and yours. It is probable, however, that Mr. Martin does not have evidence on any of his charges which will stand the test of judicial decision, since his one attempt to do so ended by his case being thrown out of the Supreme Court of the District of Columbia on a decision rendered by the Honorable Justice Frederick L. Siddons on February 24, 1924. I refer to the case, law no. 67540, of *James V. Martin* v. *The Manufacturers Aircraft Association, Inc., et al.* That case was filed on April 4, 1923, and named the following 67 organizations and individuals as defendants: Manufacturers Aircraft Association, Inc.; Aeronautical Chamber of Commerce; National Aeronautic Association; Aeromarine Plane & Motor Corporation; Burgess Co.; Boeing Airplane Co.; Curtiss A. & M. Corporation; Dayton Airplane Co.; G. Elias & Bros., Inc.; Engel Aircraft Co.; Fisher Body Corporation; Gallaudet Aircraft Corporation; Goodyear Tire & Rubber Co.; L. W. F. Engineering Co.; Glenn L. Martin Co.; Mitsui & Co., Ltd.; Standard Aero Corporation; Packard Motor Co.; St. Louis Aircraft Corporation; Sturtevant Aeroplane Co.; Thomas-Morse Aircraft Corporation; J. G. White & Co.; Wright Aeronautical Corporation; Loening Aeronautical Corporation; Cox-Klemin Aircraft Corporation; Huff-Daland Aero. Corporation; Stout Engineering Laboratories, Inc.; Gardner-Moffett Co., Inc.; General Motors Co.; Howard E. Coffin; Benedict Crowell, ex-Assistant Secretary of War; E. A. Deeds; Sidney D. Waldon; Harold E. Talbott, Jr.; Charles F. Kettering; Jessie C. Vincent; William B. Stout; Gen. Mason M. Patrick; Richard F. Hoyt; Henry M. Crane; Col. Horace M. Hickam; Benjamin F. Castle; George H. Houston; Frank H. Russell; Clement M. Keys; Admiral Wm. A. Moffett, United States Navy; Commander S. M. Kraus, United States Navy; Col. T. H. Bane, United States Army; R. H. Fleet; F. D. Schnacke; L. D. Gardner; Caleb S. Bragg; L. W. McIntosh; Gen. Wm. D. Gilmore, United States Army; Jerome C. Hunsaker; J. K. Robinson, Jr.; S. S. Bradley; H. E. Blood; James A. Blair; R. H. Young; Roy D. Chapin; Grover C. Loening; Albert P. Loening; Inglis M. Uppercu; Wm. B. Sebherz; Fred B. Rentschler; Delos C. Emmons.

In the declaration in this case, the plaintiff described himself as "one of the foremost pioneer inventors of basic principles and improved methods of

Digitized by Google

construction of aeroplanes" and charges that the "defendants and each of them have entered into a contract or contracts, combination in the form of trust or otherwise, or conspiracy * * * in restraint of trade." Further, that they have "monopolized or attempted to monopolize, or have combined or conspired with each other to monoplize a part of the trade or commerce * * * among the several States", and, lastly, that they have "jointly planned, schemed, and conspired to control and monopolize * * * the manufacturing and sale of aircraft in the United States."

The plaintiff further stated that the defendants "have altogether destroyed the business of the plaintiff, in the United States and foreign countries" and he claimed damages totaling $51,510,000.

Let me read from Justice Siddons' decision in this case, dated February 24, 1924:

"This declaration * * * represents the fourth attempt * * * to state a cause of action * * *. While fully recognizing that a liberal view should be taken * * * liberality cannot go to the extent of exempting a pleader from such averments in his declaration as will reasonably inform the defendants of the essentials of the case alleged against them. This in the opinion of the court the plaintiff in this case has signally failed to do * * *. The motion to strike, therefore, must be granted and as the court is of the opinion that the plaintiff has been given every fair opportunity to state a case, the time has come when further amendments should not be permitted."

That decision judicially disposed of the Martin material. Previously, however, Martin had taken practically the same material to the Hon. John M. Nelson, of Wisconsin, who presented some of it to the Congress of the United States in his speeches of January 29 and February 23, 1934. The second speech, you will notice, was delivered the day before the Siddons' decision. The House of Representatives decided to pursue their own investigation and, on March 24, 1924, authorized the appointment of the Lampert committee, the circumstances of which I have already read you.

Now, what did the Lampert committee find from their investigation? Their study extended for over 11 months, four of which were spent in hearing the 150 witnesses. I read from their final report, dated December 14, 1935, and start on page 1:

"In the debates in Congress which led to the appointment of this committee much stress was laid upon the necessity of a complete investigation of certain general charges which had been in circulation throughout the country for some years concerning the relationship between the Government and the industry, and concerning the contracts between the Government and the industry. These charges alleged corruption of Army and Navy contract officers, that manufacturers secured excessive profits, that there existed an aircraft trust or conspiracy among some of the Manufacturers Aircraft Association, and that the so-called 'save harmless' clause in the contracts was unjust and inequitable and gave definite advantages to certain contractors.

"The committee made an investigation of these charges; studying contracts in detail, examining many witnesses and calling upon the War Department, the Navy Department, the Department of Justice, and the Comptroller General to obtain the definite facts necessary. Upon the basis of these facts, the committee finds as follows:

"(1) That there was no evidence of corruption on the part of the officers of the Army and Navy or the members of the aeronautical industry submitted to the committee.

"(2) That contracts given to aircraft builders have not resulted in excessive profits, but, on the contrary, the aircraft industry * * * is rapidly diminishing under present conditions and will soon practically disappear * * *.

"(3) That the charges and the allegations that there existed an aircraft trust, or conspiracy, were not proven. Both the association and the cross-license agreement upon which it is based had been investigated nine times in 8 years, two of these investigations having been made by the Department of Justice. Both have sustained the legality of the Manufacturers' Aircraft Association and the cross-license agreement. That the findings of these legal investigations should now be accepted as conclusive.

"(4) That the so-called 'save-harmless' clause in all air contracts * * * is in fact merely an interpretation of an act of Congress passed on July 1, 1918 * * *."

Then in appendix A of the report, page 10, the committee gives their findings relative to the Manufacturers Aircraft Association. I read from that appendix.

Digitized by Google

"The committee naturally began its inquiry by taking up definite charges made in speeches delivered on the floor of the House against the methods of administering the Air Service and against the aircraft industry.' * * *

"The most searching investigation on the part of the committee discloses not the slightest ground for the charge that the Air Service procedure is corrupt. * * * Instead of prospering on Air Service contracts, the industry is impoverished. * * * In fact, there is general agreement from all of the witnesses, whether from the Government, the industry, or outside, that the aircraft industry, instead of fattening on Government contracts, is being steadily starved to death.

"The next charge made against the Air Service, which is offered to account for its present condition of inefficiency, is: That aircraft companies * * * formed themselves into an air trust, known as the Manufacturers' Aircraft Association, Inc. This trust go up the cross-license agreement and by means of it did and still continues to perpetrate a fraud upon the Government.

"The committee finds that there is no aircraft trust; that there is not now and never has been a service conspiracy. The Manufacturers' Aircraft Association, Inc., was formed and the cross-license agreement entered into under the following circumstances: * * *

"* * * The War Department and the Navy Department requested the advisory committee to investigate the situation and to suggest a solution for the unsatisfactory conditions existing in the airplane industry. Acting in accordance with these requests, the advisory committee proceeded to make a careful study of the situation, and after several months of investigations and numerous conferences with all interests directly involved, recommended the formation of an association of aircraft manufacturers, with a form of cross-license agreement.

"Pursuant to the recommendation of that committee, the association (incorporated) was formed and the cross-license agreement now under consideration was entered into. * * *

"After a most thoroughgoing examination into this subject, we find that there is no such thing in this country as an aircraft trust, nor are the manufacturers, by means of the cross-license agreement, perpetrating a fraud upon the Government. * * *"

This final report was unanimous. All members signed it and it was sent to the House of Representatives. Following closely on the Siddons' decision, it would seem to have settled the matter of the Martin charges once and for all. Under the circumstances, however, in bringing the same material to you 11 years later, it is significant that your attention has not been called to the fact that Justice Siddons' decision and the findings of the Lampert committee refute all of his charges. But even more significant is the apparently deliberate attempts which he makes to infer that his charges have never been completely investigated, that the Lampert committee did not finish its appointed assignment, and that its investigation was limited by the later appointment of the Morrow board. I call your attention to the following quotations from Martin's statements as reported in the published record of your hearings:

"In other words, the committee (Lampert committee) itself did not have this authority I am pleading for. They did not have enough money to go through with the investigation the way it should be. There has never been There has never been a thorough disclosure by investigation to Congress of this national scandal (p. 172)."

"I deny that any investigation has been thorough and complete and if the Honorable Chairman of this committee will authorize it, I will submit a very brief résumé of the record of the Lampert committee (p. 185)."

"It is my opinion there has never been a thorough and complete investigation. Especially there has never been a committee that had both willingness and money and authority, those three things, to get independents before it. The independents are very skeptical of these committees (p. 186)."

"I can offer you before I close the testimony and a résumé of the Lampert committee and it shows that, insofar as that investigation was allowed to go, all the charges were thoroughly and fully sustained * * * (p. 69)."

From the foregoing, it is clear, I believe, that the charges were not "thoroughly and fully sustained." They were actually proven to be unfounded in fact.

From these quotations of the record, it appears that (1) the Lampert committee investigation grew out of the James V. Martin charges; (2) the charges were thoroughly investigated and a complete and final report made

Digitized by Google

to the Congress; (3) that the report disproved, in their entirety, the charges offered; and that (4) the witness, Martin, has failed to inform you of the full facts as related to points (1), (2), and (3) above, and (5) that the Supreme Court of the District of Columbia found Mr. Martin unable to state a sound legal case against those individuals and organizations whom he still claims have done him damage.

Since the Lampert investigation was made 11 years ago, at a time when the facts and circumstances were fresh in the minds of all concerned, and since little new evidence has been offered to you, it seems reasonable to accept their findings as conclusive, as regards all of these allegations.

Now I would like to draw your attention to another record available in a public document. It relates specifically to Martin's claims as an inventor and it may be found in the hearings of January 15, 1925, of the Lampert committee (p. 904).

The witness who gave that testimony is admittedly a pioneer in aviation; the man who received the first aeronautical degree ever given by an American university; the man who was employed as an engineer by Wilbur and Orville Wright, the inventors of the essential feature which made modern flying possible; the man who was an engineer for the Queen Aeroplane Co., which company constructed the Queen-Martin tractor biplane, of which you have heard mention; and the man who, throughout his entire history as one of the most responsible and successful aircraft manufacturers, never became a member of the Manufacturers Aircraft Association, or a subscriber to the cross-license agreement. In that respect, and in all others, he has been more completely "independent" than the witness, Martin. This man is Mr. Grover Loening, now retired from the airplane manufacturing industry. I read a few paragraphs from his testimony printed on pages 905 and 909 of the Lampert record.

"Mr. LOENING. One of the first and most important requirements, in my opinion, * * * is to establish the business of building airplanes on a foundation of integrity and honesty * * *. This cannot be done if the development of aeronautics is constantly permitted to be faced by wild charges of fraud and promoting schemes based on unsound claims such as actually have taken place before this committee.

"I propose therefore, gentlemen, to refer directly, and without compunction to the outrageous charges and statements fabrications, and untruths, presented to the committee by Mr. James V. Martin. In view of the unfortunate publication by the committee and its receptive attitude toward this gold brick that has been handed them, I do not hesitate to claim a few minutes of your valuable time to present the beginning only of a few answers to the allegations made in this testimony. * * *

"Mr. Martin has probably spent * * * the better part of 2 or 3 years gathering together his voluminous data. As I am intimately familiar, and one of the few actively at present in the business, with the early days of aviation referred to in Martin's claims, I happen to have an equally voluminous amount of data, photographs, letters, articles, and so on, to refer to in disproving practically every item of his testimony. * * *

"To begin with, on page 59 of the testimony Martin claims to have invented the original tractor biplane and to have demonstrated this in the United States in October 1911. During the year 1910 I wrote one of the earliest textbooks on aviation, monoplanes and biplanes, when I was a student at Columbia University. * * *

"In this book, which Martin no doubt read, as it was very widely distributed, you will find on page 203 the photographs and description of the 1909 'Goupy biplane.' This, gentlemen, was the first tractor biplane. It embodies all of the descriptions of Martin's claim. * * * On the same page, 59, Martin refers to the interconnecting ailerons as not having been used prior to 1911 anywhere in the world, prior to his invention. I refer you in the same book to the 'Sommer' biplane (p. 216) flying in 1910; the 'Maurice Farman' (p. 202); the 'Voisin' (p. 227), described in the book, and in fact I would refer you in your own testimony to the biplane of Mr. Christmas and his patent claims, which came up before you. I also would refer you to the Curtiss monoplane, which was not only exhibited but used in the race at Belmont Park in 1910, which had interconnecting ailerons slotted into the wing.

"Martin is telling this committee an absolute untruth. Whether he is verified or not by other experts that you have had is merely a question of how expert those experts are. The fact remains that the originality of his inventions is not

Digitized by Google

so. * * * On page 60 Martin endeavors to impress you with the hands-off control possibilities of his rear-tail plane. On page 227 of my book you will find a photograph of the 1910 Voisin airplane with the rear-tail surface, and in the photograph, page 227, if you care to look at it, sir, you will find the pilot flying hands off, as that was one of the great selling features of that machine. In fact, there were probably 15 or 20 types of planes at this date in which this characteristic was nothing exceptional. * * *

"I can go into this further if the committee desires, as such matters are well within our direct experience, and have not been submitted merely for the purpose of theorizing, or by theorizing engineers or inventors. And we can show you that this is not just a lot of bunk, because it is not. And in preparing further examples of this for the committee, I can cite you instances.

"The retractable chassis—and I have seen the patent end of that has been taken up in the testimony. I can only say that we have always felt * * * that that is a feature, the fundamentals of which are not patentable * * *.

"Gentlemen, page after page of the testimony of this individual is exactly of the same order, and by exaggerating his experiences with the Government to enlist your sympathy, and then by systematically minimizing and laying about the achievements of successful constructors of the day, he is enlisting your assistance, and I am sure it has, although I do not know, but I am sure it has occurred to you that if there were afoot a scheme to gain recognition and payment for patents which are not deserved, you are lending yourselves to it forcefully, if unwittingly. * * *"

Over a year later, on May 26, 1926, this same witness appeared to testify before the Naval Affairs Committee of the House in their hearings on H. R. 11249. The statement for some unknown reason does not appear in the printed report of the hearings, although Mr. Loening recently stated that was discussed with the committee and the complete statement handed them for insertion in that record. A few of the pertinent paragraphs will be of interest to you.

"The testimony before the Lampert committee, when finally concluded, presented facts, priority of others on patents, and supported statements, which completely discredited the testimony of Mr. James V. Martin, and showed that much of it consisted of outright falsehoods, prevarications, and outrageous muckraking.

"Nevertheless, on page 2571 of the recent testimony before your committee, Mr. Woodruff, a member of your committee definitely states 'We are trying to develop legislation which will make it possible for inventors like Mr. Martin to realize something from their inventions.'

"If this is the object of the hearing * * * it becomes absolutely necessary to have the facts presented as to the kind of inventor Mr. Martin is—whether he deserves any recognition for having invented anything himself, and whether or not the entire presentation of James Vernon Martin is, perhaps. after all, nothing but a gigantic scheme to defraud the Government by setting up all kinds of ridiculous claims for priority on invention, in order to collect royalties * * * on practically every plane to be built for the United States Government.

"The committees and members of your committee, like Mr. Woodruff, may be unwittingly assisting in a fraud. At any rate, it is only fair that they should hear both sides of the case.

"It so happens that in much of the testimony that has appeared in this connection, technicians and engineers have testified who are not familiar with the status of aviation at the period that Mr. Martin starts with, and who are therefore qualified only by hearsay to base opinion on the merits of Martin's claims. It so happens, however, that I was the engineer of the Queen Airplane Co. in 1911—the very company that built the Queen Martin tractor, the claims for which said Martin starts out with in his outrageous false propaganda. I have seen the plane; I saw it wrecked, and I am thoroughly familiar with the entire art at that time * * *.

"Martin claimed widely that he had originated the tractor biplane when he built the Queen Martin tractor. His bluff on this was called by me in brief and hurried testimony before the Lampert committee * * *. I showed the gentlemen of that committee photographs, for example, of the Goupy biplane of 1909, antedating Martin by two years, and Martin in his rebuttal testimony * * * says that he had been misquoted, and that he did not mean that he was 'the inventor of the concept of the tractor biplane' but that he meant he was the first one to develop it in the United States. In other words,

Digitized by Google

gentlemen, he comes before you as the great inventor and originator but admits himself that he copied it from European practice, nevertheless, and I am amazed that some of you gentlemen let him get away with it. Yet he testifies * * * as follows: 'I then designed an airplane of very different general design from anything that had been flown in the world up to that time. It was called a tractor biplane.' This, gentlemen, I regret to have to again call to your attention is an outright falsehood, admittedly so, by Martin himself in previous testimony.

"Furthermore, * * * I happen to know that the fuselage and engine mounting, controls, seats, and entire general arrangement of the body of that airplane (the *Queen Martin*) was a copy down to many of the minutest fittings of the standard Bleriot tractor monoplane, and in fact was actually built in a few parts out of Bleriot fittings that we happened to have had in stock at that time, as the Queen Co. was then engaged in building copies of the Bleriot monoplanes for exhibition work. What Martin did was to copy Goupy's use of a biplane wing on a tractor fuselage using a Bleriot type-copy tractor fuselage. Incidentally, by the way, a point that has escaped me previously is that Goupy's plane happened also to have the famous 'wing end ailerons' that Martin also claims to have 'invented' with the difference that Goupy's plane came out and was flown and publicly demonstrated and photographed some 4 or 5 years before Martin thought that Goupy's idea was good enough for him to jump in and falsely claim another of his famous original features.

"Here we have the beginning of his scheme and that of those who are assisting him to establish himself falsely as the originator of all kinds of things so that by influencing you gentlemen to modify your procurement methods to pay inventors for their work, he and his associates will be able to get a huge sum in royalties out of the Government, by having established page after page of high-sounding testimony that comes uncontroverted before your committee. Then when we fellows who know about these things finally hear of them, either your committee hearings have stopped and we unfairly cannot get a hearing to tell you the truth about this fake, or else our hurried testimony for which we have so little time of preparation (in the press of building planes for the Government that have to fly) all gets lost in the maze of volumes of testimony that this Martin scheme has given rise to.

"I can continue taking up a lot of your time with his false claim on interconnecting ailerons and with every single item mentioned by Martin. * * * Some of you gentlemen on this committee, however, appear to be somewhat gullible to let this man influence you to such an extent that he continues to be your pet witness. * * *

"The last item which is the most important is the retractable landing gear, and here is where I come in because not only have I made an exhaustive study of this in its application to aircraft but I designed my first retractable landing gear in 1913, when I was with Mr. Orville Wright, and have constantly been advocating the use of this invention, well known to the art prior to 1916, when Martin made his first application. Although I also hold a patent thereon, I have never claimed to have invented the retractable landing gear because the prior art as shown in the patents placed in evidence before the Lampert committee is so complete that there cannot be any question in the mind of any sane man that James V. Martin or anyone else can be held to be the basic inventor of the idea of rectracting an airplane's landing gear for any purpose What he did patent in 1916 was merely one particular detailed mechanism of an airplane retractable landing gear, and after building many of these developments and studying the matter longer, I believe, than Mr. Martin, I can prove, as an engineer, that his method of retracting a landing gear is probably the worst of any design that has been put into use and entirely impractical for an amphibian. * * *

"Gentlemen, I am not testifying in a patent suit, so that I will go no further with the mass of data that we have assembled to show that Martin's claim to have invented the retractable landing gear is an outrageous imposition and is not far from being a willful fraud in trade practice. Long before he ever advocated retractable landing gears, amphibians had been built with such gears, and flown and illustrated, and many patents have been taken out by other inventors than himself, including my own patent on retractable gear, which patents are all allowed only on the detailed mechanism if you read them carefully, because the broad idea of retracting landing gears on aircraft had been disclosed by Penaud 50 years ago. * * *

Digitized by Google

"It is exceedingly discouraging to spend our money without return from the Government on the development of real valuable ideas, proven valuable not by our opinion but by actual test, and yet be faced with having our work constantly interfered with by vicious attacks on our integrity, false claims on patents, etc. * * *

"The history of J. V. Martin's operations have shown that on the average it takes him about 2 years after an invention has been disclosed to realize that he has missed a 'good bet' and then rush to the Patent Office and claim anything he can, so that several years later he can come before you gentlemen and, as has been proven, falsely pose before you as a martyred inventor. I understand that we have him red-handed right now, and that he actually has or is shortly applying for certain patents on amphibians, and he reluctantly seems to be impressed with the successful results of my work.

"Therefore, if any change in the law is going to encourage an 'inventor' like Martin, I plead with you to leave the law as it is. * * *"

These comments are, of course, expressions of one individual's personal opinion regarding the witness Martin. From this particular witness they are doubly valuable and informative. It is well, however, to examine the opinion of an organization by which he was employed, and through which such ability as he possessed was to aid the development of aviation in the national defense. I refer to the engineering division of the Army Air Corps, whose remarks bearing on qualifications of J. V. Martin and on his credibility as a witness are given on pages 2706 and 2707, in the Lampert committee's record. I read from that memorandum:

"It has always been, and still is, the opinion of the engineering division of the Air Service that a very few of J. V. Martin's 'efficiency devices' possess some merit (notably the shock-absorbing wheel), but that none of them possess sufficient merit or suitability for general use of military aircraft. It has also been, and still is, the opinion of the engineering division that J. V. Martin does not possess the ability to design, construct, or perfect his devices so as to make them practicable for general use.

"It is desired that the committee may see that the Air Service has been as lenient and tolerant toward Martin as consistently could be the case considering the fact that the Air Service has not desired to waste public funds on ridiculous or useless developments. For this purpose attention is invited to the fact that Martin was employed by the Air Service at McCook field, beginning February 1, 1919, as a consulting engineer, at a salary of $5,000 per annum, solely for the purpose of giving him a free hand in working out his own radical ideas. He was given this employment in order to give him every opportunity of demonstrating and convincing Air Service engineers that he had something which fould be a genuine contribution to the art. Very suddenly, however, on May 12, 1919, Martin informed the chief of the engineering division that he expected to leave at once (on May 15) to go abroad. (See Exhibit W.) Upon investigation it was learned that Martin had become restless and was desirous of again going to sea, and that he had obtained a position with the United States Shipping Board Emergency Fleet Corporation as an officer on board the Steamship *Lake Fray*. (See Exhibit X.) It is therefore apparent that the officials of the engineering division were very charitable and open minded toward Martin and his devices in spite of the fact that he had previously written many slanderous and malicious letters to higher officials accusing the engineering officers of incompetence and of criminal acts of dishonesty. (See Exhibits Y and Z as representative letters of this type.) Even during this period that Martin was employed by the Air Service (between February and May 1919) he again started a program of attack against Col. T. H. Bane, the chief of the engineering division, and his assistants, by addressing letters to the Secretary of War (See Exhibit Z–1), to Mr. Joseph P. Tumulty, secretary to President Wilson (see Exhibit Z–2), and to Gen. Chas. T. Menoher, director of Air Service (see Exhibit Z–3); but when Martin suddenly resigned on May 12, 1919, he addressed himself in a letter to Colonel Bane as follows:

'Permit me to express my sincere appreciation of your personal courtesy and fairness and the hope that the important work I have undertaken for our Government will be vigorously pushed by your organization during my short absence'. (See Exhibit W.)

"From this letter of May 12, 1919, it would seem that Martin was finally satisfied that he had been given a fair and reasonable opportunity to demonstrate the value of his devices, but no sooner was he at sea than he resumed

Digitized by Google

his malicious attacks upon the engineering division by addressing a letter to The Adjutant General of the Army. (See exhibit Z–4.)

"In order that the committee may form a more accurate idea as to the technical qualifications of Martin, and as to the credibility which should be given to him as a witness, attention is invited to Martin's testimony before this committee set forth on page 61 of the printed record, wherein he stated under oath that he took work in mathematics, at the University of Virginia and at Harvard University. Attention is also invited to his sworn statement made on February 1, 1919 (exhibit Z–5 attached hereto), when making application for employment in the engineering division, that he graduated from Harvard University after 2 years' work there. After considering those statements made by Martin under oath, please refer to exhibit Z–6, attached hereto, wherein the that university for 1 year and that he took work in English, moral philosophy, and mathematics, but that the only course in which he passed was moral philosophy. Please also refer to exhibit Z–7, attached hereto, wherein Harvard University reports that he took no technical course there at all, since most of his work was in philosophy and German, and that he did not graduate, as he stated in his sworn application for employment. From these university records it is evident that Martin has not had the basic technical training that he claims to have had, and also that no great reliance can be placed on the accuracy or truth of his sworn statements.

"For the purpose of showing some of the recent malicious attacks which J. V. Martin has made against public officials in the Air Service, attention is invited to his broadcasted pamphlet entitled 'Don't pay attention to this', and to the court records in an action entitled '*James V. Martin* v. *The Manufacturers' Aircraft Association, Inc., et al.*' (Law No. 67540), in the Supreme Court of the District of Columbia, wherein Martin sued over 60 defendants for $51,510,000, alleging a conspiracy between Government officials and various aircraft manufacturers. This suit was dismissed by the court. His malicious activities have undoubtedly cost the Government many thousands of dollars during the past few years."

If you gentlemen had time to review all the testimony given by the 150 witnesses before the Lampert committee during the 15 months of its investigation, you, too, would find that the charges made by Martin were thoroughly considered by that committee, not only as to their technical merit, or lack of it, but as to their bearing on the continued development and expansion of the art of aeronautics, and the effect on the encouragement and stimulation of the inventive genius of the citizens of this country. Not having the necessary time, I believe enough has already been read to indicate the type of testimony recently received from the witness and to properly evaluate it for yourselves.

The final report of the Lampert committee speaks for itself. That investigation cost the taxpayers of the United States many thousands of dollars. Its record totals 3,552 pages. At an estimated cost of $8 per page, the printing of its six-volume record alone represents an investment of $28,500.

There are other matters, however, to which the witness, Martin, recently testified which should, I think, be called to your attention.

Look on page 176 of your "Pooling of Patents", here Mr. Martin states, "I challenge anyone on the side of the Manufacturers Aircraft Association, the so-called industry to point to any investigation which was not a self-conducted investigation."

Has he forgotten Justice Siddons' decision? Was that a self-conducted investigation? Has he forgotten the make-up of the Lampert committee? To refresh your minds on this point, let me again quote the Honorable John M. Nelson, on page 46 of the Lampert record. He says, "That a special committee should be appointed by the Speaker, to consist of nine members, taken largely, if not wholly, from the Committee on Patents". That committee was largely taken from the Committee on Patents. Had it been selected in 1935, instead of in 1924, nearly all of you gentlemen would be numbered in its membership Yet that committee, according to the witness Martin, was subject to the control of the Manufacturers Aircraft Association. Do you believe that? And, it is an interesting fact, that three members of the Lampert committee are still members of the present Congress. They are the Honorable Randolph Perkins, of New Jersey, the Honorable Clarence F. Lea, of California, and the Honorable William N. Rogers, of New Hampshire. I suggest that you ask them if they were ever under the so-called air-trust control.

If you will look on page 216 of your record you will see what purports to be a statement bearing on the printed testimony of the congressional aircraft

Digitized by Google

committee, or Lampert committee, on charges of corruption, conspiracy, and an air trust, as the cause of United States air deficiency. This exhibit was supplied by Martin. It reviews the so-called proof of Martin's two main charges, to the effect that, first, Federal funds were being spent for worthless and dangerous airplanes, in preference to better airplanes offered by others, presumably by Mr. Martin himself; and, second, that a so-called air trust controlled all Federal procurement of aircraft. It consists of references to the testimony which, in Mr. Martin's opinion, tend to substantiate his own charges. But, in choosing them, and this is the vital point, he completely ignores all other testimony by other witnesses which refute those charges, and he disregards the elemental fact that the committee heard both sides of the question and decided the charges unfounded in fact. Had Mr. Martin proved his charges, as he asserts that he did, the Lampert committee would have decided accordingly. That they did not do so apparently fails to influence Mr. Martin, for he appears before you, repeats essentially the same charges, conceals the conclusiveness of the previous investigations, and quotes from the records only those statements previously made by him or by others which appear to sustain his charges, so apparently attempting to lend official color to his "evidence."

Let's select at random a few extracts illustrative of the practice just described. Look on page 218, section 18 on how the committee prevented testimony supporting the charges * * * from getting into the record. The first reason given is that Hon. Randolph Perkins was selected as interrogator. Mr. Perkins is now the ranking minority member of your committee. Was he dominated by the alleged "air trust"? You might ask him that question. The next reason is that under dictation of Mr. Perkins, the "air trust" * * * announced to the press in New York about January 12 that the committee would not inquire into graft and corruption. Now, regardless of any question about such an announcement, did the committee inquire into graft and corruption? The answer is yes. Their report says:

"These charges alleged corruption * * *. The committee made an investigation of these charges; studying * * * in detail, examining many witnesses, and calling upon the War Department, the Navy Department, the Department of Justice, and the Comptroller General to obtain definite facts necessary. Upon the basis of these facts, the committee finds * * * That there was no evidence of corruption * * * submitted to the committee * * * That the constant circulation of rumors and charges * * * has been a destructive influence in the aviation industry of the United States for the past 8 years * * * has laid upon the officers of the Government and upon the owners of business in this trade suspicions which this committee believe unfounded" (pp. 1-2).

"The most searching investigation on the part of the committee discloses not the slightest ground for the charge that the * * * procedure is corrupt" (p. 10).

Therefore, you see the Lampert committee did investigate the charges of corruption; furthermore, that it did not accept Martin's claims as evidence of corruption, but rejected them completely.

Here is another example of J. V. Martin's practice. He refers to Mr. Henry Woodhouse who voluntarily appeared * * * to testify and brought a first-class witness to swear to bribery of the high aircraft officials. He states that Mr. Woodhouse was not permitted to testify (see p. 1033), and that the threat of the master at arms to throw Mr. Woodhouse out of the room has not been printed in the record.

Let's look at page 1033, as Mr. Martin suggests. What do we find? I will read it.

"Mr. PERKINS. Now, Mr. Woodhouse, if you have a witness to produce, you may produce him.

"Mr. WOODHOUSE. Yes; Mr. Chairman, Mr. McCorrey.

"Mr. REID. What has he to present? Have you examined him, Mr. Perkins?

"Mr. PERKINS. No; not yet.

"Mr. REID. I suggest you examine him privately first.

"(Thereupon, Mr. Perkins conferred in private with Mr. McCorrey.)

"Mr. PERKINS. This statement is made for the record. Mr. Woodhouse has requested the committee to call Mr. McCorrey as a witness before the committee. Upon a private examination by myself of Mr. McCorrey, Mr. McCorrey informs me that Mr. Woodhouse has evidently mistaken him for his brother,

Digitized by Google

Mr. Alfred McCorrey; and in the absence of Mr. Alfred McCorrey, Mr. Harry McCorrey, this man, does not care to make a statement."

I fail to find evidence there of refusal to hear Mr. Woodhouse; nor is there evidence of refusing to hear a first-class witness, since the wrong man could hardly be described as such; and if the master at arms had occasion to threaten Mr. Woodhouse with ejection, he undoubtedly had ample cause for doing so since he was not censured by the committee members.

Another point frequently mentioned by Martin is that referring to the "pioneer viewpoint" and the need of hearing witnesses representing that viewpoint. His argument on page 218 of your record gives pages 63, 108, 109, 112, 113, 125, and 2323 of the Lampert record as showing the names of the pioneers whom he desired called, and he says "* * * the committee did not call upon one of the listed witnesses or ask one question of them * * * respecting corruption or conspiracy."

Let's examine this assertion. On page 63, Martin names 8 men as pioneers: A. M. Herring, A. S. Heinrich and his brother Arthur Heinrich, Chas. and Clarence Whittemann, J. A. D. McCurdy, Orville Wright, and Glenn H. Curtiss. Now, did the committee call one of them, as Mr. Martin says they failed to do? Yes!

On January 16, 1925, p. 1033, Mr. Herring appeared, asked the privilege of submitting his testimony in brief form, since his health was not good, and it is printed in full on pages 1834 to 1838. The same day he appeared a second time and gave direct testimony over two pages of the record, pages 1069 and 1070. Mr. Martin seems to have forgotten Mr. Herring's appearance.

Looking further we find that on page 2325, the following interrogation took place between Messrs. Perkins and Martin:

"Mr. PERKINS. Can we get Mr. Heinrich down here on Wednesday?

"Mr. MARTIN. I believe so.

"Mr. PERKINS. We will be glad to hear him on Wednesday if he will come."

Apparently, Mr. Heinrich did not choose to come, for his testimony does not appear in the record, and Mr. Martin, in referring to the pioneer viewpoint, ignores that fact. Further, it should be noted that Orville Wright, Glenn Curtiss, and J. A. D. McCurdy are, according to Martin in other places in his testimony, members of the "air trust", and the last we have heard of the Whittemann brothers was a tentative application for membership in the Manufacturers Aircraft Association.

Let's now take one more example of Mr. Martin's assertions regarding the testimony. Look on page 219. Martin says, "Also please note that there was necessary a great effort to get the witness Martin's testimony before the committee, and this was accomplished only by resolution, see page 2320."

Now, gentlemen, let's look at page 2320 of the Lampert record. On that day, February 16, 1925, Mr. Martin was called to the stand. Mr. Perkins said, "Mr. Martin, the committee passed a resolution to recall you for the purpose of taking a further statement." As you see, that resolution was for an additional appearance and statement. But what were his previous appearances? Let us look at the record. The first two witnesses before the Lampert committee hearings in Washington were Congressmen Nelson and Woodruff, previously referred to as having delivered the speeches which led to the appointment of the Lampert committee. The third witness, gentlemen, was none other than James Vernon Martin, whose testimony covered pages 57 to 126. No mention is made during that, his first appearance, of needing a resolution to secure his testimony. He appears voluntarily, at the request of the committee, who stated that his name was given them by the two Congressmen named above, and he testified for over 70 pages of the record.

Then on January 17, 1925, page 1092, Mr. Martin again appears as a witness. There is no mention there of resistance to hearing his testimony.

His next appearance is that to which he refers as being obtained at "great effort."

But following that, Mr. Martin testifies from pages 2335 to 2345, from 2369 to 2376, from 2390 to 2411, he interrupts witness Howard on pages 2452, 2453, and 2454, supplies various exhibits, which cover pages 2455 and 2484; he interrupts the witness Roche on pages 2854, 2861, and 2868; and finally he supplies the investigating committee with a rebuttal of testimony given them by others, which extends from page 3198 to page 3261. There is no mention there of difficulty in receiving a hearing. That, gentlemen, is the actual record of Mr. Martin's testimony before the Lampert committee. Of the 3558 pages of that

Digitized by Google

record, he seems to have used approximately 500 pages for his testimony and exhibits, in addition to the fact that the entire investigation was the outgrowth of his own charges, as he states himself on page 2321, by saying, "the pioneers' point of view was responsible for this investigation. There was a demand by my associates, the early pioneer builders and fliers of the United States, for an investigation."

Another item in the Martin testimony, which I think you should consider, is that printed in your hearings on page 204, and which, as you can see, purports to be a quotation from an unanimously adopted conference report, no. 1395. Having become skeptical of Mr. Martin's quotations from other records, I had the curiosity to look up that report. Here it is. I do not want to bore you with a reading of all of it. Suffice it to say that the first 12 lines of the purported quotations are actually small portions of several paragraphs to be found on pages 2 and 3 of the report. But the entire remainder of the quotation is not to be found at any place in that report. The remainder consists, as far as I can determine, of the personal views of James Vernon Martin, but it is printed in your record with the appearance of a complete quotation of the formal report made by the Honorable John J. McSwain to the Sixty-ninth Congress of the United States. Mr. Martin may claim it is a printer's error. If he does, it would be interesting to investigate the exact form of the exhibit as originally submitted to you.

The points in the Martin testimony to which I have just called your attention, are only examples of the similar cases to which more time could be devoted were it available. To carry on would only serve the repeat the practices that have already been shown. No useful purpose would be served.

There is another matter which, while it does not appear in your record, should be called to your attention, since you may decide that it has an important bearing on your investigation, on the interests of the United States Government, and on the activities of at least one of the executive departments. I refer to the 14 suits of the witness James Vernon Martin now pending against the United State Government in the Court of Claims. The damages asked under these claims, for alleging infringement of some of his patents, are reported to total in excess of $60,000,000. If the Government's use of 14 of the 47 patents claimed by him are worth $60,000,000, then all 47, using the same proportions, might be claimed to be worth over $200,000,000 or more than the entire Federal expenditures for airplanes during the past 16 years. But it is also interesting to compare the $60,000,000 already claimed by Martin on 14 of his patents, with the $3,500,000 which has been paid in royalties over the entire 18 years including all of the war-time production, for the use of the more than 750 patents owned by members of the Manufacturers' Aircraft Association. Of this number, the Wright and Curtiss patents were admittedly basic and probably one-half of the inventions covered by the other patents have been as widely used as any of Martin's alleged inventions. The comparison is striking.

I have felt that your record should contain some specific reference to these 14 Court of Claims cases which are being defended by the Department of Justice. That is my reason for bringing the matter to your attention at this time. There are those who might doubt that one individual could honestly be fostering a congressional investigation into the aviation patent situation and concurrently suing the Government for infringement of his own aviation patents. Possible connections between the two activities appear obvious.

As the witness whose testimony I have previously read to you said, Martin has for many years devoted a considerable portion of his time to the accumulation, from various sources, of letters, papers, documents, books, etc., with which he claims, if you follow his reasoning and draw his same conclusions, to have built up a case establishing proof of his charges.

Let me give you an example of the manner in which a case can be built up. It appears on pages 220 to 222 of your record, and consists of five letters, three of them written by J. V. Martin to the Matériel Division of the Air Corps, and two replies of that division. The first letter, dated November 3, 1933, from Martin to General Pratt, then Chief of the Division, requests "a clear statement of your policy on the following pertinent matters," all of which matters pertain to the conditions Mr. Martin considers necessary to a "fairer understanding and an opportunity for one of the pioneers of aviation in the United States." I need not add that the policy of the Air Corps relative to these conditions is well known to the industry and to Mr. Martin, since all

Digitized by Google

suppliers of military equipment are currently meeting them in obtaining Air Corps contracts.

General Pratt replies to that letter on November 10, 1933, saying "I do not feel that the Air Corps is in a position at this time to enter into a detailed discussion of general policies * * *."

Mr. Martin again writes on January 12, 1935, reasking his questions on Air Corps policy and seeking "some slight measure of reward * * *."

This letter is replied to by Lt. Park Holland on January 21, 1935, who pointed out that the conditions surrounding the design competitions of the Air Corps are fully described in their circular proposal, a copy of which was attached.

The stage is now set for Mr. Martin's so-called case against the Air Corps. He sums it up in his last letter to the Chief of Matériel Division under date of January 28, 1935. Quoting the letter of General Pratt, dated November 10, 1933, and one paragraph of House Report No. 2060, dated June 16, 1934, which has been published in the meantime, he concludes his letter with these paragraphs:

"Unless and until the simple and pertinent questions I have propounded are answered in clear and unequivocal manner, there will be no use in an independent effort to aid your division by submitting the best airplane designs.

"Hoping that the day will come when an independent airplane manufacturer can receive dependable assurance that his proprietary rights and patents will receive fair consideration and recognition from the Air Corps, I remain, James V. Martin."

There, gentlemen, is his case. It is complete. He has so-called proof. He has it in writing. He can show it to anyone who will read it. But what he does not tell is that the conditions he so heartily dislikes and under which he apparently refuses to submit his so-called "best designs" are exactly the same conditions under which all the other airplane manufacturers in the United States, "independents" as well as members of the Manufacturers Aircraft Association are now operating. If one wants military business, one meets the service requirements. If not, one refuses the contracts. What is required of one is required of all.

I need not add that, like J. V. Martin, the responsible members of the industry would like complete protection for their proprietary rights and their patents. As a matter of fact, this was recommended by the Lampert committee, the Morrow board, and the Federal Aviation Commission. All the manufacturers have been wanting it for years. They have presented arguments regularly, to the Services, to committees of Congress, and to various investigating boards. The Services contend, however, that any airplane design purchased in a design competition by the Army or Navy, becomes the property of the Government and that they can build it or have it built by whomever they wish. Further, the Government contends that it automatically receives a license to use or have used any patents developed in the course of a Government contract, or prior thereto, if such devices are included in the article contracted for, and that such licenses pass, without extra compensation to the inventor thereof, regardless of the potential value of these patents. That is the fact.

The responsible manufacturers do not like that condition any better than does James Vernon Martin. They have been complaining about it for years. Most of the investigating committees have recommended a change to protect the patent rights of inventors and the proprietary rights of the manufacturers, but so far, the Congress has not seen fit to clearly and definitely incorporate those recommendations into law. But despite this condition, these responsible manufacturers continue to build aircraft for the United States Government, all the time hoping that the wisdom of the Government will eventually see fit to protect their genius, their inventiveness, and their foresight, by the adoption of equitable, sound, and far-sighted principles regarding these important matters in procurement contracts.

And in the meantime, while responsible manufacturers continue to devote their time and efforts to the furtherance of this country's aeronautical interests they, speaking quite frankly, do not like repetitions of unsupported charges of fraud, corruption, arson, robbery, theft, and murder. But with equal frankness, they do not believe that such charges are taken seriously by the general public. And in the meantime also, they continue to build bigger and better and faster and more powerful aircraft—to the envy of the entire world. That is the effort on which the American aircraft manufacturers are spending their

Digitized by Google

time. That is their service to the Government of the United States. That service has been productive and of untold value from the national viewpoint. We hope that your committee will lend its efforts toward our greater accomplishments in the future.

During the 18 years' period covered by this analysis, our aircraft manufacturers have produced and sold more than 33,000 airplanes. Manufacturing plants and facilities represent huge capital investments. Thousands of skilled engineers and artisans are employed, and, as previously stated, their products occupy a premier position in the competitive markets of the world. These figures do not include the three or four, or possibly a few more airplanes, made by J. V. Martin, nor is consideration given to his "million dollar factory" or to his employees. As a matter of fact, the number of his employees is unknown. Undoubtedly, its officers, if subpenaed, will give you the essential facts regarding the organization and its activities. According to the letterhead of the Martin Airplane Co., Gen. A. C. Dalton is indicated to be the president and Col. J. Edward Cassidy its general manager.

This study, and the presentation of its results, has been undertaken in the belief that you, as active members of the Congress, face a multitude of serious problems of national importance, and that you do not have within the short compass of each day sufficient time to give detailed examination to the detailed history of each subject. As related to certain phases of the aeronautical industry, I have endeavored to supply the essential history in this statement. It is all too brief. There is much more that could well be studied. But what has been presented to you here comes, as you have seen, from public documents available to every citizen of the United States. I have endeavored to refrain from expressions of my personal opinions. I have referred you to the record in almost every instance, but personal sentiment, born out of a friendship which began during the war period and has extended up to the present time, has prompted me to refrain from following a similar course in regard to the oft-repeated testimony of General Mitchell.

In fairness, however, to the task which has been undertaken by your committee, and to the trust imposed upon me by my present office, I feel compelled to tell you that the statements which General Mitchell has made to you inferring that the Manufacturers Aircraft Association or any of its executive officers has ever been implicated in any collusion or conspiracy to influence Government officials or to retard development of aviation or to suppress any aeronautical patents are untrue in every particular. His attempt to use your committee as a vehicle to dignify his oft-repeated and always discredited sensational charges that the United States Army, Members of Congress, and the American aviation industry have conspired to provide the Air Services with inferior equipment have come as no surprise to his former associates. His statement that a billion and one-quarter dollars was spent for aircraft by the Government during the World War is typical of his many misrepresentations. According to the records of his own chief, the money spent for aircraft was one-quarter of that amount, and including the money spent for fields, equipment, and all other purposes relating to aviation was less than half of that amount.

The officers of the Manufacturers Aircraft Association or its staff has never had anything to do either with appropriations or with the writing of specifications for airplanes which the Services has required, or for the manufacture of such airplanes and equipment, or for their testing or for their use. Its service in making available to all the patents of each of its members has saved the Government and the industry untold expense and time which otherwise would have been lost as a result of litigation for infringement which is certain to follow in any industry where each individual company is developing its product independent of all others.

Patent clauses used in aviation contracts have interested the association. General Mitchell's statement, however, that the Government has in any way favored or held members harmless for infringement because they were members of the association is untrue. Quite the contrary is the fact. While these patent clauses have varied from time to time, they have never offered a member of the association any immunity from damages due to patent infringement.

It is really unfortunate that the General should be so woefully misinformed with reference to the operation of this association. To imply that the errors in judgment of individual manufacturers, whether members or not, or of military officers or the successive administrations, should be attributed to a patent exchange, is ridiculous. As has been said many times, this exchange is open

Digitized by Google

to all inventors and manufacturers in this industry. No valid application has ever been refused. No nonmember inventor has ever had anything but help in the presentation of his ideas to the industry.

The principle of cross-licensing in industry needs no defense. While countless charges have been brought against the association during its existence, none have ever been justified by investigation.

I appreciate the opportunity of presenting these facts for the constructive consideration of your honorable body.

Respectively submitted,

F. H. RUSSELL, *President.*

MANUFACTURERS AIRCRAFT ASSOCIATION, INC.,
30 Rockefeller Plaza, New York, January 13, 1936.

Re: H. R. 5384

Hon. WILLIAM I. SIROVICH,
House of Representatives, Washington, D. C.

DEAR DR. SIROVICH: In response to your recent verbal request, we are pleased to enclose herewith a memorandum regarding the history and legal aspects of the July 1, 1918, amendment of the Court of Claims Act which will supplement the comments contained in Mr. Russell's letter of December 11, 1935, to give you a complete outline of the situation as it now exists. This statement has been prepared impartially, and citations to references contained therein have been checked with care.

Trusting that the above will be helpful to you in connection with your efforts to obtain a prompt passage of this constructive legislation, we remain,

Yours very truly,

JOHN A. SANBORN,
Director, Patent Research Division.

MEMORANDUM REGARDING THE PROPOSED REPEAL OF THE JULY 1, 1918, AMENDMENT OF THE COURT OF CLAIMS ACT

NATURE OF THE RIGHTS INVOLVED

Patent rights are exclusive, not only of citizens and residents of the United States, but also of the United States Government itself, and of its agents. When the Government grants a patent for an invention, an exclusive property is conferred upon the patentee and the invention cannot thereafter be appropriated or used by the Government without the payment of just compensation: *Hollister* v. *Benedict Mfg. Co.* (113 U. S. 59); *United States* v. *Palmer* (128 U. S. 262); *United States* v. *Berdan Firearms Co.* (156 U. S. 552); United *States* v. *Lynah* (188 U. S. 445).

CONDITIONS PRIOR TO PASSAGE OF THE ACT OF 1910

In order to provide such compensation in certain cases, the Congress, on February 24, 1855, created the Court of Claims and conferred upon it jurisdiction to hear and determine all claims founded on any law of Congress, or upon any regulation of an executive department or upon any contract, express or implied, with the Government of the United States. This jurisdiction was enlarged by the act of March 3, 1887, to include claims for damages, liquidated or unliquidated, in cases not sounding in tort, in respect to which the party would be entitled to redress against the United States either in a court of law, equity, or admiralty, if the United States were suable, it being axiomatic, of course, that the United States cannot be sued without its consent: R. S. 1059, c. 122, sec. 1, 10 Stat. 612; Tucker Act c. 359, sec. 1, 24 Stat. 505. See also 30 Stat. 494; 30 Stat. 649; and 36 Stat. 1136.

Since the infringement of letters patent is considered to be a tort, a patentee, therefore, could not recover against the United States in the Court of Claims under the acts of 1855 and 1887 unless an express or implied contract for the use of the patent could be established. Where no such contract arose from the circumstances, the owner of the patent was without remedy against the United States, although he could proceed against one who had contracted with the Government to supply an article which infringed his patent: *United States* v. *Palmer* (supra); *Schillinger* v. *United States* (155 U. S. 163); *United*

Digitized by Google

States v. *Berdan Firearms Co.* (supra); *Belknap* v. *Shild* (161 U. S. 10); *Russell* v. *United States* (182 U. S. 516); *International Postal Supply Co.* v. *Bruce* (194 U. S. 601); *Harley* v. *United States* (198 U. S. 229).

Evidently inspired by the injustice of this rule, as applied to rights of the character of those embraced in patents, because of the frequent possibility of infringement under circumstances which would not justify the implication of a contract, Congress with the intention of providing "additional protection for owners of patents" enacted the law of June 25, 1910. This statute provides in comprehensive terms that "whenever an invention described in and covered by a patent of the United States shall hereafter be used by the United States without license of the owner thereof, or lawful right to use the same, such owner may recover reasonable compensation for such use by suit in the Court of Claims." That is to say, the statute added to the right to sue the United States in the Court of Claims already conferred when contract relations could be shown to exist, the right to sue for the infringement of a patent even though no element of contract was present: Act of June 25, 1910, 36 Stat., c. 423, p. 851; *Crozier* v. *Krupp* (224 U. S. 290).

INTENTION AND PURPOSE OF CONGRESS IN PASSING THE 1910 ACT

There would seem to be no room for doubt that the direct and simple provisions of the 1910 statute embraces, and was intended alone to provide for the discrepancy resulting from, the divergence between the right in one case to sue on an implied contract and the nonexistence of a right to sue for unlawful use in another. This conclusion becomes irresistible when the concordance which it produces between the title and the report of the committee is considered on the one hand, and the discord which would arise from writing into the statute the theory of automatic and general license as to every patent as was advanced by contracting officers on the other: House Report No. 1288, Sixty-first Congress, Second session; *Crozier* v. *Krupp* (supra); *Wm. Cramp & Sons* v. *International Curtiss Marine Turbine Co.* (246 U. S. 28).

Furthermore, official authority could not consciously and intentionally be exerted so as to violate the Constitution by wrongfully appropriating private property either before or after the passage of the 1910 act. This follows from the fact that the right to sue on implied contract is based on recognition of the patent right by the Government and the implied assent of the owner, acting in the belief that adequate compensation would be paid; and from the fact that in conferring the right on the patentee to prove infringement, the act contemplates the possibility of the commission of official error or mistake and, therefore, affords a remedy for correction and resulting compensation. The contention that Congress intended universal and automatic appropriation by the United States of a license to use all patent rights, as was urged by agents of the Government shortly after the passage of the act, cannot be accepted for the reason that it cannot be assumed that official authority would be willfully exerted so as to violate the Constitution: *Crozier* v. *Krupp* (supra); *Brown* v. *Fletcher* (237 U. S. 583); *Wm. Cramp & Sons* v. *International Curtiss Marine Turbine Co.* (supra); *Marconi Wireless Telegraph Co.* v. *Simon* (246 U. S. 46).

Although the act of 1910 may have embraced the exceptional case where, because of some essential governmental or public necessity, the authority of the United States is exerted to take patent rights by exercise of the power of eminent domain in reliance upon the provision to recover the adequate compensation which the act affords, this fundamental characteristic at once exposes the want of foundation for the contention that because the statute made provision for giving effect to acts of official power in taking patent rights under the statute, and even when necessary to cure defects in the exertion of such power, it is to be assumed that the statute conferred upon all who contracted with the United States for the performance of work the right to disregard and take without compensation the property of any patentee. The making of a contract with the United States and the resulting obligation to perform duties in favor of the United States by necessary implication imposes the responsibility of performance in accordance with the law of the land, that is, without disregarding the rights or appropriating the property of others. There is no assumption that as a result of the contract with the United States the contractor would enjoy the right to exercise any of the public and governmental powers possessed by the United States.

Digitized by Google

AMENDMENT OF 1918 INTENDED BY CONGRESS TO MEET THE REQUIREMENTS OF THE SERVICES DURING THE PERIOD OF THE WORLD WAR

During the emergency period of the World War, the War and Navy Departments experienced considerable inconvenience in connection with the procurement of patented articles. Due to the great need for large quantities of certain materials and the necessity for prompt delivery thereof, orders were placed wherever the same could best be filled, without any regard whatsoever to the rights of the individual patentees, with the result that the contractors were exposed to expensive litigation involving the possibilities of prohibitive injunction, payment of royalties, rendering of accounts, and payment of punitive damages. Although the placing of orders in such a manner may have been warranted during the period of the emergency, the manufacturers were reluctant to enter into contracts calling for the wholesale disregard of the rights of other private citizens which would bring such severe consequences, and the situation promised serious disadvantages to what were considered under the circumstances to be the public interests.

Congress was thereupon urged to amend the act of 1910 so as to restrict the dissatisfied patentees to a suit in the Court of Claims for any infringement by a Government contractor. As a result, the act of June 25, 1910, was amended by the act approved July 1, 1918, which in amended form reads in part: "That whenever an invention described in and covered by a patent of the United States shall hereafter be used or manufactured by or for the United States without license of the owner thereof or lawful right to use or manufacture the same, such owner's remedy shall be suit against the United States in the Court of Claims for the recovery of his reasonable and entire compensation for such use and manufacture." Act of July 1, 1918, c. 114, 40 Stat. 704.

Whereas the act of July 25, 1910, provided that compensation would be paid whenever an invention described in and covered by a patent of the United States should thereafter be used by the United States without license of the owner thereof or lawful right to use the same, the amendment of 1918 purported to relieve the contractor entirely from liability of any kind for the infringement of patents in manufacturing for the Government, and to limit the owner of the patent and all claiming through or under him to suit in the Court of Claims. It is to be noted that the act of 1910 covers use by the United States. The amendment of 1918 covers use or manufacture by or for the United States, and provides that the remedy shall be by suit against the United States in the Court of Claims for the recovery of the patent owners' reasonable and entire compensation.

The important Congressional purpose of the amendment of 1918, therefore, was to stimulate contractors to furnish what was needed, for the period of the World War, without fear of becoming liable themselves for infringements to inventors or owners of patents. The record of the passage of the act leaves no doubt that this was the occasion for it: Congressional Record, Sixty-fifth Congress, second session, proceedings of June 18, 1918, p. 7969; *Woods* v. *Atlantic Gulf & Pacific Co.* (296 Fed. 718).

It is important to note that in order to accomplish this special intent and purpose, Congress exercised the power to take away from all patent owners the right to recover from Government contractors for the infringement of their patents. This was not a mere case of declared immunity of the Government from liability for its own torts. It was an attempt to take away from private citizens, for the period of the War, the lawful claim for damages to property by another private person which, but for this Act, they would have had against the private wrongdoer: *Woods* v. *Atlantic Gulf & Pacific Co.* (supra) *Sperry Gyroscope Co.* v. *Arma Engineering Co.* (271 U. S. 232); *Richmond Screw Anchor Co.* v. *United States* (275 U. S. 319).

EFFECT OF CONTINUING THE AMENDMENT IN FORCE AFTER THE END OF THE WAR

Although the war was officially terminated in July 1921 and the emergency period which was really the only reason for the passage of the amended act had ceased to exist more than 2 years prior to that date, the practice of confiscating patents without any regard to the element of public necessity was continued by officers of the services who were quick to realize that, in order to meet the exigencies of wartime conditions, Congress had given them the power (but not the right) to take over any and all patents, whether necessary or not, merely by letting a contract to a private firm specifying that the article

Digitized by Google

covered by the patent be furnished. This practice was extremely vicious from the point of view of the patent owner, particularly since there was no longer any excuse for continuing the wartime measure, and it has operated to give the Government exactly what Congress did not intend to grant, either by the 1910 act or the 1918 amendment, namely, the equivalent of a general license to use all patents: *Foundation Co.* v. *Underpinning & Foundation Co.* (256 Fed. 374); *Floyd Smith Aerial Equipment Co.* v. *Irving Air Chute Co.* (276 Fed. 834); *Van Meter* v. *United States* (37 Fed. 2d 111).

Furthermore, despite the fact that the amended statute would seem to have definitely fixed the liability for the confiscation of such rights by making the Government indemnitor for the manufacturers and contractors in their infringements, the contracting officers of the War and Navy Departments began at this time the practice of including a "save harmless" patent clause in all Government contracts. These clauses were so drafted as to shift the burden which Congress had imposed on the United States from the Government to the contractor. As a result, in order to do business with the Government, the manufacturer is compelled to assume complete liability for the indeterminate amounts representing the compensation which patent owners might recover in the Court of Claims because of such infringement, plus the court costs and other expenses incurred by the Government in connection with such litigation.

CONTINUATION OF AMENDMENT IN FORCE HAS ALSO BEEN DETRIMENTAL TO BEST INTERESTS OF GOVERNMENT

Assume that the Government has accepted delivery of the patented article and has paid the contract price therefor, including a reasonable manufacturing profit. The inventor, whose patent has been infringed by the contractor producing the article for the Government, in accordance with specifications furnished by the Army or the Navy, may then resort to recourse for such infringement by the contractor, namely, he may file a suit in the Court of Claims to recover reasonable and entire compensation. Such compensation has been held by the Courts to include the profits which the contractor has realized as a result of such infringement. To quote from one of the most recent cases on this subject:

"Prior to the amendment of July 1, 1918, plaintiff could have recovered this sum (referring to profits) in suit in equity. It was intended by the Amendment to secure to the owner of the patent the exact equivalent of what it took away from him. It took away the profits, and the Government undertook to pay such profits made in the manufacture by the contractor of the infringing apparatus;" *Van Meter* v. *United States* (47 Fed. 2d 192).

The intention of Congress in passing the amendment is clear. See Congressional Record, Sixty-fifth Congress, second session, proceedings of June 18, 1918, page 7961. See also *Woods* v. *Atlantic Gulf & Pacific Co.* (296 Fed. 718), above referred to. The Supreme Court of the United States, speaking in the case of *Richmond Screw Anchor Co.* v. *United States* (275 U. S. 343), has said:

"The purpose of the amendment was to relieve the contractor entirely from liability of every kind for the infringement of patents in manufacturing anything for the Government and to limit the owner of the patent and his assigns and all claiming through or under him to suit against the United States in the Court of Claims for the recovery of his reasonable and entire compensation for such use and manufacture. The word "entire" emphasizes the exclusive and comprehensive character of the remedy provided * * *. The intention and purpose of Congress in the act of 1918 was to stimulate contractors to furnish what was needed for the war without fear of becoming liable themselves for infringements to inventors or the owners or assignees of patents. * * * To accomplish this Governmental purpose, Congress exercised the power to take away the right of the owner of the patent to recover from the contractor for infringement. This is not a case of a mere declaration of immunity of the Government for liability from its own torts. It is an attempt to take away from a private citizen his lawful claim for damages to his property by another private person which but for this act he would have had against the private wrongdoer."

It follows, therefore, that in each case of a recovery under the amended act, the Government has been required to pay manufacturers' profits both to the contractor and to the patentee who has brought the suit in the Court of Claims. This is the price which Congress intended that the Government should

Digitized by Google

pay for the privilege of obtaining prompt delivery during the period of the war of such infringing articles as were needed for war purposes.

In other words, either the Government is compelled to pay a wartime price, measured by at least twice the profits on any manufacturing contract, for prompt delivery to it in times of peace of the infringing articles, or the contractor must assume complete liability for the indeterminate amounts representing the damages and profits plus courts costs in connection with any such litigation without having had an opportunity to defend. In either event, the individual patent owner is unduly penalized as a direct result of having disclosed his invention to the public in compliance with the patent laws. It seems inconsistent with sound principles that the power to pass the patent laws granted to Congress by the Constitution should be limited to legislation which secures an exclusive right to inventors for limited times in their discoveries, while the act of 1918, which deals only with patents, should have the effect of permitting unlimited use of the inventions by all contractors with the Government, thereby depriving the individual patent owner of the only substantial right reserved to him by the patent laws, while the Government has put itself in the position of encouraging patent infringement, and at the same time avoiding the obligations which the Congress intended by the passage of the act that it would assume.

As pointed out by the Supreme Court of the United States in the *Richmond Screw Anchor case*, the requirement that the Government would pay a manufacturing profit to the contractor and also an amount equal thereto to the patentee was in fact intended during times when the Unied States is at war, but was never intended by Congress in peacetime procurement. Neither was it intended by Congress, either by the passage of the act of 1910, or the amendment of July 1, 1918, that the Government should receive the equivalent of a general license to use all patents.

The practice of soliciting bids from unlicensed manufacturers has been held in some instances to be justified on the theory that money is saved for the Government. All that may be said in favor of that theory is that certain purchases may appear to be made at somewhat lower prices, but at the expense of the private inventor and his licensees, and, as pointed out above, ultimately at increased cost to the Government. The fact that low prices, as a result of such practice, may ultimately result in increased expense to the Government is seldom emphasized.

It should also be noted that the direct liability of the Government through judgments frequently exceeds many times any apparent initial saving. Further, the direct expense to the Government, particularly to the Department of Justice, is certainly very great. In this connection, it might be contended that, since the expense of litigation is borne by the Department of Justice and judgments are paid through deficiency bills, the War and Navy appropriations for procurement are actually indirectly increased by this practice. It is not necessary to point out, however, that seldom, if at all, has any emphasis ever been given to such a contention, notwithstanding the fact that the recoveries in Court of Claims cases of this character have been large and the burden of defending them has been proportionately great. Actually, there has been more patent litigation in the Court of Claims on account of Army and Navy procurement since the World War (the date when the amended act was passed) than during the entire history of the country prior to that date.

SUBMITTED BY WITNESS MORGAN, AERONAUTICAL CHAMPER OF COMMERCE

MEMORANDUM ON SUGGESTED CHANGES IN EXISTING PATENT LAWS

1. Certain inventions relating to national defense may be of such a nature as to require the Government to keep them secret. Recognizing this, Congress, during the World War, passed a statute (act of Oct. 6, 1917) to this end. It authorized the Commissioner of Patents to keep secret such inventions as might be of assistance to the enemy and to withhold the grant of a patent until the termination of the war. It further provided that the inventor in such a case who obeys the order of the Commissioner of Patents and who tenders his invention to the United States shall have the right, upon the issuance of a patent, to sue for compensation in the Court of Claims for the entire use of his invention by the Government.

Digitized by Google

In this way the governmental necessities for secrecy were established while at the same time it assured the inventor of a right, a method, and a court in which he could recover for the use of his invention at the end of the war.

Unfortunately, the statute is by its terms limited to wartime—unfortunately, in that there are, in times of peace, inventions which affect the national defense and which he Government rightly demands must be kept secret. There being no statute that fits the case, the Government is forced to rely on contractual undertakings by the inventor. The inventor for his part is placed in a difficult position. There is no provision of law which in peacetime assures him of an ultimate right of recovery in the Court of Claims. If the Government will not release the design he is unable to secure a patent, which is tantamount to an abandonment of the invention, so far as patent protection is concerned. The alternative is to assign the invention to the Government.

The existing situation is unsatisfactory at once to the Government and to the inventor. The remedy would be to amend the act of October 6, 1917, to extend its provisions to peacetime.

2. Another wartime piece of legislation relating to patents which has not been adjusted to the requirements of peacetime is the War Time Patent Act of July 1, 1918. This act was intended and has been consistently interpreted to date as limiting the rights of the patentee to a suit in the Court of Claims against the Government for any infringement of patents arising out of work done for the Government. This places a very real burden on the inventor, who has to undertake the lengthy process of instituting a suit in the Court of Claims. Undoubtedly during the war the statute referred to was in every way proper, but during peacetime it seems inequitable and a deterrent on invention. To encourage invention the right of a patentee to sue a Government contractor in the district courts of the United States should be preserved. In order, however, that there be no interference with Government procurement, the right of suit should not carry with it the right to injunction against a contractor manufacturing for the Government, which would affect the delivery of materials to the Government. To bring about this result it is suggested that the act of July 1, 1918 (40 Stat. 705) be repealed; that the act of June 25, 1910 (36 Stat. 851) be reinstated; and that the Revised Statutes 4921 be amended to provide that no injunction shall issue against a Government contractor manufacturing for the Government so as to hinder the delivery of materials to the Government.

[Opinions of the Attorney General, vol. 31, p. 166]

MANUFACTURERS AIRCRAFT ASSOCIATION—ANTITRUST LAWS

Upon the data submitted, the Manufacturers Aircraft Association, incorporated under the laws of the State of New York, as now constituted, and the cross-license agreement under which it is now operated, are not in contravention of the antitrust laws of the United States

DEPARTMENT OF JUSTICE,
October 6, 1917.

SIR: I have the honor to acknowledge the receipt of your letter of September 17, 1917, in which you ask for my opinion concerning the legal status of the Manufacturers Aircraft Association, incorporated under the laws of the State of New York, and in particular whether the cross-license agreement entered into between that corporation and its subscribers (stockholders) is in any way in contravention of the antitrust statutes of the United States.

You submitted with your letter a copy of the cross-license agreement, and a digest of certain of the minutes of the National Advisory Committee for Aeronautics (hereafter referred to as Advisory Committee) relating to the subject. The other papers and information necessary for determination of the questions involved were not immediately available but have since been furnished by that committee at various dates from September 19 to 28.

The Manufacturers Aircraft Association (Inc.) (hereafter referred to as Association, Inc.), was formed and the cross-license agreement entered into under the following circumstances as gathered from the data submitted:

The principal patents in the airplane industry were controlled by the Wright-Martin Aircraft Corporation and the Curtiss Aeroplane & Motor Corporation. The former, controlling what it claimed to be a basic patent, was demanding

Digitized by Google

high royalties from all other aircraft manufacturers. The latter, controlling numerous important patents, was likewise making demands for royalties upon the other aircraft manufacturers. The patents controlled by these companies were of such a character as to make it difficult for any aircraft manufacturer to construct any modern approved form of airplane without infringing one or more alleged patents of each of these companies. The result of these patent claims was not only to render the cost of airplanes to the Government excessive, but also to make it difficult for the Government to get its order filled, because some of the airplane manufacturers, in view of impending patent litigation, were unwilling to make further expenditures upon their plants.

Confronted with this serious crisis, the War Department and the Navy Department requested the Advisory Committee to investigate the situation and to suggest a solution for the unsatisfactory conditions exlsing in the airplane industry. Acting in accordance with these requests the Advisory Committee proceeded to make a careful study of the situation, and after several months of investigation and numerous conferences with all interests directly involved, recommended the formation of an association of aircraft manufacturers with a form of cross-license agreement.

Pursuant to the recommendation of that committee, the Association (Inc.), was formed and the cross-license agreement now under consideration was entered into.

Practically all of the manufacturers of airplanes have since become stockholders in the Association (Inc.) and parties to the cross-license agreement. The royalties to be paid under the cross-license agreement in respect to the patents of both the Wright-Martin and Curtiss corporations are materially lower than those previously demanded by the Wright-Martin Corporation alone. The arrangement will result in a substantial saving to the Government.

You state in your letter:

"In accordance with the arrangement thus developed, the War Department now desires to proceed with the placing of contracts for airplanes with airplane manufacturers thus organized."

The Federal antitrust laws prohibit every combination and agreement that produces or tends to produce a monopoly in the interstate and foreign commerce of the United States or that is otherwise unduly restrictive of competitive conditions in such commerce. Their fundamental purpose is to prevent undue interference with the free play of competition without prohibiting normal and usual contracts and agreements entered into for the purpose of promoting the legitimate interests of the trader or of the industry in which he is engaged. The questions here involved must be determined in the light of this fundamental purpose of the antitrust laws.

In considering the questions submitted I have examined the cross-license agreement, the articles of incorporation, the by-laws and the voting trust agreement of the Association (Inc.), together with other data relating to that association furnished by the Advisory Committee. I have also examined and considered the criticisms of the arrangement in the "Protest of the Aeronautical Society of America against the formation under Government auspices of an aircraft trust."

The cross-license agreement between the Association (Inc.), and such persons (hereinafter called subscribers) as shall become stockholders therein, was entered into on July 24, 1917. (Cross-License Agreement, p. 1.) The subscribers under that agreement agree—

To grant to each other licenses under all airplane patents of the United States (with unimportant exceptions) now or hereafter owned or controlled by them. (Cross-License Agreement, Art. II, p. 2.)

To appoint the Association (Inc.) their agent with full power to grant the nonexclusive licenses provided for in the agreement, in the form attached thereto. (Art. III, pp. 3, 15.)

Not to contract for rights under any airplane patents in such a way as to prevent the owner from granting similar rights to other subscribers on the same terms, unless the subscriber at the same time obtains the further privilege of itself granting rights under the patent, which of itself shall have the effect of bringing the rights acquired by the subscriber under the operation of the cross-license agreement. (Art. III, pp. 3–4.)

Not to enter into any agreement in respect to the subscriber's privileges under any airplane patent in such a way as to restrict the operation of the cross-license agreement in respect thereto. (Art. IV, p. 4.)

Digitized by Google

Not to grant licenses under airplane patents to others than subscribers upon lower terms of royalty than those provided for in the agreement in the case of subscribers. (Art. IV, p. 4.)

To submit claims for compensation in respect to airplane patents or patent rights hereafter acquired to a board of arbitrators consisting of one member appointed by the board of directors of the Association (Inc.), another by the subscriber making the claim, and a third by the other two, who shall determine the total amount of compensation, if any, to be paid for the same, and the rate of royalty to be paid toward such compensation by any subscriber desiring to take a license under such patent. (Art. V, pp. 4–5.)

To waive all claims as against each other for infringements prior to July 1, 1917 (Art. XIV, p. 13); to make various reports and to keep various accounts, etc.

To pay to the Association (Inc.) specified amounts upon every airplane manufactured and sold by the subscriber until the expiration of specified patents controlled by the Wright-Martin and Curtiss corporations, or until each of those corporations shall have received the aggregate sum of $2,000,000, and to make other payments of minor importance. (Art. VIII, pp. 8–9.)

The Association (Inc.) agrees:

To accept the appointment as agent of its subscribers, for granting and enforcing the license provided for in the agreement, and for enforcing the other obligations of the subscribers under the agreement. (Art. II, p. 3.)

To make specified payments to the Wright-Martin and Curtiss corporation until the expiration of designated patents or until each of those corporations shall have received the aggregate sum of $2.000,000, and to pay to the other subscribers the royalties, if any, to which they are entitled under the cross-license agreement. (Art. IX, pp. 9–10.)

The cross-license agreement, as appears from its principal provisions summarized above, makes available to each subscriber of the Association (Inc.) the patents of all the other subscribers, and thus in this important respect instead of restraining trade facilitates competition among the subscribers of that association.

To thus make the patents of each available to all it was, of course, necessary to provide special compensation for those controlling the more important patents in the industry. This, as appears from the data submitted by the Advisory Committee, was the reason for the special payments to the Wright-Martin and Curtiss corporations.

The provision requiring these payments to be made to these corporations upon *every* airplane manufactured and sold by the subscribers at first sight seemed objectionable as possibly designed to extend the patent rights of these corporations to objects not covered by their patents.

However, the circumstances which led to the negotiation of the cross-license agreement refute this. The numerous patents controlled by the Wright-Martin and Curtiss corporations made it difficult for a manufacturer to construct an up-to-date airplane without infringing one or more of the alleged patents of each of these corporations.

For this reason the Advisory Committee deemed it advisable to provide for a fixed payment to be made to these corporations in respect to every airplane manufactured and thus avoid the controversies which would almost inevitably arise if the payment were made dependent upon the delicate question of which and how many of the patents of the Wright-Martin and Curtiss corporations had been used in the manufacture of a particular airplane.

The provision requiring subscribers to submit claims for compensation in respect to patents subsequently acquired by them to a board of arbitrators and to license each other under such patents at the rates of royalty fixed by that board might possibly be used to secure valuable inventions at unreasonable compensation. But it serves the purpose of keeping the patents of each of the subscribers open to all, and that doubtless was the purpose for which it was adopted. Its possible abuse, therefore, scarcely justifies its condemnation in the absence of such abuse.

Not to go into further detail, the provisions of the cross-license agreement seem to me to be reasonably adapted to secure cooperation among the parties to the agreement in the interchange of their patent privileges without imposing by their necessary effect any undue restriction of competition in violation of the Federal antitrust laws, but rather rendering competition freer by giving every responsible manufacturer of aircraft access to all the inventions in that field.

Digitized by Google

The bylaws of the Association (Inc.) authorize any responsible manufacturer or prospective manufacturer of airplanes, or any manufacturer to whom the United States has given a contract for the construction of ten or more airplanes, or any owner of the United States patents relating to the same, to become a party to the cross-license agreement upon subscribing for a share of the stock of that association and signing the voting trust agreement provided for in the bylaws.

The certificate of incorporation of the Association (Inc.) limits the stock of that association to 100 shares, of no nominal or par value, and authorizes it to issue and sell the same from time to time at their fair market value. The subscription value of this stock has since been fixed by the Association (Inc.) at $1,000 per share. The Association (Inc.) under its certificate of incorporation enjoys broad powers not material to the validity of the arrangement here under consideration.

The limitation of the number of shares of capital stock to 100, taken in connection with other provisions of the by-laws and cross-license agreement, has the effect of limiting the number of aircraft manufacturers who may become parties to the cross-license agreement to 100. In the expansion of the industry this limitation may prove objectionable, but the Advisory Committee informs me that that number is far beyond the probable number of such manufacturers in the near future.

The voting trust agreement in effect gives the management of the Association (Inc.) for a period of five years to three voting trustees, to wit, a representative of the Wright-Martin and Curtiss corporations, a representative of the smaller manufacturers, and a member of the Advisory Committee.

The most questionable provision in the entire arrangement is that requiring the aircraft manufacturers who become stockholders in the Association (Inc.) and parties to the cross-license agreement to sign the voting trust agreement. This provision, however, in view of the circumstances noted below, does not in my opinion constitute a restraint of trade in violation of the Federal antitrust laws.

The primary functions of the Association (Inc.) so far as material to the arrangement here under consideration are to act as an agent for the parties to the cross-license agreement in executing prescribed licenses, collecting and distributing royalties, and appointing through its board of directors one of the arbitrators to pass upon the value of patents acquired subsequent to the execution of the cross-license agreement.

Under the arrangement the interests of the Wright-Martin and Curtiss corporations, as owners of the principal patents and entitled to the bulk of the royalties provided for in the agreement, are somewhat antagonistic to the interests of the smaller manufacturers who have to pay these royalties. If all the manufacturers had been given equal voice in the Association (Inc.) the smaller manufacturers together would have been enabled to control the Association (Inc.), to wit, the agent of the parties in whose responsibility and vigilance the Wright-Martin and Curtiss corporations are so vitally interested. This conflict of interest accounts for the adoption of the voting trust agreement under which the Wright-Martin and Curtiss corporations named one trustee, the smaller manufacturers another trustee, and a party not favorable to either interest, namely, a member of the Advisory Committee, was selected for the third trustee.

Not to go into further detail, it suffices to say that upon the data submitted to me I am of the opinion that the Association (Inc.) as now constituted, and the cross-license agreement under which it is now operated, are not in contravention of the antitrust laws of the United States.

Respectfully,

T. W. GREGORY.

To the SECRETARY OF WAR.

COMPTROLLER GENERAL OF THE UNITED STATES,
Washington, February 14, 1935.

Hon. WILLIAM I. SIROVICH,
Chairman, Committee on Patents, House of Representatives.

MY DEAR MR. CHAIRMAN: This office was informally requested February 13, 1935, by the secretary, Committee on Patents, House of Representatives, for copies of decisions of this office on Army and Navy contracts concerning

Digitized by Google

quantity purchases of airplanes involving patents. In view of the request that the papers be furnished as early as possible, there are being furnished you herewith at this time the decisions of this office involving patents in the procurement of Army and Navy aircraft, and should decisions of any further scope be desired I shall be glad to be informed.

There is attached a copy of letter of March 2, 1925 (A–7155) of this office making a report to the chairman, select committee on inquiry into operations of the United States Air Service, House of Representatives, and this copy is furnished to your committee, not only for the information therein contained, but for the purpose of suggestion that possibly such records of the select committee of inquiry into operations of the United States Air Service as involved patents in connection with aircraft may be obtained for use of your committee.

Also enclosed are copies of decisions dated May 12, 1927, and April 28, 1928 (A–11220), negativing claim of the Manufacturers' Aircraft Association, Inc., under a contract dated June 24, 1917, with the United States for certain royalties, and it will be noted from the concluding paragraph of said decision that during the war period the Manufacturers' Aircraft Association, Inc., received royalty payments of $2,094,600. The decisions of May 12, 1927, and April 28, 1928, concluded, for reasons therein stated, that the association was not entitled to an additional payment of $141,800. Thereupon the Manufacturers' Aircraft Association, Inc., filed suit in the Court of Claims, no. J–569, and in an opinion of May 8, 1933, copy enclosed, the court entered judgment in favor of the association for $363,500 additional. The court denied, October 9, 1933, a motion submitted by the Government for a new trial, and the Supreme Court of the United States denied a petition for certiorari to review the judgment in *United States* v. *Manufacturers' Aircraft Association, Inc.*, 291 U. S. 667.

There has not been tabulated the aggregate amount of public money which actually has been paid under this contract of June 24, 1917, with the Manufacturers' Aircraft Association, Inc., nor has there been tabulated the exact amount of public money which has been paid under Navy contract NOd–155, dated December 31, 1928, with said Manufacturers' Aircraft Association, Inc., for use of patents. There are enclosed herewith copies of decisions dated June 10, 1932, and August 18, 1933, which sustain deductions of $800 made at the rate of $200 per airplane by reason of the alleged use of patents covered by said agreement of December 31, 1928, and as stipulated in the contract of August 7, 1930, with the Ford Motor Co. under which the four airplanes were delivered.

During the limited time available in which to make an examination of the records of this office, there have not been discovered other decisions relating to claims for royalties under other contracts, though the records do disclose that suits have been instituted in the Court of Claims to recover royalty on airplane patent claims which were not presented to this office for settlement in the case of *Esnault-Pelterie* v. *United States* and in *James V. Martin* v. *United States*, Ct. Cls. No. 42553. Possibly information as to whether additional cases are pending in the Court of Claims for royalties on airplane patents may be obtained from the Department of Justice.

If the committee should require any further information in this matter and will so inform me, an effort will be made to furnish same.

Sincerely yours,

J. R. McCarl,
Comptroller General of the United States.

Enclosures.

Court of Claims of the United States. No. J–569. Decided May 8, 1933. *Manufacturers Aircraft Association, Inc.*, v. *The United States.*

Mr. William Wallace for the plaintiff.

Chadbourne, Stanchfield & Levy were on the brief.

Mr. Wilbur H. Friedman, with whom was *Mr. Assistant Attorney General Charles B. Rugg*, for the defendant.

In this suit plaintiff seeks to recover $363,600 under implied contracts for royalties on 2,216 airplanes using patented devices controlled by plaintiff, which royalties, it is alleged, the defendant agreed to pay on airplanes which were either made or purchased by the defendant and used by it within the United

Digitized by Google

States between July 24, 1917, and December 31, 1928. The agreement was to continue until October 1933; however, the royalties for the period subsequent to December 31, 1928, are not involved in this proceeding inasmuch as a formal contract was entered into effective on that date for a period of seven and one half years from the close of the war. The War and the Navy Departments concluded upon advice from the Attorney General that they could not pay the royalties for airplanes acquired in prior years upon a provision therefor in this formal contract, but that such royalties as might be due would have to be paid under an implied contract for the period prior to December 31, 1928. Invoices rendered by plaintiff for unpaid royalties were approved and the matter of stating an account was referred to the Comptroller General, who first informed plaintiff that a certificate for the amount due would be issued, but later, on May 12, 1927, the certificate was refused and the entire claim then before him was disallowed.

During the period from July 24, 1917, to December 31, 1918, the War and Navy Departments made regular and current payments to plaintiff directly or through manufacturers who were stockholders of the plaintiff company and subscribers to the cross-license agreement for royalties on certain airplanes manufactured by such departments or purchased by them from such manufacturers, but it was later found, during the preparation of the aforesaid formal contract, that these departments had manufactured or had purchased from manufacturers who were not stockholders of the plaintiff, and who were not subscribers to the cross-license agreement hereinafter mentioned, certain airplanes using the patents controlled by plaintiff, which airplanes had not been reported to plaintiff by the departments and as to which no royalties had been paid. The royalties on these airplanes constitute the subject matter of this suit.

The defendant contends that, assuming without conceding that there were implied contracts between the War and Navy Departments and the plaintiff, such implied contracts arose only in favor of the patentees and that, since plaintiff was and is not the owner of the patents, it has no cause of action; that recovery of royalties on airplanes made and purchased by the Government after July 25, 1922, is barred by the statute of limitation, and that as to all other airplanes the plaintiff has failed to prove the reasonable value of the use of the patents.

SPECIAL FINDINGS OF FACT

1. During and prior to January 1917, the development of the aircraft industry in the United States was seriously retarded by the existence of a chaotic situation concerning the validity and ownership of important aeronautical patents. This situation was one of great concern to the Government of the United States. A National Advisory Committee for Aeronautics had been created pursuant to an act of Congress to consider and advise the President and the departments on aeronautical problems and to consider and devise some plan to remedy the existing difficulties. January 13, 1917, the Secretary of the Navy reported to the chairman of the executive committee of the National Advisory Committee that various companies were threatening all other airplane and seaplane manufacturing companies with suits for infringements of patents, resulting in a general demoralization of the entire trade; that it was difficult for the Government to obtain fulfillment of orders because some companies would not expend any money on their plants for fear that suits brought against them would force them out of business; that to protect themselves in case they were forced to pay large license fees the companies had greatly increased the sales prices of their products to the Government and that as the Army and Navy were the principal purchasers of aircraft in this country, they were bearing the burden of that levy; and that it was thought that the National Advisory Committee for Aeronautics might be able in some way to render great assistance to the Navy by undertaking a study of the question and suggesting some line of action to be taken. A similar letter concerning the same subject was written to this committee by the Secretary of War January 31, 1917. There were a number of outstanding patents on devices for airplanes desired by the Government. Prior to the time the arrangement hereinafter mentioned was agreed upon and placed in operation, one airplane manufacturer, who had made a considerable number of airplanes, was paying a royalty of $1,000 an airplane for the use of only one of the patents.

Digitized by Google

2. A joint meeting of the Committee with the representatives of the War and the Navy Departments and of the aeronautical industry was arranged and held March 22, 1917, at which time the chairman of the committee, Doctor Walcott, after stating the various means by which the basic airplane patents could be acquired by the Government for the development of the industry, said that "The Committee is therefore working diligently upon the proposition of arranging an adjustment out of court whereby just recognition will be made to the owners of the more important or basic patents in the form of reasonable royalties to be paid by the purchasers of planes whether for military or civil use." The entire statement of the Committee is in evidence as exhibit 3 (a) and is made a part of this finding by reference.

The Committee forthwith proceeded to consider the problem confronting the Government and on March 23, 1917, the subcommittee on patents of the National Advisory Committee rendered a report, recommending the formation of the Aircraft Manufacturers Association among all aircraft manufacturers and suggesting the details of a cross-license agreement among its members This recommendation is in evidence as exhibit 3 (b) and is made a part of this finding by reference.

June 14, 1917, the executive committee of the National Advisory Committee for Aeronautics authorized the patent committee to take such steps as appeared necessary to effect a solution of the patent question and recommended that royalties to be paid by the Aircraft Manufacturers Association, to be organized, to the Wright and Curtiss Companies, who owned the principal airplane patents, be limited to two million dollars each. The Wright Company had become consolidated with the Martin Company and the Curtiss Company had become consolidated with the Burgess Company, with the result that the principal airplane patents, theretofore owned by the four companies, were then owned by the Wright and the Curtiss Companies. The minutes of this meeting are in evidence as exhibit 4 and are made a part of this finding by reference.

June 18, 1917, the subcommittee on patents and the Wright-Martin and Curtiss-Burgess interests met and approved a proposed plan and authorized counsel for the Wright-Martin and Curtiss-Burgess interests to prepare a form of agreement. The minutes of this meeting and a report of the subcommittee are in evidence as exhibits 5 (a) and (b) and are made a part of this finding by reference.

July 10, 1917, the subcommittee on patents met with the airplane manufacturers and representatives of the Wright and Curtiss Companies, at which meeting the terms of the proposed agreement were generally discussed and rules for the qualifications of membership in the association adopted. Only members of the association became subscribers to the cross-license agreement hereinafter mentioned. A resolution of the National Advisory Committee was adopted, fixing the qualifications of the stockholders or "subscribers" in the plaintiff corporation, as follows: "A stockholder of this corporation shall be a responsible manufacturer of airplanes, airplane engines, or parts and accessories used in airplanes; a responsible manufacturer who intends to become bona fide producer of airplanes or airplane engines, parts, or accessories; or a manufacturer to whom the Government has given a contract for the construction of ten or more complete airplanes or airplane engines; but no stockholder herein shall acquire or own more than one share of the stock of said corporation." July 12, 1917, the subcommittee on patents again met, at which time there was submitted the draft of the proposed cross-license agreement, which draft was unanimously approved and recommended to the executive committee of the National Advisory Committee for Aeronautics for its approval. On the same date the executive committee of the National Advisory Committee approved the report of the patent committee and the proposed cross-license agreement.

As contemplated by the plan approved by the executive committee of the National Advisory Committee for Aeronautics, a corporation was incorporated under the laws of the State of New York, July 16, 1917, under the corporate name of the Manufacturers Aircraft Association, Inc., hereinafter sometimes called the "association." This corporation is the plaintiff in the present action.

July 24, 1917, the first corporate meeting of the plaintiff was held and, in accordance with the approved plan, a cross-license agreement, hereinafter called the "agreement", was entered into by plaintiff and eleven manufacturers of airplanes, including the Wright-Martin Aircraft Corporation and the Curtiss-Burgess Airplane & Motor Corp., Inc., who had contracts with the Govern-

Digitized by Google

ment. This cross-license agreement and a list of the subscribing members, stockholders in plaintiff company, are in evidence as exhibits 10 (a) and (b), respectively, and are made a part of this finding by reference.

3. The agreement and the bylaws of the plaintiff provided for the issuance of licenses to use patented devices for airplanes owned or controlled by it and called for the payment of a royalty to the association (the plaintiff) at the rate of $200 an airplane until October 1933. Plaintiff was authorized to retain up to 12½ per centum of all royalties received for the purpose of meeting its expenses of administering the agreement and for other purposes. The agreement required the plaintiff to pay the remaining 87½ per centum of the royalties received from all sources in declared proportions of 67½ per centum to the Wright-Martin Aircraft Corporation and 20 per centum to the Curtiss-Burgess Airplane & Motor Corp., Inc. The agreement also contained a provision to the effect that, within the period prior to November 1933, whenever and if said 87½ per centum payments to Wright and Curtiss had equaled a maximum of $2,000,000 for each, the rate of royalty to be paid to plaintiff was automatically to change to a sum not exceeding $25 an airplane.

Article 7 of the original cross-license agreement provided in part that "On the 10th days of January, April, July, and October in each year, each 'subscriber' shall report the number of airplanes (with or without engine), sold and delivered by it, together with the names of the purchasers, and the dates of delivery, or put into use for other than experimental or development purposes, or shipped out of the United States, during the three preceding calendar months. * * * The first of each of the reports specified shall be made by each 'subscriber' on the tenth day of January, April, July, or October first occurring after it has become a 'subscriber' hereto, and shall cover the period from July 1, 1917, to the first day of the month in which the report is due."

Article 8 provided that each "subscriber" should pay to the plaintiff a royalty of $200 at the time of making the aforesaid reports on each airplane required to be reported under art. 7.

4. This agreement was enclosed by the National Advisory Committee for Aeronautics in its formal report made to the Secretary of War and the Secretary of the Navy. With respect thereto the report stated that:

"Under date of July 27, the chairman addressed letters to the Secretary of War and the Secretary of the Navy reporting the solution of the patent question and inclosing a copy of the cross-license agreement which had been accepted by the aircraft manufacturers and signed by them as members of a new 'Manufacturers Aircraft Association.'

"On the same date the chairman addressed a letter to the president of the Manufacturers Aircraft Association recommending the acceptance of the cross-license agreement by the association and its members and that aircraft manufacturers generally be invited to subscribe to same in the interests of harmony and efficiency and to the end that the industry may be enabled to expand freely in order to meet the demand of the Government for the quantity production of aircraft."

August 2, 1917, the Secretary of the Navy wrote the chairman of the National Advisory Committee for Aeronautics as follows:

"I beg to acknowledge receipt of your letter of July 27, 1917, informing me of the settlement of the aircraft patent situation reached by the manufacturers of aircraft and enclosing a copy of 'cross-license agreement and license' as drawn up by that association.

"I wish to thank you and the members of your committee for the assistance which has been rendered to the Navy by the guidance of the various manufacturers toward amicable settlement of the perplexing patent situation, thereby rendering it unnecessary to expend the appropriation of $1,000,000, included in the Naval Appropriation Act of the fiscal year 1918, for the purchase or condemnation of basic aeronautic patents."

From July 1917 the plaintiff functioned in issuing licenses for airplane manufacture under said airplane patents and otherwise functioned as contemplated in the agreement for the benefit of the Government and of the airplane industry.

5. September 17, 1917, the Secretary of War submitted the "cross-license agreement" to the Attorney General of the United States for an opinion as to the legal status of the association and an opinion as to whether the agreement was in accord with the antitrust laws of the United States. In this letter of transmittal the Secretary of War expressed the desire of the War Department to proceed under the agreement and secure the benefits thereof. This letter

Digitized by Google

is in evidence as exhibit 11 (b) and is made a part of this finding by reference. In response to this letter, the Attorney General, on October 6, 1917, rendered an opinion, 31 Op. Atty. Gen. 166, on the question submitted, which opinion concludes as follows: "Not to go into further details it suffices to say that upon the data submitted to me I am of the opinion that the association incorporated as now constituted and the cross-license agreement under which it is now operated is not in contravention of the antitrust laws of the United States."

6. In a letter of November 6, 1917, to the Secretary of War the National Advisory Committee recommended that the payment of royalties provided for in the agreement be recognized as an element of cost of all aircraft purchased on a cost-plus basis by the War and the Navy Departments. This recommendation is in evidence as exhibit 12 (a) and is made a part of this finding by reference.

7. December 11, 1917, a resolution was passed at a meeting of the Aircraft Board of the United States, which recommended the payment by the Government of the royalty of $200 an airplane purchased, as follows:

"It is the opinion of this Board that settlement of patent controversies involved in the cross-licensing agreement is of great value to the Government in the present crisis, and this Board is apprehensive that if the amounts to be paid under the cross-licensing agreement are not allowed as elements of cost in the manufacture of planes it will result in the repudiation of the settlements therein effected, plunge the contractor into litigation, and render the Government liable for large claims of indeterminate amounts."

The Aircraft Board also recommended the appointment of a special patent committee to investigate the validity of the patents involved. Thereafter the Bureau of Aircraft Production, on behalf of the Government, submitted to a committee of patent experts the question of the value of the agreement to the Government and the reasonableness of the royalties provided therein. The report of this committee, dated January 14, 1918, speaking of the royalty of $200 an airplane, said:

"Such royalty in our opinion is entirely reasonable in the premises and in all probability less than the basis of recovery a court would allow in a suit against a private individual or concern. In fact * * * the amount in question would be a perfectly reasonable royalty under the Wright patent alone and possibly under the Bell et al. (Curtiss) patent alone to say nothing of the other patents covered by the cross-license agreement. * * *."

8. In February 1918 the Secretary of the Navy, in conversation with a representative of the plaintiff, suggested that, in view of the circumstance that the war was being carried on, the royalties to be paid by the Government to plaintiff be reduced during the period of the war. On March 1, 1918, plaintiff, by letter to the Secretary of the Navy, declared its understanding of the above request for reduction as being that the present agreement be modified for the period of the war, the reduction of the established royalty from $200 to $100 an airplane. This letter is in evidence as exhibit 13 and is made a part of this finding by reference.

March 8, 1918, the Secretary of the Navy replied in writing to plaintiff as follows:

"Referring to our recent conversation and your letter of March 1, 1918, in reference to the Manufacturers Aircraft Association, and the royalties under the cross-license agreement entered into between manufacturers of aircraft and your association, I wish to confirm what I have said to you in conversation. As you are aware, on March 2, 1917, Congress appropriated $1,000,000.

"'* * * to enable the Secretary of War and the Secretary of the Navy to secure by purchase, condemnation, donation, or otherwise such basic patent or patents as they may consider necessary to the manufacture and development of aircraft in the United States for governmental and civil purposes.'

"I should much prefer to handle the patent situation by purchase under the above law within the limit of the appropriation made, but have not found the owners of the Wright patents willing to agree to a figure which would enable this to be done. Apparently the only action practicable under the act of March 2, 1917, would be to proceed to condemn the necessary patents. This I am loath to do under present conditions if some other reasonable solution can be had. It was contemplated that under the cross-license agreement between the manufacturers of aircraft and your association, royalties of $200 per plane would be paid over a term of years, with a possible maximum limit of $2,000,000 to each of two companies. It now appears, however, that owing

Digitized by Google

to the great and growing requirements of the Government for airplanes, under the royalty of $200 per plane the limit of $4,000,000 woul be paid by the Government alone during the next few months. I consider this excessive and inadmissible.

"The maximum payments which would in my opinion be at all acceptable under the cross-license agreement would be as follows:

"(*a*) On all planes shipped to the United States Government after December 31, 1917, the royalty be reduced to $100 per plane.

"(*b*) When the Wright-Martin and Curtiss Companies have together received royalties for machines bought by the Government not to exceed the aggregate amount of $2,000,000, no further royalties to be paid for the use of the patents controlled by the Manufacturers Aircraft Association by the United States Government during the period of the present war.

"If the cross-license agreement is modified as above, I will agree with the Secretary of War that all makers of airplanes for the War and Navy Departments on the cost-plus basis will be reimbursed for royalties paid to your association as above. * * *"

9. Between March 8 and March 28, 1918, while he was acting during these negotiations for both the Navy and the War Departments, the Secretary of the Navy expressed to the plaintiff his desire for the Government to obtain the right to make airplanes in its factories on the payment, for such of them as might be made during the war, of the reduced royalty of $100 an airplane. In the same period a supplemental cross-license agreement, hereinafter sometimes called the "supplemental", was prepared. This agreement is in evidence as exhibit 15 and is made a part of this finding by reference. This supplemental provided that, except as therein modified, the original cross-license agreement of July 24, 1917, should remain in full force and effect, and that "the price herein agreed upon for royalties upon airplanes furnished during the present emergency to the United States Government is so fixed for the sole purpose of enabling the Government to acquire airplanes manufactured under said patents upon a preferential basis during the period of the present war."

The supplemental agreement, which modified the terms of the original cross-license agreement between the stockholding manufacturers and the plaintiff, granting a preferential royalty to the Government and limiting the maximum amount of royalty to be paid to the owners of the patents *during the period of the war* to $2,000,000, was submitted to and accepted by the Secretary of the Navy for both the Navy and the War Departments by letter from the Secretary of the Navy to plaintiff on March 28, 1918, in which the Secretary of the Navy stated:

"This agreement, as modified, meets the conditions laid down by me and should be accepted promptly by all manufacturers of aircraft under Government contracts, and by the owners of the patents.

"In consideration of the reduced royalties therein provided for on the patents now owned or controlled by the association or its subscribers for use on all airplanes manufactured and delivered to the United States Government during the period of the war, I will agree.

"1. That the contracting and disbursing officers of the Navy Department shall allow and will be directed to allow as an element of cost in all cost-plus contracts, the royalties paid under the cross-license agreement and the supplementary agreement above referred to, to the amount and in the manner provided for in said agreements.

"2. That the Navy Department will pay to the Manufacturers Aircraft Association, Inc., a royalty of $100 per plane on all airplanes manufactured by the Navy Department. It being understood that the payments so made shall be included in the $2,000,000 total allowed to the owners of the patents during the period of the war, and with the further understanding that a detailed agreement will be made setting forth that such payments shall be complete and full compensation for the use of all the patents now controlled by the Manufacturers Aircraft Association, Inc., for the airplanes manufactured by the Navy Department during the period of the war. Said payment of $100 per plane to cease when the sum of $2,000,000 has been realized by the owners of the patents.

"I have conferred with the Acting Secretary of War about this matter and he authorized me to say that he concurs in the statements made above, with the understanding, of course, that the same agreement made to the Navy Department will operate with respect to the War Department. And if the

Digitized by Google

War Department shall undertake the manufacture of its own planes it will agree to pay the same royalty as the provision requires the Navy Department to pay."

10. March 30, 1918, the supplemental agreement was submitted by letter to the Secretary of War. A further conference between the Secretary of War, the Secretary of the Navy, and the plaintiff was held, and on April 5, 1918, the Secretary of War in general confirmed and accepted the terms of the supplemental agreement and suggested certain slight modifications. The letter of acceptance of the Secretary of War concluded as follows:

"However, after conferring with the Secretary of the Navy, and in order that there may be no misunderstanding of the matter, it is understood that it is not the intent of this letter, nor of the letter of the Secretary of the Navy dated March 28, 1918, that either the War Department or the Navy Department agrees to pay or allow, as an element of cost, royalties for 'after acquired patents' under the provisions of section 5 of the original cross-license agreement. It is understood that the question of the amount and propriety of any such payments is left for future disposition.

"I understand that all necessary steps to insure the legality of the right of the Manufacturers Aircraft Association, Incorporated, to license under the patents in question are being taken and will be completed.

"I trust that the modifications proposed by the supplemental agreement will be accepted promptly by manufacturers of aircraft under Government contract and by the owners of the patents."

These letters are in evidence as exhibits 17 (*a*) and (*b*), respectively, and are made a part of this finding by reference.

11. The phrase "amount and propriety of any such payments" which appears in the last sentence of the first paragraph of the letter of April 5, 1918, of the Secretary of War, hereinabove quoted, related to payments of royalties on "after acquired patents." This and the temporary modification in the amount of royalty per airplane were the only changes from the terms of the agreement as incorporated in the Government's proposal for a special license. By reason of the requests of the Secretary of War and the Secretary of the Navy, as hereinbefore set forth, the modifications were forthwith accepted by plaintiff and by the stockholders, subscribers to the agreement, by letters from plaintiff of April 27, 1918, to the Secretary of War and the Secretary of the Navy. These letters were the same. The letter to the Secretary of War in evidence as exhibit 18 (*a*) is made a part of this finding by reference. After July 17, 1918, the original and supplemental agreements were signed by certain other makers of airplanes, who thereby became "Subscribers" thereto; all of whom approved the special-license agreement with the Government.

12. April 24, 1918, the War Department, by Order A. C. #30, instructed its contracting officers to allow and to make direct payments of royalties on contracts awarded on a cost-plus basis, where due on Government manufacture, to plaintiff until the sum of $2,000,000 had been distributed by plaintiff to the owners of the various patents, in accordance with the distributive ratios provided in the agreements. This order is in evidence as exhibit 19 and is made a part of this finding by reference. The allowance and payment of royalties to plaintiff through contractors with the Government applied only to contractors who were stockholders of plaintiff and "Subscribers" to the original and supplemental cross-license agreements.

13. May 10, 1918, the Secretary of War wrote to plaintiff acknowledging receipt of its letter of April 27, 1918, exhibit 18 (*a*) above, and stating that the necessary instructions had been given for the allowance and payment of royalties on cost-plus contracts under the terms of the supplemental agreement. This letter was acknowledged by plaintiff May 14, 1918.

14. In August 1918, the Bureau of Aircraft Production, on behalf of the War Department and the Navy Department, with a view to consolidating into one document the various agreements which had theretofore been entered into and the understandings which had been had, as hereinbefore referred to, caused such an agreement to be prepared for execution by the respective parties in interest. This agreement, however, was not executed because of the armistice. Thereafter the Navy Department prepared and submitted to plaintiff and to the Wright and Curtiss companies a so-called Operating contract, dated March 11, 1919, in accordance with paragraph 2 of the letter of the Secretary of the Navy dated March 28, 1918, as set out above. This contract, which was executed by the Wright-Martin Aircraft Corporation and the Curtiss Aeroplane & Motor Corporation as parties of the first part, and who are referred to in the contract as

Digitized by Google

the associates, the Manufacturers Aircraft Association, Inc., as agent and attorney for the associates as party of the second part, and the United States, represented by the Secretary of the Navy, as party of the third part, hereinafter referred to in the contract as the Department, provides in part as follows:

"*Whereas* the associates own or control certain United States patents, covering important inventions relating to aircraft, and

"*Whereas* the Department desires to manufacture, or has manufactured, at its navy yards and naval factories, airplanes in the construction of which certain of the aforesaid inventions may be or have been used.

"*Now, therefore*, it is hereby agreed by and between the parties hereto as follows:

"1. The Department shall have the right to use in the construction of airplanes at any of its navy yards or naval factories, during the period of the war, all or any of the inventions covered by any and all 'airplane' patents (not including engines and engine accessories) now owned by the associates jointly or severally, or under which they jointly or severally now have the right to grant a license, each of the associates hereby agreeing jointly with the other associate where their interests are joint and severally where their interests are several.

"2. The Department will pay to the Manufacturers Aircraft Association and the Manufacturers Aircraft Association will receive for and in behalf of the associates a royalty in the sum of one hundred dollars ($100) for and on account of each and every airplane manufactured or caused to be manufactured by the Department (during the period of the war) at any of its navy yards or naval factories, and the associates agree that the aforesaid royalties when so paid to and received by the Manufacturers Aircraft Association shall constitute and be accepted by them as compensation in full for and on account of the use in the construction of the aforesaid airplane of every 'airplane' invention (not including inventions on engines and engine accessories) owned or cotrolled by them or either of them, but nothing herein contained shall be construed as a waiver of any rights as to royalties on airplanes manufactured by or for the Government after the period of war or on airplanes manufactured by aircraft manufacturers for the Government during the war period."

During the war airplanes using the devices of said patents were being manufactured for the Government by manufacturers who were not, as well as those who were, subscribers to the agreement. The royalties on all airplanes manufactured for the Government by "Subscribers" have been paid to plaintiff. The royalties here involved are those on airplanes manufactured by the Government or acquired by it from contractors who were not stockholders of plaintiff or subscribers to the original and supplemental cross-license agreements.

15. Operations under the original agreement and its later modifications began about the end of July 1917 and have been continued by its members uninterruptedly ever since. As a part of the operations the members of the association, i. e., "Subscribers" to the cross-license agreements, made reports to plaintiff from time to time of their production of airplanes and the War and the Navy Departments similarly reported manufacture in Government factories after the Government accepted the supplemental agreement and secured the special-license agreement, except as hereinafter stated in finding 17. Under the operating practice and the arrangement between the Government and the plaintiff, the Government required invoices from the plaintiff before payment and such invoices were to be made by plaintiff after the receipt of reports of airplanes manufactured or otherwise acquired. Such invoices were never made by plaintiff until after such reports had been received by it. The royalties to be paid by the Government to the plaintiff were not to become due and payable until after the receipt by plaintiff of such reports and the receipt by the Government of plaintiff's invoices. Plaintiff was required to certify the amount of distributions made to the Wright and the Curtiss companies and the Government from time to time audited plaintiff's books.

16. To carry out the terms of the original agreement, exhibit 10 (a), the supplemental agreement, exhibit 15, and the Government's special-license agreements, exhibits 16, 17 (b), 19, 20 (a), and 22, reports were called for from time to time to be made on the 10th of January, April, July, and October of each year on all airplanes sold and delivered during the three preceding calendar months, and payment was demanded upon invoice submitted for the Government airplanes so reported.

17. During each year after, as well as before, 1921, all stockholders of plaintiff, subscribers to the cross-license agreement, regularly made their quarterly reports and payments to plaintiff. Subsequent to the general statement and

Digitized by Google

report of September 19, 1923, hereinafter referred to, the plaintiff from time to time called upon the War Department for further reports of the airplanes made for the Government by manufacturers other than subscribers and it furnished the association with such reports in response to such requests. From time to time after July 2, 1921, the plaintiff called on the Navy Department for further reports in a similar manner. Failing to receive such reports prior to 1927, plaintiff made tentative invoices to the Navy Department from information contained in the annual reports of the Chief of the Naval Bureau of Aeronautics.

18. Under the terms of the original agreement and the supplemental, there were reported by the subscribers to the plaintiff as made by them during the period of the war 15,353 airplanes, of which 15,032 were for the Army and the Navy and 321 for other purposes. By similar reports made to the plaintiff and as a basis for payment provided in its special licenses, as hereinbefore stated, the Government reported to the association that there had been made by the Government in governmental factories during the period of the war 451 airplanes. In the aggregate, such reported airplanes constituted approximately 90 percent of all the airplanes made by or for the Government for use of the United States during that period.

19. The quarterly reports made by the Government pursuant to its agreement with the plaintiff included all airplanes made by the Government in Government factories, save as hereinafter specified and particularly in finding 28 hereof. All airplanes made for the Government by members of the plaintiff association were also duly reported by its members, but such reports did not include airplanes using the devices of the patents owned or controlled by the plaintiff made for the Government by persons other than members of the association or contractors licensed by such members. It was not known to either the plaintiff or to the Government that there were any such airplanes unreported, but the fact that certain airplanes manufactured by the Government and acquired by it from contractors other than subscriber-contractors had not been reported to plaintiff came to light in the course of negotiations for a new post-war contract, as hereinafter referred to. As to the royalties herein sued for on airplanes received or used by the Government before July 25, 1922, the Government did not report any thereof to the plaintiff before September 19, 1923, except one airplane, as stated in finding 20 hereof, and prior to such report the plaintiff did not know, and had no means of knowing, the number or kind or date of receipt, or of use by the Government, of any of such previously unreported airplanes.

20. Royalties were paid to plaintiff by its members making airplanes for the Government for all airplanes so made by them down to March 31, 1928, and royalties were paid by the Government to plaintiff for such airplanes as were reported to have been made by the Government except in the case of six airplanes where the manufacturer became bankrupt before payment and in the case of one Government-made airplane reported October 8, 1920, and invoiced by plaintiff April 19, 1921, being the first item in exhibit H (a) of the petition. No payments of royalties were ever made by either the War or the Navy Departments on any of the airplanes involved in this suit.

21. Prior to May 1924 the Government had paid royalties, either directly to plaintiff or through subscribing contractors, on 16,108 airplanes. Since May 20, 1924, the Government, in the same manner, has paid to the plaintiff royalties on 1,803 airplanes, aggregating, in amount, more than $360,000. As such payments were made from time to time and during each year from 1918 to 1928, inclusive, they were credited by plaintiff on its general royalties account with the Government.

22. The Government audit of plaintiff's books shows the total of all royalties paid to plaintiff from any source before July 2, 1921, to have been $2,094,600. Of this sum the Curtiss Company paid $969,900; other subscribers paid $1,079,700; the War Department paid $1,200, and the Navy Department paid $43,800. Included in the amounts received by plaintiff as royalty were royalties on 274 airplanes made in the United States and sold to users other than the Government at a royalty rate of $200 each and 23 airplanes of foreign manufacture for which a royalty of $300 each was received. For the 297 airplanes so manufactured $61,700 was received by plaintiff as royalty.

23. Of the $2,094,600, royalties received by plaintiff before July 2, 1921, and all royalties received by it at any time thereafter, 12½ per centum of the amount received was retained by the plaintiff and the balance distributed by

Digitized by Google

it in accordance with the original agreement, the supplemental, and the special license agreement. Of the $2,094,600, $261,825 (12½%), was retained by plaintiff, $418,920 or 20 per centum was paid to the Curtiss Company, and $1,413,855, being 67½ per centum, was paid to the Wright Company. Included in the $2,094,600 is $45,000 paid by the Government to plaintiff as royalties for airplanes made in its own factories before July 2, 1921. Neither the Wright nor the Curtiss companies has received any other sum as royalties for airplanes made or purchased prior thereto. The retention of 12½ per centum and distribution of 20 per centum and 67½ per centum, as above stated, continued until May 1923; but of all procurement or production royalties received by the plaintiff during or since May 1923, 87½ per centum has been paid to Curtiss and 12½ per centum kept by the plaintiff. Every distribution or disposition of royalties received by plaintiff was truly declared on its books and records, which were always subject to examination, and were periodically examined by the War Department auditors during each year of operation. The auditors after each such examination prepared a report showing the entire number of airplanes reported to plaintiff by subscribers and by the Government. Each such report showed the total of royalties earned and received to that date by both the Wright and Curtiss companies to be equal to 87½ per centum of the total royalties received by plaintiff. Such reports were furnished from time to time to the Government and no complaint was ever made by the Government as to the method of disposition or distribution of the royalties or of the amount shown as to the total received by the Wright and Curtiss companies from plaintiff until the comptroller general rendered his opinion on May 12, 1927, disallowing plaintiff's claim for the royalties involved in this suit.

24. November 5, 1919, Rear Admiral Taylor, then Chief of the Bureau of Construction and Repair of the Navy Department, wrote to plaintiff concerning one of its invoices for $9,300 as due from the Navy Department in royalties. Referring to that invoice as reference (*a*), and by reference (*b*) to the letter of the Secretary of the Navy of March 28, 1918, above, he said:

"Attention is invited to paragraph three of the supplemental cross-license agreement and to reference (*b*) which provide that royalty payments shall cease when the limit of two million dollars is reached.

"Before placing the invoice reference (*a*) in line for payment, it is requested that the Manufacturers Aircraft Association state that the payment of the amount of this invoice will not cause the above-mentioned limit of two million dollars to be exceeded."

On November 6, 1919, the following letter was written by the Manufacturers Aircraft Association, Inc., to Rear Admiral Taylor in response to his letter of the preceding day:

"The total amounts disbursed by us under the cross-license agreement to the owners of the patents up to and including June 30th, 1919 (last complete quarter under the cross-license agreement), are as follows:

Wright-Martin Aircraft Corporation	$1,331,910
Curtiss Aeroplane & Motor Corp	394,640
	1,726,550

"Payment of our invoice $9,300, covering royalties on planes manufactured at the Naval Aircraft Factory will not exceed the limit of two million dollars, provided for in the supplemental agreement.

"We trust that with this information you will be able to pass the invoice for payment."

25. January 20, 1921, the Secretary of the Navy wrote plaintiff with reference to royalties for Government-made airplanes as follows:

"In accordance with your request of December 27, 1920, to the Bureau of Construction and Repair, a statement is being furnished to you, showing the number of airplanes (viz 20) manufactured in Government-owned factories by the Navy Department during the fourth quarter of 1920. It is assumed that you will submit an invoice for the royalties due the Manufacturers Aircraft Association at the rate of $100 per plane in accordance with the supplemental agreement to the cross-license agreement dated July 24, 1917.

"As stated in my letter of March 28, 1918, it is understood that payments are to cease when the sum of $2,000,000 has been realized by the owners of the patents, controlled by the Manufacturers Aircraft Association.

Digitized by Google

"It is accordingly requested that when invoice is submitted covering the amount now due the association, it be accompanied by a statement showing the amount disbursed to the owners of the patents involved."

26. In March 1927 the Comptroller General during his consideration of invoices submitted to him on or after May 20, 1924, informed the plaintiff that he had just learned of his failure previously to secure certification and approval of such invoices and was taking immediate steps to insure such approval and certification. The invoices were in fact then certified to, but the Comptroller General did thereafter acquire and obtain verification thereof. April 4, 1927, the Comptroller General informed plaintiff that the audit had been completed and a certificate of indebtedness for the amount due was being drawn and would issue. At a later date the Comptroller General refused the certificate and disallowed the claim as then before him.

27. By a joint resolution Congress declared that the war with Germany should be deemed, for war-contract purposes, to have ended on July 2, 1921. This operated to terminate the supplemental agreement to the original agreement. The Government made no reports to plaintiff between July 1, 1921, and September 19, 1923. On the latter date a detailed report was made as will be hereinafter set forth.

28. In December 1921 the Government, desiring to continue the use of the patented devices in its own factories, suggested that a new agreement be entered into, based on the experience under the special-license agreement and the post-war needs of the Government and the industry; and, with that end in view, negotiations were begun by the parties in 1922. In the early stages of these negotiations it developed that there were airplanes manufactured and purchased by the Government that had not been reported, and which the plaintiff considered should have been reported, and negotiations were broadened to include those items. At that time the plaintiff had no definite knowledge of the number or nature of the unreported airplanes, and had no way of obtaining such information except from the Government, in order to bill the Government for the royalties due in accordance with the original arrangement. In July 1922 when discussing the features of such negotiations with the Army Air Service and the Naval Bureau of Aeronautics, plaintiff brought matter of the unreported airplanes to their attention and asked that the Government promptly report all such airplanes. Plaintiff was informed that the data for such a report was not immediately available; and, thereafter, negotiations for a new agreement proceeded on the understanding that such a supplemental report would be made by the Government in such a way that all items not previously reported by the Government could be known and the date of delivery determined in order that the Government could be billed for the royalties claimed to be due.

29. On July 1, 1921, the temporary arrangement for reducing royalties on airplanes made by subscribers and those made or purchased by the Government expired. During protracted negotiations which followed from and after July 2, 1921, and pending the conclusion of a modified agreement for future use of the patented subject matter in the manufacture of airplanes by the Government, the War and the Navy Departments, by consent of all parties connected with the negotiations, continued to make, buy, use, and even sell within the United States, airplanes containing the patented subject matters controlled by plaintiff. The practice continued until December 1928, when the War and the Navy Departments entered into a formal agreement with the plaintiff, which agreement became effective December 31, 1928. This agreement and a copy of the letter dated December 1928, from the Secretary of War and the Secretary of the Navy, are in evidence as exhibits 23 and 23 (a), respectively, and are made a part of this finding by reference. The letter referred to the new agreement as "conforming to the terms of the proposed amended agreement and to the understanding and practice which has been evolved through the Government's use of patents controlled and licensed by them to you."

30. After July 1921, it became the practice in making contracts for airplanes for the contracting officers of the War Department to make a price distinction as between contractors who were and those who were not subscribers to the plaintiff association. In contracts with the former there was inserted a clause requiring the subscriber-contractor to indemnify the Government against claims on it under patents covered by the agreement. It was not the practice of that Department to insert such clauses in contracts with nonsubscribers. Contracting officers of the War Department were instructed to make a price differential

Digitized by Google

of $200 less an airplane in their (nonsubscribers') contracts to cover the Government's obligation to pay royalties to plaintiff thereon. In two contracts with a single nonsubscriber contractor, in which he first agreed to discharge the obligation (in his negotiated contract) and thereafter failed to do so, the War Department withheld from its final payment to such contractor $200 an airplane on the 70 airplanes involved in that contract. The amount so withheld was $14,000, which amount the Government did not pay to plaintiff but still retains. These are the 70 airplanes in the fifth item from the bottom of page 103 of the amended petition in exhibit H (b).

31. The unreported airplanes by the Government, in which were used the patented subject matter controlled by plaintiff, whether such uses were before or after July 2, 1921, for which royalties have not been paid, were of the nature described by the Attorney General in his opinion of March 24, 1925, and in the letter requesting such opinion sent him by the Secretary of the Navy, dated September 28, 1922, both of which are hereinafter referred to in finding 32. Such uses were enjoyed by the Government under practices similar to those obtaining during the period of the war except that they were not reported to the plaintiff until long after the date of the several uses.

32. By September 1922 an agreement, providing for payment by the Government of any and all royalties on airplanes previously unreported, using devices of said patents, and also providing for royalties to be paid on similar airplanes to be made by or for the Government in the future, had been reached and drafted and approved by the Judge Advocate General of the Navy. It was submitted to the Attorney General by the Secretary of the Navy by letter of September 28, 1922, with a request for an expression of his opinion as to whether such agreement was legal and proper. The Attorney General rendered his opinion March 24, 1925, 34 Op. Atty. Gen. 447. This opinion is made a part of this finding by reference. The Attorney General was of the opinion that the letters of the Secretaries of War and of the Navy, plus the operating contract, sufficiently protected the Government as to royalties already paid by it and, after having disposed of the reported and royalty-paid "during-the-war" airplanes as being within the benefit of the letters and the operating contract, the Attorney General said with reference to the unreported airplanes, included in those here in suit, that "There remain not settled for, certain airplanes built or imported during the war, not covered by the terms of the express contract, which it is now proposed to arrange settlement for on the same basis—$100 per airplane—as has been the case for those already settled for, and further machines built or otherwise secured by the United States since the war and prior to the date of the proposed contract which it is proposed to settle for at the rate provided for in the original cross-license agreement, namely, $200 per airplane. * * * It will be necessary to consider whether the use was an infringing one—or one under implied contract. * * * That an implied contract to pay compensation for use of a patented invention will arise when the Government uses it with the patentee's consent and either acquiesces in his title or does not deny it, is now fully settled. * * *."

33. September 19, 1923, the War Department submitted to plaintiff a statement and report comprehensively covering all airplanes using the patented devices of the plaintiff made for and used by the Government from 1908 to 1918, including all procurements by the Bureau of Aircraft Production. A like formal report covering the procurement by the Navy Department was sent by the latter to the plaintiff with a letter of June 22, 1927. From the first-named report and certain additional information covering procurement by both the Army and the Navy, and obtained by plaintiff in 1923 and 1924, tentative invoices were submitted to the Chief of the Naval Bureau of Aeronautics and the Chief of the Air Corps by letters of May 13 and May 16, 1924, respectively. In these letters the plaintiff requested that officers of the Army and the Navy be designated to check with it all such procurement figures to eliminate duplications and errors, with the object of securing Government certification to all unpaid items.

34. The Chief of the Air Corps promptly designated such officers. Plaintiff's request to the Naval Bureau of Aeronautics was referred to the Judge Advocate General of the Navy. Thereupon plaintiff prepared similar invoices covering all such items of unpaid royalties as existed on May 20, 1924, so far as they could be determined from the information then at hand. Plaintiff submitted these invoices on that date to the Chief of the Air Corps, the Chief of

Digitized by Google

the Naval Bureau of Aeronautics, and to the Comptroller General of the United States. As so submitted the invoices covered all unpaid items then reported by the War Department and the amounts unpaid on account of the naval procurement as disclosed by the annual reports of the Naval Bureau of Aeronautics. These items are all the items listed on page 60 of exhibit H (a) of the amended petition plus those on page 61 of said exhibit, as to which invoices are dated in May 1924, and also the item on page 61 "1 Sarling (Barling) B. Whiteman, L", which, as appears from page 79 of exhibit H (a) should be dated May 20, 1924, instead of January 20, 1926.

35. March 1, 1927, the Chief of the Air Corps of the War Department, after having considered the claims of the plaintiff to royalties as set forth in the origiual of which exhibit H (a), found on pages 60 to 85, both inclusive, of the amended petition is a copy, certified to the Comptroller General that the 1,041 airplanes first listed on pages 60 and 61, being all save one Barling bomber and the 45 airplanes listed in the last seven starred items on page 61, had been made by or for, and delivered to and received and used by the War Department under and subject to the Government's special license agreement with plaintiff. He then further certified that the aggregate amount of the royalties due on the 1,041 airplanes was $143,500, that none of the royalties had been paid, and that the whole thereof was approved by him for payment. Exhibit H (a), which is attached to the seconded amended petition herein, is made a part of this finding by reference.

36. At the same time, having also considered all the claims of plaintiff as represented by the items listed in an original account of which so much of exhibit H (b) of the second amended petition as is found on pages 103 to 109, both inclusive, thereof is a part, the Chief of the Air Corps of the War Department likewise certified to the Comptroller General that all of the 504 airplanes as now listed on page 103 of the amended petition had been made by or for, delivered to and received and used by the War Department; that none of the royalties claimed thereon had been paid; and that the total thereof was approved by him for payment. Exhibit H (b) to the second amended petition is made a part of this finding by reference.

37. In December 1923 the Wright Company commenced suit in this court against the United States to recover royalties for the use by the Government of patented devices, which use is the basis of the royalty claimed in the present action by plaintiff. At the request of plaintiff and other subscribers, the Wright Company, by agreement to that effect with the Department of Justice, withdrew the suit without prejudice.

38. The claims for royalties involved in this suit, including all items shown on exhibits H (a) and (b) of the amended petition, the same having been referred to the General Accounting Office for consideration, remained before the Comptroller General for consideration until May 12, 1927, when he rejected all the claims then before him. Plaintiff asked the Comptroller General to reconsider his ruling and on April 28, 1928, he declined to do so, and the claims were finally rejected.

39. All the 1,545 airplanes on which, in its amended petition, plaintiff has claimed royalties because of their use by the War Department were made by or for, and received and used by that Department prior to March 31, 1928. They were all provided with and used patented devices controlled by plaintiff and described in and subject to the agreement, the supplemental, and the special-license agreement of the Government. No royalty has been paid on any of them.

Of these 1,545 airplanes, 1,041 thereof were received and used in the United States before the termination of the war, namely, before July 2, 1921. The remaining 504 airplanes were so made, received, and used after the termination of the war, but before March 31, 1928. And of the last-mentioned number, 500 thereof were so made, received, and used after July 25, 1922.

40. Reasonable royalties for the use by the Government of the patented devices on each of the 1,545 airplanes in every instance correspond to the sum provided for use thereof in the agreement, the supplemental, and the special-license agreement of the Government. Thus calculated, the total of royalties due plaintiff on the 1,545 airplanes was $244,300.

On the 1,041 airplanes received and used by defendant before the termination of the war on July 2, 1921, the total of such royalties, so calculated, was $143,500.

On the 504 airplanes received and used after the termination of the war and before March 31, 1928, the total of such royalties, so calculated, was $100,800.

Digitized by Google

On the 500 airplanes of the 504 last mentioned so received and used by the defendant after July 25, 1922, and before March 31, 1928, the total of such reasonable royalties, so calculated, was $100,000; while on the remaining 4 airplanes of those received and used after the termination of the war, the total of such royalties so calculated was $800.

41. Of the total of 1,545 airplanes above mentioned, 1,000 thereof were first reported to plaintiff by the War Department as having been so received and used by it in September 1928. Of the remaining 505 airplanes all but one were reported to plaintiff by the War Department from time to time after September 1923.

42. Of the 444 airplanes on which in its amended petition plaintiff has claimed royalties because of their use by the Navy Department, 434 thereof, and no more, were in fact so made by or for, and received and used by that Department prior to March 31, 1928. Since the filing of that amended petition the Navy Department has finally verified to plaintiff 65 more previously unverified airplanes as made for, and received and used by it, within the United States in 1917 and 1918, so that the total actually received and used by defendant prior to March 31, 1928, on which plaintiff claims royalties for uses during that period is 499 airplanes.

All of the 499 airplanes were provided with and used patented devices controlled by the plaintiff and described in and subject to the original agreement, the supplemental, and the special license agreement of the Government. No royalty has ever been paid by defendant on any of them.

Of these 499 airplanes, 160 thereof were received and used by the Navy Department in the United States before the termination of the war, July 2, 1921. The remaining 339 airplanes were so made, received, and used by the Navy Department after the termination of the war but before March 31, 1928. And of these 339 airplanes, 325 thereof were so made, received, and used by the Navy Department after July 25, 1922.

43. Reasonable royalties for the use by the Government of the patented devices on each of the 499 airplanes above referred to in every instance correspond to the sum provided for use thereof in the agreement, the supplemental, and the special-license agreement of the Government. The total of the royalties due on the 499 airplanes was $84,900. On the 160 airplanes received and used before the termination of the war, the total of such royalties, so calculated, was $17,100. On the 339 airplanes received and used after the termination of the war and before March 31, 1928, the total of such royalties was $67,800. On the 325 airplanes received and used after July 25, 1922, and before March 31, 1928, the total of such royalties was $65,000; while on the remaining 14 airplanes of those received and used after the termination of the war the total of such royalties, so calculated, was $2,800.

44. Of the 499 airplanes made by or for, and received and used by the Navy Department, 434 thereof were first reported to the plaintiff by the Navy Department in June 1927 as having been so received and used by it. As already stated, the remaining 65 airplanes were not finally verified until 1929, after the commencement of this action, but which are included in the amended petition.

45. During the last nine months of 1928, between March 31, 1928, and the end of that year, on which latter date, by its terms, the newly made contract between the plaintiff and the Government referred to in finding 29 hereof for airplane royalties went into effect, 172 airplanes using the patented devices covered by the original and supplemental agreements were made by or for, and received and used by the Government in the United States, 168 thereof being so received and used by the War Department and the remaining 4 thereof by the Navy Department. No royalty has ever been paid on any of these airplanes. A reasonable per-airplane royalty was that prescribed for the applicable period by the original and supplemental agreements, and the special license agreement of the Government, namely, $200 an airplane. On the 4 airplanes so used by the Navy Department the total of such reasonable royalties was $800. On the said 168 airplanes so used by the War Department the total of such reasonable royalties was $33,600. The manufacture, receipt, and use of the 172 airplanes was had under a continuation of the practice prevailing with respect to the manufacture, receipt, and use of airplanes as hereinbefore set forth.

Of the 1,041 airplanes received and used by the War Department during the period of the war, finding 40, and the 162 airplanes received and used by the Navy Department during the period of the war, finding 42, only 22 thereof were made by the Government.

Digitized by Google

46. A summary with reference to the 2,216 airplanes involved in this suit made by or for, and received and used by the Government with respect to which no royalties have geen paid, and the reasonable royalties due thereon, follows:

Summary

	War Department			Navy Department			Total War and Navy	
	Number Government made	Purchased	Royalties	Number Government made	Purchased	Royalties	Planes	Royalties
During war	1	1,040	$143,500	21	139	$17,100		
After war until 7/28/22		4	800		14	2,800		
After 7/25/22 until 3/31/28		500	100,000		325	65,000		
Last 9 mos. of 1928		168	33,600		4	800		
	1	1,712			482			
Total made and purchased		1,713	277,900	21	503	85,700	2,216	$363,60

Total made in Government factories during war and *paid for* ($45,000) 452
Total made in Government factories during war and *not paid for*—21 of them unreported until 1928.. 20

47. The chief purpose of the arrangement detailed in these findings and the implied understanding and agreement between the War and the Navy Departments and the plaintiff, which were carried out in practice, was that the United States should have the right to fulfill its requirements for airplanes by manufacture or purchase from subscribers to the cross-license agreement or nonsubscribing manufacturers upon the payment to plaintiff of a royalty of $100 or $200 an airplane, depending upon the time such airplanes were manufactured or purchased.

It was further impliedly agreed that the Government would report quarterly to plaintiff all airplanes manufactured by it or acquired or purchased from nonsubscribing airplane manufacturers and pay to plaintiff the royalties agreed upon, and that such royalties should accrue and become due and payable upon the receipt of invoices or bills therefor with a certification by plaintiff that the royalties demanded would not cause the amounts to be distributed to the Wright and the Curtiss Companies to exceed the maximum agreed upon.

48. If plaintiff recovers the royalties claimed in this suit, the distributions made therefrom to the Wright and the Curtiss Companies will not cause the amount to which the companies were entitled under the original plan and arrangement to exceed the maximum amount specified.

CONCLUSION OF LAW

Upon the foregoing special findings of fact, which are made a part of the judgment herein, the court decides as a conclusion of law that the plaintiff is entitled to recover $363,500.

It is therefore adjudged and ordered that the plaintiff recover of and from the United States three hundred sixty-three thousand five hundred dollars ($363,500).

OPINION

LITTLETON, *Judge*, delivered the opinion of the court:

The arrangement which resulted in the incorporation of the plaintiff and the control by it of various patents relating to airplanes, whereby the Government was enabled to obtain and manufacture all the airplanes desired by it upon the payment of a royalty of $200 an airplane, which was, by agreement, reduced to $100 during a certain period, was brought about at the suggestion of the Secretary of War and the Secretary of the Navy through the assistance of the National Advisory Committee for Aeronautics. The arrangement and the practice under it related to all airplanes acquired by the Government. This should be kept in mind throughout the case. The Secretaries of War and of the Navy had full au'hority to act in the premises and if in the arrangement and

Digitized by Google

practice, followed, as disclosed in detail by the findings, they had embodied the same in a formal written contract there could be no question but that plaintiff would be entitled to the royalties claimed in the amount of $363,600 in addition to those paid to it by the War and the Navy Departments.

Between July 16, 1917, the date of plaintiff's incorporation, and May 1924 the Government had paid royalties to the plaintiff in accordance with the original, the supplemental, and the cross-license agreements, either directly or through contractors, on 16,108 airplanes manufactured by or for the Government and received and used by it, in the manufacture of which airplanes various patents controlled by plaintiff were used. These royalties were at the rate of either $200 an airplane or $100 an airplane, depending upon the time they were made or acquired under contracts. Since May 20, 1924, to December 31, 1928, the effective date of the formal contract for the payment of royalties, the Government in the same manner paid to plaintiff royalties at the rate of $200 an airplane on 1,803 airplanes aggregating $360,600.

During the period of the war, ending July 2, 1921, the Government made in its own factories and duly reported to plaintiff 450 airplanes using the patents controlled by plaintiff, for which plaintiff was duly paid $100 an airplane, or $45,000. During the period of the war and until December 31, 1928, the Government manufactured in its own factories 22 airplanes and purchased from contractors who were not "subscribers" to the cross-license agreement 2,194 airplanes, all of which used the patented devices controlled by plaintiff and for which, under the original and supplemental agreements, the total of the reasonable royalties due plaintiff was $363,600. These 2,216 airplanes are the ones involved in this proceeding and the royalties thereon constitute the claim for which plaintiff seeks judgment.

The Government agreed to make accurate quarterly reports to plaintiff of all airplanes made or purchased by it upon the basis of which reports the plaintiff was to render invoices to the War and the Navy Departments, respectively, for the royalties due thereon, which royalties were not to accrue and become payable until such reports were made and invoices received.

Of the 2,216 airplanes involved in this case 22 were manufactured by the Government during the period of the war but were not paid for nor reported to plaintiff until 1928. The Government purchased 1,179 airplanes during the war; and it likewise purchased 18 between July 2, 1921, and July 25, 1922; 825 between July 28, 1922 and March 31, 1928; and 172 between April 1 and December 31, 1928. The total of the royalties due and unpaid on the 1,713 airplanes manufactured and purchased by the War Department is $277,900, and the total of the royalties due on the 503 airplanes manufactured or purchased by the Navy Department is $85,700. None of the royalties has been paid nor were any of the 2,216 airplanes involved, except one, reported by the Government to the plaintiff prior to September 19, 1923.

There is no dispute as to the number of airplanes using the patented devices controlled by plaintiff and the facts establish that the per-plane royalty sued for is in every case reasonable.

It is contended by the defendant, first, that plaintiff is not entitled to maintain this suit because it was not the absolute owner of the patents used on the airplanes manufactured or purchased by the Government; and, second, that $164,400 of the royalties sued for relate to airplanes manufactured or purchased by the Government prior to July 25, 1922, and is therefore barred by the statute of limitation.

Plaintiff contends that it has a right to maintain this suit and to recover the royalties claimed under implied contracts; that no portion of the total royalties claimed is barred by the statute of limitation, inasmuch as the cause of action for such royalties did not accrue under the terms of payment of the original agreement, which terms were also applicable to the supplemental agreement and the Government's special license agreement, until fifteen days after the date on which the Government was required to report all airplanes manufactured or otherwise acquired by the War and the Navy Departments.

The facts summarized show that within the United States and during the period between July 24, 1927, and December 31, 1928, the Government made or purchased and used all the airplanes on which royalties are here sued for. Each airplane used devices of patents controlled by the plaintiff. No royalties have been paid on any of the airplanes involved and the total demanded represents reasonable royalties on the 2,216 airplanes in question.

The plaintiff was created in 1917 at the instance of the Government and in accordance with the plan evolved by it as the means of overcoming obstacles

Digitized by Google

to the production of airplanes arising from disputes between patentees that were embarrassing the Government in its need for airplanes. The Government found itself in a situation where it was being required to pay amounts which it regarded as excessive for airplanes using certain patented devices. The purpose of the plan, which was carried out in practice, was to enable the Government to fulfill its needs for airplanes using patented devices upon payment to plaintiff of a stipulated royalty for each airplane. After full report from the agency designated to formulate a plan to overcome this difficulty, in one of which reports it was recommended that such royalties be regarded as an item of cost of airplane production, and after the Attorney General had approved the legality of the plan, the Secretaries of War and of the Navy approved the plan in all essential particulars. The substance of the arrangement and understanding between the Government and the plaintiff was that the War and Navy Departments would pay to plaintiff a certain amount on each airplane made or purchased as a royalty on certain patents which had been pooled for that purpose and were controlled by plaintiff, and such royalty was to be paid by the Government on each airplane using devices of the patents, whether manufactured by the Government in its own factories or purchased and used by it from subscribers to the original cross-license agreement or from manufacturers who were nonsubscribers thereto. Plaintiff licensed certain manufacturers who then had contracts for airplanes with the Government and they became stockholders or subscribers to the arrangement known as the cross-license agreement, but the Government was not limited to the purchase of airplanes from subscribers. It was free to purchase airplanes using the patented devices from other manufacturers who had not signed the cross-license agreement, and there was an implied agreement between the Government and the plaintiff that the Government would report such airplanes and pay to the plaintiff the stipulated royalty which should become due upon the receipt of invoices or bills from plaintiff.

After its organization, plaintiff for all practical purposes was referred to by the departments as owning or controlling these patents. The arrangement was to endure for about fifteen years. The disputing patentees who held legal title to the airplane patents agreed under the plan formulated and suggested by the Government that plaintiff, until November 1933, should license airplane makers to use the patented devices, should collect royalties and retain one eighth thereof, or 12½% of all royalties collected, and use the same to meet expenses of administering the plan and for other purposes, and should distribute the balance in specified proportions to the Wright and the Curtiss Companies who were the owners of the principal patents. After plaintiff's organization all dealings with the Government were with the plaintiff. When the Government sought reduction of royalties for the period of the war and also the privilege of making in its own factories airplanes using the patented devices, it took these matters up with the plaintiff and not with the patentees. All reports of airplanes using patented devices, including the late reports by the Government of airplanes representing royalties here sued for, were made to the plaintiff. The Secretary of War referred to the legality of the right of plaintiff to license under the patents in question and both he and the Secretary of the Navy urged airplane manufacturers and patentees to accept the supplemental agreement which only varied the original by the reduction of royalties during the war. The recommendation of the departments that royalties be treated as a part of airplane-production costs was adopted and observed in practice, and plaintiff was advised that such would be the practice. During the period from 1917 until the end of 1928 no one except plaintiff ever issued a license or collected a royalty. The only joint agreement by Wright, Curtiss, and the plaintiff with the Government was made pursuant to the provision of the original cross-license agreement and directed payment of royalties to plaintiff.

The Curtiss Company, one of the patentees, in its capacity as a manufacturer of airplanes for the Government, paid to plaintiff $969,900, as full royalties on all airplanes made by it during the war. It received from plaintiff in distributions to itself as a patentee $418,920, being 20 percent of the total royalties of $2,094,600 collected by plaintiff from all sources during that time. The whole of those royalty payments by the Curtiss Company was included in the total used in figuring the distributions to the Wright Company and to the Curtiss Company to make sure that such distributions during the war period had not exceeded $2,000,000 to both companies, as provided in the supplemental agreement suggested by the Government.

The Secretary of the Navy, who originated and carried into execution the plan, kept a careful check of the distributions on the basis agreed upon and

Digitized by Google

he and the Secretary of War distinctly recognized the patents grouped in the plaintiff. In 1922, when called upon by plaintiff to report to it the airplanes herein suit so that plaintiff could bill the Government for royalties thereon, the Secretaries did not dispute plaintiff's right to collect such royalties from the Government, but recognized the same and excused its delay in reporting by urging a lack of necessary data, and promised such reports as soon as possible so that plaintiff could bill for the royalties involved.

Soon after the ending of the arrangement for reduction of royalties for the war period, such arrangement being the so-called special-license agreement with the Government, negotiations were begun for a new rayalty agreement. These were continued by the Government, through the Secretaries of War and the Navy on the one hand and plaintiff on the other, until the end of 1928, when such new arrangement was entered into between them. That agreement, according to its title, granted a nonexclusive license to the Government under all airplane patents embraced therein, and in accordance with the terms of the amended cross-license agreement with the plaintiff, and recited that the plaintiff controlled and had the power to grant licenses under certain United States patents covering important inventions. It also provided for the termination of all formal and informal agreements between the Govenrment and the plaintiff, except only such matters as were in dispute, which matters were those involved in the present action. By that agreement, the Government was to pay the plaintiff specified royalties until October 31, 1933, the expiration date of patent #1203550, unless a specified total maximum should have been paid to plaintiff before that date, after which the uses would be free.

Intermediate of the negotiations, an acceptable form of agreement was reached containing a provision for payment to plaintiff of all royalties here in suit that had been earned in prior years. In 1922, this agreement was submitted to the Attorney General, who, in 1925, ruled that payment with respect to airplanes used prior to the date of the agreement would have to be settled for otherwise than by a new contract, whereupon that feature was eliminated from the negotiations and the procedure indicated by the Attorney General was followed.

The post-war uses by the Government reducing the royalties claimed herein were enjoyed under a practice similar to that obtaining during the war, except for delay in reporting the airplanes used. In settling with a particular contractor the Government withheld royalties aggregating $14,000 on seventy airplanes, which it still holds, and these royalties are a part of those involved in this suit.

On March 1, 1927, after having checked the claims made by plaintiff at that time for royalties which are involved in this suit, the War Department approved the same for the amount claimed on the 1,545 airplanes theretofore used by it and recommended payment of that sum. It further found that this number of airplanes had been made by or for, and received and used by, the War Department under and subject to the Government's special-license agreement with the plaintiff.

The Secretary of the Navy on June 22, 1927, prepared and furnished the plaintiff with a report of the airplanes received and used by it from July 1, 1917, to July 1, 1926, which related to royalties payable on airplanes manufac ured or procured by the Government.

In the circumstances of this case, we are of opinion that plaintiff has a right to maintain this suit. This is not a case involving the infringement of patents and the suit is not grounded upon the use by the Government of patents without license of the owner and without lawful right to use the same, but is one based upon an implied contract by the Government to pay plaintiff certain royalties for the use of certain patents used on airplanes made or purchased by the Government. For the purpose of the arrangement made, at the suggestion of the Government, all the patents on devices used on the airplanes were pooled and placed under the control of plaintiff and thereafter the Government as well as all patentees recognized such control of plaintiff and its right to demand and collect the royalties provided for, and the patentees of the principal airplane patents paid to the plaintiff the agreed royalties on all airplanes manufactured by them in the same manner as such royalties were paid to plaintiff by the Government and the manufacturers who were not patentees. It was entirely a contractual arrangement, and we may lay aside the cases cited and relied upon by the defendant involving suits for infringement which hold that only the patentee or the person having legal title to the patents may sue to recover damages or compensation for infringement.

Digitized by Google

In this case the Government used the patents in the manufacture of airplanes and used the airplanes embodying devices covered by the patents with the consent of the patentees and the plaintiff, and impliedly agreed to pay plaintiff a specified royalty on each airplane without further liability to the patent owners. This was under an arrangement to which the patent owners agreed, whereby such patent owners had a right to receive and did receive out of all royalties paid to the plaintiff a certain specified distribution in full of all compensation due them for the use of their patents.

In addition to the control of the patents for contract purposes with the Government, the plaintiff had an interest to the extent of 12½ percent of all royalties collected, including those payable by the Government on airplanes made or purchased by it using devices covered by the patents; such interest amounts to $45,450 of the royalties claimed in this case. Cf. *Ohio Oil Co.* v. *United States*, no. K–319, decided March 7, 1932.

The next question is whether there was an implied contract between the Government and the plaintiff for the payment to the plaintiff by the Government of the royalties claimed in this suit.

An implied contract upon which a suit may be maintained under section 145 of the Judicial Code must be one implied in fact rather than in law. A contract implied in fact, or an implied contract in the proper sense, arises where the intention of the parties is not expressed, but an agreement in fact, creating an obligation, is implied or presumed from their acts, or, where the circumstances show, according to the ordinary course of dealing and the common understanding, a mutual intent to contract. The nature of the understanding of the parties, whether the contract be expressed or implied, is the same, the only distinction being in the mode of proof. Bot express contracts and contracts implied in fact are founded on the mutual agreement of the parties. The one class is proved by direct, and the other by indirect, evidence; in other words, an express contract is proved by an actual agreement, while in the case of an implied contract it will be implied that the party made such an agreement as, under the circumstances disclosed, he ought in fairness to have made. The implication must be a reasonable deduction from all the circumstances and relations of the parties, their acts, and conduct, although it need not be evidenced by any precise words and may result from random statements and uncertain language. In this case there was no formal written contract under which the Government agreed to pay the plaintiff royalties claimed in this suit. We think all the circumstances surrounding the matter of royalties on airplanes made or purchased by the Government using the devices covered by the patents controlled by the plaintiff, the acts and conduct of the parties, and their relations, establish an implied contract on the part of the Government to pay to the plaintiff the royalties which it now claims. This was the view of the arrangement taken by the parties, the Government being represented by the Secretary of War and the Secretary of the Navy who had authority to act for it.

The War and Navy Departments recognized the right of plaintiff to collect the royalties claimed on the airplanes made by or for the Government and the invoices or bills to the Government therefore rendered by the plaintiff, after it has received reports from these departments of the airplanes used by them containing the patented devices, were approved. Under the Attorney General's opinion, however, the matter of payment of plaintiff's invoices was referred to the Comptroller General for the purpose of stating an account. He first advised plaintiff that a certificate for the amount due would be issued but later refused such certificate and disallowed payment of the entire amount claimed, principally on the ground that under his view of the arrangement the patentees, Wright and Curtiss, who were entitled to distributions from the royalties collected by the plaintiff, had received the total amount to which they were entitled after which the Government was entitled to use airplanes containing devices covered by the patents without further payment of royalty. We think the interpretation by the General Accounting Office of the arrangement was not correct. It is not here urged by the defendant. Under the original cross-license agreement the Government was to pay the stipulated royalties until such time as the Wright and Curtiss companies had received in distributions from the plaintiff a maximum of $2,000,000 each. For the period between December 31, 1917, and the end of the war, the per-plane royalty on all airplanes manufactured or purchased by the United States was reduced and it was provided that whenever both the Wright and the Curtiss companies had together received

Digitized by Google

$2,000,000, in the aggregate, for airplanes bought by the Government it would be released from further payments "during the period of the present war." The last-mentioned arrangement expired on July 2, 1921, at the termination of the war. The Wright and the Curtiss companies did not receive, and will not receive, in distributions from the plaintiff an amount in excess of the maximum authorized by the original and the supplemental agreements if judgment is rendered in favor of plaintiff for the amount claimed in this suit. The practical interpretation of the arrangement and the understanding by the parties during performance is of great importance. *Insurance Co.* v. *Dutcher*, 95 U. S. 269, 273; *District of Columbia* v. *Gallaher*, 124 U. S. 505, 510; *Old Colony Trust Co.* v. *City of Omaha*, 230 U. S. 100, 118.

Under the arrangement disclosed by the facts, which was suggested by the Government and carried out in all of its details, the plaintiff was the only party who could have contracted with the Government. It was the only one who had dealings with the Government in the matter. Every action was by or with it. All communications from the Government carrying matters of contract implication were with the plaintiff. All negotiations for the new agreement between the termination of the war in 1921 and the execution of that agreement at the end of 1928 were with plaintiff. The understanding with which the departments proceeded, in the meantime using the patented devices, was with plaintiff, as was the understanding by the Government that when data for reports of airplanes used, but theretofore unreported, could be secured, such reports would be made to the end that plaintiff might render invoices or bills for the royalties due by the War or Navy Departments. The Departments during the operations never questioned their obligation to pay royalty on every airplane used, regardless of who may have made it; or their obligation to report the unreported used airplanes, on the ground that they were not required to report or pay plaintiff therefor, because made by nonsubscribers. The findings establish this and, further, that after the first general report of the War Department on September 19, 1923, of the then unreported airplanes made by nonsubscribers, the Government from time to time made further reports to plaintiff of airplanes used by it, made by manufacturers other than subscribers. There was no independent action by or with the patentees, Wright or Curtiss, or with any other subscribing patentee. The only alternative to a contract by implication with plaintiff would be a tortious infringement by the Government, but the findings of fact negative such possibility. The implied contract upon which this claim is based was wholly performed. *St. Louis Hay & Grain Co.* v. *United States*, 191 U. S. 159; *Willard, Sutherland & Co.* v. *United States*, 262 U. S. 489.

The last question is whether the royalties due on airplanes manufactured by or for the Government and used by it during the period prior to July 25, 1922, are barred by the statute of limitation. Counsel for the defendant contends that, if there was an implied contract obligating the Government to pay royalties, plaintiff's cause of action for such royalties accrued at the time the airplanes were made or purchased by the Government. On the other hand, the plaintiff contends that the statute of limitation did not begin to run in this case, except as to one airplane reported by the Government in October 1920 until sometime after September 19, 1923, in the case of royalties on airplanes used by the War Department and not until sometime after June 22, 1927, in the case of royalties on airplanes used by the Navy Department.

The statute of limitation, section 156 of the Judicial Code, provides that suits in this court shall be commenced within six years after the cause of action first accrues. The date on which a cause of action first accrues is not necessarily the same in every case. Ordinarily a cause of action accrues when the service is rendered or the articles are furnished and the obligation to pay therefor arises, but this is not a hard and fast rule and whether the cause of action in a particular case accrues at such time depends upon the agreement or arrangement between the parties. Their express agreement as to this in the case of a formal contract or their understanding and course of conduct under an implied contract may fix a different time for the accrual of the claim for the purpose of computing the statute of limitation. We think the language of section 156, *supra*, was used with this in view, for if it had been intended definitely to fix the time when the claim should accrue in every case, it would simply have provided that every suit should be commenced within six years after the service was rendered or the articles called for were furnished. In the case of a breach of a contract a cause of action accrues when

Digitized by Google

the breach occurs. In this case there was no breach and royalties claimed did not accrue and become payable under the agreement until reports had been made and invoices or bills rendered. There had been no refusal of the Government to pay prior to September 19, 1923. It is true that the royalties had not been paid, due to failure of the Government to report the airplanes made by it or acquired from nonsubscribers or stockholders of plaintiff, but the agreement and the practice under it fixed the time when the royalties should become due and whe then plaintiff could demand payment. Compare *Amy* v. *Dubuque*, 98 U. S. 470; *United States* v. *Taylor*, 104 U. S. 216, 222; *United States ex rel. Louisville Cement Co.* v. *Interstate Commerce Commission*, 246 U. S. 638, 644; *W. A. & G. Steam Packet Co.* v. *Sickles*, 10 How. 419, 441; *Mundt* v. *Sheboygan & F. Dul. R. Co.*, 31 Wis. 451; *Barnes* v. *City of Brooklyn*, 22 N. Y., App. Div. 520. A claim may be said to accrue at one time for accounting purposes and at another, or later, time for the purpose of determining the statute of limitation within which suit may be brought. *Smith Courtney Co.* v. *United States*, 46 C. Cls. 262; *Maneely, Admr., et al.*, v. *United States*, 68 C. Cls. 623, 631, 632; *Penn Bridge Co.* v. *United States*, 71 C. Cls. 273.

In *Bull, Executor*, v. *Commissioner of Internal Revenue*, 7 B. T. A. 993, 995, the United States Board of Tax Appeals said:

"A study of the multitude of decisions, treaties, and variously expressed views, and our experience in the consideration of many cases presented to this board in which the word is either carefully or loosely used, disclose that the word 'accrue' is fraught with confusion because it expressed no certain concept. In law, it has long been used in respect of rights and obligations which are said to accrue when they become enforceable. In accounting, it may be variously used with equal authority to refer to a right or liability fixed in amount, or certain in all respects except amount, or to an apportionment of a right or liability which runs hand in hand with a matter upon which it depends, or to a reserve in anticipation of an event, sometimes certain and sometimes uncertain. Other connotations will occur, but these are sufficient to indicate that there is little in common among the significations recognized. One thing is clear—that the word implies the exclusion of 'received' or 'paid', or a right or liability discharged. But short of this, what is meant when an item is accounted for as accrued depends upon the system of accounting in which it appears and the breadth of the accountant's concept.

"When, therefore, it becames necessary to interpret the word as it appears in the revenue act, the interpretation cannot be fixed by definition, for this would imply a precision of congressional intention at variance with the more fundamental purpose tax that which a proper system of accounting should clearly reflect as net income."

The question of when an item accrues for the purpose of the income tax was the question before the courts in *United States* v. *Anderson*, 269 U. S. 422; *American National Co., Receiver*, v. *United States*, 274 U. S. 99; *Lucas* v. *American Code Co., Inc.*, 280 U. S. 445; *Lucas* v. *North Texas Lumber Co.*, 281 U. S. 11; *Uncasville Mfg. Co.* v. *Commissioner of Internal Revenue*, 55 Fed. (2d) 983; and *Acme Coal Co.* v. *United States*, 70 C. Cls. 696, 44 Fed. (2d) 95; and, for this reason, those cases are distinguishable. In the present case, for the purpose of accounting in determining whether the maximum distributable to the Wright and the Curtiss companies had been reached, royalties would only be payable on airplanes made by or delivered to the Government to the dates such airplanes were made or delivered.

This suit was begun July 25, 1928, and the six-year period of the statute would therefore extend back to July 25, 1922. Of the 33,600 royalties herein sued for, $199,200 thereof relates to royalties on airplanes indisputably made or purchased by the Government and placed in use after July 25, 1922. Only $164,400 of the total amount sued for can be affected by the statute of limitation. The right to recover this amount depends upon the terms of the implied contract affecting the terms and conditions for the payment of royalties on airplanes manufactured by the Government and those acquired by it from persons other than subscribers to the original cross-license agreement. All persons making airplanes for the Government, and who were subscribers to the cross-license agreement, regularly and properly reported to plaintiff all airplanes made by them. The Government did not make reports to the plaintiff of all the airplanes manufactured by it and did not, until September 1923 and June 1927 report to the plaintiff any of the airplanes acquired and put

Digitized by Google

in use by it from manufacturers other than subscribers to the cross-license agreement. Some of the airplanes upon which royalties are claimed in this suit were placed in use by the Government concurrently with airplanes made by the Government or by manufacturers who were subscribers to the cross-license agreement, as to which airplanes the terms of payment were declared in writing. The practice as to time and manner of payment of royalties on all airplanes was uniform throughout all the years from 1917 to 1928. It conformed to the provisions of the original agreement which were applicable also to the supplemental and the Government's special license agreement. Similar provisions were placed in the new contract, effective December 31, 1928, which brought to an end the period of the implied contracts involved in this proceeding. Inasmuch as those provisions corresponded to the practice they may be looked to as evidence as to what the practice was. Summarizing, the requirement were that (1) all airplanes manufactured or otherwise acquired by the War and Navy Departments in any quarter of each calendar year were to be reported with specific data to the plaintiff in writing on the 10th day of the month next following that quarter; (2) forthwith, on receipt of each report, plaintiff was to render invoices to said Departments in accordance with certain reports; and (3) within a reasonable time (or 15 days) after the receipt of such invoices the Government was to authorize and instruct its disbursing officers to make payments accordingly. The foregoing procedure leading up to payment was actually followed in operating practice with respect to all airplanes reported and paid for. Under such practice the Government, before paying the royalties, always insisted upon having invoices or bills from plaintiff covering airplanes on which the latter was claiming a royalty. The Government would not, and did not pay any such royalties until bills were rendered therefor. During the period of the war plaintiff rendered no invoices or bills to the Government except for airplanes previously reported to it. It was recognized by all parties to the arrangement that plaintiff could not prepare and render invoices or bills without the information contained in those reports.

Another circumstance which throws light upon the question when the cause of action for the unpaid royalties accrued is the provision of a draft of a formal contract in August 1918 prepared by the Bureau of Aircraft Production for the War and Navy Departments for execution by the plaintiff and the Government, but which was not executed before of the ending of the war, November 11, 1918. Paragraph 7 thereof provides that "On the tenth day of January, April, July, and October of each year, the Government, through the War and Navy Departments, shall report to the association the number of airplanes built and accepted by the War and Navy Departments, during the three (3) months preceding, and, based upon said reports, payments of said royalties shall be made on the 25th of each such month. The first report shall be rendered on October 10, 1918, and shall cover the period from July 1, 1917, to October 1, 1918."

Under the foregoing summary of the operating practices, we think payments of royalties were to be based upon and to be made fifteen days after the furnishing of each report for airplanes therein reported. In view of these terms, by implication, the case stands as if the parties by formal contract had agreed to a rightful use of the patented devices to pay reasonable sums as royalties for such use; and that payments should become due on demand accompanied by bills based on and made from information contained in reports to be made quarterly for all airplanes manufactured by or sold and delivered to the Government in each quarter preceding any given report.

In *Butler* v. *United States*, 23 C. Cls. 335, 339, which was a suit upon an implied contract, the court pointed out that "There was no express contract postponing the payment of the royalty or making it contingent upon a demand or other event; * * *." In *Smith Courtney Co.* v. *United States*, *supra*, the plaintiff contracted to sell metal for which the United States agreed to pay after presentation of bills, with proper evidence of delivery, inspection, and acceptance, and within ten days after warrant had been passed by the Secretary of the Treasury. The petition was filed July 1, 1909, so that the six-year period began to run July 1, 1903. In May 1901 it delivered the metal to the proper authorities and on May 23, 1903, the Government inspected and accepted it. June 6, 1903, bills with proper evidence were presented and accepted. But they were not passed upon by the Secretary of the Treasury until

Digitized by Google

May 23, 1904. It was alleged that a reasonable time to pass upon the bills was within thirty days from their presentation. This court held that the right of action did not arise until a reasonable time had elapsed, ten days from such presentation to the Treasury; and that since the allegation that thirty days was a reasonable time was admitted by the demurrer, the right of action first accrued forty days after June 6, or on July 16, 1903, which was fifteen days within the statutory period. In overruling the demurrer and holding that the statute of limitation was not a bar, the court stated that "It has been determined by the Supreme Court and this court, and is in fact elementary, that a right of action accrues and the statute of limitations begins to run when, and only when, the period of credit has expired; or, in other words, when an account is due and payable, or when there is a breach of the contract." As the parties may specify such terms as price or time of payment by express contract, equally may they do so by implication of practice. In *Penn Bridge Co.* v. *United States, supra,* the plaintiff had contracted to furnish and erect machinery in the Government navy yards. The contract provided that if the wages of labor should be increased above the rate prevailing when the contract was executed, the plaintiff would receive certain additional compensation therefor. The contract, however, provided "That any increase over the wage rates prevailing at the date of the contract before being granted by the contractor shall be notified to and approved in writing by the Bureau of Yards and Docks. * * * Determination of such claims shall be deferred until the completion of the contract."

The court held that the plaintiff's right to recover additional compensation did not accrue when the machinery was delivered, but only after determination by the Bureau of Yards and Docks of the amount of increase in the prevailing wage rate, and the approval by that Bureau. To hold that a right to sue for the royalties involved in this case arose the moment the airplanes were placed in use by the Government would, we think, be making an implied contract at variance with the practice, acts, and operations of the parties. Such an arrangement, we think, was not contemplated by the parties. In the circumstances of this case, we think the statute of limitation did not begin to run with reference to the royalties herein sued for earlier than September 19, 1923, which was within six years prior to the filing of the petition on July 25, 1928.

There is included in plaintiff's claim a royalty of $100 upon an airplane reported to plaintiff by the Government on October 6, 1920, for which royalty the plaintiff prepared an invoice and rendered a bill to the Government in 1921. Recovery of this royalty is clearly barred.

Judgment will be entered in favor of the plaintiff for $363,500. It is so ordered.

WILLIAMS, *Judge;* and GREEN, *Judge,* concur.

WHALEY, *Judge,* concurs in the conclusion.

BOOTH, *Chief Justice,* took no part in the decision of this case on account of illness.

A true copy.
Teste:

Chief Clerk, Court of Claims of the United States.

COMPTROLLER GENERAL OF THE UNITED STATES,
Washington, May 12, 1927.

A-11220.

The Manufacturers' Aircraft Association, Inc., by its letter dated May 20, 1924, filed claims in the total sum of $141,800, which sum is asserted to represent accrued obligations on the part of the Government to pay royalties for the use by the War Department of a large number of United States aircraft patents, owned by certain associated patentee stockholders in that corporation, at the rates of royalty stipulated in a cross-license agreement entered into by the patentees, dated July 24, 1917, and as temporarily modified for the period of the war. The sum thus claimed arises from royalty assessed upon air-

Digitized by Google

craft alleged to have been furnished the War Department by the following manufacturers, understood not to be identified with the association:

1923, Wittemann Aircraft Corporation, 1 Barling bomber	$200
C. P., 1917, Canadian Airplane Co., 380 planes at $200	76,000
C. P., 1918, Canadian Airplane Co., 300 planes at $100	30,000
C. P., 1918, Fowler-Howell & Lesser Co., 125 planes at $100	12,500
C. P., 1918, Liberty Iron Works, 200 planes at $100	20,000
F. P., 1918, A. S. Heinrich, 4 planes at $100	400
F. P., 1917, A. S. Heinrich, 2 planes at $200	400
F. P., 1918, Ordnance Engineering Co., 6 planes at $100	600
F. P., 1917, and 1 in 1918, 2 planes at $200	400
F. P., 1917, Equipment Holding Co., 2 planes at $200	400
F. P., 1917, O. D. Blakely, 1 plane at $200	200
F. P., 1917, Pigeon-Fraser Co., 2 planes at $200	400
F. P., 1918, Schaefer & Sons, 1 plane at $200	200
1917, also there is claimed, 1 plane at $100	100
	141,800

The claim is based upon a cross-license agreement, dated July 24, 1917, between the principal owners of aircraft patents, which was the basis of an agreement with the Secretary of the Navy, by letter of March 28, 1918, and the Secretary of War by letter of April 5, 1918.

The cross-license agreement recites that it is made between the Manufacturers' Aircraft Association, Inc., a New York corporation, designated as the company, party of the first part, and each person, firm, or corporation, designated as subscriber, as shall become stockholders of the said company, in the manner and under the conditions provided in the bylaws thereof—which for the purpose of the agreement are made a part thereof—and become parties to the agreement, parties of the second part.

It is set forth as the purpose of the association that:

"Whereas the parties hereto are interested in the manufacture, sale, and use of airplanes, as hereinafter defined, and desire to promote and develop the industry in which they are engaged, and to encourage and advance the art applicable thereto; and

"Whereas the said development and advancement in the past have not been capable of as complete accomplishment as is desirable, because of the existence of certain United States patents claimed to be basic in their nature, upon which suits have been brought, or threatened, for alleged infringement and for the collection of royalties and damages in connection therewith; and

"Whereas it is desired to prevent and avoid such litigations in the future and to give all of the subscribers the right to manufacture, sell, and use airplanes embodying the inventions of each of the subscribers and to that end it is desired that licenses be granted as herein expressed:

"Now, this agreement witnesseth:

"That for and in consideration of the premises, the covenants and conditions herein contained, and of other good and valuable considerations moving between the company and each of the subscribers hereto and between the subscribers themselves, it is covenanted and agreed as follows:

* * * * * * *

"II. Licenses and powers granted.

"The subscribers grant, agree to grant, and cause to be granted to each other linceses, to make, use, and sell airplanes—under all airplane patents of the United States now or hereafter owned or controlled by them or any of them, or by any firm, corporation, or association owned or controlled by them, or under which they, or any of them, or any such firm, corporation, or association, have or shall have the right to grant licenses—in and throughout the United States, its Territories and dependencies, for use therein or abroad, except that no rights, express or implied, are hereby granted under any foreign patents, nor shall said rights or the licenses, herein provided for, apply to or include the use of said patents in their application to other than airplaines, and except further that no licenses are hereby granted under the Dunne Patents, no. 975403, issued November 15, 1910, and no. 1003721, issued September 19, 1911, rights under which are held by the Burgess Co.

Digitized by Google

"All licenses provided for herein shall run to the full end of the term of the Letters Patent under which the license is or is to be granted and shall be personal, indivisible, nonassignable, and irrevocable, except for the causes and in the manner hereinafter stated.

"The subscribers hereby designate, constitute, and appoint the company (and the company hereby accepts the appointment) as their true, sufficient, and lawful agent and attorney in fact for them and in their respective names, to make and execute licenses in writing in the form hereto annexed, and to deliver the same to those of the subscribers who, at the time, are stockholders of the company not in default hereunder, and who shall have executed an agreement in writing of like tenor to this; and to enforce said licenses and any and all other obligations (including the obligation to make payments), of the subscribers under this agreement; and the subscribers hereby give and grant unto said company, as full, complete, and ample power and authority in the premises as the subscribers themselves now have and possess.

"All licenses provided for herein, when made, executed, and delivered in accordance with the provisions hereof, shall have the same force and effect as if they had been executed and delivered by the subscribers themselves."

There is included as addendum to the copy of agreement a form of license for use by the licensor to grant a license to the subscribers to make, use, and sell airplanes under all airplane patents of the United States then or thereafter owned or controlled by the licensor, or by any firm, corporation, or association owned or controlled by it, which license is made subject to all the terms, conditions, covenants, and agreements contained in the cross-license agreement, the same being in form for signature of the licensor by the Manufacturers Aircraft Association, as agent and attorney in fact.

There were incorporated in the agreement mutual covenants of further assurance, and as to other licenses, after acquired patents, and special models, and condition as to the rendering of periodical reports upon the number of airplanes, engines, or other airplane devices sold and delivered.

Certain payments were stipulated to be made by the subscribers by paragraph VIII, as follows:

"VIII. Payments to the company.

"Each subscriber agrees to pay into the treasury of the company on the 10th days of January, April, July, and October in each year the following sums of money, to wit:

"(a) On each airplane, with or without engine required to be reported as provided in subdivision (c) of paragraph VII hereof, the sum of $200 until such time as the Wright-Martin Aircraft Corporation and the Curtiss Aeroplane & Motor Corporation shall have been paid the aggregate sums provided for in subdivisions (a) and (b) of paragraph IX hereof."

Further sums were assessed by this paragraph at proportionate rates for specific patents, specifications of drawings of special models, etc., as specified in paragraph VII, it being stipulated, however, that—

"Moneys paid into the treasury of the company pursuant to any provisions hereof shall not be or constitute or be deemed to be or constitute the assets, property, or profits of said company, but shall be received and disbursed by it as the agent and attorney in fact of the subscribers in the manner and for the purposes herein mentioned."

By paragraph IX it was provided:

"IX. Payments by the company.

"Out of the moneys paid into the treasury of the company pursuant to the provisions hereof, the following payments shall be made by the company on the 20th days of January, April, July, and October in each year, to wit:

"(*a*) To the Wright-Martin Aircraft Corporation one-hundred and thirty-five dollars ($135), on each airplane with or without engine, with reference to which payments shall have been made in accordance with subdivisions (*a*) and (*e*) of paragraph VIII hereof, during the preceding 3 calendar months, until United States Patent No. 821393, issued May 22, 1906, shall have expired, or until the aggregate sum of two million ($2,000,000) dollars shall have been paid to the said Wright-Martin Aircraft Corporation when all payments to it hereunder shall cease, except as hereinafter provided.

"(*b*) To the Curtiss Aeroplane & Motor Corporation, forty dollars ($40), on each airplane, with or without engine with reference to which payments

Digitized by Google

shall have been made in accordance with subdivisions (*a*) and (*e*) of paragraph VIII hereof, during the preceding 3 calendar months until such time as the Wright-Martin Aircraft Corporation shall have been paid in full as provided for in subdivision (*a*) of this paragraph, after which there shall be paid to the Curtiss Aeroplane & Motor Corporation at the times herein mentioned the sum of one hundred and seventy-five dollars ($175) on each of said airplanes until the aggregate sum of two million ($2,000,000) dollars shall have been paid to it or until United States Patent No. 1203550 issued October 31, 1916, shall have expired, when all payments to it hereunder shall cease, except as hereinafter provided."

Subdivisions (*c*), (*d*) and (*e*) provide for pro-rata payments to the subscribers out of the balance of the sums so paid in for the use of after acquired patents, drawings and specifications of special models, and for an amount sufficient to cover the operating expenses of the company.

The legality of the incorporation of the Manufacturers' Aircraft Association and of the cross-license agreements and their recognition by the United States was found without objection by the Attorney General in an opinion of October 6, 1917 (31 Op. Atty. Gen. 166).

It appears that the formation of this association was with the knowledge and approval of the War and Navy Departments, as being a necessary medium for the expeditious supplying of required war planes. The articles of agreement quoted herein disclose this association to have been formed primarily with the avowed purpose of permitting any and all manufacturers of aircraft who were members of the association to carry out their undertakings without friction through threatened prosecution for patent infringements, though incidental thereto the United States benefited by early and increased production. The amount thus fixed in the nature of royalty to be paid by the subscribers of the association for the right to operate under the patents thus pooled, would, under the circumstances involved, ultimately be paid by the Government as an item of cost, because of being practically the only purchaser. There is in this arrangement, however, no condition upon which to premise a claim against the United States by the Manufacturers' Aircraft Association for any payments to it for its own uses.

The Secretary of the Navy apparently later arrived at the conclusion that the royalty thus fixed would result in the United States ultimately paying a sum considered excessive and addressed a letter dated March 8, 1918, to S. S. Bardley, general manager of the Manufacturers' Aircraft Association, as follows:

"Referring to our recent conversation and to your letter of March 1, 1918, in reference to the Manufacturers' Aircraft Association and the royalties under the cross-license agreement entered into between manufacturers of aircraft and your association, I wish to confirm what I have stated to you in conversation. As you are aware, on March 2, 1917, Congress appropriated $1,000,000—

"'* * * to enable the Secretary of War and the Secretary of the Navy to secure by purchase, condemnation, donation, or otherwise such basic patent or patents as they may consider necessary to the manufacture and development of aircraft in the United States for governmental and civil purposes.'

"I should much prefer to handle the patent situation by purchase under the above law within the limit of the appropriation made, but have not found the owners of the Wright patents willing to agree to a figure which would enable this to be done. Apparently the only action practicable under the act of March 2, 1917, would be to proceed to condemn the necessary patents. This I am loath to do under present conditions if some other reasonable solution can be had. It was contemplated that under the cross-license agreement between the manufacturers of aircraft and your association royalties of $200 per plane would be paid over a term of years, with a possible maximum limit of $2,000,000 to each of two companies. It now appears, however, that owing to the great and growing requirements of the Government for aeroplanes, under the royalty of $200 per plane the limit of $4,000,000 would be paid by the Government alone during the next few months. I consider this excessive and inadmissible.

"The maximum payments which would, in my opinion, be at all acceptable under the cross-license agreement would be as follows:

"(*a*) On all planes shipped to the United States Government after December 31, 1917, the royalty to be reduced to $100 per plane.

Digitized by Google

"(b) When the Wright-Martin and the Curtiss Cos. have together received royalties for machines bought by the Government not to exceed the aggregate amount of $2,000,000, no further royalties to be paid for the use of the patents controlled by the Manufacturers' Aircraft Association by the United States Government during the period of the present war.

"If the cross-license agreement is modified as above, I will agree with the Secretary of War that all makers of aeroplanes for the War and Navy Departments on the cost-plus basis will be reimbursed for royalties paid to your association as above.

"In view of the fact that early action by the Departments is required in connection with contract provisions referring to your association, it is essential that modifications in the agreement necessary for the Navy Department to approve payments of royalties, if made at all, should be made at once."

Subsequently, and presumably in accordance with the views thus expressed in the quoted letter, a supplemental cross-license agreement was entered into between the Manufacturers' Aircraft Association and the subscribers, whereby the payments stipulated for in the original cross-license agreement were modified to provide for payments as follows:

"Now, therefore, this agreement witnesseth:

"That for and in consideration of the premises, covenants, and conditions herein contained and other good and valuable considerations moving between the company and each of the subscribers hereto, and between the subscribers themselves:

"It is covenanted and agreed as follows:

"First. That on the 10th days of January, April, July, and October, in each year, each subscriber shall report to the company the number of airplanes (with or without engines), sold and delivered by it, during the 3 preceding calendar months, to the United States Government; (1) under flat-price contracts entered into prior to April 1, 1918; (2) under flat-price contracts entered into after March 31, 1918; (3) under cost-plus contracts on which deliveries were made prior to January 1, 1918, unless the same have been heretofore reported; (4) under cost-plus contracts on which deliveries have been or shall be made after December 31, 1917.

"Second. On the 10th days of January, April, July, and October, in each year, each subscribed shall pay into the treasury of the company on each airplane (with or without engines) delivered to the United States Government by it during the 3 preceding calendar months, the following sums of money, to wit: (1) two hundred ($200) dollars on each airplane which has been or shall be delivered under flat-price contracts entered into prior to April 1st, 1918; (2) one hundred ($100) dollars on each airplane which shall be delivered under flat-price contracts entered into after March 31, 1918; (3) two hundred ($200) dollars on each airplane delivered prior to January 1, 1918, under cost-plus contracts; and (4) one hundred ($100) dollars on each airplane which has been or shall be delivered after December 31, 1917, under cost-plus contracts. Said payments to be made until such time as the Wright-Martin Aircraft Corporation and the Curtiss Aeroplane and Motor Corporation shall have been paid the aggregate sum of two million ($2,000,000) dollars as provided for in paragraph third hereof.

"Third. Out of the moneys paid into the company pursuant to the provisions of paragraph second hereof, the following payments shall be made by the company, on the 20th days of January, April, July, and October, in each year, to wit: To the Wright-Martin Aircraft Corporation sixty-seven and one-half percent (67½%), of the amount received on each airplane (with or without engines), and to the Curtiss Aeroplane and Motor Corporation twenty percent (20%) of the amount received on each airplane (with or without engines). Said payment shall be made until the sums paid to the Wright-Martin Aircraft Corporation and the Curtiss Aeroplane and Motor Corporation under and pursuant to the terms of this supplemental agreement and the original agreement of July 24th, 1917, and from any other source paying royalties to the Manufacturers' Aircraft Association, shall amount in the aggregate to two million ($2,000,000) dollars, when and after which time the said subscribers shall not be obliged to pay any royalties for the use of the patents now owned or controlled by the subscribers or the company in any

Digitized by Google

airplane sold and delivered by them to the United States Government during the period of the present war with the Imperial German Government.

"Fourth. Except as herein modified the original agreement of July 24, 1917, shall be and remain in full force and effect between the parties thereto and all other persons, firms, or corporations who may become subscribers thereto, it being understood, however, that such sums as are paid to the Wright-Martin Aircraft Corporation and Curtiss Aeroplane and Motor Corporation pursuant to the provisions of this supplemental agreement shall be credited upon and shall constitute a part of the moneys which they are entitled to receive under and pursuant to the provisions of paragraph IX of said original agreement.

"Fifth. Nothing herein contained shall be taken, considered, or construed as fixing the reasonable value of the royalties to be paid for the use of the patents now owned or controlled by the subscribers. The price herein agreed upon for royalties upon airplanes furnished during the present emergency to the United States Government is so fixed for the sole purpose of enabling the Government to acquire airplanes manufactured under said patents upon a preferential basis during the period of the present war."

Following the entering into this supplemental agreement the Secretary of the Navy, under date of March 28, 1918, addressed Mr. Bradley, of the Manufacturers' Aircraft Association, as follows:

"I have seen the proposed supplementary agreement modifying the terms of the original cross-license agreement, between the manufacturers and the Manufacturers Aircraft Association, Inc., granting a preferential royalty to the Government and limiting the maximum amount of royalty to be paid to the owners of the patents during the period of the war to $2,000,000.

"This agreement, as modified, meets the conditions laid down by me and should be accepted promptly by all manufacturers of aircraft under Government contracts, and by the owners of the patents.

"In consideration of the reduced royalties therein provided for on the patents now owned or controlled by the association or its subscribers for use on all airplanes manufactured and delivered to the United States Government during the period of the war, I will agree—

"1. That the contracting and disbursing officers of the Navy Department shall allow and will be directed to allow as an element of cost in all cost-plus contracts, the royalties paid under the cross-license agreement and the supplementary agreement above referred to, to the amount and in the manner provided for in said agreements.

"2. That the Navy Department will pay to the Manufacturers Aircraft Association, Inc., a royalty of $100 per plane on all aeroplanes manufactured by the Navy Department. It being understood that the payments so made shall be included in the $2,000,000, total allowed to the owners of the patents during the period of the war and with the further understanding that a detailed agreement will be made, setting forth that such payments shall be complete and full compensation for the use of all the patents now controlled by the Manufacturers Aircraft Association, Inc., for the aeroplanes manufactured by the Navy Department during the period of the war. Said payment of $100 per plane to cease when the sum of $2,000,000 has been realized by the owners of the patents.

"I have conferred with the Acting Secretary of War about this matter, and he authorized me to say that he concurs in the statements made above, with the understanding, of course, that the same agreement made to the Navy Department will operate with respect to the War Department. And if the War Department shall undertake the manufacture of its own planes, it will agree to pay the same royalty as the provision requires the Navy Department to pay."

The agreement as thus expressed by the Secretary of the Navy was approved by the Secretary of War in substantially the same phraseology under date of April 5, 1918.

The Revised Statutes, section 3744, provide:

"It shall be the duty of the Secretary of War, of the Secretary of the Navy, and of the Secretary of the Interior to cause and require every contract made by them severally on behalf of the Government, or by their officers under them appointed to make such contracts, to be reduced to writing, and signed by the contracting parties with their names at the end thereof; a copy of which

Digitized by Google

shall be filed by the officer making and signing the contract in the returns office of the Department of the Interior, as soon after the contract is made as possible, and within 30 days, together with all bids, offers, and proposals to him made by persons to obtain the same, and with a copy of any advertisements he may have published inviting bids, offers, or proposals for the same. All the copies and papers in relation to each contract shall be attached together by a ribbon and seal, and marked by numbers in regular order, according to the number of papers composing the whole return."

See also in this connection sections 3745, 3746, Revised Statutes.

The section above quoted has been held by the courts to be mandatory, and in effect prohibits and renders unlawful any other mode of making a contract with the United States by these Departments, *Clark* v. *United States*, 95 U. S. 539, and contracts not so made are rendered void as a special contract and cannot become the basis upon which to sue, to the extent not performed. *St. Louis Hay and Grain Co.* v. *United States*, 191 U. S. 159. *Erie Coal and Coke Corpn.* v. *United States*, 266 U. S. 518, decided by United States Supreme Court January 5, 1925.

The agreement may be summarized that the United States would allow as an element of cost in all cost-plus contracts for the construction of airplanes for the United States, the royalties payable under the cross-license agreement and the supplementary agreement, and similarly a royalty of $100 where airplanes were manufactured by the War and Navy Departments in the United States during the period of the war, the payments so made to be included in the $2,000,000 total allowed to the owners of the patents during the period of the war, and that a detailed agreement be made setting forth that such payments shall be complete and full compensation for the use of all the patents then controlled by the association, for the airplanes manufactured during the period of the war, it being expressly stipulated that said payment of $100 per plane should cease when the sum of $2,000,000 was realized by the owners of the patents.

The Manufacturers' Aircraft Association, in presenting its claim for $141,800 royalty due, states that the total amount of royalty paid (received), during the period of the war, amounted to $1,831,200, which was $168,800 less than the total of $2,000,000 agreed upon as the limit for that period. This sum of $1,831,200, however, only represents the amount paid by the Manufacturers' Aircraft Association to the Wright and Curtiss interests, two of the patentee associates, on the basis provided in the cross-license agreement, namely, 87½ percent of $100, and would make the actual payments $2,092,800, but the records show the actual amount paid to be $2,094,600, as follows, for the period of the war ending July 2, 1921:

	Planes	Royalty
Aeromarine Co	253	$45,600
Burgess Co	370	38,100
Boeing Airplane Co	92	14,900
Packard Co	33	3,300
Dayton Wright Co	3,533	356,300
Fisher Body Corporation	2,003	200,300
Curtiss Aeroplane & Motor Corporation	5,359	855,300
Curtiss Engine Corporation	272	41,500
Gallaudet Aircraft Co	65	6,500
L. W. F. Engineering Co	363	47,400
Glenn L. Martin Co	56	6,600
Standard Aircraft Corporation	227	22,700
Standard Aero Corporation	897	110,700
Sturtevant Aero Corporation	13	2,600
Springfield Aircraft Corporation	585	58,500
St. Louis Aircraft Co	450	90,000
Thomas Morse Co	640	116,300
Wright Martin Co. of Calif	49	9,800
Wright Martin Corporation	7	1,200
Wright Aeronautical Corporation	97	21,700
Elias & Bro., Inc	3	300
War Department	12	1,200
Navy Department	438	43,800
Total	15,818	2,094,600

Digitized by Google

The difference of $1,800, between $2,092,800 and $2,094,600, arises from a supplemental report of payments to the last quarter of 1919. Distribution of the foregoing sum is disclosed to have been made as follows:

	Planes	Royalty
Aeromarine Co.	243	$45,600
Burgess Co.	370	38,100
Boeing Airplane Co.	92	14,900
Packard Co.	33	3,300
Dayton Wright Co.	3,533	356,300
Fisher Body Corporation	2,003	200,300
Curtiss Aeroplane & Motor Corporation	5,359	855,300
Curtiss Engine Corporation	272	41,500
Galluedet Aircraft Co.	65	6,500
L. W. F. Engineering Co.	363	47,400
Glenn L. Martin Co.	56	6,600
Standard Aircraft Corporation	227	22,700
Standard Aero Corporation	897	110,700
Sturtevant Aero Corporation	13	2,600
Springfield Aircraft Corporation	585	58,500
St. Louis Aircraft Co.	450	90,000
Thomas Morse Co.	640	116,300
Wright Martin Co. of California	49	9,800
Wright Martin Corporation	7	1,200
Wright Aeronautical Corporation	97	21,700
Elias & Bro., Inc.	3	300
War Department	12	1,200
Navy Department	438	43,800
Total	15,818	2,094,600

To Wright-Martin interests	$1,413,855
To Curtiss interests	418,920
To Manufacturers' Aircraft Association	261,825
Total	2,094,600

There arises a question as to the reasons for the discrepancy between this amount of over 2 millions evidenced as paid, and the claim that the 2 millions, allowed to the owners of patents, has not been reached, a difference of $261,825. The cause of this great variation based upon the assertion of the claimant is evidently found in the sections of the supplemental cross-license agreement providing that out of the royalties paid to the Manufacturers' Aircraft Association by the associates 67½ percent shall be paid to the Wright-Martin interests and 20 percent to the Curtiss interests, until the sums paid those two interests shall amount in the aggregate to $2,000,000. This would interpret that the agreement of the United States was to pay royalties pursuant to the distribution provided for under the supplemental cross-license agreement until the Wright-Martin-Curtiss interests had received $2,000,000, and would make the royalty payable $112.50 per airplane instead of $100 per airplane. This appears to have been the procedure followed by the parties, but it does not clearly appear to have been the intent of the Secretary of the Navy as disclosed by his communications herein quoted. The Secretary of the Navy stipulated that the $2,000,000 total allowed to the owners of the patents during the period of the war shall be complete and full compensation for all the patents so controlled, and that payment of $100 per plane was to cease when the sum of $2,000,000 had been realized by the owners of the patents.

The fact that production of airplanes was, during the war, practically all for the United States, and that the onus of paying royalty was primarily upon the Government, argues an intention that royalty for use of their patents be restricted to a total payment of $2,000,000 for the patents thus controlled. It is clear at least that whatever the United States is to pay, is to be paid to the patentees as royalty, and if the payment of $100 per plane is to cease when the sum of $2,000,000 has been realized by the owners of the patents, upon what basis may a claim to further sums be based, and for what and to whom are such additional sums to be paid? The sum of $2,000,000 is no less realized in gross by providing for a distribution by percentages among the parties as set forth in the supplemental cross-license agreement. There is nothing to

Digitized by Google

disclose an intent that the $2,000,000 should be computed on a net basis by first deducting the 12½ percent the cross-license agreement entitled the Manufacturers' Aircraft Association to receive in the distribution of the sums received at $100 per airplane.

The agreement is between the parties thereto and the United States is not materialy concerned in the method of distributing the receipts from royalty among the associated patentees. The United States was mainly concerned in that no more than $100 per plane should be paid until the maximum of $2,000,000 was reached, and any intersese conditions respecting disposition of receipts cannot operate to increase the obligation of the Government.

The claim, so far as it involves the difference of 12½ percent, is based upon the assumption of a contract between the United States and the Manufacturers' Aircraft Association, by which that corporation asserts its right to payment of $100 per plane until the Wright-Martin and Curtiss interests alone shall have been paid the $2,000,000, equivalent of 87½ percent apportioned to them in the supplemental cross-license agreement, the Manufacturers' Aircraft Association retaining the difference for its corporate purposes. But the entire claim fails as an enforceable agreement with the Manufacturers' Aircraft Association through lack of such consideration moving from it as would establish privity of contract, and as a claim of the patentees based upon a quantum valebant, there is no consideration moving to the United States to support the difference of 12½ percent over $2,000,000 allowable as for patent rights.

The Secretaries of War and Navy had authority to enter into a valid agreement to pay royalty so limited to the specified amount of $2,000,000, as the necessary consideration for the use of all patents thus pooled, but when that total sum was paid as royalty, any further sum being without consideration constituted nothing more than a gratuity for which no public officer had authority to obligate the United States.

It may be added that a contract formally executed on the 11th day of March 1919 between the Wright-Martin Aircraft Corporation and the Curtiss Airplane & Motor Corporation, parties of the first part, and termed associates, the Manufacturers' Aircraft Association, Inc., as agent and attorney for the associates, and the United States, represented by the Secretary of the Navy, provided for the use of the airplane patents on aircraft to be constructed at any of the navy yards or naval factories during the period of the war; and, further, that the Department will pay to the Manufacturers' Aircraft Association and the Manufacturers' Aircraft Association will receive for and in behalf of the associates a royalty in the sum of $100 for and on account of each and every airplane manufactured or caused to be manufactured by the Department during the period of the war at any of its navy yards or naval factories and the associates agree that the aforesaid royalties, when so paid to and received by the Manufacturers' Aircraft Association, shall constitute and be accepted by them as compensation in full for and on account of the use in the construction of the aforesaid airplanes, etc.

This contract taken in connection with paragraph 2 of the letter dated March 28, 1918, from the Secretary of the Navy, addressed to the Manufacturers' Aircraft Association, supra, is evidentiary of the fact that the Secretary of the Navy understood that the royalty to be paid for the use of the patents during the war should be $100 per plane and no more.

It is disclosed by the evidence at hand that there has already been received as royalty paid during the period of the war $2,094,600, or $94,600 in excess of $2,000,000, properly creditable to the associated patentees in accordance with the proper interpretation of the terms of the agreement expressed by the Secretaries of War and Navy. The further amount, $141,800, now claimed must be and is disallowed. The apparent excess payment of $94,600 arises from the procedure of allowing 12½ percent to the Manufacturers' Aircraft Association before application of the payments to the $2,000,000 limitation. Such excess payment will not be further questioned at this time, but may be taken into consideration in the adjustment of claims for royalties upon patents used in aircraft construction subsequent to the war period and prior to September 30, 1925.

(Signed) J. R. McCarl,
Comptroller General of the United States.

Digitized by Google

COMPTROLLER GENERAL OF THE UNITED STATES,
Washington, April 28, 1928.

A-11220.

The Manufacturers' Aircraft Association, Inc., requested reconsideration of a decision by this office May 12, 1927, disallowing its claim for $141,800 as royalties payable by the United States for the use by or for the War Department in aircraft production of aircraft patents during the war period and prior to July 1, 1921, the claim being asserted as pursuant to a cross-license agreement of July 24, 1917, as subsequently modified.

It may be observed generally as to the claims asserted by the association that the cross-license agreement was, as stated, an arrangement between those who owned or controlled certain patents, the use of which patents was thought necessary in connection with production of aircraft for the prosecution of the war, whereby in the use of the patents involved, or any of them, in the manufacture of aircraft, those so associated operated as the Manufacturers' Aircraft Association, Inc. It was thereby made possible for manufacturers of aircraft to obtain license, through the association, to use any or all of such patents at a fixed price per plane manufactured. In the beginning this price was $200 per plane, and there was stipulated in the agreement the division to be made of all moneys received by the association, to wit: $135 per plane to the Wright-Martin Aircraft Corporation, until $2,000,000 shall have been paid to it; $40 per plane (and later $175) to the Curtiss Aeroplane & Motor Corporation, until $2,000,000 shall have been paid to it, and the balance to the subscribers after payment of expenses of the association, and payment for use of after acquired patents, drawings, and specifications of special makes.

The Government was engaged in a war and in need of aircraft. To obtain such needed aircraft it appeared necessary to make use of said patents owned by the Wright-Martin and the Curtiss interests. To enable the Secretary of War and the Secretary of the Navy to obtain patents needed in the manufacture of aircraft the Congress, by an enactment approved March 2, 1917, appropriated $1,000,000—

"* * * to enable the Secretary of War and the Secretary of the Navy to secure, by purchase, condemnation, donation, or otherwise, such basic patent or patents as they may consider necessary to the manufacture and development of aircraft in the United States for governmental and civil purposes."

Being unable to acquire the needed patents through purchase at satisfactory terms and within the limits of said appropriation, the Secretary of the Navy negotiated for their use in the construction of aircraft by and for the United States. Owing to the large number of planes needed by the United States he was unable to agree, however, that a charge of $200 per plane, as contemplated by the patent owners' agreement, aforesaid, was justified, and he so advised the general manager of the association by letter dated March 8, 1918, advising also that a royalty of $100 per plane on planes shipped to the United States after December 31, 1917, would be the maximum the Government should pay, and this only until the Wright-Martin and the Curtiss interests, together, had received royalties for machines bought by the Government not in excess of $2,000,000, when no further royalties would be paid by the United States for use of patents controlled by the association during the remainder of the war period.

The Secretary having thus stated the maximum the United States would do in the matter of payments for uses of the patents, the members of the association amended their cross-license agreement reducing the royalty charge for planes manufactured by or for the United States to $100 per plane, the provision for division of moneys received being, Wright-Martin 67½ percent and Curtiss 20 percent until the sums paid them, pursuant to the original and the amended cross-license agreement, and from any other source paying royalties to the association, should amount in the aggregate to $2,000,000.

For aircraft manufactured by and for the United States there has heretofore been paid for the use of the patents here involved a total of $2,094,600, or $94,600 more than the maximum amount fixed by the Secretary of the Navy in his letter of March 8, 1918. Of this total it appears the Wright-Martin interests have received $1,413,855, the Curtiss interests have received $418,920, and the association itself has retained the balance, $261,825. The present claim is asserted by the association, in the sum of $141,800, as royalties unpaid

Digitized by Google

on planes manufactured for the United States, and was disallowed by this office in substance because the royalties the Government might properly pay, under the facts as disclosed and without regard to any question of appropriation limitation, was $100 per plane until there had been paid a total of $2,000,000 and that there having been paid $2,094,600, there was an apparent overpayment of $94,600. It is asserted in favor of the claim, in substance, that what was intended in the arrangement made by the Secretary of the Navy with the association as to the Government's payments of royalty for the use of the patents, was, that not the entire $100 payable per plane manufactured by or for the United States was to be counted in making up the $2,000,000 stipulated as the maximum amount payable by the United States, but that only the portions, 67½ percent and 20 percent, totaling 87½ percent, receivable by the Wright-Martin and the Curtiss interests pursuant to the arrangement made by the patent owners for division of moneys received by the association. This phase of the matter has heretofore been carefully considered, and nothing has been advanced justifying a change in the adverse conclusion then reached. It is to be observed in such connection that the matter of the division and disposition of moneys received from the United States as royalties and from any other source paying royalties to the Manufacturers' Aircraft Association, was one for adjustment by the members of the association and was adjusted by them in their cross-license agreement, to which agreement the United States was not a party. It is to be observed, also, that in the negotiations and arrangements made by the Secretary of the Navy with the association, which arrangement was concurred in by the Secretary of War, the Secretary was much concerned as to the maximum amount that might be payable by the United States for the use of the patents, and as to this he made it quite clear that the limit would be $2,000,000. He at no time appears to have purposed that such sum should be exceeded, but notwithstanding this it appears there has already been collected by the association from the United States $94,600 in excess of such maximum of $2,000,000.

But there appears still another feature of the matter for consideration: Apparently the limits of the authority of the Secretary of the Navy in the matter were in the appropriation provision hereinbefore quoted, act of March 2, 1917, 39 Stat. 1169, to which the attention of the association was specifically called by the letter of the Secretary dated March 8, 1918. With an appropriation limitation of $1,000,000 for purchase, condemnation, etc., as stipulated in the law, there was lacking authority in obtaining a lesser right, that of mere use of the patents, to exceed the limitation fixed by law for purchase of the patents. Without at this time disturbing what was done then, it is sufficient to say that considering all of the material facts, including the appropriation limitation, there is no authority to allow any further payments upon claims under the cross-license agreement of July 24, 1917, or as modified, or otherwise for the use of the patents by or for the United States during the war period.

There was also requested review of settlement no. 137784 (1) of August 4, 1927, wherein was disallowed the claim of the association for royalties in the use of aircraft patents by the War and Navy Departments in aircraft production during the period July 1, 1921, to June 30, 1926, inclusive. The amount involved in this claim for the alleged use of the patents in question for the respective years mentioned, so far as can be ascertained from the presentation by claimant, is $55,000, being at the rate of $200 per plane on 275 airplanes. Insofar as the records of this office disclose, it has not been shown by any competent evidence that said patents were used on any airplanes manufactured by or for the War or Navy Departments during those years; or if so used, that payment therefor has not been heretofore made either directly or indirectly. No specific data has been furnished by claimant upon which the claim could be definitely examined into and checked. As stated by the claimant itself on various invoices, the charges are based upon unofficial information of procurement. The claim presents no valid basis upon which there could be made any allowance and a complete acquittance be thereby given the Government. There appears nothing tangible to show that the value of the patent use claimed was any greater subsequent to the war period than during the war period when the use had relation to the cross-license agreement of 1917, as modified, and to justify a higher rate than $100 for the period subsequent to the war. In this connection, attention is also invited to the provisions of the act of June 25, 1910 (36 Stat. 851), providing for recovery by suit in the Court of Claims for use of patents by the United States without license from the

Digitized by Google

owner. But if there should be any amount due in such connection, it would be for application as a credit on the overpayments heretofore obtained by the association as hereinbefore mentioned.

(Signed) J. R. McCARL,
Comptroller General of the United States.

COMPTROLLER GENERAL OF THE UNITED STATES,
Washington, March 2, 1935.

A-7155.

The Chairman, Select Committee of Inquiry Into Operations of the United States Air Service, House of Representatives:

SIR: In further compliance with the request of the committee, expressed in letter to this office dated December 24, 1924, for report upon some 20 questions propounded for consideration as embodied in the report of Alexander M. Fisher, dated December 7, 1924, pages 8 and 9, there have been taken up for investigation the following subjects upon which report is made of such information as has been obtainable to date. The facts and copies of papers reported and furnished herewith are largely subject to verification, the despatch with which the report is desired not permitting further delay in determining the accuracy thereof; and it should be understood that the conclusions reached are not to be taken as final as to any matter presented here for decision, and necessarily are based upon the limited study of the matters involved permitted by the time allowed for making this report.

For your convenience there are quoted below certain statutes bearing generally upon the acquisition of patents, patent rights or licenses, thereunder applicable at times before and after the execution of the cross-license agreement.

The act of March 3, 1915, 38 Stat. 930, provides:

"AERONAUTICS.—The sum of $1,000,000 is hereby reappropriated out of the unobligated balances of the appropriations 'Construction and repair of vessels and steam machinery' for the fiscal year ending June thirtieth, nineteen hundred and fourteen, and made available for aeronautics, to be expended under the direction of the Secretary of the Navy for procuring, producing, constructing, operating, preserving, storing, and handling aircraft and appurtenances, maintenance of aircraft stations and experimental work in development of aviation for naval purposes.

"An Advisory Committee for Aeronautics is hereby established, and the President is authorized to appoint not to exceed twelve members, to consist of two members from the War Department, from the office in charge of military aeronautics; two members from the Navy Department, from the office in charge of naval aeronautics; a representative each of the Smithsonian Institution, of the United States Weather Bureau, and of the United States Bureau of Standards; together with not more than five additional persons who shall be acquainted with the needs of aeronautical science, either civil or military, or skilled in aeronautical engineering or its allied sciences: *Provided*, That the members of the Advisory Committee for Aeronautics, as such, shall serve without compensation: *Provided further*, That it shall be the duty of the Advisory Committee for Aeronautics to supervise and direct the scientific study of the problems of flight, with a view to their practical solution, and to determine the problems which should be experimentally attacked, and to discuss their solution and their application to practical questions. In the event of a laboratory or laboratories, either in whole or in part, being placed under the direction of the committee, the committee may direct and conduct research and experiment in aeronautics in such laboratory or laboratories: *And provided further*, That rules and regulations for the conduct of the work of the committee shall be formulated by the committee and approved by the President."

The act of March 4, 1917, 39 Stat. 1169, provides:

"To enable the Secretary of War and the Secretary of the Navy to secure by purchase, condemnation, donation, or otherwise, such basic patent or patents as they may consider necessary to the manufacture and development of aircraft in the United States and its dependencies, for governmental and civil purposes, under such regulations as the Secretary of War and the Secretary of the Navy may prescribe, $1,000,000.

Digitized by Google

"*Provided*, That such arrangements may be made in relation to the purchase of any basic patent connected with the manufacture and development of aircraft in the United States as in the judgment of the Secretary of War and the Secretary of the Navy will be of the greatest advantage to the Government and to the development of the industry.

"*Provided further*, That in the event there shall be pending in court litigation involving the validity of said patent or patents, bond, with good and approved security in an amount sufficient to indemnify the United States, shall be required, payable to the United States, conditioned to repay to the United States the amount paid for said patent or patents in the event said patent or patents are finally adjudged invalid."

The act of October 1, 1917, 40 Stat. 296, which was "An Act to create the Aircraft Board and provide for its maintenance" provides:

"That for the purpose of expanding and coordinating the industrial activities relating to aircraft, or parts of aircraft, produced for any purpose in the United States, and to facilitate generally the development of air service, a board is hereby created, to be known as the Aircraft Board, hereinafter referred to as the board.

"SEC. 2. That the board shall number not more than nine in all, and shall include a civilian chairman, the Chief Signal Officer of the Army, and two other officers of the Army to be appointed by the Secretary of War; the Chief Constructor of the Navy, and two other officers of the Navy to be appointed by the Secretary of the Navy; and two additional civilian members. The chairman and civilian members shall be appointed by the President, by and with the advice and consent of the Senate.

* * * * * * *

"SEC. 4. That the board is hereby empowered, under the direction and control of and as authorized by the Secretary of War and the Secretary of the Navy, respectively, on behalf of the Departments of War and Navy, to supervise and direct, in accordance with the requirements prescribed or approved by the respective departments, the purchase, production, and manufacture of aircraft, engines, and all ordnance and instruments used in connection therewith, and accessories and materials therefor, including the purchase, lease, acquisition, or construction of plants for the manufacture of aircraft, engines, and accessories: *Provided*, That the board may make recommendations as to contracts and their distribution in connection with the foregoing, but every contract shall be made by the already constituted authorities of the respective departments."

The questions propounded will be reported upon in the order stated, as follows:

"1. What statutory authority has there been or is there for the cross-license agreement?"

I know of no specific statutory authority for the agreement between the subscribers and the Manufacturers Aircraft Association, Inc., executed under date of July 24, 1917, known as the cross-license agreement, so far as it comprises an *inter sese* matter of the parties.

"2. Has the United States been made a party directly or through transactions if not specifically included in the agreement?"

The cross-license agreement as disclosed by its terms is an *inter partes* arrangement of the principal patentees and manufacturers of airplanes and parts, in which the United States did not join. It appears, however, that it was contemplated that the United States should become a party upon a contractual basis and, accordingly, its connection with the association took the form of an agreement evidenced only by letters of the Secretary of the Navy and the Secretary of War, dated March 28, 1918, and April 5, 1918, respectively, approving and agreeing with reference to the terms of the cross-license agreement, copies herewith. This agreement purports to be accepted on behalf of the Manufacturers Aircraft Association by letters dated April 27, 1918, signed by Samuel S. Bradley, general manager, copies herewith. In addition thereto, a formal contract under seal no. 2635, dated March 11, 1919, was made and concluded by and between three of the parties to the cross-license agreement, as follows—quoting as far as pertinent:

"CONTRACT, of two parts, made and concluded this 11th day of March 1919, by and between the Wright-Martin Aircraft Corporation, a New York corporation, and the Curtiss Aeroplane & Motor Corporation, a New York corporation, parties of the first part (hereinafter called the associates), the Manufacturers Aircraft

Digitized by Google

Association, Inc., a New York corporation, as agent and attorney for the associates, party of the second part, and the United States, represented by the Secretary of the Navy, party of the third part (hereinafter called the Department).

"Whereas the associates own or control certain United States patents covering important inventions relating to aircraft; and

"Whereas the Department desires to manufacture, or has manufactured, at its navy yards and naval factories, airplanes in the construction of which certain of the aforesaid inventions may be or have been used:

"Now, therefore, it is hereby agreed by and between the parties hereto as follows:

"1. The Department shall have the right to use in the construction of airplanes at any of its navy yards or naval factories, during the period of the war, all or any of the inventions covered by any and all 'airplane' patents (not including engines and engine accessories) now owned by the associates jointly or severally, or under which they jointly or severally now have the right to grant a license, each of the associates hereby agreeing jointly with the other associate where their interests are joint and severally where their interests are several.

"2. The Department will pay to the Manufacturers Aircraft Association and the Manufacturers Aircraft Association will receive for and in behalf of the associates, a royalty in the sum of one hundred ($100) dollars for and on account of each and every airplane manufactured or caused to be manufactured by the Department (during the period of the war) at any of its navy yards or naval factories, and the associates agree that the aforesaid royalties when so paid to and received by the Manufacturers Aircraft Association shall constitute and be accepted by them as compensation in full for and on account of the use in the construction of the aforesaid airplanes of every airplane invention (not including inventions on engines and engine accessories) owned or controlled by them or either of them, but nothing herein contained shall be construed as a waiver of any rights as to royalties on airplanes manufactured by or for the Government after the period of war or on airplanes manufactured by aircraft manufacturers for the Government during the war period.

* * * * * * *

"Signed and sealed in the presence of—

"WRIGHT MARTIN AIRCRAFT CORP.,
"GEORGE H. HOUSTON, *President.*
"CURTISS AEROPLANE AND MOTOR CORPORATION,
"By W. B. STRATTON, *V. Pres.*
"MANUFACTURERS AIRCRAFT ASSOCIATION, INC.
"By A. H. FLINT, *President.*
"THE UNITED STATES,
"By F. D. ROOSEVELT,
"Acting Secretary of the Navy."

(See copy of contract attached.)

"3. Has the validity of the patents or rights covered by the cross-license agreement been determined and to what extent?"

The only record found in the digested cases of the Federal courts of any litigation of aircraft patents, covered by the cross-license agreement, involved the Curtiss and Wright patents upon questions of infringement only, as follows:

Curtiss Aeroplane and Motor Corporation et al. v. *Jarvis et al.* (278 Fed. 454), decision in favor of the Curtiss invention.

Wright Company v. *Herring-Curtiss Co.* (177 Fed. 257; 204 Fed. 597; affirmed in 211 Fed. 654), holding the Wright patent basically of such a comprehensive principle that other patents of the character must of necessity infringe.

There is found no specific case of an adjudication as to the validity of any of the patents, their validity being taken as prima facie, as evidenced by the letters patent.

"4. What specific patents and rights are included in the cross-license agreement?"

There is attached hereto list of all patents identified under membership designation, so far as disclosed upon inquiries made to date.

"5. Have any of these specific patents or rights failed in validity, and if so, does the consideration fail because of an indivisible payment?"

As stated under question no. 3, so far as can be ascertained from digest of court records, with one exception, none of the specific patents or rights subject to the cross-license agreement has failed in validity—that is, been declared

Digitized by Google

invalid by the courts. The exception involves the Curtiss rights litigated in *Wright Co.* v. *Herring-Curtiss Co.*, *supra*, wherein the Curtiss patent was adjudged an infringement of the Wright principles.

Under the terms of the cross-license agreement, making each patent available to all subscribers, who appear to own the most important aircraft patents, there seems little likelihood of an attack upon the validity of any patent subject to that agreement.

As to the general effect of the invalidity of the thing supporting the consideration, the opinion is expressed that the failure of any inconsiderable part would not effect a complete failure of consideration unless it involved such a defeasance as would amount substantially to the extinction of the subject matter of the agreement. Less than a considerable decimation would appear to give merely a right to some abatement of the consideration.

"6. Under what State was the Manufacturers Aircraft Association incorporated?"

The articles and certificate of incorporation (copy herewith) recite that the Manufacturers Aircraft Association, Inc., was incorporated in and is a corporation of the State of New York.

"7. If in New York State, is it a business corporation under the laws of that State?"

Chapter 28 of the Laws of New York, acts of 1909, "Cahill's Consolidated Laws of New York, 1923, Corporatio nManual 1925", under the title "General corporation laws", distinguishes certain organizations as follows:

"PAR. 2. *Classification of corporations.*—A corporation shall be either (1) a municipal corporation; (2) a stock corporation; or (3) a nonstock corporation.

"A stock corporation shall be either (1) a moneyed corporation; (2) a railroad or other transportation corporation; or (3) a business corporation.

"A nonstock corporation shall be either (1) a religious corporation; (2) a membership corporation; or (3) any corporation other than a stock corporation.

"PAR. 3. *Definitions.*—1. * * *

"2. A 'stock corporation' is a corporation having a capital stock divided into shares, and which is authorized by law to distribute to the holders thereof dividends or shares of the surplus profits of the corporation. A corporation is not a stock corporation because of having issued certificates called certificates of stock, but which are in fact merely certificates of membership; and which is not authorized by law to distribute to its members any dividends or shares of profits arising from the operations of the corporation.

"3. The term 'nonstock corporation' includes every corporation other than a stock corporation.

"4. A 'moneyed corporation' is a corporation formed under or subject to the banking or the insurance law.

* * * * * * *

"10. The term 'business of a corporation' when used with reference to a nonstock corporation includes the operations for the conduct of which it is incorporated.

"PAR. 6. Nor shall any corporation except a religious, charitable, or benevolent corporation or bar association, be authorized to do business in this State unless its name has such words or words, abbreviation, affix, or prefix, therein or thereto, as will clearly indicate that it is a corporation, as distinguished from a natural person, firm, or copartnership, or unless such corporation uses with its corporate name, in this State, such an affix or prefix.

"PAR. 10. Limitation of powers; provisions of certificate. (1) No corporation shall possess or exercise any corporate powers not given by law or not necessary to the exercise of the powers so given.

"2. The certificate of incorporation of any corporation may contain any provisions for the regulation of the business and the conduct of the affairs of the corporation, any limitation upon its powers, or upon the powers of its directors and stockholders, which does not exempt them from the performance of any obligation or the performance of any duty imposed by law."

The certificate of incorporation, by the assumption of the name 'Manufacturers Aircraft Association, Inc.", evidences the intention to establish a corporate entirety, and the preamble recites the desire to organize a stock corporation pursuant to the provisions of the "Business corporations law of the State of New York." The objects and purposes for which formed are stated in the copy of the articles of incorporation herewith.

This office would consider the organization as in form a business corporation under the laws of New York, if necessary, in matters before this

Digitized by Google

office, but the question involves a legal opinion not for rendering by this office generally.

"8. What is or has been (*a*) the relation of the Manufacturers Aircraft Association to the United States and the owners of patents or rights, or (*b*) with and between the United States and the owners of the several patents and rights cross licensed?"

The relation of the Manufacturers Aircraft Association to the owners of the association patents may best be described by transposing the relation of the terms and defining the adhering owners of the patents as corporators of the Manufacturers Aircraft Association, which thus represents their aggregate entity.

As disclosed by the articles of incorporation, the cross-license agreement, the dual agreement with the War and Navy Departments, and the formal contract with the Secretary of the Navy, the relations of the Manufacturers Aircraft Association purport a contractual relation with the United States as a corporation, but not in the manner prescribed by section 3744, Revised Statutes, except as established directly between the United States and the Wright and Curtiss interests under the contract of March 11, 1919. The cross-license agreement constitutes merely an agreement to effect mutual grants of license rights upon express conditions to subscribers only, for the accomplishment of which purposes limited powers of agency were conferred upon the corporation, and the specific powers thus granted are not interpreted as extending to an authority conferred upon the corporation to grant any license to the United States from the individual patentees thus associated.

"9. Are the relations of a fiduciary nature?"

Assuming this question as premised upon question no. 8, it may be said that the relations between the United States and the association are contractual only, while the relations between the corporation and the associate subscribers are fiduciary.

"10. Is the Manufacturers Aircraft Association not a de-facto trustee or agent for the owners of rights cross licensed under the cross-license agreement?"

The objects of the cross-license agreement concern the rights held by the associate subscribers, and the practical operation of the agreement is the conferring of a power upon the corporation to license the use of all patents thus pooled, and to collect, receive, and distribute the royalties stipulated. This power operates not merely to the execution of licenses from and to present associates but the power persists after any subscriber withdraws and may be subsequently exercised for the benefit of new members.

Considering that there is no assignment of patents, but only the grant of certain powers, the status of the Manufacturers Aircraft Association in relation to the owners of patent rights cross-licenses under the agreement is that of a fiduciary involving both the elements of trust and agency.

"11. Is it lawful for a business corporation organized under the laws of New York State or operating in the District of Columbia to act as a de-facto trustee or agent, or to act in a fiduciary relation?"

Unless the power is expressly or impliedly conferred by its charter, a corporation has no power to so act and its acts for such purposes would be ultra vires. Under a general power to form a corporation for the purpose of carrying on any lawful business or enterprise, a corporation may be formed for the purpose of carrying on the business of agency. Where a corporation has no power to engage in a particular business as principal, it has no right to do so as agent unless its principal chartered business is that of agency. The fact that in order to act as agent the corporation must act through the instrumentality of its own officers or agents does not involve a delegation of powers. In *Killingsworth* v. *Portland Trust Co.* (18 Or. 351, 23 P. 66) it was said:

"When a corporation is made the agent of another to sell and convey property, it acts through the same instrumentalities as when acting for itself, and the relations between it and its instrumentalities are as one being, or artificial person, in the performance of its engagement, and involves no delegation of powers. So that when a corporation is invested with a power of attorney to sell and convey real property, the person conveying the power knows that the corporation cannot act personally in the matter, but that in performing the engagement it will act through its agents, who for that purpose are its faculties, and whose acts in the discharge of that duty are the acts of the corporation, and as such must be considered to be included in the artificial person as instrumentalities authorized by him to do the act conferred upon it by his power of attorney."

Digitized by Google

Paragraph 10 of the laws of New York, supra, stipulated, first, that no corporation shall possess or exercise any corporate powers not given by law or not necessary to the exercise of the powers so given; and, second, that the certificate of incorporation of any corporation may contain any provisions for the regulation of the business and the conduct of the affairs of the corporation, any limitation upon the powers, or upon the powers of its directors and stockholders, which does not exempt them from the performance of any obligation or the performance of any duty imposed by law. Article 8 of the charter of the corporation includes authority—

"8. To act as agent or attorney in fact or representative of firms, corporations, or individuals, and as such to develop, extend, and promote the business interests thereof."

While there may be some doubt as to whether this provision may not be construed as contemplating the exercise of the agency or powers of attorney in fact only for corporate purpose, yet, if specifically so authorized to act in extraneous matters for private parties, it would seem that in general an act accomplished in the exercise of such powers would be valid to an extent not inconsistent with the proper function of a corporation of this particular character.

Answering the specific question, it appears that a business corporation organized under the laws of New York, and constituted as herein considered, could lawfully act as a de-facto trustee or agent in connection with the purposes of the cross-license agreement, to the extent so specifically empowered, and assume in connection with such duty an incidental fiduciary responsibility.

"12. Under what statutory authority may the United States make payments to an agent?"

I know of no general statutory authority for the United States to make payment to an agent. On the contrary, section 3477, Revised Statutes, prohibits such payments, it being stipulated as follows:

"All transfers and assignments made of any claim upon the United States, or of any part or share thereof, or interest therein, whether absolute or conditional, and whatever may be the consideration therefor, and all powers of attorney, orders, or other authorities for receiving payment of any such claim, or of any part or share thereof, shall be absolutely null and void, unless they are freely made and executed in the presence of at least two attesting witnesses, after the allowance of such a claim, the ascertainment of the amount due, and the issuing of a warrant for the payment thereof. Such transfers, assignments, and powers of attorney must recite the warrant for payment, and must be acknowledged by the person making them before an officer having authority to take acknowledgments of deeds, and shall be certified by the officer; and it must appear by the certificate that the officer, at the time of the acknowledgment, read and fully explained the transfer, assignment, or warrant of attorney to the person acknowledging the same."

This act aims at the payment of public money to any representative of the principal claimant, whether demanding as assignee or agent through power of attorney, and in the interpretation of this act the courts have held that it comprehends all demands against the United States for the payment of money.

The following sections of the Revised Statutes also having a bearing upon this question:

"SEC. 3620. It shall be the duty of every disbursing officer having any public money intrusted to him for disbursement to deposit the same with the Treasurer or some one of the Assistant Treasurers of the United States, and to draw for the same only as it may be required for payments to be made by him in pursuance of law [and to draw for the same only in favor of the persons to whom payment is made;] * * *."

"SEC. 3737. No contract, or order, or any interest therein, shall be transferred by the party to whom such contract or order is given to any other party, and any such transfer shall cause the annulment of the contract or order transferred, so far as the United States are concerned. All rights of action, however, for any breach of such contract by the contracting parties are reserved to the United States."

"13. Does it not require that powers of attorney for each transaction on behalf of a principal and each principal for an agent to receive vouchers in payment of debts of the United States?"

It is required and necessary for an agent to receive payment of amounts due from the United States that the power of attorney be executed by the principal in the manner prescribed by section 3477, supra.

Digitized by Google

"14. Have payments been made to the Manufacturers Aircraft Association contrary to the United States statutes?"

The payments appearing of record as made directly to the Manufacturers Aircraft Association aggregate $43,800, effected by disbursing officers' checks pursuant to the contract with the Navy Department dated March 11, 1919, supra. While the contract incorporates the power of attorney in terms for the Manufacturers Aircraft Association to receive payment on account of the principals and is not in accordance with section 3477, supra, credit for the payments so made were allowed in the disbursing officers' accounts under decisions of the courts to the effect that payments made to assignees or agents upon legally executed unrevoked assignments or powers of attorney accomplished a valid acquittance between the parties.

"15. Have vouchers been drawn in favor of principals, that is, the owners of the several patents and rights, or have they been drawn in favor of the Manufacturers Aircraft Association as de-facto agents of such principals?"

There have not been disclosed other vouchers executed in favor of the Manufacturers Aircraft Association (than as stated in reply to question no. 14) nor in favor of any of the associate owners of the several patents or rights, as principal, covering payment of royalties. Any other payments which may have been made in accordance with the cross-license agreement were probably absorbed as an element of compensation under direct contracts with the associate subscribers for aircraft at fixed prices, it having been ruled by the former Comptroller of the Treasury that in the absence of specific provisions the payment of royalty was not authorized to be reimbursed as an item of cost under cost-plus contracts.

"16. Under what statutory authority may the United States be made a trustee or guarantor as to the collection, disbursement, or payments of moneys or accounts, due to private individuals on account of such an agreement as the cross-license agreement of the Manufacturers Aircraft Association?"

I know of no statute empowering any Government officer or agent to obligate the United States to act or assume responsibility as a trustee or guarantor with reference to any matter arising under the cross-license agreement.

"17. Were preferential arrangements made in connection with the cross-license agreement or by the Manufacturers Aircraft Association concerning the Wright or Curtiss patents or any of them?"

The cross-license agreement appropriates a distinctly preferential proportion of 87½ per centum of any royalties received to the Wright and Curtiss patent interests, but there appears no agreement with the United States involving any such preferential arrangement under the cross-license agreement.

"18. As a matter of fact were the basic Wright and Curtiss patents used on any Government planes?"

The conditions involved in investigating and reporting upon a question of this nature are such that this office is not in a position to acquire the necessary data for reporting thereon at this time. As the question is raised in connection with the general investigation by the committee, it is assumed that it will be able to require this information from sources intimately acquainted with the facts. It may be said, however, in view of the courts' decisions cited above, and the general information otherwise available, it is safe to assume that the patented inventions were used in many Government planes.

"19. By making de-facto payments, incorporating references and obligations into its contracts, or otherwise, has the United States recognized the validity of the several patents and rights covered under the cross-license agreement?"

Where there is a contract to pay royalty for a license to use a patent there is imposed an obligation upon the licensee in the nature of an attornment to the patentee, which, precluding any collateral attack upon validity of the patent, would be tantamount to a recognition of the validity of the patent involved. *Kinsman* v. *Parkhurst*, 18 Howard 292; *Stott* v. *Rutherford*, 92 U. S. 109; *Dale Tile Mfg. Co.* v. *Hyatt*, 125 U. S. 52; *United States* v. *Harvey Steel Co.*, 196 U. S. 310.

To the extent and during the period only in which royalty was paid under the contract of March 11, 1919, it is my opinion that the United States must be considered as having recognized the validity of the Wright and Curtiss patents.

"20. Has the United States required contractors or made it a condition for contract that the license payments contemplated under the cross-license agreement shall be agreed to as an obligation on the contractor?"

Digitized by Google

Examination of contracts on file in this office discloses two conditions incorporated in contracts concerning the assumption of responsibility for the use of patent rights; providing substantially as follows:

"First. The contractor agrees to hold and save the United States and its representatives harmless against all liabilities and damages arising by reason of the infringement or alleged infringement of letters patent of the United States relating to the articles or work herein contracted for which are owned or controlled either by assignment, license or otherwise, by the contractor, its officers or employees, or persons in privity with the contractor, and by reason of the infringement or alleged infringement of letters patent of the United States which cover or relate to any materials, parts, or processes of manufacture not specifically prescribed by the United States for the performance of this contract."

"Second. (1) The contractor will hold and save the Government, its representatives, and all other persons acting for it as agent, contractor, or otherwise, harmless from all demands or liabilities for alleged use of any patented or unpatented invention, secret process, or suggestion in, or in the making or supplying of, the articles and/or spare parts herein contracted for, and for alleged use of any patented invention in using such articles and/or spare parts for the purpose for which they are made or supplied, where the demand or liability is based on patents that are owned or controlled by, or under which and to the extent that rights are enjoyed by, the contractor, its officers or employees, or persons in privity with the contractor, or is based on patents or rights that are enjoyed by members of the Manufacturers Aircraft Association, or on patents or rights that are cross-licensed under the so-called cross-license agreement and/or its supplements, under which the members of said association are entitled to the use of certain patents; and if and when required, will discharge and secure the Government from all demand or liability on account thereof by proper release from the patentees or claimants; but if such release is not practicable, then by bond or otherwise, and to the satisfaction of the Chief of Air Service.

"(2) The Government will, without limitation to the time of completion of this contract in other respects, hold and save the contractor harmless from all demands or liabilities for alleged use of any patented or unpatented invention, secret process, or suggestion in, or in making or supplying, the articles and/or spare parts herein contracted for, and for alleged use of any patented invention in using such articles and/or spare parts for the purpose for which they are made or supplied, where the demand or liability is based on patents that are not owned or controlled by or under which rights are not enjoyed by the contractor, its officers or employees, or persons in privity with the contractor, or is based on patents that are not enjoyed by members of the Manufacturers Aircraft Association, or patents or rights that are not cross-licensed under the said cross-license agreement or any supplements thereto, provided immediate notice of any such demand or liability and of any legal proceedings connected therewith is given in writing by the contractor to the contracting officer, and provided further, that the Government may intervene in any such demand or proceeding and in its discretion may defend the same or make settlement thereof, and the contractor shall furnish all information in its possession and all assistance of its employees requested by the Government."

Insofar as has been discovered from the contracts on file, this second form appears to have been a condition restricted to contracts with members subscribing to the cross-license agreement, and there have not been found any cases where it has been made a condition that payments contemplated under that agreement shall be an obligation of any contractor not so affiliated. Accordingly, the question is answered in the negative.

Respectfully,

(Signed) J. R. McCarl.
Comptroller General.

COMPTROLLER GENERAL OF THE UNITED STATES,
Washington, June 10, 1932.

A-41410.

There is before this office the claim of the Ford Motor Co. (Airplane Division) for the amount of $800 which was deducted on voucher no. 783, November 1931, accounts of Capt. L. H. Price, Army Finance Officer at Wright Field, Dayton,

Digitized by Google

Ohio, in making payment to claimant under War Department contract no. W–535–ac–3492, dated August 7, 1930, for the manufacture and delivery of four cargo airplanes, spare parts, etc., such deduction having been made on account of patent royalties of $200 each on the four airplanes theretofore paid by the said finance officer at Wright Field on voucher 1502 of his June 1931 accounts, to the Manufacturers Aircraft Association, Inc., under its license contract no. NOd–155, dated December 31, 1928. The instant claim was submitted to this office by the Chief of Finance War Department, on the recommendation of the Chief of the Air Corps, War Department.

Articles 1 and 2 of the said license contract, stated to be between Manufacturers Aircraft Association, Inc., and the War and Navy Departments of the United States Government, are as follows:

"1. The association hereby grants to the Government a nonexclusive license to make or cause to be made and use and sell in the United States, its territories and possessions, during the term of this contract and thereafter to use and to sell airplanes under any and all of such airplane patents as defined in said cross-license agreement as are enumerated in appendix A of the amended cross-license agreement, dated December 31, 1928, copy of which is attached hereto and by reference made a part hereof and under all other patents which have been or may be reported to or acquired by or come into the control of the Manufacturers Aircraft Association, Inc., and/or subscribers thereto; provided, however, that no licenses are so granted to the Government hereunder in patents reported to the association with a claim for extra compensation under paragraph V of said amended cross-license agreement: Provided further, That an option is hereby granted to the Government to acquire licenses under those patents so reported on the same terms as granted to said subscribers.

"2. The Government agrees to pay for such use of the inventions described in any and all of said patents, a sum equal to two per cent (2%) of the cost or purchase price of such airplanes, as it may either make or acquire, as provided in paragraph 1, above, provided that the Government shall not be required to pay nor shall any obligation accrue to pay royalties on airplanes upon which members or nonmembers of the Manufacturers Aircraft Association, Inc., have paid or have agreed to pay royalties; provided further, however, that in no instance shall said royalty exceed the sum of two hundred dollars ($200) per airplane, regardless of what the cost or price thereof may amount to; and provided that the cost or price thereof as used herein shall be understood to mean the price paid to a manufacturer, if procured from a manufacturer, completely equipped, read to operate, including all parts of airplanes and accessories used therein except the engine and such engine accessories as propellers, propeller hubs, super-chargers, starters, magnetos, mufflers, carburetors, and reduction gears, and if such airplane is built or manufactured by the Government the cost shall be the amount expended in the direct construction thereof, including the cost of materials entering therein completely equipped ready to operate, including all parts of airplanes and accessories used or useful therein, except the engine and such engine accessories as propellers, propeller hubs, superchargers, starters, magnetos, mufflers, carburetors, and reduction gears.

"The Government agrees to pay said royalties for use of the inventions described in any and all of said patents until the maximum payments provided for in the amended cross-license agreement shall have been made or until Patent No. 1,203,550 shall expire, on the 31st day of October 1933, after which the Government shall enjoy the license herein conveyed and granted without the payment of any further royalties."

The contract of August 7, 1930, with the Ford Motor Co. required the claimant, for the consideration of $157,391.40, to manufacture and deliver to the United States four airplanes, together with certain spare parts, etc., more particularly set forth in articles 15, 16, and 17 of the contract. Article 18 of the said contract, relative to the use of any patented inventions and particularly those enjoyed by members of the said Manufacturers Aircraft Association, Inc., is, in part, as follows:

"ART. 18.—*Manufacturers' Cross License Agreement—Manufacturers' Aircraft Association.*—(1) The contractor will hold and save the Government, its representatives and all other persons acting for it as agent, harmless from all demands or liabilities for alleged use of any patented invention in the making or supplying or using of the articles or work herein contracted for, or in any way concerning the fulfillment of this contract by the contractor, unless such use of the patented invention being necessary to the fulfillment of the contract is spe-

Digitized by Google

cifically prescribed in writing by the Government or the use necessarily flows from the nature of the thing being produced or supplied, provided, however, the obligation of the contractor in this respect shall include all demands and liabilities based on patents that are enjoyed by members of the Manufacturers' Aircraft Association or on patents that are cross-licensed under the so-called cross-license agreement and/or its supplements, under which the members of said association are entitled to the use of certain patents; and if and when required, the contractor will discharge and secure the Government from all demand or liability on account thereof by proper release from the patentee or patentees or by bond or otherwise to the satisfaction of the Chief of Air Corps."

With reference to this provision of its contract and the deduction of $800 thereunder on account of payment in that amount by the said Army finance officer to the Manufacturers Aircraft Association, Inc., as patent royalties on the four airplanes procured under the contract, the claimant, in letter of December 18, 1931, states:

"This provision furnishes no warrant whatever for any deduction except it be based on demands and liabilities based on patents that are enjoyed by members of the Manufacturers' Aircraft Association or an patents that are cross-licensed under the so-called cross-licensing agreement, and/or its supplements under which the members of said association are entitled to the use of certain patents. We emphatically deny that the aeroplane or spare parts covered by this contract are in any manner covered by any patent or patents enjoyed by members of the Manufacturers' Aircraft Association or by any patents that are cross-licensed under the cross-license agreement or its supplement. Accordingly we deny that the Government is entitled under the provisions of this article 18 or any other article of this contract to deduct any payment made by the Government to the Manufacturers' Aircraft Association, whatever the reason may have been for that payment.

"Whatever the claims of the Manufacturers' Aircraft Association or its members may be, it is certainly not a function of the War Department or of the General Accounting Office to determine the validity of those claims. We are ready and willing to comply with all of our obligations under this contract, and particularly under article 18 thereof, but deny that this deduction of $800 for royalties paid by the Government to the Manufacturers' Aircraft Association is a proper deduction from the contract price, and therefore specifically request that it be paid."

With respect to this phase of the matter, a report by first endorsement, dated January 6, 1932, from the contracting officer, Air Corps, Wright Field, is in part as follows:

"3. In an attempt to determine what particular patents controlled by the Manufacturers' Aircraft Association, Inc., or enjoyed by its subscribers, were infringed by the Ford Motor Co. in constructing the airplanes called for under the terms of contract W 535 ac-3492 this office called upon the association for a detailed statement, and reply was received under date of May 25, 1931, in part as follows:

" 'While it is presumed that it would be impracticable to construct a modern airplane without infringing our patents, you will readily appreciate that to determine such infringement would involved considerable expense. In the instant case it would be necessary for us to have an engineer examine the particular planes in question and consider their infringement of our patents, which now total approximately 400; the expense of such an examination and the study required to ascertain the extent of the infringement would entail a sum out of proportion to the very low rate of royalties.' "

In regard to the above, the Ford Motor Co. replied on June 18, 1931, in part as follows:

"We note your remarks concerning the ownership by the Manufacturers' Aircraft Association of some 400 patents and your statement that you are of the belief that no modern airplane can be constructed without infringing many of them. We, however, hold a contrary view of the value of these patents, and, as a matter of fact, suits have already been brought by the Curtiss Assets Corporation and affiliated companies against the Ford Motor Co. for alleged infringement of certain patents by Ford tri-motor airplanes similar to those furnished by Ford Motor Co. to the War Department. The Manufacturers' Aircraft Association has full knowledge of these suits, which are still pending and have not as yet come to trial."

Digitized by Google

Thus the situation appears to be that under the terms of the license agreement the association could not claim the stipulated royalties on the four airplanes if its patents were not used; that claimant was obligated to save the United States harmless from all demands and liabilities based on the use of such patents; that claimant emphatically denies such patents were used; that the association presumes such patents were used but considers that the amount of royalty involved does not warrant an attempt to establish such use. The burden is clearly upon the association to prove the use of its patents as a condition precedent to any payment of the royalties; and this not having been established, either directly or by agreement to the deduction from its contract price—or by acquiescence therein—by the contractor obligated to save the Government harmless from any demands or liability on that account, it must be held that the said association was not entitled, under such conditions, or, in any event, until it had established the use of its patents, to be paid the said royalties, and unless and until such use is established, that no obligation arises under the terms of the contract with the claimant requiring it to reimburse the United States for any such payment, the claimant's contractual obligations in this respect under the quoted provisions of article 18 of its contract being to secure the Government from all demands or liability on this account by proper release from the patentees or by bond or otherwise to the satisfaction of the Chief of Air Corps, with which obligations it states it is ready and willing to comply.

Accordingly credit will be disallowed in the accounts of Capt. L. H. Price for the payment of $800 to the Manufacturers' Aircraft Association as patent royalties on the four airplanes in question, and such amount, if otherwise correct, will be allowed the claimant by settlement of this office when it shall have properly established that it has otherwise secured the Government against the demands of the Manufacturers' Aircraft Association and the possible contingent liability of the United States on that account. What is said herein is not to be understood as expressing any opinion upon the legality of the license agreement of December 31, 1928, with the Manufacturers' Aircraft Association, Inc., but see A–11220, May 12, 1927, and reconsideration thereof, A–11220, April 28, 1928.

(Signed) J. R. McCarl,
Comptroller General of the United States.

Comptroller General of the United States,
Washington, August 18, 1933.

A–41410.

Ford Motor Company,
3674 Schaefer Road, Dearborn, Mich.

Gentlemen: Reference is made to your letter of June 1, 1933 (E. J. M.–J. C.), in reply to my letter to you of April 28, 1933, A–41410, concerning your claim for $800 which was withheld pursuant to article 18 of your War Department contract no. W–535–ac–3492, dated August 7, 1930, for the manufacture and delivery of four cargo airplanes, on account of patent royalties of $200 on each airplane, paid the Manufacturers' Aircraft Association, Inc., under its license contract with the United States, no. NOd–155, dated December 31, 1928.

In view of your further disagreement with the conclusions based on the memorandum by the Judge Advocate General of the Army, dated October 18, 1932, set forth in my letter to you of April 28, 1933, that inventions described in certain patents controlled by the Manufacturers' Aircraft Association were used in the construction of the four airplanes, and your statement that the Curtiss Assets Corporation, plaintiff in three suits against the Ford Motor Company involving claims for royalties under the patents in question, "has seen fit to allow these cases to be struck from the calendar in the Federal courts", a copy of your letter of June 1, 1933, was transmitted to the Secretary of War for a further administrative report on the matters involved. The reply of the Secretary of War, under date of August 2, 1933, is in part as follows:

"I am advised by the Judge Advocate General it is clearly shown by a study made in the patent section of that office of the drawings and specifications from which these planes were manufactured, that the structure set forth in claims 3 and 4 of the patent issued December 29, 1914, to Orville and Wilbur Wright, no. 1122348, and the structure covered by claim 5 of the patent issued

Digitized by Google

November 6, 1917, to Glenn H. Curtiss, no. 1246020, are embraced in the construction of the four Ford C–4A cargo airplanes in question. The Chief of the Air Corps of the Army certified to the same effect September 30, 1932. The Manufacturers' Aircraft Association, by whom these patents are owned and controlled, under date of October 1, 1932, stated that the use of the structures covered by these claims in the airplanes in question, as shown by the Government blue print (F–9014) and specifications, is obvious. Furthermore, Honorable Patrick J. Hurley, former Secretary of War, in October 1932, interpreting the provisions of this contract, decided that some of the patents licensed by the Manufacturers' Aircraft Association to the Government, were actually used in the construction of these same planes. I am advised by the Judge Advocate General that the provisions of paragraph (t), section 10, of the Air Corps Act of July 2, 1926 (44 Stat. 784), as amended by the act of March 3, 1927 (44 Stat. 1380; 10 U. S. C., section 310, paragraph (t)), make such a decision final and not reviewable by any officer or tribunal of the United States, except by the President and the Federal courts.

"It would be unreasonable to expect that one of the attorneys for the Ford Motor Company would voluntarily, and in writing, concede that his client had infringed certain patents which he acknowledges in the same letter have been, and apparently still remain, in litigation. The improbability of such an admission against interest is strengthened when it is considered that his client is the defendant and the alleged infringer. His conclusion is said to rest upon the opinion of unidentified experts. Opinions of experts, generally, are but arguments of the side calling them. It is their province to instruct but not to decide. The existence of a patent is *prima facie* evidence of its own validity. In the absence of evidence to the contrary the legal conclusion is that it was issued without fraud to the proper person for a real invention. Until a Federal court determines its status the War Department cannot give serious consideration to the expression of an ex parte opinion as to its validity or infringement.

"With reference to the implied inference as to noninfringement suggested by the alleged consent of the Curtiss Assets Company to the striking of three suits from the calendar in the Federal courts, the assumption made by the Ford Motor Company is not borne out by the facts.

"The cases referred to are probably three suits in the District Court of the United States for the District of Delaware identified thus:

"Equity No. 781. Curtiss Assets Corporation v. Ford Motor Company, involving ten patents (including no. 1246020), filed April 10, 1930.

"Equity No. 782, Curtiss Airplane & Motor Co., Inc., v. Ford Motor Company, involving two patents, filed April 10, 1930.

"Equity No. 846, Curtiss Assets Corporation v. Ford Motor Company, involving patent no. 1,122,348, filed September 18, 1930.

"On March 8, 1933, a court order signed by Judge John P. Nields was filed in each of these cases, which reads in pertinent part as follows:

"'And now, to-wit, this 8th day of March, A. D. 1933, upon reading and considering the foregoing stipulation, it is, upon motion of E. Ennalls Berl, Esq., solicitor for plaintiff,

"'Ordered by the court that the above-entitled cause be, and the same hereby is, removed from the trial calendar, *subject to restoration upon the application of either party within one year from the date hereof, upon thirty days' notice.*' (Italics supplied.)

"Accordingly, these suits are neither dismissed nor discontinued but are still in effect and the stay of one year has not expired. They may be restored without prejudice upon application of either party. It is understood that this action is based upon pending negotiations for an amicable settlement, the terms of which will depend upon whether or not the Ford Motor Company shall continue, or cease, to manufacture and sell airplanes. This decision may involve settlement for past infringement, licenses for future production, or continuation of the present litigation. In any event the plaintiffs are still in court and the issues involved are neither determined nor adjudicated.

"It may clarify the case to reemphasize the fact that a former Secretary of War has decided that one or more of the patents licensed by the Manufacturers' Aircraft Association to the United States was used in the construction of the four cargo planes manufactured by the Ford Motor Company under the contract in question. The specifications of that contract made the use of

Digitized by Google

such patents by the Ford Company unavoidable. This being so, a contractual obligation was created on the part of the Government, under the license agreement of December 31, 1928 (supra), to pay a royalty of $200 per plane to the Manufacturers' Aircraft Association, which owns and controls these patents. Accordingly, it is believed that the General Accounting Office should cancel the disallowance of credit in the accounts of Captain Price for the $800 payment to the association."

In view of the matters set forth in the Judge Advocate General's memorandum of October 18, 1932, as quoted in my letter to you of April 28, 1933, and those set forth in the further report of August 2, 1933, by the Secretary of War, *supra*, it must be concluded that the Manufacturers' Aircraft Association, Inc., was entitled under its license contract with the Government to the royalties of $800 paid to it on account of the use in the four Ford cargo airplanes of inventions described in patents controlled by the said association, and that the deduction of a like amount in payment to you for the four airplanes pursuant to article 18 of your contract, specifically providing that you would have the Government harmless from all liabilities based on patents enjoyed by members of the Manufacturers' Aircraft Association, was proper.

Accordingly, you are advised that your claim for the said amount of $800, deducted in payments to you for the four airplanes, must be and is disallowed.

Respectfully,

(Signed) J. R. McCARL,
Comptroller General of the United States.

HOUSE OF REPRESENTATIVES,
COMMITTEE ON PATENTS,
Washington, D. C., January 13, 1936.

Dr. WILLIAM I. SIROVICH,
Chairman, Committee on Patents,
House of Representatives, Washington, D. C.

DEAR DR. SIROVICH: The following data from representative industries illustrate the typical forms of patent pools and cross-licensing agreements which are in use in industry.

Examination of the answers to the questionnaire devised by the committee to obtain information relevant to H. R. 4523 have been so numerous that it is impossible to include them all in an exhibit, consequently, without reference to any other attribute, these responses have been selected as demonstrating in part, at least, the numerous patents which may apply to a particular art and a particular enterprise within that art; and the assumed necessity on the part of the producers of forming patent consolidations and accumulating numerous patents which cover closely related processes necessary for production.

Respectfully submitted.

CHARLES A. WELSH, Jr., *Economic Adviser.*

HOUSE OF REPRESENTATIVES,
COMMITTEE ON PATENTS,
Washington, D. C.

Your personal attention is respectfully requested to the attached letter, which because of the number sent out necessarily is a form letter.

The Committee on Patents of the House of Representatives request your personal cooperation in this matter, and its members feel assured that the replies to the questions asked, which are for the information of the committee, will be forwarded promptly.

Yours respectfully,

WILLIAM I. SIROVICH, *Chairman.*

HOUSE OF REPRESENTATIVES,
COMMITTEE ON PATENTS,
Washington, D. C.

House Resolution 196 for the purposes set forth in House Resolution 4523, of the Seventy-fourth Congress, first session, authorized and instructed the Committee on Patents, for the information of Congress, to investigate all matters

Digitized by Google

pertaining to cross-licensing and patent-pooling agreements under existing patents.

It is the intention of the Committee on Patents to go into this investigation thoroughly, comprehensively, and impartially, with the view of ascertaining the real facts, based on actualities, as to whether or not patent pooling and cross-licensing are beneficial or detrimental to either large or small businesses, or both.

The Committee on Patents will be very glad to have your cooperation in this investigation, and therefore would appreciate your furnishing the committee, as promptly as possible, the information requested herewith:

1. A complete list of all patents owned by you, your company, or corporation, and also those patents now being used by you or them through cross-license or patent-pooling agreements or otherwise.
2. If you are not using some of your patents at this time, why not?
3. A copy of the constitution and bylaws or articles of agreement of your organization or association.
4. Copies of cross-license or patent-pooling agreements to which you, your company, or corporation are parties.
5. A copy of the different forms of cross-licensing or pooling agreements made and existing between your organization and others to date.
6. The names of the inventors of all such patents in such cross-license agreements or patent pools, date and number of patent, date of assignment to you, amount paid for same, estimated value of patent at date of purchase and now.
7. Are any of said patents controlled by said cross-license and patent-pooling agreements used as basis for charter or corporation franchises? If so, valuation of such patents.
8. Was inventor an employee of assignee at time of making invention and is the inventor an employee of such assignee now. If so, does assignee retain contract providing such invention shall belong to employer without additional cost?
9. Please give number, name, ownership, and valuation of existing patents now being used by your company through cross-license or with a patent pool.
10. Do you cross-license nonmembers of the patent pool—if such exists—and if so, on what terms?
11. What are the eligibility requirements for outsiders to join this patent pool?
12. Do you suggest any amendments to existing patent laws? If so, enumerate.

We will greatly appreciate your furnishing the above information as soon as possible, and enclose franked, self-addressed envelope for your convenience in promptly forwarding the information above requested.

Thanking you, we are

Very truly yours,

WILLIAM I. SIROVICH,
Chairman.

CURTISS AEROPLANE & MOTOR CO., INC.,
New York, N. Y., December 6, 1935.

Hon. WILLIAM I. SIROVICH,
Chairman, House of Representatives, Committee on Patents,
Fifth Avenue Hotel, 24 Fifth Avenue, New York, N. Y.

DEAR SIR: There is submitted herewith, in behalf of Curtiss Aeroplane & Motor Co., Inc., answers to the questionnaire contained in your letter of November 9, 1935.

Very truly yours,

CURTISS AEROPLANE & MOTOR CO., INC.,
By E. S. CRAMER, *Secretary.*

CURTISS AEROPLANE & MOTOR CO., INC.

1. Question. A complete list of all patents owned by you, your company or corporation, and also those patents now being used by you or them through cross-license or patent pooling agreements or otherwise.

Digitized by Google

Answer. Curtiss Aeroplane & Motor Co., Inc., owns the following patents, to wit:

SCHEDULE A

Patentee	Number	Date of issue	Date of assignment
G. H. Curtiss	1287249	Dec. 10, 1918	Nov. 29, 1916
H. Kleckler	1287341	do	Mar. 28, 1916
G. H. Curtiss	1289683	Dec. 31, 1918	Dec. 2, 1918
P. G. Zimmermann	1290004	do	May 12, 1917
Do	1290005	do	May 29, 1917
N. W. Dalton	1290102	Jan. 7, 1919	May 11, 1917
H. Kleckler	1290233	do	Jan. 24, 1917
Do	1290236	do	Apr. 12, 1917
Do	1290237	do	May 24, 1918
Do	1290838	do	Jan. 11, 1916
Do	1291678	Jan. 14, 1919	
W. S. Burgess	1294389	Feb. 18, 1919	Oct. 20, 1916
G. H. Curtiss	1294412	do	June 28, 1916
Do	1294413	do	Jan. 14, 1919
G. H. Curtiss et al	1294414	do	Mar. 8, 1918
Do	1294415	do	Do.
H. Kleckler	1294476	do	Nov. 29, 1916
Do	1294477	do	Apr. 12, 1917
G. H. Curtiss	1295084	do	Jan. 2, 1917
Do	1296630	Mar. 11, 1919	Feb. 15, 1917
H. Kleckler	1296667	do	Oct. 28, 1916
H. Kleckler et al	1296730	do	
G. H. Curtiss	1296770	do	Mar. 14, 1918
N. W. Dalton	1296773	do	Oct. 11, 1916
Do	1296774	do	Oct. 27, 1916
Do	1296775	do	Apr. 9, 1917
W. E. Valk, Jr., et al	1296790	do	Nov. 13, 1917
J. P. Tarbox	1296876	do	Mar. 4, 1918
H. Kleckler	1298515	Mar. 25, 1919	May 3, 1917
Do	1298516	do	June 22, 1917
P. G. Zimmermann	1298625	do	Dec. 18, 1916
G. H. Curtiss	1306749	June 17, 1919	Mar. 31, 1919
Do	1306750	do	Mar. 8, 1918
Do	1306751	do	Do.
H. Kleckler	1306764	do	Apr. 12, 1917
Do	1306765	do	Nov. 9, 1917
W. S. Burgess	1310737	July 22, 1919	May 28, 1917
B. W. Messner	1310764	do	Apr. 4, 1918
N. W. Dalton	1310942	do	May 24, 1918
H. Kleckler	1311129	do	Feb. 24, 1916
H. B. Snell	1316527	Sept. 16, 1919	May 1, 1916
A. F. Zahm	1316260	do	Nov. 13, 1916
G. H. Curtiss	1316277	do	Aug. 13, 1919
Do	1316278	do	
Do	1316279	do	Do.
Do	1316280	do	Nov. 1, 1918
N. W. Dalton	1316281	do	May 25, 1916
C. G. MacGregor	1316908	Sept. 23, 1919	Sept. 11, 1917
G. H. Curtiss	1323842	Dec. 2, 1919	Mar. 23, 1916
Do	1323843	do	Apr. 21, 1917
W. S. Burgess	1323959	do	June 26, 1917
J. P. Tarbox	1326008	Dec. 23, 1919	Nov. 20, 1916
G. H. Curtiss	1329336	Jan. 27, 1920	Oct. 7, 1916
H. Kleckler	1329342	do	Nov. 9, 1917
Do	1336405	Apr. 6, 1920	May 24, 1918
J. P. Tarbox	1336406	do	Mar. 27, 1918
H. Kleckler	1336632	Apr. 13, 1920	July 20, 1917
Do	1336633	do	Jan. 25, 1918
H. Kleckler et al	1336634	do	Mar. 20, 1918
E. T. Musson	1336649	do	May 3, 1916
H. Kleckler	1349677	Aug. 17, 1920	Oct. 31, 1919
G. H. Curtiss et al	1351742	Sept. 7, 1920	Dec. 20, 1916
G. H. Curtiss	1351743	do	Apr. 23, 1918
H. Kleckler	1351764	do	Apr. 2, 1918
G. H. Curtiss	1355736	Oct. 12, 1920	Feb. 15, 1917
Do	1358527	Nov. 9, 1920	June 16, 1916
N. W. Dalton	1355738	Oct. 12, 1920	Oct. 29, 1917
J. F. Meade et al	1355741	do	Oct. 15, 1918
Do	1355767	Jan. 17, 1919	Mar. 20, 1920
W. S. Burgess	1357950	Nov. 9, 1920	May 15, 1918
P. G. Zimmermann	1358605	do	May 20, 1918
C. B. Kirkham et al	1363794	Feb. 7, 1919	Feb. 7, 1919
G. H. Curtiss	1363844	Dec. 28, 1920	Jan. 2, 1917
G. H. Curtiss et al	1363845	do	Apr. 23, 1919
N. W. Dalton	1363847	do	Feb. 23, 1917
C. E. Bedell	1364425	Jan. 4, 1921	Aug. 20, 1917
C. E. Freund	1364431	Mar. 1, 1919	Mar. 1, 1919

Digitized by Google

SCHEDULE A—Continued

Patentee	Number	Date of issue	Date of assignment
G. H. Curtiss	1364614	Jan. 4, 1921	May 24, 1918
W. L. Gilmore	1368428	Feb. 15, 1921	May 23, 1919
W. S. Burgess	1368542	do	Apr. 25, 1917
G. H. Curtiss	1368548	do	Dec. 24, 1915
Do	1368549	do	Mar. 14, 1918
Do	1368850	do	May 21, 1918
H. Kleckler	1370893	Mar. 8, 1921	May 24, 1918
W. S. Burgess	1373408	Apr. 5, 1921	July 8, 1918
H. Kleckler	1373433	do	May 3, 1918
C. L. Roloson	1382387	June 21, 1921	Jan. 16, 1919
W. L. Gilmore et al	1382421	do	Oct. 5, 1918
J. G. Coffin	1386841	Aug. 9, 1921	Mar. 4, 1919
G. H. Curtiss et al	1386846	do	July 6, 1920
G. H. Curtiss	1392271	Sept. 27, 1921	Apr. 23, 1918
Do	1392292	do	Do.
C. B. Kirkham et al	1392277	do	Oct. 3, 1918
Do	1392278	Oct. 27, 1921	Do.
H. Kleckler	1392279	Sept. 27, 1921	Dec. 13, 1918
W. L. Gilmore	1394726	Oct. 25, 1921	Dec. 24, 1920
C. B. Kirkham	1398330	Nov. 21, 1921	Nov. 30, 1918
A. F. Zahm	1404920	Jan. 31, 1922	May 2, 1919
J. F. Meade	1406575	Feb. 14, 1922	Aug. 18, 1919
A. F. Zahm	1406600	do	Sept. 28, 1916
N. W. Dalton	1406617	do	May 24, 1918
G. H. Curtiss	1420609	June 20, 1922	June 28, 1917
Do	1420610	do	Do.
W. L. Gilmore	1403640	Oct. 3, 1922	Oct. 25, 1920
C. B. Kirkham et al	1434547	Nov. 7, 1922	Oct. 3, 1918
E. T. Musson	1434559	do	Mar. 6, 1917
H. C. Mummert	1435139	do	Dec. 27, 1920
J. A. Christen	1437465	Apr. 8, 1919	Dec. 5, 1922
T. P. Wright et al	1437469	Dec. 5, 1922	May 20, 1922
C. B. Kirkham	1437471	do	Feb. 26, 1917
W. L. Gilmore	1445135	Feb. 13, 1923	Mar. 15, 1918
C. B. Kirkham	1445142	do	Oct. 3, 1918
J. A. Christen	1454505	May 8, 1923	Mar. 27, 1919
G. H. Curtiss	1465973	Aug. 28, 1923	Jan. 11, 1916
J. P. Tarbox	1466634	do	Dec. 27, 1920
J. G. Coffin	1481986	Jan. 29, 1924	Nov. 14, 1918
R. R. Reissig	1486607	Mar. 11, 1924	Mar. 6, 1923
H. Kleckler et al	1494787	May 20, 1924	Mar. 8, 1918
H. C. Mummert	1509251	Sept. 23, 1924	Oct. 10, 1923
W. L. Gilmore	1511666	Oct. 14, 1924	May 12, 1921
Do	1511667	do	Dec. 7, 1922
J. P. Tarbox	1511689	do	Sept. 19, 1922
W. E. Valk, Jr	1511691	do	Nov. 1, 1922
J. P. Langfelder	1531704	Mar. 31, 1925	Nov. 22, 1922
W. L. Gilmore	1535526	Apr. 28, 1925	Aug. 29, 1924
J. P. Langfelder	1535532	do	May 20, 1922
H. C. Mummert	1543651	June 23, 1925	May 28, 1922
W. L. Gilmore	1555409	Sept. 29, 1925	Dec. 24, 1920
W. A. Ray et al	1556348	Oct. 6, 1925	Feb. 13, 1925
H. C. Mummert et al	1565096	Dec. 8, 1925	Oct. 24, 1922
H. C. Mummert	1565097	do	Feb. 28, 1924
W. L. Gilmore et al	1575328	Mar. 2, 1926	Mar. 25, 1920
W. Wait Jr	1584053	May 11, 1926	June 13, 1924
H. C. Mummert et al	1584466	do	Feb. 28, 1924
T. H. Birmingham	1613602	Jan. 11, 1927	Oct. 9, 1923
H. C. Mummert et al	1613619	do	Nov. 24, 1922
R. B. Beisel	1617433	Feb. 15, 1927	Nov. 10, 1923
H. C. Mummert	1623128	Apr. 5, 1927	Dec. 6, 1922
W. L. Gilmore	1631259	June 7, 1927	Dec. 24, 1920
A. Nutt	1632913	June 21, 1927	Feb. 11, 1924
W. L. Gilmore	1639029	Aug. 16, 1927	Oct. 2, 1924
A. L. Thurston	1650665	Nov. 27, 1927	May 13, 1921
W. A. Ray	1653122	Dec. 20, 1927	Feb. 3, 1925
W. Wait, Jr	1666761	Apr. 17, 1928	Apr. 5, 1927
R. B. Beisel et al	1666769	do	Mar. 22, 1924
C. E. Hathorn	1673564	June 12, 1928	Apr. 17, 1926
W. Wait Jr	1673608	do	Apr. 7, 1924
S. I. Vaughan	1682202	Aug. 28, 1928	June 7, 1927
W. Wait Jr	1682204	June 28, 1928	Oct. 25, 1922
T. N. Joyce	1682229	Aug. 28, 1928	Dec. 9, 1926
W. Wait, Jr	1692010	Nov. 20, 1928	Feb. 13, 1925
T. P. Wright et al	1694496	Dec. 11, 1928	July 12, 1926
R. B. Beisel	1705708	Mar. 19, 1929	Aug. 30, 1926
W. Wait, Jr	1707830	Apr. 2, 1929	Sept. 13, 1926
H. C. Mummert	1714804	May 28, 1929	May 18, 1924
R. B. Beisel	1714842	do	Aug. 30, 1926

Digitized by Google

SCHEDULE A—Continued

Patentee	Number	Date of issue	Date of assignment
K. Henrichsen	1718956	July 2, 1929	July 14, 1927
G. A. Page, Jr., et al	1724959	Aug. 20, 1929	Mar. 19, 1927
G. A. Page, Jr	1737123	Nov. 26, 1929	Feb. 8, 1927
G. A. Page, Jr., et al	1771743	July 29, 1930	Mar. 7, 1928
W. Wait, Jr	1789483	Jan. 20, 1931	Dec. 22, 1926
W. L. Gilmore	1792489	Feb. 17, 1931	Jan. 15, 1925
W. J. Irwin	1792537	do	Oct. 27, 1927
W. Wait, Jr	1817956	Aug. 11, 1931	June 30, 1927
H. R. Moles	1818000	do	Mar. 11, 1930
R. B. Beisel	1825301	Sept. 29, 1931	Aug. 4, 1928
Do	1832275	Nov. 17, 1931	Apr. 17, 1926
R. D. Carleton et al	1833635	Nov. 24, 1931	June 30, 1927
C. E. Hathorn	1833646	do	Apr. 15, 1929
R. B. Beisel	1850964	Mar. 22, 1932	Mar. 2, 1927
K. Henrichsen	1855020	Apr. 19, 1932	Oct. 28, 1929
R. R. Osborn	1856080	May 3, 1932	Mar. 25, 1929
W. J. Blanchard	1869182	July 26, 1932	Jan. 23, 1929
R. R. Osborn	1869211	do	Mar. 17, 1930
E. B. Moore	1874322	Aug. 30, 1932	Sept. 11, 1929
T. P. Wright	1874406	do	Sept. 4, 1929
R. B. Beisel	1874422	do	Feb. 18, 1930
C. G. Geignetter	1874493	do	Sept. 6, 1930
G. A. Page, Jr., et al	1874525	do	July 7, 1930
G. A. Page, Jr	1874605	do	May 16, 1930
S. T. Payne	1874610	do	July 29, 1930
C. W. Steward	1874650	Aug. 30, 1932	Sept. 29, 1930
T. P. Wright	1874685	do	May 17, 1930
G. A. Page, Jr., et al	1882305	Oct. 11, 1932	Apr. 16, 1931
C. G. Trimbach	1892914	Jan. 3, 1933	Mar. 19, 1930
A. F. Vinje	1892915	do	Mar. 17, 1930
Do	1892916	do	Do.
R. C. Blaylock	1892927	do	Do.
C. E. Hathorn	1896234	Feb. 7, 1933	Apr. 16, 1931
T. P. Wright	1896270	do	Sept. 4, 1929
C. E. Hathorn	1902071	Mar. 21, 1933	May 29, 1930
G. A. Page, Jr	1902071	do	May 10, 1930
F. A. A. Pearson	1902096	do	Dec. 23, 1930
C. G. Trimbach	1902107	do	Mar. 19, 1930
S. I. Vaughan	1902111	do	Sept. 26, 1929
W. J. Blanchard	1905891	Apr. 25, 1933	July 12, 1930
G. A. Page, Jr	1906404	May 2, 1933	Nov. 26, 1930
G. A. Page, Jr., et al	1908726	May 16, 1933	Apr. 29, 1929
C. E. Hathorn	1908757	do	Aug. 5, 1929
W. J. Blanchard	1908814	do	Aug. 2, 1930
S. T. Payne, et al	1914092	June 13, 1933	July 7, 1930
T. P. Wright, et al	1917078	July 4, 1933	Mar. 17, 1930
S. I. Vaughan	1922063	Aug. 15, 1933	Apr. 16, 1931
S. T. Payne	1933998	Nov. 7, 1933	Feb. 15, 1930
C. E. Hathorn	1939051	June 1, 1932	Dec. 12, 1933
Do	1941348	Dec. 26, 1933	Oct. 26, 1931
Do	1947987	Feb. 20, 1934	Mar. 25, 1929
J. E. Piccard	1950995	Mar. 13, 1934	May 28, 1932
W. J. Blanchard	1951320	do	Sept. 15, 1930
Do	1951321	do	Dec. 23, 1930
Do	1958261	May 8, 1934	Aug. 25, 1932
C. E. Hathorn	1961584	June 5, 1934	Mar. 30, 1932
G. A. Page, Jr., et al	1966043	July 10, 1934	Jan. 3, 1931
C. G. Trimbach	1968182	July 31, 1934	Nov. 14, 1932
E. L. Noonan	1976456	Oct. 9, 1934	Dec. 16, 1933
A. G. Butler	1976479	do	Oct. 17, 1932
R. D. Carleton, et al	1976480	do	Oct. 20, 1931
E. R. Child	1976482	do	Mar. 15, 1932
F. W. Fink	1983358	Dec. 4, 1934	June 3, 1933
C. E. Hathorn	1983368	do	Apr. 8, 1933
S. P. Orlando	1980658	Jan. 15, 1933	Oct. 15, 1932
C. W. Steward	1988093	do	Feb. 18, 1932
F. W. Weymouth	1988148	Jan. 15, 1935	Feb. 18, 1933
E. R. Child	1990978	Feb. 12, 1935	July 5, 1933
C. E. Hathorn	1990990	do	Jan. 30, 1933
F. R. Weymouth	1997285	Apr. 9, 1935	Mar. 4, 1933
C. E. Hathorn	1997298	do	Mar. 18, 1932
R. R. Osborn, et al	2000066	May 7, 1935	Mar. 17, 1930
C. W. Steward	2000722	do	Dec. 23, 1932
C. E. Hathorn	2002944	May 28, 1935	July 8, 1932
R. D. Carleton	2010945	Aug. 13, 1935	Dec. 28, 1932
C. E. Hathorn	2017207	Oct. 15, 1935	Mar. 30, 1932

Digitized by Google

SCHEDULE B

Patentee	Number	Date of issue	Date of assignment
G. Gardner	1485783	Mar. 4, 1924	Nov. 18, 1933
C. A. Lewis	1513053	Oct. 28, 1924	Do.
H. Caminez	1681219	Aug. 21, 1928	Do.
A. R. Stalb, Jr	1704713	Mar. 12, 1929	Do.
F. R. Weymouth	1708373	Apr. 9, 1929	Do.
H. Caminez	1723012	Aug. 6, 1929	Do.
F. R. Weymouth	1723962	do	Do.
L. Haase	1731492	Oct. 15, 1929	Do.
A. R. Stalb, Jr	1745126	Jan. 28, 1930	Do.
C. M. Johnson	1749769	Mar. 11, 1930	Do.
R. H. Depew, Jr	1759442	May 20, 1930	Do.
R. I. Markey	1777056	July 15, 1930	Do.
J. G. Lee	1793494	Feb. 24, 1931	Do.
R. H. Depew, Jr	1858393	May 17, 1932	Do.
R. I. Markey	1886706	Nov. 8, 1932	Do.
E. J. Rivers	1888807	Nov. 22, 1932	Do.
R. I. Markey	1890820	Dec. 13, 1932	Do.
Do	1892064	Dec. 27, 1932	Do.
Do	1892065	do	Do.
R. G. Miller	1892070	do	Do.
G. W. Bedell	1894582	Jan. 17, 1933	Do.
C. M. Johnson	1895222	Jan. 24, 1933	Do.
R. G. Miller	1923384	Aug. 22, 1933	Do.
Do	1925271	Sept. 5, 1933	Do.
Do	1942391	Jan. 2, 1934	Do.
M. G. Beard	1943233	Jan. 9, 1934	Do.
Do	1951783	Mar. 20, 1934	Do.
E. J. Rivers	1951839	do	Do.

SCHEDULE C

G. C. Loening	1394630	Oct. 25, 1921	Oct. 4, 1934
G. B. Post	1423681	July 25, 1921	Do.
G. C. Loening	1545505	July 14, 1923	Do.
Do	1563384	Dec. 1, 1925	Do.
Do	1617816	Feb. 15, 1927	Do.
Do	1684187	Sept. 11, 1928	Do.
T. H. Huff	1722467	July 30, 1929	Do.
E. N. Gott	1731531	Oct. 15, 1929	Do.
E. Daland	1735852	Nov. 19, 1929	Do.
G. C. Loening	1759197	May 20, 1930	Do.
C. D. Koch	1770276	July 8, 1930	Do.
G. C. Loening	1778113	Oct. 14, 1930	Do.
E. Daland	1785339	Dec. 16, 1930	Do.
L. R. Grumman	1799555	Apr. 7, 1931	Do.
C. D. Koch	1814315	July 14, 1931	Do.
K. Bodden	1980181	Nov. 13, 1934	Do.
F. D. Rogers	1980226	do	Do.
R. Flader	2014801	Sept. 17, 1935	Do.

SCHEDULE D

S. M. Fairchild	1449387	Mar. 27, 1923	Jan. 26, 1934
Do	1711637	Mar. 7, 1929	Do.
Do	1772889	Aug. 12, 1930	Do.

Curtiss Aeroplane & Motor Co., Inc., as a member of the Manufacturers Aircraft Association, Inc., is licensed to make use of all patents subject to the cross-license agreement which said association administers. (It is the writer's understanding that your committee has already been furnished by said association with a complete list of all patents subject to the cross-license agreement.)

Curtiss Aeroplane & Motor Co., Inc., by negotiated contracts, is licensed to make use of the following patents, none of which are owned by Curtiss: 1226965, 1223017, 1256954, 1270339, 1290000, 1326010, 1353666, 1358603, 1394343, 1394344, 1405177, 1405176, 1427314, 1422616, 1422614, 1422615, 1427012, 1419507, 1433030, 1431520, 1459411, 1414200, 1463888, 1485349, 1496731, 1496732, 1496733, 1523994, 1567670, 1609468, 1635687, 1760838.

2. Question. If you are not using some of your patents at this time, why not?

Answer. Curtiss Aeroplane & Motor Co., Inc., makes current use of all patents which it owns.

Digitized by Google

3. Question. A copy of the constitution and bylaws or articles of agreement of your organization or association.

Answer. A copy of the constitution and of the bylaws of the Manufacturers Aircraft Association, Inc., are hereto attached.

4. Question. Copies of cross-license or patent-pooling agreements to which you, your company, or corporation are parties.

Answer. A copy of the original cross-license agreement and of all subsequent modifications thereof are hereto attached.

5. Question. A copy of the different forms of cross-licensing or pooling agreements made between your organization and others to date.

Answer. A copy of each form of license which the Manufacturers Aircraft Association, Inc., is authorized to grant is hereto attached.

6. Question. The names of the inventors of all such patents in such cross-license agreement for patent pools, date and number of patent, date of assignment to you, amount paid for same, estimated value of patent at date of purchase and now.

Answer. The names of the inventors, the dates and numbers of the patents, and the dates of assignment thereof to Curtiss, of all Curtiss-owned patents subject to the cross-license agreement of the manufacturers Aircraft Association, Inc., are given in the answer to question 1 under the schedule headings "A", "B", "C", and "D."

Each of the patents listed under the schedule heading "A" is predicated on a development originating within the Curtiss organization, and each was assigned to the Curtiss Co. by reason of the existence of an employer-employee agreement entered into between employees of Curtiss and the Curtiss Co. (A copy of the standard form of employer-employee agreement used by the Curtiss Co. is hereto attached).

Each of the patents listed under the schedule heading "B" was at one time owned by the Aviation Corporation, and assigned by said corporation to the Curtiss Co. (A copy of the Curtiss-Aviation Corporation agreement setting forth the consideration for the transfer of title to said patents is hereto attached).

Each of the patents listed under the schedule heading "C" was at one time owned by the Keystone Aircraft Corporation, and assigned by said corporation to the Curtiss Co. upon dissolution of the former. (The consideration for the transfer of title to said patents was $1, said amount being the value at which the patents were carried on the books of the Keystone Corporation.)

Each of the patents listed under the schedule heading "D" was at one time owned by S. M. Fairchild, and assigned by him to the Curtiss Co. (A copy of the Curtiss-Fairchild agreement setting forth the consideration for the transfer of title to said patents is hereto attached.)

There is no basis upon which the value to Curtiss, either today or at the time it acquired title to the patents listed under the schedule headings "A", "B", "C", and "D" can be either estimated or determined.

7. Question. Are any of said patents controlled by said cross-license and patent pooling agreements used as a basis for charter or corporation franchises? If so, valuation of said patents.

Answer. No Curtiss-owned patents are currently used as a basis for charter or corporation franchises.

8. Question. Was inventor an employee of assignee at time of making invention, and is the inventor an employee of such assignee now? If so, does assignee retain contract providing such invention shall belong to employer without additional cost?

Answer. The patentees listed under the schedule heading "A" were all, at the time of the filing of the applications resulting in the patents granted, employees of the Curtiss Co.

The patentees listed under the schedule headings "B", "C", and "D" were not, at the time of the filing of the applications resulting in the patents granted, employees of the Curtiss Co.

Of the patentees listed under the schedule heading "A", the following are still in the employ of the Curtiss Co.: R. Flader, F. R. Weymouth, C. G. Trimbach, C. E. Hathorn, S. I. Vaughan, S. T. Payne, A. G. Butler, R. D. Carleton, E. R. Child, R. R. Osborn, R. C. Blaylock, E. L. Noonan, H. R. Moles, and F. W. Fink.

None of the patentees retain any interest whatsoever in the patents assigned.

Digitized by Google

9. Question. Please give number, name, ownership, and valuation of existing patents now being used by your company through cross-license or with a patent pool.

Answer. The value to the Curtiss Co., of the patents under which it is licensed by reason of its membership in the Manufacturers Aircraft Association, Inc., cannot be determined. It is the writer's understanding that your committee has already been furnished with the number, name, and ownership of the patents under which it is licensed by reason of its association membership.

10. Question. Do you cross-license nonmembers of the patent pool—if such exists—and if so, on what terms?

Answer. At no time has the Curtiss Co. refused any concern or airplane manufacturing company a license under any or all of the "airplane" patents which it now owns or previously owned. Licenses have been granted to nonmembers of the association, subsequent to the formation of the association, at the same royalty rate as that required to be met by association members.

Question. What are the eligibility requirements for outsiders to join this patent pool?

Answer. To entitle a person, firm, or corporation to become a stockholder of the Manufacturers Aircraft Association, Inc., he or it, as the case may be, shall be a responsible manufacturer of aircraft or aircraft engines, or parts and accessories thereof; or a responsible manufacturer who intends to become a bona fide producer of the same; or a manufacturer to whom the United States Government has given a contract for the construction of 10 or more complete aircraft or aircraft engines; or a person, firm, or corporation owning or controlling United States patents relating to any of the foregoing.

12. Question. Do you recommend any amendments to existing patent laws? If so, enumerate.

Answer. It is recommended that the act of June 25, 1910 (36 Stat. 851), as amended by the act of July 1, 1918 (40 Stat. 705), be repealed.

[Standard form of Curtiss Employer-Employee Agreement]

AGREEMENT

Whereas the Curtiss Aeroplane & Motor Co., Inc., a corporation of New York, having its principal places of business at Garden City and Buffalo, N. Y., is now engaged in the development, manufacture, and sale of various types of aircraft, pontoons, hulls, engines, and parts thereof and accessories therefor, and of apparatus and processes incident to the manufacture of said devices and the parts thereof, and

Whereas I desire employment with said corporation in the course of which I may be informed from time to time of more or less confidential matters pertaining to these and any other lines of work that the corporation may now or hereafter be engaged in the investigation or development of during my employment,

Now, therefore, this indenture witnesseth: That in part consideration of my employment with said corporation, and the resulting renumeration and attending advantages, I agree that—

1. I will communicate to its Law Department and assign to the corporation, for its sole and exclusive benefit, any and all improvements and inventions I may conceive of or make while in its employ, along the lines of the Corporation's work and investigations, and will execute all patent application and other proper papers deemed by the corporation as necessary or expedient to the filing and prosecution of applications for patents in this and all foreign countries, on said improvements or inventions, and otherwise in acquiring Letters Patent therefor, and will otherwise assist the Corporation in every proper way (entirely at its expense) to protect in any and all countries, the inventions to be and remain the property of the said Corporation, whether patented or not: As a matter of record I attach hereto a complete list of all inventions which I have made prior to my said employment and which I desire to have excluded from this assignment, and

Digitized by Google

2. I will regard and preserve as confidential all information pertaining to the Corporation's business that may be obtained by me from specifications, drawings, blue-prints, reproductions, and other sources of any sort as a result of such employment, and I will not, without written authority from the Corporation so to do, disclose to others during my employment or thereafter, such or any other confidential information obtained by me while in the employ of the Corporation.

In witness whereof, I have hereunto set my hand and seal this _____ day of _____ 19__.

(Signature) _____ [SEAL]

Witness:

_____

(Original to be dated, signed, witnessed and returned to the Law Department of the Corporation.)

AGREEMENT

This agreement entered into this 1st day of Oct., 1933, by and between the Aviation Corporation, a Delaware Corporation, party of the first part, and Curtiss Aeroplane & Motor Company, Inc., a New York Corporation, Curtiss Assets Corporation, a New York Corporation, Curtiss-Wright Airplane Company, Inc., a Missouri Corporation, Keystone Aircraft Corporation, a Delaware Corporation, and Wright Aeronautical Corporation, a New York Corporation, parties of the second part, witnesseth:

Whereas the party of the first part is empowered to procure an assignment or assignments to Curtiss Aeroplane & Motor Company, Inc., of certain U. S. Letters Patents and applications for Letters Patents (either filed, or prepared and not yet filed), identified in Schedule "A" hereto attached, and

Whereas said party of the first part through its subsidiaries, Fairchild Aviation Corporation, Fairchild Airplane Manufacturing Corporation, Fairchild Enigne Corporation, American Airplane & Engine Corporation, Kreider-Reisner Aircraft Company, Inc., and the Aviation Patent & Research Corporation, has manufactured, sold, and/or used, or has caused to be manufactured, sold, and/or used, airplanes and/or parts thereof, which it is alleged by the parties of the second part constitute an infringement of certain U. S. Letters Patents owned or controlled by them or one of them, and

Whereas said party of the first part is the owner of a certain library, identified as the Farmingdale Library, comprising copies of United States and foreign patents, books, magazines, and other material which all of the parties hereto desire to make more generally available for use in the advancement of the airplane art and industry, and

Whereas Curtiss Aeroplane & Motor Company, Inc., is desirous of acquiring all right, title, and interest in and to the U. S. Letters Patents and applications for Letters Patents enumerated in Schedule "A", and

Whereas under a certain agreement known as the Amended Cross-License Agreement of December 31, 1928 (by which all of the parties of the second part are bound), the parties of the second part are required to account to the Manufacturers Aircraft Association, Inc., for all licenses granted under any and all airplane patents which they or any of them own or control; and

Whereas the said Manufacturers Aircraft Association, Inc., at present owns and maintains a patent and engineering library devoted to aeronautical subjects which is available to and widely used by all parties hereto and other Members of the said Association, and which all of said parties now desire to improve and extend for the continued advancement and benefit of the airplane art and industry; and

Whereas the parties hereto are desirous of settling any and all claims which the parties of the second part may now have, may have heretofore had, or may hereafter have, against the party of the first part, and/or its subsidiaries, based on the alleged infringement of any and all airplane patents owned or controlled by the parties of the second part, or any of them, and which said claim or claims relate or pertain in any way, except as hereinafter provided, to airplanes and/or parts thereof manufactured, sold, and/or used by Fairchild Aviation Corpora-

Digitized by Google

tion, Fairchild Airplane Manufacturing Corporation, Fairchild Engine Corporation, American Airplane & Engine Corporation, Kreider-Reisner Aircraft Company, Inc., and The Aviation Patent & Research Corporation prior to the date of the signing hereof.

Now, therefore, in consideration of the covenants herein contained, and of other good and valuable considerations, the receipt whereof is hereby acknowledged, it is mutually agreed as follows:

1. The Aviation Corporation agrees to procure and deliver within a reasonable time hereafter an assignment or assignments to Curtiss Aeroplane & Motor Company, Inc., of all U. S. Patents and applications (both filed, and prepared but not yet filed) enumerated in Schedule "A", title to which is now vested in it or in Fairchild Aviation Corporation, Fairchild Airplane Manufacturing Corporation, Fairchild Engine Corporation, American Airplane & Engine Corporation, Kreider-Reisner Aircraft Company, Inc., and/or The Aviation Patent & Research Corporation; and as to such U. S. Patents and/or applications enumerated in said Schedule which are the rightful property of The Aviation Corporation, but title to which is now vested in other than the above companies, The Aviation Corporation agrees to use every reasonable and proper effort to induce the present owners of title to execute, in favor of Curtiss Aeroplane & Motor Company, Inc., an assignment or assignments of like effect and tenor.

2. The Aviation Corporation agrees to transfer and deliver to Curtiss Aeroplane & Motor Company, Inc., title to the library identified as the Farmingdale Library in order that the same may be consolidated with the library of the Manufacturers Aircraft Association, Inc., as hereinafter provided.

3. The Curtiss Aeroplane & Motor Company, Inc., agrees to report to the Manufacturers Aircraft Association, Inc., without claims for compensation, all patents and/or applications referred to in Schedule "A", which are or may be assigned to it as provided in Paragraph 1, whereby, in conformity with the Amended Cross-License Agreement and Contract with the U. S. Government of December 31, 1928, which said Association administers, said patents and/or applications may be cross-licensed, without compensation to the Government and to all Subscriber members. That there may be no misunderstanding as to the terms and conditions of said Cross-License Agreement and Contract of December 31, 1928, copies of the same are attached hereto and made a part hereof.

4. Curtiss Aeroplane & Motor Company, Inc., agrees to transfer title to and deliver the said Farmingdale Library transferred to it in accordance with Paragraph 2 hereof, to said Manufacturers Aircraft Association, Inc., in lieu of the 12½% of the amount of this settlement which may become due to it (the Association) under the terms of Paragraph VII and VIII of said Cross-License Agreement.

5. The parties of the second part, in return for the assignment to Curtiss Aeroplane & Motor Company, Inc., of the patents and appliances referred to in Schedule "A", and in return for the delivery to Curtiss Aeroplane & Motor Company, Inc., of the said Farmingdale Library referred to in Paragraph 2, agree to release and do hereby release The Aviation Corporation, Fairchild Aviation Corporation, Fairchild Airplane Manufacturing Corporation, Fairchild Engine Corporation, American Airplane & Engine Corporation, Kreider-Reisner Aircraft Company, Inc., and The Aviation Patent & Research Corporation, and its or their successor or successors, except as provided in Paragraph 6 hereof, from, and acknowledge complete satisfaction of any and all claims or causes of action which the said parties of the second part or any of them, or their successor or succesors, and assign or assigns, may now own or may hereafter own, insofar as said claim or claims or cause or causes of action relate or pertain to airplanes and/or parts thereof, manufactured, sold and/or used prior to the date of execution of this agreement, the words "Airplane" and "Airplane Patent" as used in this agreement being understood to have the same meaning as in the said Cross-License Agreement, for the definition of which see Paragraph 1 thereof.

6. It is specifically understood and agreed that the release contained in Paragraph 5 hereof in no way concerns, nor is it intended in any way to affect

Digitized by Google

any claim or cause of action which the parties of the second part, or any of them, may now have, or may hereafter have, based on the unlicensed manufacture, sale, and/or use of airplanes and/or parts thereof, by any person, firm, corporation or association which is now or at any time heretofore was connected with The Aviation Corporation as a subsidiary or subsubsidiary thereof, after the time when such person, firm, corporation, or association ceased to be so connected with The Aviation Corporation. Specifically it is agreed that the release contained in Paragraph 5 hereof shall not in any way release or affect any claim or cause of action which the parties of the second part, or any of them, may now have or may hereafter have based on the unlicensed manufacture, sale, and/or use of airplanes and/or thereof by Fairchild Aviation Corporation, or the Kreider-Reisner Aircraft Company, Inc., since April 1, 1931.

7. It is further understood and agreed that the assignments required to be executed under the provisions of Paragraph 1 hereof shall be subject to a non-exclusive license which has been granted to Fairchild Aviation Corporation and its present and future subsidiaries and controlled companies under all patents owned or controlled by The Aviation Patent & Research Corporation on April 1, 1931, and shall provide for the retention by the assignor for the benefit of itself and its present or future subsidiaries and sub-subsidiaries or affiliated companies of a non-exclusive right and license, for the life of the patents and/or applications therein referred to, to manufacture, use, and/or sell the invention or inventions covered by said patents and/or applications, without obligation, should The Aviation Corporation or its subsidiaries, or its or their successor or successors and/or assigns in the future elect to continueto manufacture airplanes and/or parts thereof.

In witness whereof, the parties hereto have executed this agreement, in duplicate, as and of the date hereinbefore first written.

THE AVIATION CORPORATION,
By L. B. MANNING, *President.*
(Party of the First Part.)

Attest:

R. I. PRUITT, *Sec.*

CURTISS AEROPLANE & MOTOR COMPANY, INC.,
By ——— ———, *President.*
(Party of the Second Part.)

Attest:

S. R. RYAN.

CURTISS ASSETS CORPORATION,
By ——— ———, *President.*
(Party of the Second Part.)

Attest:

GEORGE S. LAPP, *Secretary.*

CURTISS-WRIGHT AIRPLANE COMPANY, INC.,
By R. S. DAMON, *President.*
(Party of the Second Part.)

Attest:

GEO. M. EBERT, *Asst. Sec'y.*

KEYSTONE AIRCRAFT CORPORATION,
By ——— ———, *Vice President.*
(Party of the Second Part.)

Attest:

W. S. BAILEY, *Ass't Secretary.*

WRIGHT AERONAUTICAL CORPORATION,
By W. B. GORDON, *Vice President.*
(Party of the Second Part.)

Attest:

S. R. RYAN, *Secretary.*

Digitized by Google

SCHEDULE A

List of Patents

Patent No.	Patentee	Title
1485783	Gardner	Vertical Stabilizer.
1513053	Lewis	Aircraft Landing Gear.
1681219	Caminez	Engine mounting.
1704713	Stalb	Pontoon Attaching Means.
1706373	Weymouth	Control Surface Operating Mechanism.
1723012	Caminez	Aircraft Engine Mount.
1723962	Weymouth	Folding wing.
1731492	Haase	Pontoon Nose Buffer.
1745126	Stalb	Detachable Ski.
1749769	Johnson	Airplane Wing Construction.
1759442	Depew	Control Surface Operating Mechanism.
1770756	Markey	Tail Skid.
1793494	Lee	Folding Wing Aeroplane.
1858393	Depew	Airplane Wheel Brake Operating Means.
1886708	Markey	Fastening Device for Airplane Wing Covers.
1888807	Rivers	Machine for Shaping Metal Tubes.
1890820	Markey	Airplane.
1892064	do	Aeroplane Landing Ski.
1892065	do	Aeroplane Engine Mount.
1892070	Miller	Sound Absorbing Monocoque Fuselage.
1894582	De Bell	Return Landing Gear.
1895222	Johnson	Safety Belt.
1923384	Miller	Fuel Tank.
1925271	do	Floor Construction.

List of applications for patent filed in U. S. Patent Office

Serial No.	Applicant	Title
559921	Beard	Heating and Ventilating System.
592958	Rivers	Riveting Device.
600620	Beard	Heating and Ventilating System.
602248	Miller	Rib Construction.
603308	Beard	Instrument Board.
603507	Johnson	Cabin Door.
607545	Miller	Spar Construction.

List of applications for patent prepared but not as yet filed in United States Patent Office

Applicant	Title	Applicant	Title
Johnson	Auxiliary Wing.	Johnson et al	Adjusted Rudder Pedal.
Do	Floating Aileron Control.	De Bell	Airplane Control System.

AGREEMENT

This agreement entered into this 31st day of December 1933 by and between Fairchild Aviation Corporation, a Delaware Corporation, party of the first part, and Curtiss Assets Corporation, a New York Corporation, party of the second part, witnesseth:

Whereas the party of the first part represents that it is empowered to procure an assignment or assignments to Curtiss Aeroplane & Motor Company, Inc. (an affiliate of Curtiss Assets Corporation), of certain United States Letters Patent, and applications for Letters Patents, either filed, or in the process of preparation, identified in Schedule "A" hereto attached, and

Whereas said party of the first part, and/or its affiliate, Kreider-Reisner Aircraft Company, Inc., a Maryland Corporation, has manufactured, sold and/or used, or caused to be manufactured, sold and/or used, airplanes which it is alleged by the party of the second part constitute an infringement of certain United States Letters Patents owned or controlled by said party of the second part; and

Digitized by Google

Whereas Curtiss Aeroplane & Motor Company, Inc., is desirous of acquiring all right, title, and interest in and to said United States Letters Patents and applications enumerated in Schedule "A"; and

Whereas the parties hereto are desirous of settling any and all claims which the party of the second part may now have or may have heretofore had against the party of the first part and/or its affiliate, Kreider-Reisner Aircraft Company, Inc., based on the alleged infringement of any and all patents owned or controlled by the party of the second part.

Now, therefore, in consideration of Five Hundred Dollars ($500), and of the covenants herein contained, and of other good and valuable considerations, the receipt whereof is hereby acknowledged, it is mutually agreed as follows:

(1) Fairchild Aviation Corporation agrees, as and of the date of execution hereof, to deliver an assignment in writing to Curtiss Aeroplane & Motor Company, Inc., a New York Corporation, of all United States Letters Patents and pending applications identified in Schedule "A", hereof, and further agrees, if and when applications for United States Letters Patents covering the invention or inventions identified in Schedule "A", as "Applications in Process of Preparation", are prepared, to procure the execution of said applications by Sherman M. Fairchild. Fairchild Aviation Corporation also agrees, if and when called upon by the party of the second part, to procure the execution of any and all papers and/or the documents deemed by the party of the second part to be necessary to vest in it all right, title, and interest in and to said application or applications aforesaid.

(2) The party of the second part, in return for the assignment to Curtiss Aeroplane & Motor Company, Inc., of the patents and applications referred to in Schedule "A", and in consideration of the Five Hundred Dollars ($500) payment herein referred to, agrees to release and does hereby release Fairchild Aviation Corporation and/or Kreider-Reisner Aircraft Company, Inc., from, and acknowledges complete satisfaction of any and all claims or causes of action which it or its successor or successors, and assign or assigns, may now have or may have heretofore had, insofar as, and only insofar as said claim or claims or cause or causes of action relate or pertain to airplanes and/or parts thereof manufactured, sold and/or used prior to the date of execution of this agreement, and which airplanes and/parts it is alleged by the party of the second part constitute an infringement of its patents.

In witness whereof, the parties hereto have executed this agreement, in duplicate, as and of the date heretofore first written.

FAIRCHILD AVIATION CORPORATION,

Attest: _____

By _____

CURTISS ASSETS CORPORATION,

Attest: By _____

Secretary.

_____

SCHEDULE A

Patents

Patent no.	Title	Issue date	Inventor
1449387	Speedometer for Aircraft	Mar. 27, 1923	S. M. Fairchild.
1711637	Control Surface Operating Mechanism	May 7, 1929	Do.
1772889	Wing landing light	Aug. 12, 1930	Do.

Pending applications

Serial no.	Title	Filing date	Inventor
298427	Airplane	Aug. 9, 1928	S. M. Fairchild.
405612	Airplane Control Devices	Nov. 8, 1929	Do.

Digitized by Google

APPLICATIONS IN PROCESS OF PREPARATION

(*a*) Automatic stabilizer adjustment to maintain constant longitudinal balance irrespective of power on and power off conditions.
(*b*) Two types of retractable landing gears.
(*c*) Two types of cantilever landing gears.
(*d*) New method of increasing air stream velocity through in-line airplane engines. This is a cowling invention and therefore relates to airplanes.
(*e*) New type of military pilot seat which has been approved by the Army.
(*f*) New type of wheel pants and landing gear.

Original

CROSS-LICENSE AGREEMENT

This agreement, made this 24th day of July 1917, between the Manufacturers Aircraft Association, Inc., a New York corporation (hereinafter called the "Company"), party of the first part, and each person, firm, or corporation (hereinafter called the "Subscriber" or "Subscribers") as shall become stockholders of the said "Company" in the manner and under the conditions provided in the by-laws thereof (which for the purpose of this agreement are made a part hereof), and become parties to this agreement, parties of the second part.

Whereas, the parties hereto are interested in the manufacture, sale, and use of airplanes, as hereinafter defined, and desire to promote and develop the industry in which they are engaged, and to encourage and advance the art applicable thereto; and

Whereas the said development and advancement in the past have not been capable of as complete accomplishment as is desirable, because of the existence of certain United States patents claimed to be basic in their nature, upon which suits have been brought or threatened for alleged infringement and for the collection of royalties and damages in connection therewith; and

Whereas it is desired to prevent and avoid such litigations or threatened litigations in the future and to give to all of the "Subscribers" the right to manufacture, sell, and use airplanes embodying the inventions of each of the "Subscribers" and to that end it is desired that licenses be granted as herein expressed:

Now, this agreement witnesseth: That for and in consideration of the premises, the covenants, and conditions herein contained, and of other good and valuable considerations moving between the "Company" and each of the "Subscribers" hereto, and between the "Subscribers" themselves, it is covenanted and agreed as follows:

I. DEFINITIONS

The word "airplane", as used in this agreement, shall be understood to mean any form of heavier-than-air craft using wing surfaces for sustaining it and to include propelling means, propellers, propeller hubs, radiators, and all parts and accessories used or useful in the airplane except the engine and its accessories.

The words "airplane patent", as used in this agreement, shall be understood to mean any patent covering inventions for or capable of use in or in connection with airplanes, including propellers, propeller hubs, radiators, and all parts of airplanes and accessories used or useful in the airplane, except the engine and its accessories.

II. LICENSES AND POWERS GRANTED

The "Subscribers" grant, agree to grant, and cause to be granted to each other, licenses to make, use, and sell airplanes—under all airplane patents of the United States now or hereafter owned or controlled by them or any of them, or by any firm, corporation, or association owned or controlled by them, or under which they, or any of them, or any such firm, corporation, or association, have or shall have the right to grant licenses—in and throughout the United States, its territories and dependencies, for use therein or abroad, except that no rights, express or implied, are hereby granted under any foreign patents, nor shall said rights or the licenses, herein provided for, apply to or include the use of said patents in their application to other than airplanes, and except further that no licenses are hereby granted under the Dunne patents No. 975403, issued November 15th, 1910, and No. 1003721, issued September 19th, 1911, rights under which are held by the Burgess Company.

Digitized by Google

All licenses provided for herein shall run to the full end of the term of the letters patent under which the license is or is to be granted and shall be personal, indivisible, non-assignable, and irrevocable, except for the causes and in the manner hereinafter stated.

The "Subscribers" hereby designate, constitute, and appoint the "Company" (and the "Company" hereby accepts the appointment) as their true, sufficient, and lawful agent and attorney in fact, for them and in their respective names, to make and execute licenses in writing in the form hereto annexed, and to deliver the same to those of the "Subscribers" who, at the time, are stockholders of the "Company" not in default hereunder, and who shall have executed an agreement in writing of like tenor to this; and to enforce said licenses and any and all other obligations (including the obligation to make payments), of the "Subscribers" under this agreement; and the "Subscribers" hereby give and grant unto said "Company" as full, complete, and ample power and authority in the premises as the "Subscribers" themselves now have and possess.

All licenses provided for herein, when made, executed, and delivered in accordance with the provisions hereof, shall have the same force and effect as if they had been executed and delivered by the "Subscribers" themselves.

III. COVENANTS OF FURTHER ASSURANCE

(a) Each "Subscriber", now or hereafter, having rights under any United States airplane patent or invention, of such character that it has legal right and power to procure the grant of rights thereunder to others, but is not itself empowered to grant such rights, covenants to procure the execution of such further instrument as may be necessary to empower the "Company" to grant rights under such patent, or with reference to such invention, to the extent and in the manner herein provided.

(b) Each "Subscriber" covenants that it will not contract for or obtain any rights under any such patent or invention in such manner that its owner would be prevented from granting to other "Subscribers" hereto similar rights on the same terms, unless the "Subscriber" obtains, at the same time, the further privilege to grant rights under said patent or said invention, whereby the same may and will be brought under the operation of this instrument.

IV. COVENANTS AGAINST OTHER LICENSES

Each "Subscriber" covenants that it has not heretofore entered and will not hereafter enter into any contract or arrangement, whereby its privileges under United States airplane patents, issued or to be issued, inventions, and rights, owned or controlled by it, have been or shall be diminished or surrendered so as to exclude or restrict the operation of this instrument in respect thereto. Each "Subscriber" further covenants that it will not grant licenses under any such patents for use in airplanes, with reference to which it is receiving royalties hereunder, to any other person, firm, or corporation on more favorable or lower terms of royalty, than those herein provided, or which may become more favorable or lower during the term of such license.

V. AFTER ACQUIRED PATENTS

When a "Subscriber" shall hereafter acquire a United States airplane patent, or any right thereunder, he shall be entitled to compensation for the use thereof if the patent or patent right covers an invention which secures the performance of a function not before known to the art, or constitutes an adaptation for the first time to commercial use of an invention known to the industry to be desirable of use but not used because of lack of adaptation, or is otherwise of striking character or constitutes a radical departure from previous practice, or if either the price paid therefor or the amount expended in developing the same is such as to justify such compensation, provided that at the time said patent or patent right is reported to the "Company", as required in subdivision (b) of paragraph VII, the "Subscriber" claims such compensation, and states the grounds on which such claim is based. Such report and claim shall be submitted to a Board of Arbitration to be selected in the manner provided for in paragraph XIII hereof, which Board shall determine whether such compensation shall be paid, and, if so, the total amount thereof and the rate of royalty, or other payments, which shall be paid (towards such compensation) by any "Subscriber" desiring and taking a license under said patent and shall also fix the time or times when said royalties or other amounts shall be paid.

Digitized by Google

VI. SPECIAL MODELS

If any "Subscriber" shall have developed the design and manufacture of any special model of airplane, or airplane engine, or other device used in an airplane (except the airplanes manufactured by the Burgess Company under the Dunne Patents hereinbefore mentioned, and the Hispano-Suiza aeronautical engine manufactured by the Wright Martin Aircraft Corporation or its subsidiaries), which the United States Government may at any time desire to have manufactured in the factory of any other "Subscriber" or in the factory of any manufacturer not a "Subscriber" hereto, the said "Subscriber" agrees that it will furnish to the other "Subscriber" or said other manufacturer such complete specifications, drawings, and other production data, as may be required for use in the manufacture of such special model, provided that and upon condition that the "Subscriber" or other manufacturer in whose factory the work is placed by the United States Government shall agree with said Government and with the "Subscriber" owning said specifications, etc., to pay and shall pay into the treasury of the "Company" one percent upon the contract price paid by the Government for each airplane or airplane engine or other device manufactured for it in accordance with said specifications, etc.

If the manufacture of such special model is conducted by one not a "Subscriber", such manufacturer shall also agree to pay into the treasury of the "Company" such royalty as a "Subscriber" would have been obliged to pay had it made and sold the airplane, engine, or other device, including the amount specified in subdivisions (a) and (b) of paragraph VIII hereof, if an airplane with or without engine is the thing manufactured for and sold to the Government.

VII. REPORTS TO THE COMPANY

The following reports in writing shall be rendered to the "Company" by each "Subscriber" at the time or times hereinafter set forth:

(a) At the time of the execution of this agreement each "Subscriber" shall report all United States airplane patents and inventions, together with serial numbers and filing dates of all pending applications for such patents, and all rights under such patents and inventions then owned or controlled by it, but no omission from such report shall exclude the patent, application, or right so omitted from the operation of this agreement.

(b) Within 30 days after the acquisition by any "Subscriber" of any United States patent (other than patents to be issued upon inventions now owned by it) or right within the scope of this agreement, each such "Subscriber" shall report such acquisition, together with all the facts known to it as to such patent or right and its manner of acquisition. If such "Subscriber" claims that additional compensation should be paid to it for licenses under such patent or right, it shall so claim in its report.

(c) On the 10th days of January, April, July, and October in each year, each "Subscriber" shall report the number of airplanes (with or without engine), sold and delivered by it, together with the names of the purchasers, and the dates of delivery, or put into use for other than experimental or development purposes, or shipped out of the United States during the three preceding calendar months.

(d) On the 10th day of January, April, July, and October in each year, each "Subscriber" shall report the number of airplanes, airplane engines, or other devices for use in airplanes, which it has sold and delivered during the preceding three calendar months, made from specifications, drawings, and other production data obtained from any other "Subscriber", as provided in paragraph VI hereof, together with the sales price and the dates of delivery; and there shall be included in the same report a copy of any agreement which the "Subscriber" shall have made with another manufacturer as provided in said paragraph.

(e) Each license to other than "Subscribers" as provided in paragraph IV hereof, shall be reported within 30 days after its delivery.

The first of each of the reports specified in subdivisions (c) and (d) hereof shall be made by each "Subscriber" on the tenth day of January, April, July, or October first occurring after it has become a "Subscriber" hereto, and shall cover the period from July 1, 1917, to the first day of the month in which the report is due.

Each of the "Subscribers" hereto shall keep separate books of account showing all business done under or subject to the operation of this agreement.

Digitized by Google

The "Company" may at any time have a New York Certified Public Accountant, to be designated by it, audit such books of account of the "Subscribers", together with such other accounts as the accountant may deem necessary, in order to verify or correct the reports herein provided for, and the "Company" shall have such audit made when any "Subscriber" so demands. Such audit, however, shall be limited to ascertaining whether the reports herein provided for are properly made and to correcting the same, if necessity for correction shall appear. No information obtained from any such audit shall be reported by the accountant or given to any of the parties hereto, except as it directly applies to the reports required by this agreement.

VIII. PAYMENTS TO THE "COMPANY"

Each "Subscriber" agrees to pay into the treasury of the "Company" on the 10th days of January, April, July, and October in each year the following sums of money, to wit:

(a) On each airplane, with or without engine, required to be reported as provided in subdivision (c) of paragraph VII hereof, the sum of two hundred dollars until such time as the Wright-Martin Aircraft Corporation and the Curtiss Aeroplane and Motor Corporation shall have been paid the aggregate sums provided for in subdivisions (a) and (b) of paragraph IX hereof.

(b) On each airplane, with or without engine, required to be reported as provided for in subdivision (c) of paragraph VII hereof, such sum not to exceed twenty-five dollars, as the Board of Directors of the "Company" may, from time to time, fix and determine as payable after the above-mentioned aggregate sums shall have been paid to the Wright-Martin Aircraft Corporation and the Curtiss Aeroplane and Motor Corporation.

(c) Such amount or amounts as the Board of Arbitration may specify as special compensation for after-acquired patents as provided in paragraph V hereof, and required to be reported in subdivision (c) of paragraph VII.

(d) Such amount or amounts as may be payable with reference to the use of specifications, drawings, and data as provided in paragraph VI hereof, including the royalty payments therein provided for, but all one (1%) percent payments on account of the use of such specifications, drawings, and data covering any one model shall cease when the total paid by all users shall aggregate Fifty thousand ($50,000) dollars.

(e) All royalties received under licenses referred to in subdivision (e) of paragraph VII .

Each "Subscriber" who shall become a party hereto after the first day of July 1917 shall on the 10th day of January, April, July, or October next occurring pay to the "Company" those amounts which it would have been obliged to pay in accordance with the foregoing if it had been a "Subscriber" on July 1, 1917.

Moneys paid into the treasury of the "Company" pursuant to any provisions hereof shall not be or constitute or be deemed to be or constitute the assets, property, or profits of said "Company", but shall be received and disbursed by it as the agent and attorney in fact of the "Subscribers" in the manner and for the purposes herein mentioned.

IX. PAYMENTS BY THE "COMPANY"

Out of the moneys paid into the treasury of the "Company" pursuant to the provisions hereof, the following payments shall be made by the "Company" on the 20th days of January, April, July, and October in each year, to wit:

(a) To the Wright-Martin Aircraft Corporation One hundred and thirty-five dollars ($135) on each airplane, with or without engine, with reference to which payments shall have been made in accordance with subdivisions (a) and (e) of paragraph VIII hereof, during the preceding three calendar months, until U. S. Patent No. 821393, issued May 22, 1906, shall have expired, or until the aggregate sum of Two million ($2,000,000) dollars shall have been paid to the said Wright-Martin Aircraft Corporation when all payments to it hereunder shall cease, except as hereinafter provided.

(b) To the Curtiss Aeroplane and Motor Corporation Forty dollars ($40) on each airplane, with or without engine with reference to which payments shall have been made in accordance with subdivisions (a) and (e) of paragraph VIII hereof, during the preceding three calendar months, until such time as the Wright-Martin Aircraft Corporation shall have been paid in full as provided for

Digitized by Google

in subdivision (a) of this paragraph, after which there shall be paid to the Curtiss Aeroplane and Motor Corporation at the times herein mentioned the sum of One hundred and seventy-five dollars ($175) on each of said airplanes until the aggregate sum of Two million ($2,000,000) dollars shall have been paid to it or until U. S. Patent No. 1203550 issued October 31st, 1916, shall have expired, when all payments to it hereunder shall cease, except as hereinafter provided.

(c) To each of the "Subscribers" entitled thereto such amounts as may have been paid to the "Company" with relation to the use of after acquired patents in accordance with subdivisions (c) and (e) of paragraph VIII hereof.

(d) To each of the "Subscribers" entitled thereto such amounts as may have been paid to the "Company" on account of the use of specifications, drawings, and data as provided in paragraph VI and in subdivision (d) of paragraph VIII hereof, but any royalty payment received from outside manufacturers shall be distributed as though received from "Subscribers."

(e) To any "Subscriber" who shall have granted licenses to others than "Subscribers", as provided in paragraph IV, the royalties received under such licenses which are not required for payments provided for in subdivisions (a), (b), and (c) of this paragraph.

Out of the balance of said moneys paid into the treasury of the "Company" under this agreement, the "Company" may retain and use sufficient to cover its operating expenses and to create such fund as, in the judgment of the Board of Directors of said "Company", shall be necessary and proper for the further development of the airplane art and industry, and the purchase of patents and rights for the benefit of the "Subscribers" hereto.

If after making the payments and reservations herein provided for, any surplus or balance remains out of the funds so paid in the treasury of the "Company", the same shall be distributed by the "Company" from time to time, among those "Subscribers" who have contributed to said moneys, in proportion to their respective contributions under subdivisions (a) and (b) of paragraph VIII other than those required for payments under subdivisions (a) and (b) of this paragraph IX.

X. BREACH OF AGREEMENT

In the event that any "Subscriber" is claimed by the "Company", or any other "Subscriber", to be in default in the performance of any of its obligations hereunder, and such claimed default continues after thirty days' notice in writing, by the "Company" or any "Subscriber" hereto, to the "Subscriber" claimed to be in default, then the Board of Arbitration, hereinafter provided for, shall determine whether there has been such specified default, and if such default is found to exist, shall fix the time within which it must be repaired, and shall assess such damages and impose upon the "Subscriber" in default such other requirements (including the forfeiture of its stock and license) as may seem to the said Board of Arbitration to be proper under the circumstances. Each "Subscriber" covenants and agrees that it will pay such damages and comply with such requirements as may be specified by the said Board of Arbitration.

Nothing contained in this paragraph shall deprive the "Company" of the power to make, execute, and deliver licenses under the patents or patent rights owned and controlled by any defaulting "Subscriber", or to which the "Subscriber" may be entitled, at the time he ceases to be a stockholder or "Subscriber", nor deprive other than defaulting "Subscribers" of any right which they may have received to the use of the said patents or patent rights.

IX. WITHDRAWAL FROM AGREEMENT

Any "Subscriber" may withdraw from this agreement at any time after ten years from the date hereof, on giving to the "Company" written notice of its election so to do and on fulfilling all of its obligations up to the date of such withdrawal. But no withdrawal shall relieve the other parties and other "Subscribers" from their obligations to each other hereunder, nor deprive them of their rights acquired under the patents and patent rights owned or controlled by the withdrawing "Subscriber" at the time of withdrawal, all of said patents and patent rights remaining under this agreement, but such withdrawing "Subscriber" shall cease to have any rights under the patents of the other "Subscribers" hereto, or any other right under this agreement, from and after such withdrawal.

Digitized by Google

XII. REPURCHASE OF STOCK

In the event of the death of any person who is a stockholder in the "Company", or in the event of the dissolution of any corporation or firm which is a stockholder therein, or in the event of the bankruptcy or insolvency of any such stockholders, or in the event of withdrawal under paragraph XI hereof, the "Company" shall have the right to purchase for the benefit of the other "Subscribers" the stock held by such person, firm, or corporation at a sum not to exceed the distributive share or shares of such stockholder in the funds held by the "Company", and the license or licenses issued to such stockholder shall be surrendered to the "Company" and cancelled.

XIII. ARBITRATION OF CLAIMS AND DISPUTES

In case of any dispute or controversy between the "Subscribers" hereto, or between the "Subscribers" and the "Company", or in case of a claim by a "Subscriber" for special compensation for licenses under patents or rights hereafter acquired by it, or in case of breach of this agreement, the said dispute, controversy, claim, or breach shall, within thirty days after a "Subscriber" or "Subscribers" shall have given notice to the "Company" or the "Company" shall have given notice to the "Subscribers" thereof, be referred to a board of disinterested Arbitrators consisting of three persons, for determination.

In the case of a claim for special compensation, one member of such Board of Arbitration shall be appointed by the Board of Directors of the "Company", another by the "Subscriber" making the claim, and the third by the other two arbitrators.

In the case of any dispute between the "Company" and a "Subscriber" or "Subscribers", one member of the Board of Arbitration shall be appointed by the Board of Directors of the "Company", another by the "Subscriber" (or if more than one "Subscriber" is involved in the same dispute, then by a majority of those so involved), and the third by the other two arbitrators.

In case of a breach of this agreement asserted by the "Company" or a "Subscriber" against another "Subscriber", one member of the Board of Arbitration shall be appointed by the Board of Directors of the "Company", another by the "Subscriber" against whom the assertion of breach is made, and the third by the other two arbitrators.

If either the Board of Directors or the "Subscribers" fail to appoint a member of the Board of Arbitration within the time specified, the other party or parties may appoint such member or fill such vacancy.

The decision of a majority of the members of said Board upon all matters submitted to them for adjudication shall be final and binding upon all the parties hereto.

XIV. RELEASE TO "SUBSCRIBERS"

The "Subscribers" hereby waive and release any and all claims which they, or any of them, may have had against each other for damages and profits on account of any infringement or alleged infringement, prior to July 1, 1917, of any patent included within this instrument in the manufacture, sale, or use of airplanes.

XV. BINDING UPON PARTIES, CONTROLLED COMPANIES, LEGAL REPRESENTATIVES, ETC.

This agreement is binding upon the parties hereto and their several successors, legal representatives, and assigns, but shall enure to the benefit of only their several successors in business. Each "Subscriber" agrees that all persons, firms, and corporations now or hereafter controlled by it, and engaged in the manufacture of airplanes, or owning or controlling United States airplane patents, shall be caused to execute this agreement.

XVI. EXECUTION OF AGREEMENT

This agreement may be executed by the "Subscribers" in any number of counterparts, but when so executed shall constitute but one and the same agreement, and shall be as binding, and of the same force and effect, as if all the "Subscribers" had executed but one and the same instrument, and as if all executions had been at the same time.

Digitized by Google

In Witness Whereof, the parties hereto have executed this instrument as of the day and year first above written.

MANUFACTURERS AIRCRAFT ASSOCIATION, INC.

LICENSE

License granted this _____ day of _____ 1917, by the _____ _____ (hereinafter called the Licensor), to _____ _____ (hereinafter called the Licensee).

Whereas the Licensor and certain other stockholders of the Manufacturers Aircraft Association, Inc. (hereinafter called "Subscribers"), heretofore entered into a certain agreement dated July 24, 1917, entitled "Cross License Agreement" (a copy of which is hereto annexed), wherein and whereby the Licensor agreed to grant certain licenses to the other "Subscribers"; and

Whereas the said agreement also authorized and empowered the Manufacturers Aircraft Association, Inc., as the agent and attorney in fact of the Licensor, to make, execute, and deliver such licenses in the name of the Licensor; and it is desired to execute the powers therein granted: Now, This License

Witnesseth, That for and in consideration of the premises and other good and valuable considerations moving between the parties hereto, it is covenanted and agreed as follows:

1. The Licensor does hereby give and grant unto the said Licensee the unrestricted but non-exclusive license to make, use, and sell airplanes—under all airplane patents of the United States now or hereafter owned or controlled by it, or by any firm, corporation, or association owned or controlled by it, or under which it or any such firm, corporation, or association have or shall have the right to grant licenses—in and throughout the United States, its territories and dependencies, for use therein or abroad, except that no rights, express or implied, are hereby granted under any foreign patents, nor shall the licenses herein provided for apply to or include the use of said patents in their application to other than airplanes; and except further, that no licenses are hereby granted under the Dunne patents, No. 975403, issued November 15, 1910, and No. 1003721, issued September 19, 1911, the rights under which are held by the Burgess Company.

The patents, the patents to issue on inventions, and the agreements with reference to which the Licensor has a right to grant licenses at the present time, and which are intended to be included in this license are set forth in Schedule "A", hereto annexed.

2. This license shall run to the full end of the term of the Letters Patent under which the license is or is to be granted, and shall be personal, indivisible, non-assignable, and irrevocable, except for the causes and in the manner set forth in the "Cross License Agreement" hereinbefore referred to.

3. This license is made subject to all the terms, conditions, covenants, and agreements contained in said "Cross License Agreement", which is made a part hereof with the same force and effect as if herein set forth at large.

In Witness Whereof, the parties hereto have caused this instrument to be executed as of the day and year first above written.

_____

By MANUFACTURERS AIRCRAFT ASSOCIATION, INC.

FIRST SUPPLEMENTAL CROSS-LICENSE AGREEMENT

THIS SUPPLEMENTAL AGREEMENT, made this_____day of_____ _____1918, between the Manufacturers Aircraft Association, Inc., a New York Corporation (hereinafter called the "Company"), party of the first part, and each person, firm, or corporation (hereinafter called the "Subscriber" or "Subscribers") as are and shall become stockholders of the said "Company", in the manner and under the conditions provided in the By-laws thereof (which for the purposes of this agreement are made a part hereof), parties of the second part;

Whereas an agreement dated the 24th day of July 1917 was entered into between the "Company' and certain "Subscribers", wherein and whereby it was agreed, among other things, that the "Company" should issue licenses to said "Subscribers" to manufacture, sell, and use airplanes embodying the

Digitized by Google

patents owned and controlled by the "Subscribers", and that the "Subscribers" should pay, as a royalty for such licenses, for the use of the patents now owned or controlled by them, the sum of Two Hundred ($200), dollars upon each of said airplanes; and

Whereas it is desired to modify said agreement and to reduce the amount of the royalty which said "Subscribers" shall be obliged to pay for the use of said patents upon airplanes sold and delivered by them to the United States Government, during the period of the present war with the Imperial German Government: Now, therefore, this agreement Witnesseth:

That for and in consideration of the premises, covenants, and conditions herein contained and other good and valuable considerations moving between the "Company" and each of the "Subscribers" hereto, and between the "Subscribers" themselves: It is covenanted and agreed, as follows:

First. That on the 10th days of January, April, July, and October, in each year, each "Subscriber" shall report to the "Company" the number of airplanes (with or without engines) sold and delivered by it, during the three preceding calendar months, to the United States Government: (1) Under flat-price contracts entered into prior to April 1st, 1918; (2) Under flat-price contracts entered into after March 31, 1918; (3) Under cost-plus contracts on which deliveries were made prior to January 1st, 1918, unless the same have been heretofore reported; (4) Under cost-plus contracts on which deliveries have been or shall be made after December 31, 1917.

Second. On the 10th days of January, April, July, and October, in each year, each "Subscriber" shall pay into the treasury of the "Company" on each airplane (with or without engines) delivered to the United States Government by it during the three preceding calendar months, the following sums of money, to-wit: (1) Two hundred ($200) dollars on each airplane which has been or shall be delivered under flat-price contracts entered into prior to April 1st, 1918; (2) One hundred ($100) dollars on each airplane which shall be delivered under flat-price contracts entered into after March 31, 1918; (3) Two hundred ($200) dollars on each airplane delivered prior to January 1st, 1918, under cost-plus contracts; and (4) One hundred ($100) dollars on each airplane which has been or shall be delivered after December 31, 1917, under cost-plus contracts. Said payments to be made until such time as the Wright-Martin Aircraft Corporation and the Curtiss Aeroplane and Motor Corporation shall have been paid the aggregate sum of Two million ($2,000,000) dollars as provided for in paragraph "Third" hereof.

Third. Out of the moneys paid into the "Company" pursuant to the provisions of paragraph "Second" hereof, the following payments shall be made by the "Company", on the 20th days of January, April, July, and October, in each year, to-wit: To the Wright-Martin Aircraft Corporation Sixty-seven and one-half per cent (67½%) of the amount received on each airplane (with or without engines), and to the Curtiss Aeroplane and Motor Corporation Twenty per cent (20%) of the amount received on each airplane with or without engines). Said payments shall be made until the sums paid to the Wright-Martin Aircraft Corporation and the Curtiss Aeroplane and Motor Corporation under and pursuant to the terms of this supplemental agreement and the original agreement of July 24th, 1917, and from any other source paying royalties to the Manufacturers Aircraft Association, shall amount in the aggregate to Two million ($2,000,000) dollars, when and after which time the said "Subscribers" shall not be obliged to pay any royalties for the use of the patents now owned or controlled by the "Subscribers" or the "Company" in any airplane sold and delivered by them to the United States Government during the period of the present war with the Imperial German Government.

Fourth. Except as herein modified the original agreement of July 24th, 1917, shall be and remain in full force and effect between the parties thereto and all other persons, firms, or corporations who may become "Subscribers" thereto, it being understood, however, that such sums as are paid to the Wright-Martin Aircraft Corporation and Curtiss Aeroplane and Motor Corporation pursuant to the provisions of this supplemental agreement shall be credited upon and shall constitute a part of the moneys which they are entitled to receive under and pursuant to the provisions of paragraph IX. of said original agreement.

Fifth. Nothing herein contained shall be taken, considered, or construed as fixing the reasonable value of the royalties to be paid for the use of the patents now owned or controlled by the "Subscribers." The price herein agreed upon for royalties upon airplanes furnished during the present emergency to the

Digitized by Google

United States Government is so fixed for the sole purpose of enabling the Government to acquire airplanes manufactured under said patents upon a preferential basis during the period of the present war.

Sixth. This agreement may be executed by the "Subscribers" in any number of counterparts, but when so executed shall constitute but one and the same agreement, and shall be as binding, and of the same force and effect, as if all the "Subscribers" had executed but one and the same instrument, and as if all executions had been at the same time.

In Witness Whereof the parties hereto have executed this instrument as of the day and year first above written.

MANUFACTURERS AIRCRAFT ASSOCIATION, INC.,

By _____,
President.

Attest:

By _____,
Secretary.

_____

_____

Attest: _____

SECOND SUPPLEMENTAL CROSS-LICENSE AGREEMENT

This supplemental agreement, made this 12th day of January 1923, between the Manufacturers Aircraft Association, Inc., a New York corporation (hereinafter called the "Company"), party of the first part, and each person, firm, or corporation (hereinafter called the "Subscriber" or "Subscribers") as are and shall become stockholders of the said "Company", in the manner and under the conditions provided in the By-Laws thereof (which for the purpose of this agreement are made a part hereof), parties of the second part;

Whereas an agreement dated the 24th day of July 1917 was entered into between the "Company" and certain "Subscribers", which agreement was amended by supplemental agreement dated the 19th day of April 1918, between the same parties; and

Whereas, it is desired to modify the said agreement as hereinafter set forth:

Now, therefore, this agreement witnesseth: That for and in consideration of the premises, covenants, and conditions herein contained, and other good and valuable considerations moving between the "Company" and each of the "Subscribers hereto, and between the "Subscribers" themselves: It is covenanted and agreed, as follows:

First. That, anything in said cross-license agreement, as amended, to the contrary notwithstanding, particularly in Paragraph IX of said cross-license agreement, the "Company" may retain and use, for the purposes set forth in Paragraph IX of said cross-license agreement, up to twelve and one-half percent (12½) of such amounts as may be paid to the "Company", on or after the 10th day of October 1922, with relation to the use of after-acquired patents in accordance with Subdivisions (c) and (e) of Paragraph VIII of said cross-license agreement;

Second. That, anything in said cross-license agreement, as amended, to the contrary notwithstanding, particularly in Paragraph IX of said cross-license agreement, the "Company" may retain and use, for the purpose set forth in Paragraph IX of said cross-license agreement, up to twelve and one-half percent (12½%) of that part of any amount paid to the "Company" on or after the 10th day of October 1922, in accordance with Subdivision (e) of Paragraph VIII as is not required for the payments provided for in subdivisions (a), (b), and (c) of Paragraph IX of said cross-license agreement.

Third. Except as herein modified, the original agreement of July 24, 1917, as amended April 19, 1918, shall be and remain in full force and effect between the parties thereto and all other persons, firms, or corporations who may become "Subscribers" thereto.

Fourth. This agreement may be executed by the "Subscribers" in any number of counterparts, but when so executed shall constitute but one and the same agreement, and shall be as binding, and of the same force and effect, as if all the "Subscribers" had executed but one and the same instrument, and as if all executions had been at the same time.

Digitized by Google

In witness whereof, the parties hereto have executed this instrument as of the day and year first above written.

MANUFACTURERS AIRCRAFT ASSOCIATION, INC.,

By _____
President.

Attest:

_____
Secretary.

_____

_____

Attest: _____

THE AMENDED CROSS-LICENSE AGREEMENT OF DECEMBER 31, 1928

This agreement, made this 31st day of December 1928, between the Manufacturers Aircraft Association, Inc., a New York corporation (hereinafter called the "Company") party of the first part, and each person, firm, corporation, or association (hereinafter called the "Subscriber" or "Subscribers") as are and shall become stockholders of the said "Company" in the manner and under the conditions provided in the By-Laws thereof (which for the purpose of this Agreement are made a part hereof), parties of the second part:

Whereas an Agreement (hereinafter called the original Cross-License Agreement) dated the 24th day of July 1917, was entered into between the "Company" and certain "Subscribers", which Agreement was amended by a Supplemental Agreement dated the 19th day of April 1918, between the same parties, and which Agreement was further amended by a second Supplemental Agreement dated the 12th day of January 1923, between the same parties, and

Whereas the parties hereto are interested in the manufacture, sale, and use of airplanes, as hereinafter defined, and desire to promote and develop the industry in which they are engaged, and to encourage and advance the art applicable thereto; and

Whereas the said development and advancement, prior to the execution of the original Cross-License Agreement, was not capable of complete accomplishment because of the existence of certain United States patents claimed to be basic in their nature, upon which suits have been brought, or threatened, for alleged infringement and for the collection of royalties and damages in connection therewith; and

Whereas it is desired to prevent and avoid such litigations or threatened litigations in the future and to give to all of the "Subscribers" the right to manufacture, sell, and use airplanes embodying the inventions of each of the "Subscribers" and to that end it is desired that licenses be granted as herein expressed; and

Whereas on account of conditions which did not exist and which were not anticipated at the date of execution of said original Cross-License Agreement, nor at the date of execution of the Supplemental Agreements of April 19, 1918, and January 12, 1923, respectively, and in an effort to better serve the art and industry as they now exist, it is desired to further modify and amend said original Cross-License Agreement as hereinafter set forth:

Now, therefore, this agreement witnesseth: That for and in consideration of the premises, covenants, and conditions herein contained, and other good and valuable considerations moving between the "Company" and each of the "Subscribers" hereto, and between the "Subscribers" themselves:

It is covenanted and agreed: That the said original Cross-License Agreement as amended by the Supplemental Agreements of April 19, 1918, and January 12, 1923, anything therein contained to the contrary notwithstanding, shall from December 31st, 1928, which is fixed as the date of execution of this Agreement, be modified and amended to read henceforth as follows:

I. DEFINITIONS

The word "Airplane" as used in this agreement shall be understood to mean any form of heavier-than-air craft, using wing surfaces for sustaining it, and to include such indirect power plant appurtenances as radiators, oil-coolers,

Digitized by Google

fuel and oil tanks, and motor controls; but not to include the engine and such engine accessories as propellers, propeller hubs, super-chargers, starters, magnetos, mufflers, carburetors, and reduction gears.

The words "Airplane patent", as used in this agreement, shall be understood to mean any patent covering inventions for or capable of use in or in connection with airplanes, including such indirect power plant appurtenances as radiators, oil-coolers, fuel and oil tanks, and motor controls; but not including the engine and such engine accessories as propellers, propeller hubs, super-chargers, starters, magnetos, mufflers, carburetors, and reduction gears.

The words "selling price", as used in this agreement, shall be understood to mean the manufacturer's regular selling price of an airplane, completely equipped according to contract, if and when delivered under formal written contract, or in the absence of such contract, a completely equipped airplane ready to operate, as above defined, minus the then prevailing selling price of the engine and such engine accessories as propellers, propeller hubs, super-chargers, starters, magnetos, mufflers, carburetors, and reduction gears, irrespective of any and all discounts and rebates of whatsoever character.

II. LICENSES AND POWERS GRANTED

The "Subscribers" grant, agree to grant, and cause to be granted to each other, licenses to make, use, and sell airplanes—under all airplane patents of the United States now or hereafter owned or controlled by them or any of them, or by any firm, corporation, or association owned or controlled by them or under which they or any of them, or any such firm, corporation, or association, have or shall have the right to grant licenses—in and throughout the United States, its territories and dependencies, for use therein or abroad, except that no rights, express or implied, are hereby granted under any foreign patents, nor shall said rights or the license herein provided for, apply to or include the use of said patents in their application to other than airplanes.

All licenses provided for herein shall run to the full end of the term of the letters patent under which the license is or is to be granted and shall be personal, indivisible, non-assignable, and irrevocable, except for the causes and in the manner hereinafter stated.

The "Subscribers" hereby designate, constitute, and appoint the "Company" (and the "Company" hereby accepts the appointment) as their true, sufficient, and lawful agent and attorney in fact, for them and in their respective names, to make and execute licenses in writing in the form hereto annexed, and to deliver the same to those of the "Subscribers" who, at the time, are stockholders of the "Company" not in default hereunder and who shall have executed an agreement in writing of like tenor to this; and to enforce said licenses and any and all other obligations (including the obligation to make payments) of the "Subscribers" under this Agreement and the "Subscribers" hereby give and grant unto said "Company" as full, complete, and ample power and authority in the premises as the "Subscribers" themselves now have and possess.

The "Subscribers" hereby designate, constitute, and appoint the "Company" (and the "Company" hereby accepts the appointment) as their true, sufficient, and lawful agent and attorney in fact, for them in their respective names, to make and execute licenses to the Government of the United States and/or the various branches, bureaus, and departments thereof, for the use by the Government and/or the various branches, bureaus, and departments thereof the patents covered by this Agreement, upon the agreement by the Government of the United States and/or the various branches, bureaus, and departments thereof, to pay to the "Company" the rates of royalty fixed in paragraph VII hereof, and to demand and receive of the Government of the United States and/or the various branches, bureaus, and departments thereof, royalties due the "Company" and to give the said Government of the United States and/or the various branches, bureaus, and departments thereof, receipts for royalties so collected, and to disburse the royalties so received in the same manner as the "Company" is herein authorized to disburse the royalties received by it from the "Subscribers" hereto.

All licenses provided for herein, when made, executed, and delivered in accordance with the provisions hereof, shall have the same force and effect as if they had been executed and delivered by the "Subscribers" themselves.

Digitized by Google

III. COVENANTS OF FURTHUR ASSURANCE

(*a*) Each "Subscribed" now or hereafter, having rights under any United States airplane patent or invention, of such character that it has legal right and power to procure the grant of rights thereunder to others, but is not itself empowered to grant such rights, covenants to procure the execution of such further instrument as may be necessary to empower the "Company" to grant rights under such patent, or with reference to such invention, to the extent and in the manner herein provided.

(*b*) Each "Subscriber" covenants that it will not contract for or obtain any rights under any such patent or invention in such manner that its owner would be prevented from granting to other "Subscribers" hereto similar rights on the same terms unless the "Subscriber" obtains, at the same time, the further privilege to grant rights under said patent or said invention, whereby the same may and will be brought under the operation of this instrument.

IV. COVENANTS AGAINST OTHER LICENSES

Each "Subscriber" covenants that it has not heretofore and will not hereafter enter into any contract or arrangement, whereby its privileges under United States airplane patents, issued or to be issued, inventions, and rights, owned or controlled by it, have been or shall be diminished or surrendered so as to exclude or restrict the operation of this instrument in respect thereto. Each "Subscriber" further covenants that it will not grant licenses under any such patents for use in airplanes, with reference to which it is receiving royalties hereunder, to any other person, firm, or corporation on more favorable, or lower terms of royalty, than those herein provided, or which may become more favorable or lower during the term of such license.

V. AFTER-ACQUIRED PATENTS

When a "Subscriber" shall hereafter acquire a United States airplane patent, or any right thereunder, he shall be entitled to compensation for the use thereof if the patent or patent right covers an invention which secures the performance of a function not before known to the art or constitutes an adaptation for the first time to a commercial use of an invention known to the industry to be desirable of use but not used because of lack of adaptation, or is otherwise of striking character or constitutes a radical departure from previous practice, or if either the price paid therefor or the amount expended in developing the same is such as to justify such compensation, provided that at the time said patent or patent right is reported to the "Company" as required in subdivision (*b*) of Paragraph VI, the "Subscriber" claims such compensation and states the grounds on which such claim is based. Such report and claims shall be submitted to a Board of Arbitration to be selected in the manner provided for in Paragraph XIV hereof, which Board shall determine whether such compensation shall be paid, and if so, the total amount thereof and the rate of royalty, or other payments which shall be paid (toward such compensation) by each "Subscriber" upon the issuance of a license under said patent and the use by any "Subscriber" of the subject matter covered by said patent, and shall also fix the time or times when said royalties or other amounts shall be paid. Licenses shall be issued to each "Subscriber" as a matter of course, through the offices of the "Company" within thirty days (30 days) after the rendition by such Board of Arbitration of its final report, whether or not compensation, under such after-acquired patent is or is not required to be paid.

The following reports in writing shall be rendered to the "Company" by each "Subscriber" at the time or times hereinafter set forth:

(*a*) At the time of the execution of this Agreement each "Subscriber" shall report all United States airplane patents and inventions together with serial numbers and filing dates of all pending applications for such patents and all rights under such patents and inventions then owned or controlled by it, but no omission from such report shall exclude the patent, application or right so omitted from the operation of this Agreement.

(*b*) Within thirty days after the acquisition by any "Subscriber" of any United States patent (other than patents to be issued upon inventions now owned by it) or right within the scope of this Agreement, each such "Sub-

Digitized by Google

scriber" shall report such acquisition together with all the facts known to it as to such patent or right and its manner of acquisition. If such "Subscriber" claims that additional compensation should be paid to it for licenses under such patent or right, it shall so claim in its report.

(*c*) On the 10th days of January, April, July, and October, in each year, each "Subscriber" shall report the number of airplanes (with or without engines) sold and delivered by it, together with the names of the purchasers, the selling price of each airplane, and the dates of delivery, or the number of airplanes put into use for other than experimental or development purposes, and the number of airplanes (with or without engines) shipped out of the United States, during the preceding 3 calendar months.

(*d*) Each License to other than "Subscribers" as provided in Paragraph IV hereof, shall be reported within thirty days after its delivery.

(*e*) Each suit instituted against infringers of the patents licensed hereunder shall be reported in a reasonable time.

The first report under sub-division (*c*) hereof shall be made by each "Subscriber" on the tenth day of January, April, July, or October first occurring after it has become a "Subscriber" hereto and shall cover the period from December 31, 1928, to the first day of the month in which the report is due.

Each of the "Subscribers" hereto shall keep separate books of account showing all business done under or subject to the operation of this Agreement. The "Company" may at any time have a New York Certified Public Accountant to be designated by it, audit such books of account of the "Subscriber" together with such other accounts as the accountant may deem necessary, in order to verify or correct the report herein provided for, and the "Company" shall have such audit made when any "Subscriber" so demands. Such audit, however, shall be limited to ascertaining whether the reports herein provided for are properly made and to correcting the same, if necessity for correction shall appear. No information obtained from any such audit shall be reported by the accountant or given to any of the parties hereto, except as it directly applies to the reports required by this Agreement.

VII. PAYMENTS TO THE "COMPANY"

Each "Subscriber" agrees to pay into the treasury of the "Company" on the 10th days of January, April, July, and October in each year the following sums of money, to wit:

(*a*) On each airplane, with or without engine, required to be reported as provided, in sub-division (*c*) of Paragraph VI hereof, the sum of two per cent (2%) of the selling price of such airplane, with a maximum of Two Hundred Dollars ($200) on any one airplane regardless of its cost or selling price until such time as the Curtiss Airplane & Motor Company, Inc., shall have been paid the aggregate sums provided for in Paragraph VIII hereof, or until United States Patent No. 1,203,550 issued October 31, 1916, shall have expired.

(*b*) On each airplane, with or without engine, required to be reported as provided for in sub-division (*c*) of Paragraph VI hereof, such sum not to exceed one-quarter of one per cent of the selling price of such airplane, but in no case to exceed twenty-five dollars ($25.00) per airplane, as the Board of Directors of the "Company" may, from time, to time, fix and determine as payable after October 31, 1933, or after the above mentioned aggregate sums shall have been paid to the Curtiss Airplane & Motor Company, Inc.

(*c*) Such amount or amounts as the Board of Arbitration may specify as special compensation for after acquired patents as provided in Paragraph V hereof, and required to be reported in sub-division (*b*) of Paragraph VI.

(*d*) All royalties received under Licenses referred to in sub-division (*d*) of Paragraph VI.

(*e*) All monies received as the result of suits reported under sub-division (*e*) of Paragraph VI less deductions for actual cost to the Subscriber of such suit.

Each "Subscriber" who shall become a party hereto after the thirty-first day of December, 1928, shall on the 10th day of January, April, July, or October next thereafter occurring pay to the "Company" those amounts which it would have been obliged to pay in accordance with the foregoing if it had been a "Subscriber" on December 31, 1928.

Monies paid into the treasurer of the "Company" pursuant to any provisions hereof shall not be or constitute or be deemed to be or constitute the assets,

Digitized by Google

property, or profits of said "Company" but shall be received and disbursed by it as the agent and the attorney in fact of the "Subscriber" in the manner and for the purposes herein mentioned.

VIII. PAYMENTS BY THE "COMPANY"

Out of the monies paid into the treasury of the "Company" pursuant to the provisions hereof and of the predecessor agreements hereinabove mentioned, the following payments shall be made by the Company on the 20th days of January, April, July, and October in each year, to wit:

(*a*) To the Curtiss Aeroplane & Motor Company, Inc., eighty-seven and one-half percent (87½%) of all sums received on account of each of said airplanes with reference to which payments have been or shall be made in accordance with sub-divisions (*a*) and (*d*) of Paragraph VII hereof, until the payments so made to Curtiss Airplane & Motor Company, Inc., under the original Cross-License Agreement, when increased by the payments made after the execution of this Amended Agreement, shall aggregate the sum of Two Million Dollars ($2,000,000) or until the United States Patent No. 1203550 issued October 31, 1916, shall have expired, when all payments to it hereunder shall cease, except as hereinafter provided.

(*b*) To each of the "Subscribers" entitled thereto such amounts as may have been paid to the "Company" with relation to the use of after acquired patents in accordance with Sub-division (*c*) of Paragraph VII, subject to the reservation in sub-division (*a*) of Paragraph IX.

(*c*) To any "Subscriber" who shall have granted licenses to other than subscribers, as provided in Paragraph IV, the royalties received under such licenses which are not required for payments provided for in sub-division (*a*) of this Paragraph VIII, subject to the reservation of sub-division (*b*) of Paragraph IX.

IX. MONEYS RETAINED BY THE COMPANY

(*a*) The "Company" may retain and use, for the purposes set forth in sub-division (*c*) of this Paragraph IX up to twelve and one-half per cent (12½%) of such amounts as may be paid to the "Company" with relation to the use of after acquired patents in accordance with sub-division (*c*) of Paragraph VII.

(*b*) The "Company" may retain and use for the purposes set forth in sub-division (*c*) of this Paragraph IX, up to twelve and one-half per cent (12½%) of that part of any amount paid to the "Company" on account of direct licenses given and reported in accordance with sub-division (*d*) of Paragraph VI.

(*c*) Out of the balance of said moneys paid into the treasury of the "Company" under sub-division (*a*) of Paragraph VII of this Agreement, and not paid out by the Company under sub-division (*a*) of Paragraph VIII, the "Company" may retain and use sufficient to cover its operating expenses and to create such fund as, in the judgment of the Board of Directors of said "Company" shall be necessary and proper for the further development of the airplane art and industry, and the purchase of patents and rights for the benefit of the "Subscribers" hereto.

X. DISPOSITION OF SURPLUS

If, after making the payments and reservations herein provided for, any surplus or balance remains out of the funds so paid into the treasury of the "Company" the same shall be distributed by the "Company" from time to time, among those "Subscribers" who have contributed to said moneys, in proportion to their respective contributions under sub-divisions (*a*) and (*b*) of Paragraph VII other than those required for payments under this Paragraph X.

XI. BREACH OF AGREEMENT

In the event that any "Subscriber" is claimed by the "Company" or any other "Subscriber" to be in default in the performance of any of its obligations hereunder, and such claimed default continues after thirty days' notice in writing, by the "Company" or any "Subscriber" claiming the default, then the Board of Arbitration, hereinafter provided for, shall determine whether there has been such specified default and if such default is found to exist, shall fix the time within which it must be repaired, and shall assess such damages and impose upon the "Subscriber" in default such other requirements (includ-

Digitized by Google

ing the forfeiture of its stock and license) as may seem to the said Board of Arbitration to be proper under the circumstances. Each "Subscriber" covenants and agrees that it will pay such damages and comply with such requirements as may be specified by said Board of Arbitration.

Nothing contained in this Paragraph shall deprive the "Company" of the power to make, execute, and deliver licenses under the patents or patent rights owned and controlled by any defaulting "Subscriber" or to which the "Subscriber" may be entitled at the time to cease to be a stockholder or "Subscriber", nor deprive other than defaulting "Subscribers" of any right which they may have received to the use of the said patents or patent rights.

XII. WITHDRAWAL FROM AGREEMENT

Any "Subscriber" may withdraw from this Agreement at any time after one (1) year after executing and delivering it, providing that written notice of its election to do so shall be given to the "Company" at least thirty (30) days in advance of the date when the next quarterly report is required to be filed under sub-division (c) of Paragraph VI hereof and on fulfilling all of its obligations up to the date of such withdrawal, but no withdrawal shall relieve the other parties and other "Subscribers" from their obligations to each other hereunder, nor deprive them of their rights acquired under the patents and patent rights owned or controlled by the withdrawing "Subscriber" at the time of withdrawal, all of said patents and patent rights remaining under this Agreement, but such withdrawing "Subscriber" shall cease to have any rights under the patents of the other "Subscribers" hereto, or any other right under this Agreement, from and after such withdrawal.

XIII. REPURCHASE OF STOCK

In the event of the death of any person who is a stockholder in the "Company" or in the event of the dissolution of any corporation or firm which is a stockholder therein, or in the event of the bankruptcy or insolvency of such stockholders, or in the event of withdrawal under Paragraph XII hereof, the "Company" shall have the right to purchase for the benefit of the other "Subscribers" the stock held by such person, firm, or corporation at a sum not to exceed the distributive share or shares of such stockholder in the funds held by the "Company" and the license or licenses issued to such stockholder shall be surrendered to the "Company" and cancelled.

XIV. ARBITRATION OF CLAIMS AND DISPUTES

In case of any dispute or controversy between the "Subscribers" hereto, or between the "Subscribers" and the "Company" or in case of a claim by a "Subscriber" for special compensation for license under patents or rights hereafter acquired by it, or in case of breach of this Agreement, the said dispute, controversy, claim, or breach shall, within thirty days after a "Subscriber" or "Subscribers" shall have given notice in writing to the "Company" or the "Company" shall have given notice in writing to the "Subscribers" hereof, be referred to a board of disinterested arbitrators consisting of three persons, for determination.

In the case of a claim for special compensation, one member of such Board of Arbitration shall be appointed by the Board of Directors of the "Company", another by the "Subscriber" making the claim and the third by the other two arbitrators.

In the case of any dispute between the "Company" and a "Subscriber" or "Subscribers" one member of the Board of Arbitration shall be appointed by the Board of Directors of the "Company", another by the "Subscriber" (or if more than one "Subscriber" is involved in the same dispute, then by a majority of those so involved) and the third by the other two arbitrators.

In case of a breach of this Agreement asserted by the "Company" or a "Subscriber" against another "Subscriber", one member of the Board of Arbitration shall be appointed by the Board of Directors of the "Company" another by the "Subscriber" against whom the assertion of breach is made and the third by the other two arbitrators.

Digitized by Google

If either the Board of Directors or the "Subscribers" fail to appoint a member of the Board of Arbitration within the time specified the other party or parties may appoint such member or fill such vacancy.

The decision of a majority of the members of said Board upon all matters submitted to them for adjudication shall be final and binding upon all the parties hereto.

XV. RELEASE TO "SUBSCRIBERS"

The "Subscribers" hereby waive and release any and all claims which they or any of them may have had against each other for damages and profits on account of any infringement or alleged infringement prior to December 31, 1928, of any patent included within this instrument in the manufacture, sale, or use of airplanes.

XVI. BINDING UPON PARTIES, CONTROLLED COMPANIES, LEGAL REPRESENTATIVES, ETC.

This Agreement is binding upon the parties hereto and their several successors, legal representatives, and assigns, but shall inure to the benefit of only their several successors in business. Each "Subscriber" agrees that all persons, firms, and corporations now or hereafter controlled by it and engaged in the manufacture of airplanes, or owning or controlling United States airplane patents, shall be caused to execute this Agreement.

XVIII. EXECUTION OF AGREEMENT

Nothing herein contained shall be construed to relieve either the "Company" or any "Subscriber" hereto of any act or obligation to be performed or any duty to be fulfilled under the terms and conditions of the original Cross-License Agreement, as amended April 19, 1918, and January 12, 1923, respectively, which act, obligation, or duty, as and of December 31, 1928, shall remain at such time unperformed or unfulfilled.

This Agreement may be executed by the "Subscriber" in any number of counterparts, but when so executed shall constitute but one and the same Agreement, and shall be as binding and of the same force and effect as if all the "Subscribers" had executed but one and the same instrument, and as if all executions had been dated December 31, 1928, which date shall be the date on which this Agreement becomes effective.

This Agreement of December 31, 1928, amending the original Cross-License Agreement of July 24, 1917, in turn amended by the Supplemental Agreements of 1918 and January 12, 1923, respectively, shall, for convenience, be referred to as "The amended cross-license agreement of December 31, 1928."

In witness whereof the parties hereto have executed this instrument as of the day and year first above written.

MANUFACTURERS AIRCRAFT ASSOCIATAON, INC.,

By _____, *President.*

_____, *Secretary.*

_____

By _____, *President.*

_____, *Secretary.*

CERTIFICATE OF INCORPORATION OF MANUFACTURERS AIRCRAFT ASSOCIATION, INC.

This is to certify that we, the undersigned citizens of the United States, all being of full age, and at least one of whom is a resident of the State of New York, desiring to form a stock corporation pursuant to the provisions of the business corporations law of the State of New York, do hereby make, sign, acknowledge, and file this instrument of writing for that purpose as follows:

First. The name of the proposed corporation is Manufacturers Aircraft Association, Inc.

Second. The objects and purposes for which it is formed are the following:

1. To manufacture, buy, sell, and deal in all kinds of aircraft, aircraft engines, and all parts and accessories used or useful in aircraft.

Digitized by Google

2. To acquire by purchase or otherwise, and sell and dispose of all kinds of personal property, including patents, patent rights, applications for patents and licenses and shop rights under patents, and to issue licenses, sublicenses, or cross-licenses under letters patent.

3. To acquire by purchase, lease, or otherwise any real property or any rights or privileges in real property which the company may deem necessary and proper for the purposes of its business.

4. To acquire and take over the good will, property, and assets and assume the liabilities of any person, firm, association, or corporation engaged in similar or kindred business for the purpose herein specified.

5. To acquire, purchase, hold, sell, and deal in or dispose of stocks, bonds, securities, and other evidences of debt of any other corporation, domestic or foreign, and issue in exchange therefor its stocks, bonds, or other obligations, and while the owner of any stocks, bonds, or other obligations to possess and exercise in respect thereto all right, powers, and privileges of individual owners or holders and to exercise any and all voting powers thereunder.

6. To establish and maintain in connection with the business of the corporation and as lawfully incidental thereto, laboratories for the purpose of the development and extension of the business herein referred to, together with such books of reference as may be required for said purposes.

7. To make and enter into all kinds of contracts, agreements, and obligations with any person, firm, or corporation for purchasing, acquiring, manufacturing, exchanging, or dealing in any article of personal property of any kind or nature, to the extent that the same may be permitted by the business corporations law.

8. To act as agent or attorney in fact or representative of firms, corporations, or individuals, and as such to develop, extend, and promote the business interests thereof.

9. To consolidate the business of this corporation with that of any corporation engaged in or authorized to conduct a similar business to that herein provided for insofar as the laws of the State of New York permit such consolidation.

10. To purchase, hold, and reissue the shares of its own capital stock in the manner authorized by statute.

11. Generally, to do every act and thing necessary, suitable, and proper for the accomplishment of any or all of the objects, the attainment of any or all of the purposes or in furtherance of any and all of the powers herein set forth, either alone or in association with any other corporation, firm, or individual, and to do any other act, thing, or things incident or appertaining to, or growing out of, or connected with the aforesaid business or powers, or any part or parts thereof, provided the same are not inconsistent with the business corporations law of the State of New York, under which this corporation is organized.

Third. The number of shares of capital stock that may be issued by the corporation is 100, which shall have no nominal or par value.

Fourth. The amount of capital with which said corporation will commence and carry on business is $1,000.

Fifth. The corporation may issue and sell its authorized shares from time to time for such consideration as shall be the fair-market value of such shares.

Sixth. The principal business office of the corporation shall be located in the Borough of Manhattan, city, county, and State of New York.

Seventh. The duration of said corporation shall be perpetual.

Eighth. The number of its directors shall be seven, but they need not be stockholders of said corporation. They may hold their meetings at their principal office in the State of New York, or at such other place or places within or outside of said State, which they may determine.

Ninth. The names and post-office addresses of the directors for the first year are as follows: Albert H. Flint, 500 West End Avenue, New York City, N. Y.; Benjamin S. Foss, Hyde Park, Boston, Mass., George H. Houston, 360 Riverside Drive, New York City, N. Y.; Harry B. Mingle, 233 Broadway, New York City, N. Y.; Frank H. Russell, Marblehead, Mass.; Harold E. Talbott, Jr., Dayton, Ohio; and John P. Tarbox, Buffalo, N. Y.

Tenth. The names and post-office addresses of the subscribers to this certificate, and the number of shares of stock which each agrees to take in the corporation are as follows: Joseph S. Ames, Baltimore, Md., one share; W. Benton Crisp, New York City, N. Y., one share; Albert H. Flint, New York City, N. Y.,

Digitized by Google

one share; George H. Houston, New York City, N. Y., one share; and John P. Tarbox, Buffalo, N. Y., one share.

In witness whereof we have made, signed, and acknowledged this certificate in duplicate, this 16th day of July, in the year 1917.

In the presence of:

JOSEPH S. AMES. [L. S.]
W. BENTON CRISP. [L. S.]
ALBERT H. FLINT. [L. S.]
GEORGE H. HOUSTON. [L. S.]
JOHN P. TARBOX. [L. S.]

[SEAL] ALBERT F. SMITH,
Notary Public, New York County,
Clerk's No. 419, Register's No. 9204.

Term expires March 30, 1919.

STATE OF NEW YORK,
County of New York, ss:

On this 16th day of July, in the year 1917, before me personally appeared Joseph S. Ames, W. Benton Crisp, Albert H. Flint, George H. Houston, and John P. Tarbox, to me known, and known to me to be the individuals described in and who executed the foregoing certificates, and they severally duly acknowledged to me that they executed the same.

[SEAL] ALBERT F. SMITH.
Notary Public, New York County,
Clerk's No. 419, Register's No. 9204.

Term expires March 30, 1919.
No. 48064 series B.

STATE OF NEW YORK,
County of New York, ss:

I, William F. Schneider, clerk of the county of New York, and also clerk of the supreme court for said county, the same being a court of record, do hereby certify that Albert F. Smith, whose name is subscribed to the deposition or certificate of the proof or acknowledgement of the annexed instrument, and thereon written, was, at the time of taking such deposition, or proof and acknowledgement, a notary public in and for such county, duly commissioned and sworn, and authorized by the laws of said State, to take depositions and to administer oaths to be used in any court of said State and for general purposes; and also to take acknowledgments and proofs of deeds, of conveyances for land, tenements, or hereditaments in said State of New York. And further, that I am well acquainted with the handwriting of such notary public and verily believe that the signature to said deposition or certificate of proof or acknowledgement is genuine.

In testimony whereof I have hereunto set my hand and affixed the seal of the said court and county, the 17th day of July 1917.

[SEAL] W. F. SCHNEIDER, *Clerk.*

BY-LAWS OF THE MANUFACTURERS AIRCRAFT ASSOCIATION, INC.

(As Amended to February 16, 1931)

ARTICLE I. STOCKHOLDERS [1]

SECTION 1. *Qualification of Stockholders.*—To entitle a person, firm, or corporation to become a stockholder of this corporation, he or it, as the case may be, shall be [1] a responsible manufacturer of aircraft or aircraft engines, or parts and accessories thereof; or a responsible manufacturer who intends to become a bona fide producer of the same; or a manufacturer to whom the United States Government has given a contract for the construction of ten or more complete aircraft or aircraft engines; or any person, firm, or corporation owning a controlling United States patents relating to any of the foregoing.[1] No one becoming a stockholder of this corporation [1] shall, however, acquire, own, or hold at any time more than one (1) share of stock of the corporation.[1]

[1] Provision for Voting Trust Agreement, which expired by limitation in July 1925, omitted.

Digitized by Google

ARTICLE II. DIRECTORS

SECTION 1. *Directors.*—The affairs of the corporation shall be managed and controlled by a Board of Directors to consist of twelve persons, who shall be elected annually at the regular annual meetings of the stockholders and who shall serve for one year, or until their successors are elected.

SECTION 2. *Vacancies.*—Vacancies in the Board of Directors occurring during the year shall be filled by a majority vote of the remaining members of the Board at any regular meeting thereof, or at any special meeting called for the purpose of filling any such vacancies.

ARTICLE III. OFFICERS AND THEIR DUTIES

SECTION 1. *Officers.*—The officers of the corporation shall consist of a President, as many Vice-Presidents as the Board of Directors may from time to time deem necessary or expedient, a Treasurer and a Secretary. The Board may also elect or appoint at any time an Assistant Treasurer and Assistant Secretary, and such other officers, agents and employees as it may deem proper and for such periods as it may determine. The offices of Secretary and Treasurer may be held by one and the same person and the offices of Assistant Treasurer and Assistant Secretary may also be held by one and the same person.

SECTION 2. *Election of Officers.*—As soon as practicable after the election of the Board of Directors in each year, such newly elected Directors shall hold an Annual Meeting and elect a President from their number and also elect one or more Vice-Presidents, as provided in Section 1 of this Article, a Treasurer and a Secretary, all of whom shall serve for the ensuing year or until their successors are elected.

SECTION 3. *Vacancies.*—In the event of a vacancy in any of said offices, either by death, resignation, or otherwise, the same shall be filled by the Board of Directors at any regular or special meeting of said board.

SECTION 4. *The President—His Duties.*—The President shall preside at all meetings of the corporation and at all meetings of the Board of Directors. He, together with the Secretary, unless otherwise ordered by the Board of Directors, shall sign all contracts, deeds, leases, licenses, or other instruments or writings necessary for the due and proper conduct of the business of the corporation. He, together with the Treaurer, unless otherwise ordered by the Board of Directors, shall sign all certificates of stock, and bonds, issued by the corporation, and shall countersign all checks, drafts, notes, or bills which may be required for the purposes of the corporation. He shall have general supervision of the affairs of the corporation and shall perform such other duties as may be required of him from time to time by the Board of Directors or as are required of him by the laws of the State of New York.

SECTION 5. *The Vice-Presidents—Their Duties.*—All Vice-Presidents shall have equal rank. In the absence of the President, they shall perform all the duties of the President and such other duties as may be required of them from time to time by the Board of Directors and as are required of them by the laws of the State of New York.

SECTION 6. *The Treasurer—His Duties.*—The Treasurer shall have charge of all moneys, bills, notes, and other evidences of debt of the corporation; shall deposit all moneys coming into his hands in the name of the corporation, and shall keep true and accurate books of account of all such moneys and other property of the corporation received by him. He, together with the President, unless otherwise ordered by the Board of Directors, shall sign all certificates of stock, and bonds, checks, drafts, and notes or bill issued by or required for the purposes of the corporation. He shall also perform such other duties as may be required of him from time to time by the Board of Directors or as are required of him by the laws of the State of New York. He shall report from time to time to the Board of Directors or as often as may be required by said Board, concerning all matters pertaining to his office. He shall give a bond for the faithful discharge of the duties of his office in such amount as shall be fixed by the Board of Directors.

SECTION 7. *The Assistant Treasurer—His Duties.*—The Assistant Treasurer, in the absence of the Treasurer, shall perform all the duties of the Treasurer, and shall perform such other duties as may be required of him from time to time by the Board of Directors or as are required of him by the laws of the State of New York. He shall give a bond for the faithful discharge of the duties of his office in such amount as shall be fixed by the Board of Directors.

Digitized by Google

SECTION 8. *The Secretary—His Duties.*—The Secretary shall have charge of the corporate seal and shall attend all sessions of the stockholders and the Board of Directors; act as the clerk thereof and keep true and accurate records and minutes of all proceedings of said stockholders and Board in a book or books to be kept for that purpose. He, together with the President, unless otherwise ordered by the Board of Directors, shall execute all contracts, deeds, leases, licenses, or other instruments or writings necessary for the due and proper conduct of the business of the corporation. He shall send out all notices of meetings of stockholders and directors of the corporation, and shall perform such other duties as may be required of him by the Board of Directors or as are required of him by the laws of the State of New York.

SECTION 9. *The Assistant Secretary—His Duties.*—The Assistant Secretary, in the absence of the Secretary, shall perform all the duties of the Secretary, and shall perform such other duties as may be required of him from time to time by the Board of Directors or as are required of him by the laws of the State of New York.

SECTION 10. *Compensation.*—The officers and directors of the corporation may receive by way of compensation for services rendered by them such salary or salaries as the Board of Directors of said corporation may from time to time approve.

ARTICLE IV. MEETINGS, QUORUMS, ETC.

SECTION 1. *Annual Meetings of Stockholders.*—There shall be an annual meeting of the stockholders of the corporation to be held at 11 A. M. on the last Friday in January of each year. At such meeting the stockholders may transact any and all business which may properly come before them, and shall elect the directors for the ensuing year in the manner hereinbefore set forth.

SECTION 2. *Annual Meetings of Directors.*—Immediately after the annual stockholders' meeting hereinbefore referred to, or as soon thereafter as may be convenient, there shall be held an annual meeting of the Board of Directors of the corporation. At such meeting said Board shall elect the officers for the ensuing year, and may transact any and all other business which may properly come before it.

SECTION 3. *Special Meetings of Stockholders.*—Special meetings of the stockholders shall be called at the request of holders of the stock owning at least ten (10) per cent. thereof, by the officers of the corporation, or any of them, to be held within fifteen (15) days after said request has been made, or by the President without request. The notice of the meeting shall be in writing, and signed by the President or a Vice-President, or the Secretary or an Assistant Secretary. Such notice shall state the purpose or purposes for which the meeting is called, the time and the place where the same is to be held, and a copy thereof shall be served either personally or by mail upon each stockholder of record entitled to vote at such meeting and to any stockholder who by reason of any action proposed at such meeting would be entitled to have his stock appraised if such action were taken, not less than ten (10) nor more than forty (40) days before the meeting. If mailed, it shall be directed to a stockholder at his address as it appears on the stock book unless he shall have filed with the Secretary of the corporation a written request that notices intended for him be mailed to some other address, in which case it shall be mailed to the address designated in such request.

SECTION 4. *Special Meeting of Board of Directors.*—The officers of the corporation, or any of them, upon the request of any two members of the Board of Directors, shall call a special meeting of said Board, to be held within five (5) days after the receipt of said request, and the Secretary shall give by mail and by telegraph to each member of said Board at his last known post office address, a notice of said meeting stating the purposes thereof, at least three (3) days before the date upon which such meeting is to be held. The President may, without request, upon like notice, call a special meeting of said Board.

SECTION 5. *Quorum of Stockholders' Meetings.*—At all meetings of stockholders, except where it is otherwise provided by law, it shall be necessary that stockholders representing in person or by proxy a majority of the capital stock, issued and outstanding, be present in order to constitute a quorum for the transaction of business.

SECTION 6. *Quorum of Directors' Meetings.*—At all meetings of the Board of Directors at least one-third of the number thereof shall be present to constitute a quorum for the transaction of business.

Digitized by Google

SECTION 7. *Failure to Perform Duty.*—Should any person whose duty it is to call a meeting at the time or times required by these by-laws, fail or refuse to do so, the meeting may be called by any other officer or director.

ARTICLE V. BALLOTING AND INSPECTORS

SECTION 1. *Balloting.*—At all meetings of the stockholders the voting shall be by ballot. At all meetings of the Board of Directors the voting may be viva voce.

SECTION 2. *Inspectors.*—The stockholders may at their annual meetings provided for in Section 1, of Article IV hereof, in each year, designate two (2) persons who shall act as inspectors of election for the ensuing year. Upon their failure so to designate inspectors, the Board of Directors may, at any time prior to election, designate the same. Upon the failure of both to so designate inspectors prior to any election, the President is authorized to make such designation.

ARTICLE VI. AMENDMENT

SECTION 1. These by-laws may not be amended, altered, or suspended by the Board of Directors, but only by stockholders at an annual or special meeting, by the affirmative vote of stockholders representing at least seventy-five (75) per cent, in amount of the stock then outstanding.[1]

CONTRACT BETWEEN MANUFACTURERS AIRCRAFT ASSOCIATION, INC., AND THE WAR AND NAVY DEPARTMENTS OF THE UNITED STATES GOVERNMENT GRANTING A NON-EXCLUSIVE LICENSE TO THE LATTER UNDER ALL AIRPLANE PATENTS EMBRACED WITHIN AND ACCORDING TO THE TERMS OF THE AMENDED CROSS-LICENSE AGREEMENT OF SAID ASSOCIATION

(Effective December 31, 1928)

Contract of the thirty-first day of December 1928, by and between MANUFACTURERS AIRCRAFT ASSOCIATION, INC., a New York Corporation, hereinafter termed Association, acting in behalf of its subscribers and in its own behalf, party of the first part, and the UNITED STATES OF AMERICA, represented by the Secretary of War and the Secretary of the Navy, hereinafter termed The Government, party of the second part, witnesseth:

WHEREAS, The Association controls and has power to grant licenses under certain United States patents covering important inventions relating to aircraft; as listed and shown in appendix A hereto attached, and has been authorized to act herein; and

WHEREAS the use of several of these patented inventions is necessary in the successful operation of airplanes or hydro-airplanes, the term planes being hereinafter used to include airplanes, hydroairplanes, and flying boats; and

WHEREAS the Government has acquired or desires to acquire aircraft, using certain or all of the aforesaid inventions; and

WHEREAS all formal and informal Agreements between the Government and the Association relating to the period of the War for the licensed use of said patented inventions and for payment of royalties, were terminated on July 2, 1921, except only such matters as are in dispute in a certain action now pending in the United States Court of Claims entitled "Manufacturers Aircraft Association, Inc., vs. United States of America", which action covers the period both before and after July 2, 1921; and

WHEREAS the Government desires to secure licenses for the future use of said patented inventions under as favorable terms and conditions as is provided in the Amended Cross-License Agreement of the thirty-first day of December 1928, to which reference is made herein.

NOW THEREFORE, in consideration of the premises, covenants, and conditions herein contained, and other good and valuable considerations moving between the parties hereto, it is covenanted and agreed as follows, viz:

1. The Association hereby grants to the Government a non-exclusive license to make, or cause to be made, and use and sell in the United States, its territories and possessions during the term of this contract and thereafter to

[1] Provisions for Voting Trust Agreement, which expired by limitation in July 1925, omitted.

Digitized by Google

use and to sell airplanes under any and all of such airplane patents as defined in said Cross-License Agreement as are enumerated in Appendix A of the Amended Cross-License Agreement, dated December 31, 1928, copy of which is attached hereto and by reference made a part hereof and under all other patents which have been or may be reported to or acquired by or come into the control of the Manufacturers Aircraft Association, Inc., and/or Subscribers thereto; Provided, however, that no licenses are so granted to the Government hereunder in patents reported to the Association with a claim for extra compensation under Paragraph V of said Amended Cross-License Agreement; Provided, further, that an option is hereby granted to the Government to acquire licenses under those patents so reported on the same terms as granted to said Subscribers.

2. The Government agrees to pay for such use of the inventions described in any and all of said patents, a sum equal to two per cent (2%) of the cost or purchase price of such airplanes, as it may either make or acquire, as provided in Paragraph 1, above, provided that the Government shall not be required to pay, nor shall any obligation accrue to pay, royalties on airplanes upon which members or nonmembers of the Manufacturer Aircraft Association, Inc., have paid or have agreed to pay royalties; provided further, however, that in no instance shall said royalty exceed the sum of Two Hundred Dollars ($200) per airplane, regardless of what the cost or price thereof may amount to; and provided that the cost or price thereof as used herein shall be understood to mean the price paid to a manufacturer, if procured from a manufacturer, completely equipped, ready to operate, including all parts of airplanes and accessories used therein except the engine and such engine accessories as propellers, propeller hubs, super-chargers, starters, magnetos, mufflers, carburetors, and reduction gears, and if such airplane is built or manufactured by the Government the cost shall be the amount expended in the direct construction thereof, including the cost of materials entering therein completely equipped ready to operate including all parts of airplanes and accessories used or useful therein, except the engine and such engine accessories as propellers, propeller hubs, super-chargers, starters, magnetos, mufflers, carburetors, and reduction gears.

The Government agrees to pay said royalties for use of the inventions described in any and all of said patents until the maximum payments provided for in the Amended Cross-License Agreement shall have been made or until Patent No. 1,203,550 shall expire, on the 31st day of October 1933, after which the Government shall enjoy the license herein conveyed and granted without the payment of any further royalties.

The word "use" as employed herein shall be held to include the manufacturing of planes by the Government or through the procurement of the Government or the purchases by the Government of planes from others.

3. For the purpose of carrying out the above, the Government shall on the tenth day of April, July, October, and January in each year make reports to the Association of the number of planes manufactured or otherwise acquired by its War and Navy Departments during the preceding three months.

Upon the receipt of each report the Association shall forthwith render invoices to said Departments in accordance with said reports and the terms and provisions of Paragraph 2 of this contract. The Government agrees to receive such invoices and to authorize and instruct its disbursing officers to make payments accordingly.

Payments under this contract shall be made to the Association and when payments are so made and received they shall constitute and be accepted for and on behalf of the owners of the patents by the Association as full and complete compensation as to the airplanes to which they apply for licenses to use any and all of the said patents as set out hereinbefore.

The Association shall disburse and account for each of such payments in precisely the same manner as if the same had been made to the Association under the Cross-License Agreement by a Subscriber thereto and as if the royalty for each plane had been received from a Subscriber by the Association at the time when such plane was acquired by the Government.

The Association shall furnish to officers of the Government when required a statement by a certified public accountant of the total amount of royalties paid by it to each of the owners of the patents under the Cross-License Agreement and the Amended Cross-License Agreement, and when the maximum payments provided thereunder for the owners of the patents have been completed no further payments of royalties on the part of the Government shall be demanded or paid.

Digitized by Google

4. The Government shall have the right to terminate this contract by serving a written notice upon the Association at least five days before the beginning of each additional year; but in the absence of such action it is agreed that the provisions thereof shall be automatically renewed and continue in force until such a notice shall be served or the contract shall be terminated in accordance with the other provisions thereof; provided that, if upon demand by the United States to the Association and owners of the patents, the owners of the patents fail for ninety days to bring suit to enforce the rights of the patents herein licensed, all liability to pay royalties shall cease thereafter and until such suit is brought.

5. The Government does not admit, and is not to be understood as admitting, by virtue of the license hereunder, the validity of any of said Letters Patent heretofore or hereafter issued and is to be held free to dispute the validity of each and any of them in case the public interest should so require, save that this provision shall not be construed to give it any right, if such right be now otherwise lacking, to dispute validity in connection with any claims growing out of past operations under previous formal, informal, or implied contracts.

6. Any department, bureau, or independent establishment of the Government not signatory hereto may avail itself of the license herein granted upon the same terms as the War and Navy Departments upon written notice to the Association of its intention so to do and by paying the royalties prescribed herein and otherwise complying with the terms hereof.

7. No Senator or member or delegate to Congress, officers of the Army or the Navy, nor any person holding any office or appointment under the Army or the Navy Department is or shall be admitted to any share or part of this contract or to any profits that may arise therefrom, but this provision shall not be construed to extend to stockholders of the Manufacturers' Aircraft Association or any Subscriber thereto.

MANUFACTURERS AIRCRAFT ASSOCIATION, INC.,
By _____, *President.*

Attest:
_____, *Secretary.*

UNITED STATES OF AMERICA,
By _____
_____,
Secretary of War.
_____,
Secretary of Navy.

Executed in quintuplicate.

LICENSE ISSUED UNDER THE AMENDED CROSS-LICENSE AGREEMENT OF DECEMBER 31, 1928

License, granted this _____ day of _____, 19__, by Aeromarine Plane & Motor Company, Inc., Boeing Airplane Company, Curtiss Aeroplane and Motor Company, Inc., Dayton-Wright Company, G. Elias & Bro., Inc., Gallaudet Aircraft Corporation, L. W. F. Engineering Company, Glenn L. Martin Company, Packard Motor Car Company, Sturtevant Aeroplane Company, Thomas-Morse Aircraft Corporation, and Wright Aeronautical Corporation (hereinafter called the Licensors) to _____ (hereinafter called the Licensee).

Whereas the Licensors and certain other stockholders of the Manufacturers Aircraft Association, Inc. (hereinafter called Subscribers), having heretofore entered into a certain agreement dated July 24, 1917, known as the Original Cross License Agreement and/or having entered into an amended agreement, dated December 31, 1928, entitled "The Amended Cross License Agreement of December 31, 1928" (copy of which said Amended Agreement is hereto annexed), wherein and whereby the Licensors agreed to grant certain licenses to each other as Subscribers to said Agreements, and

Whereas both said Original Cross License Agreement and said Amended Cross License Agreement authorized and empowered the Manufacturers Aircraft Association, Inc., as the agent for and attorney in fact of the Licensors, to make, execute, and deliver such licenses in the names of the Licensors; and it is desired to execute the powers therein granted;

Now, This License Witnesseth:

That for and in consideration of the premises and other good and valuable considerations moving between the parties hereto, it is covenanted and agreed as follows:

Digitized by Google

1. The Licensors do hereby give and grant unto the said Licensee the unrestricted, but non-exclusive license to make, use, and sell airplanes—under all airplane patents of the United States now orhereafter owned or controlled by them, or any of them, or by any firm, corporation, or association owned or controlled by them, or any of them, or under which they or any such firm, corporation, or association have or shall have the right to grant licenses—in and throughout the United States, its territories and dependencies for use therein or abroad, except that no rights, express or implied, are hereby granted under any foreign patents, nor shall the licenses herein provided for, apply to or include the use of said patents in their application to other than airplanes.

The patents which the Licensors have a right to grant licenses at the present time, and which are intended to be included in this license are set forth in Appendix A, hereto annexed.

2. This license shall run to the full end of the term of the Letters Patent under which this license is granted, and shall be personal, indivisible, nonassignable, and irrevocable, except for the causes and in the manner set forth in The Amended Cross License Agreement of December 31, 1928, hereinbefore referred to.

3. This license is made subject to all the terms, conditions, covenants, and agreements contained in said The Amended Cross License Agreement of December 31, 1928, which is made a part hereof with the same force and effect as if herein set forth at large.

In Witness Whereof, the partles hereto have caused this instrument to be executed as of the day and year first above written.

Aeromarine Plane & Motor Company, Inc.; Boeing Airplane Company; Curtiss Aeroplane and Motor Company, Inc.; Dayton-Wright Company; G. Elias & Bro., Inc.; Gallaudet Aircraft Corporation; L. W. F. Engineering Company; Glenn L. Martin Company; Packard Motor Car Company; Sturtevant Aeroplane Company; Thomas-Morse Aircraft Corporation; Wright Aeronautical Corporation, Licensors,

By MANUFACTURERS AIRCRAFT ASSOCIATION, INC.,

---------- President,

---------- Secretary,

As Agent and Attorney in fact of Licensors.

---------- Licensee,

---------- President.

---------- Secretary.

APPENDIX A

List of Patents

Name of Licensor and Patents No.	Issue Date	Title of Invention
Aeromarine Plane & Motor Company, Inc.:		
1345885	July 6, 1920	Aeroplane.
1375199	Apr. 19, 1921	Aeroplane Control.
1358247	Nov. 9, 1920	Aeroplane fitting.
1361495	Dec. 7, 1920	Do.
1564826	Dec. 8, 1925	Float Structure.
1537973	May 19, 1925	Flying Boat Hull.
1552258	Sept. 1, 1925	Airplane Land Gear.
1567222	Dec. 29, 1925	Tail Skid.
1552259	Sept. 1, 1925	Retractible Landing Gear.
1571989	Feb. 9, 1926	Aerofoil.
1579905	Apr. 6, 1926	Airplane Structure.
1597306	Aug. 24, 1926	Stabilizer lock.
1579905	Apr. 6, 1926	Pontoon.
1597305	Aug. 24, 1926	Retractable Landing Gear.
1603304	Oct. 19, 1926	Hydro Airplane.
1653341	Dec. 20, 1927	Propeller Mounting.
Boeing Airplane Company:		
1264498	Apr. 30, 1918	Controlling devices for Airplanes.
1284918	Nov. 12, 1918	Clips for attaching wires.
1284919	....do....	Joint Fittings for Truss Structures.
1290280	Jan. 7, 1919	Steering Mechanism for Airplanes.
1290281	....do....	Fittings for Airplanes.
1295202	Feb. 25, 1919	Molds for Pontoons.
1295203	....do....	Shop Inventions.
1363422	Dec. 28, 1920	Wire Wrapping Machine.

Digitized by Google

List of Patents—Continued

Name of Licensor and Patents No.	Issue Date	Title of Invention
Curtiss Aeroplane and Motor Company, Inc.:		
1010842	Dec. 5, 1911	Flying Machine.
1011106	do	Do.
1027242	May 21, 1912	Means for Launching Flying Machines.
1050601	Jan. 14, 1913	Flying Machine.
1085575	Jan. 27, 1914	Control Mechanism for Flying Machines.
1104036	July 21, 1914	Flying Machine.
1108490	Aug. 25, 1914	Do.
1142754	June 8, 1915	Flying Boat.
1156215	Oct. 12, 1915	Heavier-than-air Flying Machine.
1170965	Feb. 8, 1916	Hydroaeroplane.
1195142	Aug. 15, 1916	Fuselage for Aeroplanes.
1197746	Sept. 12, 1916	Hydroplane Wing Pontoons.
1203550	Oct. 31, 1916	Hydroaeroplane.
1204380	Nov. 7, 1916	Improvements in Flying Machines.
1210374	Dec. 26, 1916	Hulls for Flying Boats.
1210379	do	Aileron System.
1223298	Apr. 17, 1917	Spoke Stays.
1223315	do	Landing Gear for Aircraft.
1223316	do	Multiple Control System for Prime Movers.
1223317	do	Folding Wing Aeroplane.
1223318	do	Boat Hull.
1223319	do	Flying Boat Hulls.
1223320	do	Multiple Step Flying Boat.
1223321	do	Propeller.
1228375	May 29, 1917	Universal Wing Post Socket.
1228380	do	Method of Operating Rudders on Aircraft.
1228381	do	Improvements in Hydroaero Machines.
1228382	do	Aeroplane.
1246010	Nov. 6, 1917	Inherently Stable Flying Boat.
1246011	do	Aeroplane Construction.
1246012	do	Flying Boat.
1246013	do	Balancing System for Aircraft.
1246014	do	Hydroaeroplane.
1246015	do	Aeroplane.
1246016	do	Flying Boats.
1246017	do	Boat Type Wing Pontoon.
1246018	do	Draft System for Flying Boats.
1246019	do	Flying Boat Hull.
1246020	do	Landing Gear.
1246021	do	Streamline Shock Absorber.
1246022	do	Aeroplane Motor Support.
1246023	do	Aerial Propeller Fastening.
1246024	do	Gas Tank Cradle.
1246025	do	Dual Interlocking Control.
1246026	do	Tail Skid Clip.
1246027	do	Aeroplane Control Mechanism.
1246028	do	Aeroplane Wing Hinge.
1246029	do	Impregnating Apparatus.
1256878	Feb. 19, 1918	Hydroaeroplane Boat.
1259397	June 11, 1918	Hydroaeroplane Pontoon.
1259570	do	Convertible Running Gear.
1283529	Nov. 5, 1918	Fan Pump.
1283684	do	Flying Boat Crusier.
1284906	Nov. 12, 1918	Hydro Landing Base for Aircraft.
1284907	do	Landing Gear for Aircraft.
1285021	Nov. 19, 1918	Aeroplane Wing Construction.
1285229	do	Flying Boat Hulls.
1285230	do	Hydroaeroplane Pontoon.
1287249	Dec. 10, 1918	Tilting Wing Flying Boat.
1287341	do	Handling Truck for Flying Boats.
1289683	Dec. 31, 1918.	Flying Boat.
1290004	do	Aeroplane Fitting.
1290005	do	Fuselage Cover.
1290102	Jan. 7, 1919	Landing Gear.
1290235	do	Triplane.
1290236	do	Tail Skid for Aeroplanes.
1290237	do	Engine Bed Mounting.
1290838	do	Aeroplane Construction.
1291678	Jan. 14, 1919	Wing Construction.
1294389	Feb. 18, 1919	Hydro-aero-Machine.
1294412	do	Twin Fuselage Construction.
1294413	do	Autoplane.
1294414	do	Hull for Flying Boats.
1294415	do	Flying Boat.
1294476	do	Duplex V-Strut Landing Gear.
1294477	do	Tail Skid for Aeroplanes.
1295084	do	Aeroplane Construction.
1296630	Mar. 11, 1919	Hydroaircraft.
1296667	do	Wing Post Socket.
1296730	do	Pusher Hydroaeroplane.

Digitized by Google

List of Patents—Continued

Name of Licensor and Patents No.	Issue Date	Title of Invention
Curtiss Aeroplane and Motor Company, Inc.—Continued.		
1296770	do	Airplane Landing Gear.
1296773	do	Convertible Control System.
1296774	do	Magneto Switch for Aeroplanes.
1296775	do	Aeroplane Construction.
1296876	do	Skid Structure for Hydroaircraft.
1298515	Mar. 25, 1919	Fuselage Clip.
1298516	do	Aeroplane Control Bridge.
1298625	do	Landing Gear for Aeroplanes.
1306749	June 17, 1919	Twin Float Hydroaeroplane.
1306750	do	Airplane Wing Truss.
1306751	do	Combination Landing Gear.
1306764	do	Aeroplane Wing Hinge.
1306765	do	Landing Gear fo Aircraft.
1310737	July 22, 1919	Reconnoitering Airplane.
1310764	do	Airplane Wing Fastening.
1310942	do	Airplane Wing Construction.
1311129	do	Control System.
1316277	Sept. 16, 1919	Cruising Hydroaeroplane.
1316278	do	Triplane Speed Scout.
1316279	do	Speed Scout Aeroplane.
1316280	do	Folding Wing Aeroplane.
1316281	do	Thrust Measuring Device.
1323842	Dec. 2, 1919	Reconnoitering Aeroplane.
1323843	do	Fuel Supply System.
1323959	do	Pusher Triplane.
1326008	Dec. 23, 1919	Turnbuckle.
1329336	Jan. 27, 1920	Flying Boat Hull.
1329342	do	Aeroplane Construction.
1336405	Apr. 6, 1920	Airplane.
1336406	do	Convertible Multiplane.
1336632	Apr. 13, 1920	Airplane Control Mechanism.
1336633	do	Landing Gear for Aircraft.
1336634	do	Flying Boat.
1349677	Aug. 17, 1920	Strut Fitting.
1351742	Sept. 7, 1920	Flying Boat Construction.
1351743	do	Airplane Wing Structure Truss.
1351764	do	Hoisting Connection for Airplane.
1355736	Oct. 12, 1920	Hydro Aircraft.
1355738	do	Aeroplane Wing Structure.
1355741	do	Airplane Fuselage.
1355767	do	Airplane Fitting.
1357950	Nov. 9, 1920	Airplane Control Surface Operating Brace.
1358527	do	Tripod Flying Boat.
1358605	do	Fuselage Wiring.
1363794	Dec. 28, 1920	Control Mechanism.
1368844	do	Airplane Fitting.
1363847	do	Aeroplane.
1364425	Jan. 4, 1921	Flying Boat Hull.
1364431	do	Airplane Wing Structure.
1364614	do	Airplane Wing Construction.
1368542	Feb. 15, 1921	Longitudinal Control System.
1368548	do	Aileron Braking System.
1368549	do	Airplane Construction.
1368550	do	Triplane.
1370693	Mar. 8, 1921	Airplane Landing Gear.
1373408	Apr. 5, 1921	Pontoon Mounting.
1373433	do	Control Column.
1382387	June 21, 1921	Engine Bed Support.
1382421	do	Hydroaeroplane Landing Gear.
1386841	Aug. 9, 1921	Method and Apparatus for Making Aerofoils.
1386846	do	Fuel Supply System.
1392271	Sept. 27, 1921	Streamline Wiring.
1392272	do	Airplane V-Strut Landing Gear.
1392277	do	Airplane Landing Gear.
1392278	do	Fuselage.
1392279	do	Flying Boat Hull.
1398330	Nov. 21, 1921	Radistor for Airplanes.
1406575	Feb. 14, 1922	Landing Gear for Aircraft.
1406600	do	Propeller Hub Construction.
1406617	do	Control for Aircraft.
1420609	June 20, 1922	Hydroaeroplane.
1420610	do	Method of Getting a Hydroairplane off the Water into the Air.
1430640	Oct. 3, 1922	Airplane.
1434547	Nov. 7, 1922	Do.
1434559	do	Wing Jig.
1437465	Dec. 5, 1922	Airplane Fitting.
1437469	do	Aeroplane Wing Structure.
1437471	do	Propeller Hub Fastening.
1445135	Feb. 13, 1923	Fighting Airplane.

Digitized by Google

List of Patents—Continued

Name of Licensor and Patents No.	Issue Date	Title of Invention
Curtiss Aeropjane and Motor Company, Inc.—Continued.		
1445142	do	Propeller Mounting.
1454505	May 8, 1923	Multiple Control System for Multi-Motored Aircraft.
1465973	Aug. 28, 1923	Triplane Flying Boat
1466634	do	Wing Shedding Means for Flying Boats.
1486607	Mar. 11, 1924	Tanks and Method of Making.
1494787	May 20, 1924	Tail Skid for Aeroplanes.
1509251	Sept. 23, 1924	Wing Radiator Fastening.
1511666	Oct. 14, 1924	Twin Fuselage Monoplane.
1511667	do	Cooling System for Power Plants of Aircraft.
1511689	do	Combination Land, Air, and Water Craft.
1511691	do	Airplane Radiator.
1535526	Apr. 28, 1925	Aeroplane Wing.
1535532	do	Aeroplane.
1543651	June 23, 1925	Wing Strut Fastening for Aeroplanes.
1555409	Sept. 29, 1925	Airplane Wing.
1556348	Oct. 6, 1925	Aeroplane Landing Gear.
1565097	Dec. 8, 1925	Differential Aileron Control.
1575328	Mar. 2, 1926	Aeroplane Landing Gear.
1584053	May 11, 1926	Engine Bed Mounting.
1613602	Jan. 11, 1927	Aerofoil.
1613619	do	Aeroplane Radiator.
1631259	June 7, 1927	Variable Lift—Variable Resistence Aerofoil.
1639029	Aug. 16, 1927	Aeroplane.
1653122	Dec. 20, 1927	Aeroplane Landing Gear.
1666769	Apr. 17, 1928	Airplanes.
1682202	Aug. 28, 1928	Beam.
1682204	do	Aeroplane Radiator.
1682229	Nov. 20, 1928	Adjustable Wind Shield.
1692010	Aug. 28, 1928	Retractable Landing Gear.
1694496	Dec. 11, 1928	Rudder Operating Mechanism for Aircraft.
Dayton-Wright Company:		
D 52685	Nov. 12, 1918	Insignia.
1290025	Dec. 31, 1918	Aeroplane Control.
1298080	Mar. 25, 1919	Fuel Tank.
1342385	June 1, 1920	Steering Device.
1441984	Jan. 9, 1923	Fuselage.
1452641	Apr. 24, 1923	Aeroplane Wing.
1462531	July 24, 1923	Rudder Controls.
1462533	do	Fuselage Construction.
1476438	Dec. 4, 1923	Airplane Construction.
1483164	Feb. 12, 1924	Door for Aircraft Bodies.
1494787	May 20, 1924	Tail Skids for Airplanes.
1496200	June 3, 1924	Airplane Control.
1500235	July 8, 1924	Airplane—Wing Spar.
1501522	July 15, 1924	Aircraft Observation Window.
1501523	do	Airplane.
1501530	do	Do.
1501549	do	Aeroplane Structure.
1501550	do	Standard Stick Control.
1501592	do	Valve.
1501601	do	Tail Skid.
1501608	do	Landing Skid.
1503478	Aug. 5, 1924	Apparatus for Doping Airplane Wings.
1503887	do	Fuselage Fittings.
1504663	Aug. 12, 1924	Airplane.
1509297	Sept. 23, 1924	Pontoon Skid.
1512912	Oct. 28, 1924	Aeroplane.
1522672	Jan. 13, 1925	Tail Skid.
1545239	July 7, 1925	Airplane Controls.
1549202	Aug. 11, 1925	Retractable Radiator.
1549251	do	Method of making Welded Tube Fuselage.
1552111	Sept. 1, 1925	Airplane.
1552112	do	Moulded Airplane Wings.
1556589	Oct. 13, 1925	Metal Wing Spar.
1557214	do	Airplane Control Mechanism.
1557242	do	Landing Chassis.
1616682	Feb. 8, 1927	Wing or Similar Member for Airplane.
G. Elias & Bro., Inc.:		
1342138	June 1, 1920	Landing Gears for Flying Machines.
1346772	July 13, 1920	Hoisting Devices for Flying Machines.
1350947	Aug. 24, 1920	Launching Devices for Flying Machines.
1350948	do	Detachable Stabilizer Fins for Flying Machines.
1354353	Sept. 28, 1920	Rudders for Hydroaeroplanes.
1357260	Nov. 2, 1920	Driving Mechanism for Flying Machines.
1358596	Nov. 9, 1920	Hydroaeroplanes.
1424996	Aug. 8, 1922	Wing Construction for Airplanes.

Digitized by Google

List of Patents—Continued

Name of Licensor and Patents No.	Issue Date	Title of Invention
Gallaudet Aircraft Corporation:		
1058422	Apr. 8, 1913	System of Aeroplane Control.
D-44168	June 10, 1913	Hydroaeroplane Body.
1074256	Sept. 30, 1913	System of Aerial Control.
1074257	do	System of Aeroplane Control.
D-45106	Jan. 6, 1914	Hydroaeroplane Body.
1145013	July 6, 1915	Aeroplane.
1165770	Dec. 28, 1915	Aerohydroplane.
1200097	Oct. 3, 1916	Aeroplane.
1200098	do	Do.
1203557	Oct. 31, 1916	Propeller.
1203558	do	Aeroplane.
1214536	Feb. 6, 1917	Do.
1219285	Mar. 13, 1917	Do.
1262660	Apr. 16, 1918	Do.
1303052	May 6, 1919	Aeroplane Stay.
L. W. F. Engineering Company:		
1310850	July 22, 1919	Guy-Wire Attachment.
1315356	Sept. 9, 1919	Aeroplane Securing Member.
1353538	Sept. 21, 1920	Strut Construction.
1393488	Oct. 11, 1921	Fuselage.
1394459	Oct. 18, 1921	Fuselage Construction.
1394460	do	Aeroplane Construction.
1395254	Nov. 1, 1921	Aeroplane Control Systems.
1398244	Nov. 29, 1921	Processes of Producing Laminated Constructions and Apparatus for use in connection therewith.
1418762	June 6, 1922	Landing Gears for Aeroplanes.
1428143	Sept. 5, 1922	Fuselage Construction for Aeroplanes.
1434367	Nov. 7, 1922	Armed Aeroplanes.
1441319	Jan. 9, 1923	Wing Connections for Aeroplanes.
1441329	do	Internal Combustion Engines.
Glenn L. Martin Company:		
1480890	Jan. 15, 1924	Gunner's Chair.
1488493	Mar. 11, 1924	Controls.
1608611	Nov. 30, 1926	Adjustable Rudder Controls.
1669380	May 8, 1928	Wing Leveling Device.
Packard Motor Car Company:		
D-52056	May 28, 1918	Design for Aircraft Fuselage.
1325054	Dec. 16, 1919	Aircraft.
1329390	Feb. 3, 1920	Airplane Brake.
1377858	May 10, 1921	Aircraft.
1406251	Feb. 14, 1922	Detachable Aircraft Propeller Hub.
1415052	May 9, 1922	Airplane.
1434604	Nov. 7, 1922	Windshield.
1434620	do	Gear Driving Mechanism.
1443100	Jan. 23, 1923	Airplane.
1464670	Aug. 14, 1923	Do.
1513945	Nov. 4, 1924	Gear Driving Mechanism.
1517765	Dec. 2, 1924	Airplane.
1558942	Oct. 27, 1925	Do.
1632862	June 21, 1927	Do.
Sturtevant Aeroplane Company:		
1162177	Nov. 30, 1915	Airplane Landing Gears.
1283828	Nov. 5, 1918	Aeroplane.
1357177	Oct. 26, 1920	Aeroplane Trucks.
Thomas-Morse Aircraft Corporation:		
1370242	Mar. 1, 1921	Airplane.
1389106	Aug. 30, 1921	Do.
1394870	Oct. 25, 1921	Driving Connections for Airplane Engines.
1443155	Jan. 23, 1923	Clips for Airplane Construction.
Wright Aeronautical Corporation:		
566954	June 15, 1910	Flying Machine.
821393	May 22, 1906	Do.
908929	Jan. 5, 1909	Mechanism for Flexing the Rudder of a Flying Machine or the like.
987662	Mar. 21, 1911	Flying Machine.
1075533	Oct. 14, 1913	Do.
1122348	Dec. 29, 1914	Do.
1165891	Dec. 28, 1915	Do.
1239500	Sept. 11, 1917	Flying boat.

Digitized by Google

(License Form No. 3—After-Acquired Patents Granted Royalty Compensation)

PATENT LICENSE ISSUED PURSUANT TO AWARD OF ROYALTY COMPENSATION BY BOARD OF ARBITRATION NO. —

License granted this _____ day of _____, by _____ _____ (hereinafter called the Licensor), to _____ (hereinafter called the Licensee).

Whereas the Licensor and certain other stockholders of the Manufacturers Aircraft Association, Inc. (hereinafter called Subscribers), heretofore entered into a certain agreement, dated July 24, 1917, known as the Cross-License Agreement, and/or entered into an Amended Agreement, entitled "The Amended Cross-License Agreement of December 31, 1928", wherein provision is made for the cross-licensing of airplane patents owned or controlled by Subscribers; and

Whereas both said Cross-License Agreement and said Amended Cross-License Agreement authorize and empower the Manufacturers Aircraft Association, Inc., as the agent and attorney in fact of the Subscribers, to make, execute, and deliver such licenses in the names of the Licensors; and

Whereas in reporting to said Association the patents hereinafter described the Licensor claimed compensation under Article V of said Cross-License Agreement or said Amended Cross-License Agreement for the issuance of licenses thereunder to other Subscribers, and the use by them of the inventions covered by said patents; and

Whereas a Board of Arbitration was duly constituted in the manner provided for in said Agreements which, after considering the claims of the Licensor on the patents hereinafter described, rendered its award thereunder providing for the payment by Subscribers of the royalties hereinafter set forth.

Now, therefore, this license witnesseth: That for and in consideration of the premises and other good and valuable considerations moving between the parties hereto, it is covenanted and agreed as follows:

1. The Licensor does hereby give and grant unto the Licensee a non-exclusive license to make, use, and sell airplanes under the following-described patents in and throughout the United States, its territories, and dependencies, for use therein or abroad, except that no rights, express or implied, are hereby granted under any foreign patents, nor shall the licenses herein provided for apply to or include the use of said patents in their application to other than airplanes:

No. _____ Issue Date _____ Title _____

2. This license is effective from the issue dates of the patents hereinbefore described, unless otherwise herein provided, and shall run to the full end of the terms thereof. It is personal, indivisible, non-assignable, and irrevocable, except for the causes and in the manner set forth in said Amended Cross-License Agreement.

4. This license is subject to all the terms, conditions, covenants, and stipulations contained in said Amended Cross-License Agreement, which is made a part hereof, with the same force and effect as if herein set forth at large.

In witness whereof the parties hereto have caused this license to be executed as of the day and year first above written.

MANUFACTURERS AIRCRAFT ASSOCIATION, INC.,
_____,
_____,
As Agent and Attorney in fact of the Licensors.
_____, *Licensee.*
_____, *President.*
_____, *Secretary.*

Form No. 2.

PATENT LICENSE

License, granted this_____day of_____, 19__, by _____(hereinafter called the Licensors), to_____ (hereinafter called the Licensee).

Whereas, the Licensors and certain other stockholders of the Manufacturers Aircraft Association, Inc. (hereinafter called "Subscribers"), heretofore entered into a certain agreement dated July 24, 1917, known as the Cross-License Agreement and/or having entered into an Amended Agreement, entitled

Digitized by Google

"The Amended Cross-License Agreement of December 31, 1928", wherein and whereby the Licensors agreed to grant certain licenses to the other "Subscribers" to said agreement, and

Whereas, both said Cross-License Agreement and said Amended Cross-License Agreement authorized and empowered the Manufacturers Aircraft Association, Inc., as the agent for and attorney in fact of the Licensors, to make, execute, and deliver such licenses in the name of the Licensors, and

Whereas, certain licenses have been issued to the Licensee herein under patents heretofore reported to the Association by Subscribers, and additional patents having been subsequently reported by Subscribers to said Association, it is now desired to issue licenses thereunder to the Licensee;

Now, therefore, this license witnesseth: That for and in consideration of the premises and other good and valuable considerations moving between the parties hereto, it is covenanted and agreed as follows:

1. The Licensors do hereby give and grant unto the said Licensee, the unrestricted but non-exclusive license to make, use, and sell airplanes under the patents described in Schedule "A—", hereto annexed and made a part thereof, in and throughout the United States, its territories and dependencies, for use therein or abroad, except that no rights, express or implied, are hereby granted under any foreign patents, nor shall the licenses herein provided for, apply to or include the use of said patents in their application to other than airplanes.

2. This license shall run to the full end of the term of the Letters Patent under which it is granted, and shall be personal, indivisible, non-assignable, and irrevocable, except for the causes and in the manner set forth in said Amended Cross-License Agreement.

3. This license is made subject to all the terms, conditions, covenants, and agreements contained in said Amended Cross-License Agreement, which is made a part hereof with the same force and effect as if herein set forth at large.

In Witness Whereof, the parties hereto have caused this license to be executed as of the day and year first above written.

MANUFACTURERS AIRCRAFT ASSOCIATION, INC.,

_____

_____

As Agent and Attorney in fact of the Licensors.

_____*Licensee.*

_____*President.*

_____*Secretary.*

SCHEDULE A

Name of licensor and patent number	Issue date	Title of invention

CURTISS-WRIGHT AIRPLANE CO.,
30 Rockefeller Plaza, New York, N. Y., December 6, 1935.

Hon. WILLIAM I. SIROVICH,
Chairman, House of Representatives, Committee on Patents,
Fifth Avenue Hotel, 24 Fifth Avenue, New York, N. Y.

DEAR SIR: There is submitted herewith, in behalf of the Curtiss-Wright Airplane Co., answers to the questionnaire contained in your letter of November 9, 1935.

Very truly yours,

CURTISS-WRIGHT AIRPLANE CO.,
By E. S. CRAMER, *Secretary.*

CURTISS-WRIGHT AIRPLANE CO.

1. Question. A complete list of all patents owned by you, your company or corporation, and also those patents now being used by you or them through cross-license or patent pooling agreement, or otherwise.

Digitized by Google

Answer. Curtiss-Wright Airplane Co. owns the following patents, to wit:

Patentee	Number	Date of issue	Date of assignment
K. Henrichsen	1874522	Aug. 30, 1932	Jan. 21, 1931
H. Rawdon et al	1902421	Mar. 21, 1933	June 2, 1930
W. H. Beech	1958229	May 8, 1934	Mar. 16, 1931
K. Henrichsen	1988079	Jan. 15, 1935	May 11, 1932
G. A. Page, Jr	1993893	Mar. 12, 1935	Feb. 18, 1933

Curtiss-Wright, as a member of the Manufacturers' Aircraft Association, Inc., is licensed to make use of all patents subject to the cross-license agreement which said association administers. (It is the writer's understanding that your committee has already been furnished by said association with a complete list of all patents subject to the cross-license agreement.)

Curtiss-Wright, by negotiated contracts, is licensed to make use of the following patents, none of which are owned by Curtiss-Wright: 1226985, 1419507, 1427314, 1459411, 1485349, 1523994, 1567670.

2. Question. If you are not using some of your patents at this time, why not?

Answer. Curtiss-Wright Airplane Co. makes current use of all patents which it owns.

3. Question. A copy of the constitution and bylaws or articles of agreement of your organization or association.

Answer. A copy of the constitution and of the bylaws of the Manufacturers' Aircraft Association, Inc., are hereto attached.

4. Question. Copies of cross-license or patent pooling agreements to which you, your company, or corporation are parties.

Answer. A copy of the original cross-license agreement and of all subsequent modifications thereof are hereto attached.

5. Question. A copy of the different forms of cross-license or pooling agreements made between your organization and others to date.

Answer. A copy of each form of license which the Manufacturers Aircraft Association, Inc., is authorized to grant is hereto attached.

6. Question. The names of the inventors of all such patents in such cross-license agreement or patent pools, date and number of patent, date of assignment to you, amount paid for same, estimated value of patent at the date of purchase and now.

Answer. The names of the inventors, the dates and numbers of the patents, and the dates of assignment thereof to Curtiss-Wright, of all Curtiss-Wright owned patents subject to the cross-license agreement of the Manufacturers Aircraft Association, Inc., are given in the answer to question 1. Each of the patents owned by Curtiss-Wright is predicated on a development originating within the Curtiss-Wright organization, and each was assigned to Curtiss-Wright by reason of the existence of an employer-employee agreement entered into between employees of Curtiss-Wright and the company. (A copy of the standard form of employer-employee agreement used by Curtiss-Wright is hereto attached.)

There is no basis upon which the value to Curtiss-Wright Airplane Co., either today or at the time it acquired title to the patents which it owns, can be either estimated or determined.

7. Question. Are any of said patents controlled by said cross-license and patent pooling agreements used as a basis for charter or corporation franchises? If so, valuation of said patents.

Answer. No Curtiss-Wright owned patents are currently used as a basis for charter or corporation franchises.

8. Question. Was inventor an employee of assignee at time of making invention and is the inventor an employee of such assignee now? If so, does assignee retain contract providing such invention shall belong to employer without additional cost?

Answer. The patentees named in the patents owned by Curtiss-Wright were all at the time of the filing of the applications resulting in the patents granted, employees of the Curtiss-Wright Co.

Of the patentees named, the following are still in the employ of the Curtiss-Wright Co.: G. A. Page, Jr.

Digitized by Google

None of the patentees retain any interest whatsoever in the patents assigned.

9. Question. Please give number, name, ownership, and valuation of existing patents now being used by your company through cross-license or with a patent pool.

Answer. The value to Curtiss-Wright, of the patents under which it is licensed by reason of its membership in the Manufacturers Aircraft Association, Inc., cannot be determined. It is the writer's understanding that your committee has already been furnished with the number, name, and ownership of the patents under which it is licensed by reason of its association membership.

10. Question. Do you cross-license nonmembers of the patent pool—if such exists—and if so, on what terms?

Answer. At no time has Curtiss-Wright refused any concern or airplane manufacturing company a license under any or all of the patents which it owns. Licenses, if requested, would be granted at the same royalty rate as that required to be met by association members.

11. Question. What are the eligibility requirements for outsiders to join this patent pool?

Answer. To entitle a person, firm, or corporation to become a stockholder of the Manufacturers Aircraft Association, Inc., he or it, as the case may be, shall be a responsible manufacturer of aircraft or aircraft engines, or parts and accessories thereof; or a responsible manufacturer who intends to become a bona fide producer of the same; or a manufacturer to whom the United States Government has given a contract for the construction of 10 or more complete aircraft or aircraft engines; or a person, firm, or corporation owning or controlling United States patents relating to any of the foregoing.

12. Question. Do you recommend any amendments to existing patent laws? If so, enumerate.

Answer. It is recommended that the act of June 25, 1910 (36 Stat. 851), as amended by the act of July 1, 1918 (40 Stat. 705), be repealed.

AGREEMENT

Whereas Curtiss-Wright Airplane Company, a corporation of Missouri, having its principal place of business at Robertson, Missouri, is now engaged in the development, manufacture, and sale of various types of aircraft, pontoons, hulls, engines, and parts thereof and accessories therefor, and of apparatus and processes incident to the manufacture of said devices and the parts thereof, and

Whereas I desire employment with said Corporation in the course of which I may be informed from time to time of more or less confidential matters pertaining to these and any other lines of work that the Corporation may now or hereafter be engaged in the investigation or development of during my employment,

Now, therefore, this indenture witnesseth: that in part consideration of my employment with said Corporation, and the resulting remuneration and attending advantages, I agree that

1. I will communicate to its Law Department and assign to the Corporation, for its sole and exclusive benefit, any and all improvements and inventions I may conceive of or make while in its employ, along the lines of the Corporation's work and investigations, and will execute all patent application and other proper papers deemed by the Corporation as necessary or expedient to the filing and prosecution of applications for patents in this and all foreign countries, on said improvements or inventions, and otherwise in acquiring Letters Patent therefor, and will otherwise assist the Corporation in every proper way (entirely at its expense) to protect in any and all countries, the inventions to be and remain the property of the said Corporation, whether patented or not: As a matter of record I attach hereto a complete list of all inventions which I have made prior to my said employment and which I desire to have excluded from this assignment, and

2. I will regard and preserve as confidential all information pertaining to the Corporation's business that may be obtained by me from specifications, drawings, blue-prints, reproductions, and other sources of any sort as a result of such employment, and I will not, without written authority from the Corporation so to do, disclose to others during my employment or thereafter, such or

Digitized by Google

any other confidential information obtained by me while in the employ of the Corporation.

In witness whereof I have hereunto set my hand and seal this _____ day of _____, 19__.

[SEAL.] (Signature) _____

Witness:

_____

CROSS-LICENSE AGREEMENT

This agreement, made this 24th day of July 1917, between the Manufacturers Aircraft Association, Inc., a New York corporation (hereinafter called the "Company"), party of the first part, and each person, firm, or corporation (hereinafter called the "Subscriber" or "Subscribers") as shall become stockholders of the said "Company" in the manner and under the conditions provided in the by-laws thereof (which for the purpose of this agreement are made a part hereof), and become parties to this agreement, parties of the second part;

Whereas the parties hereto are interested in the manufacture, sale, and use of airplanes, as hereinafter defined, and desire to promote and develop the industry in which they are engaged, and to encourage and advance the art applicable thereto; and

Whereas the said development and advancement in the past have not been capable of as complete accomplishment as is desirable because of the existence of certain United States patents claimed to be basic in their nature upon which suits have been brought or threatened for alleged infringement and for the collection of royalties and damages in connection therewith; and

Whereas it is desired to prevent and avoid such litigations or threatened litigations in the future and to give to all of the "Subscribers" the right to manufacture, sell, and use airplanes embodying the inventions of each of the "Subscribers", and to that end it is desired that licenses be granted as herein expressed:

Now, This Agreement Witnesseth: That for and in consideration of the premises, the covenants, and conditions herein contained, and of other good and valuable considerations moving between the "Company" and each of the "Subscribers" hereto and between the "Subscribers" themselves, it is covenanted and agreed as follows:

I. DEFINITIONS

The word "airplane", as used in this agreement, shall be understood to mean any form of heavier-than-air craft using wing surfaces for sustaining it and to include propelling means, propellers, propeller hubs, radiators, and all parts and accessories used or useful in the airplane except the engine and its accessories.

The words "airplane patent" as used in this agreement shall be understood to mean any patent covering inventions for or capable of use in or in connection with airplanes, including propellers, propeller hubs, radiators, and all parts of airplanes and accessories used or useful in the airplane except the engine and its accessories.

II. LICENSES AND POWERS GRANTED

The "Subscribers" grant, agree to grant, and cause to be granted to each other, licenses to make, use, and sell airplanes—under all airplane patents of the United States now or hereafter owned or controlled by them or any of them, or by any firm, corporation, or association owned or controlled by them, or under which they, or any of them, or any such firm, corporation, or association have or shall have the right to grant licenses—in and throughout the United States, its territories and dependencies, for use therein or abroad, except that no rights, express or implied, are hereby granted under any foreign patents; nor shall said rights or the licenses herein provided for apply to or include the use of said patents in their application to other than airplanes; and except further that no licenses are hereby granted under the Dunne patents No. 975403 issued November 15th, 1910, and No. 1003721, issued September 19th, 1911, rights under which are held by the Burgess Company.

All licenses provided for herein shall run to the full end of the term of the letters patent under which the license is or is to be granted and shall be per-

Digitized by Google

sonal, indivisible, non-assignable, and irrevocable, except for the causes and in the manner hereinafter stated.

The "Subscribers" hereby designate, constitute, and appoint the "Company" (and the "Company" hereby accepts the appointment) as their true, sufficient, and lawful agent and attorney in fact, for them and in their respective names, to make and execute licenses in writing in the form hereto annexed, and to deliver the same to those of the "Subscribers" who, at the time, are stockholders of the "Company" not in default hereunder, and who shall have executed an agreement in writing of like tenor to this; and to enforce said licenses and any and all other obligations (including the obligation to make payments), of the "Subscribers" under this agreement; and the "Subscribers" hereby give and grant unto said "Company" as full, complete, and ample power and authority in the premises as the "Subscribers" themselves now have and possess.

All licenses provided for herein, when made, executed, and delivered in accordance with the provisions hereof, shall have the same force and effect as if they had been executed and delivered by the "Subscribers" themselves.

III. COVENANTS OF FURTHER ASSURANCE

(a) Each "Subscriber", now or hereafter, having rights under any United States airplane patent or invention, of such character that it has legal right and power to procure the grant of rights thereunder to others, but is not itself empowered to grant such rights, covenants to procure the execution of such further instrument as may be necessary to empower the "Company" to grant rights under such patent, or with reference to such invention, to the extent and in the manner herein provided.

(b) Each "Subscriber" covenants that it will not contract for or obtain any rights under any such patent or invention in such manner that its owner would be prevented from granting to other "Subscribers" hereto similar rights on the same terms, unless the "Subscriber" obtains, at the same time, the further privilege to grant rights under said patent or said invention, whereby the same may and will be brought under the operation of this instrument.

IV. COVENANTS AGAINST OTHER LICENSES

Each "Subscriber" covenants that it has not heretofore entered and will not hereafter enter into any contract or arrangement whereby its privileges under United States airplane patents, issued or to be issued, inventions, and rights, owned or controlled by it, has been or shall be diminished or surrendered so as to exclude or restrict the operation of this instrument in respect thereto. Each "Subscriber" further covenants that it will not grant licenses under any such patents for use in airplanes, with reference to which it is receiving royalties hereunder, to any other person, firm, or corporation on more favorable, or lower terms of royalty, than those herein provided, or which may become more favorable or lower during the term of such license.

V. AFTER ACQUIRED PATENTS

When a "Subscriber" shall hereafter acquire a United States airplane patent, or any right thereunder, he shall be entitled to compensation for the use thereof if the patent or patent right covers an invention which secures the performance of a function not before known to the art, or constitutes an adaptation for the first time to commercial use of an invention known to the industry to be desirable of use but not used because of lack of adaptation, or is otherwise of striking character or constitutes a radical departure from previous practice, or if either the price paid therefor or the amount expended in developing the same is such as to justify such compensation, provided that at the time said patent or patent right is reported to the "Company", as required in subdivision (b) of paragraph VII, the "Subscriber" claims such compensation, and states the grounds on which such claim is based. Such report and claim shall be submitted to a Board of Arbitration to be selected in the manner provided for in paragraph XIII hereof, which Board shall determine whether such compensation shall be paid, and, if so, the total amount thereof and the rate of royalty, or other payments, which shall be paid (towards such compensation) by any "Subscriber" desiring and taking a license under said patent and shall also fix the time or times when said royalties or other amounts shall be paid.

Digitized by Google

VI. SPECIAL MODELS

If any "Subscriber" shall have developed the design and manufacture of any special model of airplane, or airplane engine, or other device used in an airplane (except the airplanes manufactured by the Burgess Company under the Dunne Patents, hereinbefore mentioned, and the Hispano-Suiza aeronautical engine, manufactured by the Wright-Martin Aircraft Corporation or its subsidiaries), which the United States Government may at any time desire to have manufactured in the factory of any other "Subscriber" or in the factory of any manufacturer not a "Subscriber" hereto, the said "Subscriber" agrees that it will furnish to the other "Subscriber" or said other manufacturer such complete specifications, drawings, and other production data, as may be required, for use in the manufacture of such special model, provided that and upon condition that the "Subscriber" or other manufacturer in whose factory the work is placed by the United States Government shall agree with said Government and with the "Subscriber" owning said specifications, etc., to pay and shall pay into the treasury of the "Company" one percent, upon the contract price paid by the Government for each airplane or airplane engine or other device manufactured for it in accordance with said specifications, etc.

If the manufacture of such special model is conducted by one not a "Subscriber", such manufacturer shall also agree to pay into the treasury of the "Company" such royalty as a "Subscriber" would have been obliged to pay had it made and sold the airplane, engine, or other device, including the amount specified in subdivisions (a) and (b) of paragraph VIII hereof, if an airplane with or without engine is the thing manufactured for and sold to the Government.

VII. REPORTS TO THE "COMPANY"

The following reports in writing shall be rendered to the "Company" by each "Subscriber" at the time or times hereinafter set forth:

(a) At the time of the execution of this agreement each "Subscriber" shall report all United States airplane patents and inventions, together with serial numbers and filing dates of all pending applications for such patents, and all rights under such patents and inventions then owned or controlled by it, but no omission from such report shall exclude the patent, application, or right so omitted from the operation of this agreement.

(b) Within 30 days after the acquisition by any "Subscriber" of any United States patent (other than patents to be issued upon inventions now owned by it) or right within the scope of this agreement, each such "Subscriber" shall report such acquisition together with all the facts known to it as to such patent or right and its manner of acquisition. If such "Subscriber" claims that additional compensation should be paid to it for licenses under such patent or right, it shall so claim in its report.

(c) On the 10th days of January, April, July, and October in each year, each "Subscriber" shall report the number of airplanes (with or without engine), sold and delivered by it, together with the names of the purchasers, and the dates of delivery, or put into use for other than experimental or development purposes, or shipped out of the United States, during the three preceding calendar months.

(d) On the 10th days of January, April, July, and October in each year, each "Subscriber" shall report the number of airplanes, airplane engines, or other devices for use in airplanes, which it has sold and delivered during the preceding three calendar months, made from specifications, drawings, and other production data obtained from any other "Subscriber", as provided in paragraph VI hereof, together with the sales price and the dates of delivery; and there shall be included in the same report a copy of any agreement which the "Subscriber" shall have made with another manufacturer as provided in said paragraph.

(e) Each license to other than "Subscribers" as provided in paragraph IV hereof, shall be reported within 30 days after its delivery.

The first of each of the reports specified in subdivisions (c) and (d) hereof shall be made by each "Subscriber" on the tenth days of January, April, July, or October first occurring after it has become a "Subscriber" hereto, and shall cover the period from July 1, 1917, to the first day of the month in which the report is due.

Each of the "Subscribers" hereto shall keep separate books of account showing all business done under or subject to the operation of this agreement. The

Digitized by Google

"Company" may at any time have a New York Certified Public Accountant, to be designated by it, audit such books of account of the "Subscribers", together with such other accounts as the accountant may deem necessary, in order to verify or correct the reports herein provided for, and the "Company" shall have such audit made when any "Subscriber" so demands. Such audit, however, shall be limited to ascertaining whether the reports herein provided for are properly made and to correcting the same, if necessity for correction shall appear. No information obtained from any such audit shall be reported by the accountant or given to any of the parties hereto, except as it directly applies to the reports required by this agreement.

VIII. PAYMENTS TO THE "COMPANY"

Each "Subscriber" agrees to pay into the treasury of the "Company" on the 10th days of January, April, July, and October in each year the following sums of money, to wit:

(a) On each airplane, with or without engine, required to be reported as provided in subdivision (c) of paragraph VII hereof, the sum of two hundred dollars until such time as the Wright-Martin Aircraft Corporation and the Curtiss Aeroplane and Motor Corporation shall have been paid the aggregate sums provided for in subdivisions (a) and (b) of paragraph IX hereof.

(b) On each airplane, with or without engine required to be reported as provided for in subdivision (c) of paragraph VII hereof, such sum not to exceed twenty-five dollars, as the Board of Directors of the "Company" may, from time to time, fix and determine as payable after the above-mentioned aggregate sums shall have been paid to the Wright-Martin Aircraft Corporation and the Curtiss Aeroplane and Motor Corporation.

(c) Such amount or amounts as the Board of Arbitration may specify as special compensation for after acquired patents as provided in paragraph V hereof, and required to be reported in subdivision (c) of paragraph VII.

(d) Such amount or amounts as may be payable with reference to the use of specifications, drawings, and data as provided in paragraph VI hereof, including the royalty payments therein provided for, but all one (1%) percent payments on account of the use of such specifications, drawings, and data covering any one model shall cease when the total paid by all users shall aggregate fifty thousand ($50,000) dollars.

(e) All royalties received under licenses referred to in subdivision (e) of paragraph VII.

Each "Subscriber" who shall become a party hereto after the first day of July 1917 shall, on the 10th day of January, April, July, or October next occurring, pay to the "Company" those amounts which it would have been obliged to pay in accordance with the foregoing if it had been a "Subscriber" on July 1, 1917.

Moneys paid into the treasury of the "Company" pursuant to any provisions hereof shall not be or constitute or be deemed to be or constitute the assets, property, or profits of said "Company", but shall be received and disbursed by it as the agent and attorney in fact of the "Subscribers" in the manner and for the purposes herein mentioned.

IX. PAYMENTS BY THE "COMPANY"

Out of the moneys paid into the treasury of the "Company" pursuant to the provisions hereof, the following payments shall be made by the Company on the 20th days of January, April, July, and October in each year, to wit:

(a) To the Wright-Martin Aircraft Corporation one hundred and thirty-five ($135) on each airplane with or without engine, with reference to which payments shall have been made in accordance with subdivisions (a) and (e) of paragraph VIII hereof, during the preceding three calendar months, until U. S. Patent No. 821393, issued May 22, 1906, shall have expired, or until the aggregate sum of two million ($2,000,000) dollars shall have been paid to the said Wright-Martin Aircraft Corporation when all payments to it hereunder shall cease, except as hereinafter provided.

(b) To the Curtiss Aeroplane and Motor Corporation forty dollars ($40) on each airplane, with or without engine, with reference to which payments shall have been made in accordance with subdivisions (a) and (e) of paragraph VIII hereof, during the preceding three calendar months, until such time as the Wright-Martin Aircraft Corporation shall have been paid in full

Digitized by Google

as provided for in subdivision (a) of this paragraph, after which there shall be paid to the Curtiss Aeroplane and Motor Corporation at the times herein mentioned the sum of one hundred and seventy-five dollars ($175) on each of said airplanes until the aggregate sum of two million ($2,000,000) dollars shall have been paid to it or until U. S. Patent No. 1203550, issued October 31st, 1916, shall have expired, when all payments to it hereunder shall cease, except as hereinafter provided.

(c) To each of the "Subscribers" entitled thereto such amounts as may have been paid to the "Company" with relation to the use of after acquired patents in accordance with subdivisions (c) and (e) of paragraph VIII hereof.

(d) To each of the "Subscribers" entitled thereto such amounts as may have been paid to the "Company" on account of the use of specifications, drawings, and data as provided in paragraph VI and in subdivision (d) of paragraph VIII hereof, but any royalty payment received from outside manufacturers shall be distributed as though received from "Subscribers."

(e) To any "Subscriber" who shall have granted licenses to others than "Subscribers", as provided in paragraph IV, the royalties received under such licenses which are not required for payments provided for in subdivisions (a), (b), and (c) of this paragraph.

Out of the balance of said moneys paid into the treasury of the "Company" under this agreement, the "Company" may retain and use sufficient to cover its operating expenses and to create such fund as, in the judgment of the Board of Directors of said "Company", shall be necessary and proper for the further development of the airplane art and industry, and the purchase of patents and rights for the benefit of the "Subscribers" hereto.

If after making the payments and reservations herein provided for, any surplus or balance remains out of the funds so paid in the treasury of the "Company", the same shall be distributed by the "Company" from time to time, among those "Subscribers" who have contributed to said moneys, in proportion to their respective contributions under subdivisions (a) and (b) or paragraph VIII other than those required for payments under subdivisions (a) and (b) of this paragraph IX.

X. BREACH OF AGREEMENT

In the event that any "Subscriber" is claimed by the "Company", or any other "Subscriber", to be in default in the performance of any of its obligations hereunder, and such claimed default continues after thirty days' notice in writing, by the "Company" or any "Subscriber" hereto, to the "Subscriber" claimed to be in default, then the Board of Arbitration, hereinafter provided for, shall determine whether there has been such specified default and, if such default is found to exist, shall fix the time within which it must be repaired, and shall assess such damages and impose upon the "Subscriber" in default such other requirements (including the forfeiture of its stock and license) as may seem to the said Board of Arbitration to be proper under the circumstances. Each "Subscriber" covenants and agrees that it will pay such damages and comply with such requirements as may be specified by the said Board of Arbitration.

Nothing contained in this paragraph shall deprive the "Company" of the power to make, execute, and deliver licenses under the patents or patent rights owned and controlled by any defaulting "Subscriber", or to which the "Subscriber" may be entitled, at the time he ceases to be a stockholder or "Subscriber", nor deprive other than defaulting "Subscribers" of any right which they may have received to the use of the said patents or patent rights.

XI. WITHDRAWAL FROM AGREEMENT

Any "Subscriber" may withdraw from this agreement at any time after ten years from the date hereof, on giving to the "Company" written notice of its election so to do and on fulfilling all of its obligations up to the date of such withdrawal. But no withdrawal shall relieve the other parties and other "Subscribers" from their obligations to each other hereunder, nor deprive them of their rights acquired under the patents and patent rights owned or controlled by the withdrawing "Subscriber" at the time of withdrawal, all of said patents and patent rights remaining under this agreement, but such withdrawing "Subscriber" shall cease to have any rights under the patents of the other "Subscribers" hereto, or any other right under this agreement, from and after such withdrawal.

Digitized by Google

XII. REPURCHASE OF STOCK

In the event of the death of any person who is a stockholder in the "Company", or in the event of the dissolution of any corporation or firm which is a stockholder therein, or in the event of the bankruptcy or insolvency of any such stockholders, or in the event of withdrawal under paragraph XI hereof, the "Company" shall have the right to purchase for the benefit of the other "Subscribers" the stock held by such person, firm, or corporation at a sum not to exceed the distributive share or shares of such stockholder in the funds held by the "Company", and the license or licenses issued to such stockholder shall be surrendered to the "Company" and cancelled.

XIII. ARBITRATION OF CLAIMS AND DISPUTES

In the case of any dispute or controversy between the "Subscribers' hereto, or between the "Subscribers" and the "Company", or in case of a claim by a "Subscriber" for special compensation for licenses under patents or rights hereafter acquired by it, or in case of breach of this agreement, the said dispute, controversy, claim, or breach shall, within thirty days after a "Subscriber" or "Subscribers" shall have given notice to the "Company" or the "Company" shall have given notice to the "Subscribers" thereof, be referred to a board of disinterested Arbitrators consisting of three persons, for determination.

In the case of a claim for special compensation, one member of such Board of Arbitration shall be appointed by the Board of Directors of the "Company", another by the "Subscriber" making the claim, and the third by the other two arbitrators.

In the case of any dispute between the "Company" and a "Subscriber" or "Subscribers", one member of the Board of Arbitration shall be appointed by the Board of Directors of the "Company", another by the "Subscriber" (or if more than one "Subscriber" is involved in the same dispute, then by a majority of those so involved), and the third by the other two arbitrators.

In case of a breach of this agreement asserted by the "Company" or a "Subscriber" against another "Subscriber", one member of the Board of Arbitration shall be appointed by the Board of Directors of the "Company", another by the "Subscriber" against whom the assertion of breach is made, and the third by the other two arbitrators.

If either the Board of Directors or the "Subscribers" fail to appoint a member of the Board of Arbitration within the time specified the other party or parties may appoint such member or fill such vacancy.

The decision of a majority of the members of said Board upon all matters submitted to them for adjudication shall be final and binding upon all the parties hereto.

XIV. RELEASE TO "SUBSCRIBERS"

The "Subscribers" hereby waive and release any and all claims which they or any of them may have had against each other for damages and profits on account of any infringement or alleged infringement, prior to July 1, 1917, of any patent included within this instrument in the manufacture, sale, or use of airplanes.

XV. BINDING UPON PARTIES, CONTROLLED COMPANIES, LEGAL REPRESENTATIVES, ETC.

This agreement is binding upon the parties hereto and their several successors, legal representatives, and assigns, but shall enure to the benefit of only their several successors in business. Each "Subscriber" agrees that all persons, firms, and corporations now or hereafter controlled by it, and engaged in the manufacture of airplanes, or owning or controlling United States airplane patents, shall be caused to execute this agreement.

XVI. EXECUTION OF AGREEMENT

This agreement may be executed by the "Subscribers" in any number of counterparts, but when so executed shall constitute but one and the same agreement, and shall be as binding, and of the same force and effect, as if all the "Subscribers" had executed but one and the same instrument, and as if all executions had been at the same time.

In Witness Whereof, the parties hereto have executed this instrument as of the day and year first above written.

MANUFACTURERS AIRCRAFT ASSOCIATION, INC.

Digitized by Google

LICENSE

License, granted this _____ day of _____, 1917, by the (hereinafter called the Licensor), to _____ (hereinafter called the Licensee).

Whereas the Licensor and certain other stockholders of the Manufacturers Aircraft Association, Inc. (hereinafter called "Subscribers") heretofore, entered into a certain agreement dated July 24, 1917, entitled "Cross License Agreement" (a copy of which is hereto annexed), wherein and whereby the Licensor agreed to grant certain licenses to the other "Subscribers"; and

Whereas the said agreement also authorized and empowered the Manufacturers Aircraft Association, Inc., as the agent and attorney in fact of the Licensor, to make, execute, and deliver such licenses in the name of the Licensor; and it is desired to execute the powers therein granted;

Now, this license witnesseth: That for and in consideration of the premises and other good and valuable considerations moving between the parties hereto, it is covenanted and agreed as follows:

1. The Licensor does hereby give and grant unto the said Licensee the unrestricted, but non-exclusive license to make, use, and sell airplanes—under all airplane patents of the United States now or hereafter owned or controlled by it, or by any firm, corporation, or association owned or controlled by it, or under which it or any such firm, corporation, or association have or shall have the right to grant licenses—in and throughout the United States, its territories, and dependencies for use therein or abroad, except that no rights, express or implied, are hereby granted under any foreign patents, nor shall the licenses herein provided for, apply to or include the use of said patents in their application to other than airplanes, and except further that no licenses are hereby granted under the Dunne patents, No. 975,403, issued November 15, 1910, and No. 1,003,721 issued September 19, 1911, the rights under which are held by the Burgess Company.

The patents, the patents to issue on inventions, and the agreements with reference to which the Licensor has a right to grant licenses at the present time, and which are intended to be included in this license are set forth in Schedule "A", hereto annexed.

2. This license shall run to the full end of the term of the Letters Patent under which the license is or is to be granted, and shall be personal, indivisible, non-assignable, and irrevocable, except for the causes and in the manner set forth in the "Cross License Agreement" hereinbefore referred to.

3. This license is made subject to all the terms, conditions, covenants, and agreements contained in said "Cross License Agreement", which is made a part hereof with the same force and effect as if herein set forth at large.

In Witness Whereof, the parties hereto have caused this instrument to be executed as of the day and year first above written.

_____

by MANUFACTURERS AIRCRAFT ASSOCIATION, INC.

SUPPLEMENTAL CROSS-LICENSE AGREEMENT

This supplemental agreement, made this _____ day of _____, 1918, between the Manufacturers Aircraft Association, Inc., a New York Corporation (hereinafter called the "Company"), party of the first part, and each person, firm, or corporation (hereinafter called the "Subscriber" or "Subscribers"), as are and shall become stockholders of the said "Company", in the manner and under the conditions provided in the Bylaws thereof (which for the purposes of this agreement are made a part hereof), parties of the second part;

Whereas an agreement dated the 24th day of July 1917 was entered into between the "Company" and certain "Subscribers", wherein and whereby it was agreed, among other things, that the "Company" should issue licenses to said "Subscribers" to manufacture, sell, and use airplanes embodying the patents owned and controlled by the "Subscribers", and that the "Subscribers" should pay, as a royalty for such licenses, for the use of the patents now owned or

Digitized by Google

controlled by them, the sum of Two Hundred ($200) dollars upon each of said airplanes; and

Whereas it is desired to modify said agreement and to reduce the amount of the royalty which said "Subscribers" shall be obliged to pay for the use of said patents upon airplanes sold and delivered by them to the United States Government, during the period of the present war with the Imperial German Government:

Now, therefore, this agreement witnesseth: That for and in consideration of the premises, covenants, and conditions herein contained and other good and valuable considerations moving between the "Company" and each of the "Subscribers" hereto, and between the "Subscribers" themselves: It is covenanted and agreed, as follows:

First. That on the 10th days of January, April, July, and October, in each year, each "Subscriber" shall report to the "Company" the number of airplanes (with or without engines), sold and delivered by it, during the three preceding calendar months, to the United States Government; (1) Under flat-price contracts entered into prior to April 1st, 1918; (2) Under flat-price contracts entered into after March 31, 1918; (3) Under cost-plus contracts on which deliveries were made prior to January 1st, 1918, unless the same have been heretofore reported; (4) Under cost-plus contracts on which deliveries have been or shall be made after December 31, 1917.

Second. On the 10th day of January, April, July, and October, in each year, each "Subscriber" shall pay into the treasury of the "Company" on each airplane (with or without engines) delivered to the United States Government by it during the three preceding calendar months, the following sums of money, to wit: (1) Two hundred ($200) dollars on each airplane which has been or shall be delivered under flat-price contracts entered into prior to April 1st, 1918; (2) One hundred ($100) dollars on each airplane which shall be delivered under flat-price contracts entered into after March 31, 1918; (3) Two hundred ($200) dollars on each airplane delivered prior to January 1st, 1918, under cost-plus contracts; and (4) One hundred ($100) dollars on each airplane which has been or shall be delivered after December 31, 1917, under cost-plus contracts. Said payments to be made until such time as the Wright-Martin Aircraft Corporation and the Curtiss Aeroplane and Motor Corporation shall have been paid the aggregate sum of Two million ($2,000,000) dollars as provided for in paragraph "Third" hereof.

Third. Out of the moneys paid into the "Company" pursuant to the provisions of paragraph "Second" hereof, the following payments shall be made by the "Company", on the 20th days of January, April, July, and October, in each year, to wit: To the Wright-Martin Aircraft Corporation Sixty-seven and one-half per cent (67½%) of the amount received on each airplane (with or without engines), and to the Curtiss Aeroplane and Motor Corporation Twenty per cent (20%) of the amount received on each airplane (with or without engines). Said payments shall be made until the sums paid to the Wright-Martin Aircraft Corporation and the Curtiss Aeroplane and Motor Corporation under and pursuant to the terms of this supplemental agreement and the original agreement of July 24th, 1917, and from any other source paying royalties to the Manufacturers Aircraft Association, shall amount in the aggregate to Two million ($2,000,000) dollars, when and after which time the said "Subscribers" shall not be obliged to pay any royalties for the use of the patents now owned or controlled by the "Subscribers" or the "Company" in any airplane sold and delivered by them to the United States Government during the period of the present war with the Imperial German Government.

Fourth. Except as herein modified the original agreement of July 24th, 1917, shall be and remain in full force and effect between the parties thereto and all other persons, firms, or corporations who may become "Subscribers" thereto, it being understood, however, that such sums as are paid to the Wright-Martin Aircraft Corporation and Curtiss Aeroplane and Motor Corporation pursuant to the provisions of this supplemental agreement shall be credited upon and shall constitute a part of the moneys which they are entitled to receive under and pursuant to the provisions of paragraph IX of said original agreement.

Fifth. Nothing herein contained shall be taken, considered, or construed as fixing the reasonable value of the royalties to be paid for the use of the patents

Digitized by Google

now owned or controlled by the "Subscribers." The price herein agreed upon for royalties upon airplanes furnished during the present emergency to the United States Government is so fixed for the sole purpose of enabling the Government to acquire airplanes manufactured under said patents upon a preferential basis during the period of the present war.

Sixth. This agreement may be executed by the "Subscribers" in any number of counterparts, but when so executed shall constitute but one and the same agreement, and shall be as binding, and of the same force and effect, as if all the "Subscribers" had executed but one and the same instrument, and as if all executions had been at the same time.

In witness whereof the parties hereto have executed this instrument as of the day and year first above written.

MANUFACTURERS AIRCRAFT ASSOCIATION, INC.,

By _____, *President.*

Attest:

_____,
Secretary.

_____

_____

Attest:

_____

SECOND SUPPLEMENTAL CROSS-LICENSE AGREEMENT

This supplemental agreement, made this 12th day of January 1923, between the Manufacturers Aircraft Association, Inc., a New York corporation (hereinafter called the "Company"), party of the first part, and each person, firm, or corporation (hereinafter called the "Subscriber" or "Subscribers") as are and shall become stockholders of the said "Company", in the manner and under the conditions provided in the By-Laws thereof (which for the purpose of this agreement are made a part hereof), parties of the second part;

Whereas an agreement dated the 24th day of July 1917 was entered into between the "Company" and certain "Subscribers", which agreement was amended by supplemental agreement dated the 19th day of April 1918 between the same parties; and

Whereas it is desired to modify the said agreement as hereinafter set forth:

Now, therefore, this agreement witnesseth: That for and in consideration of the premises, covenants, and conditions herein contained, and other good and valuable considerations moving between the "Company" and each of the "Subscribers" hereto, and between the "Subscribers" themselves: It is covenanted and agreed, as follows:

First. That, anything in said cross-license agreement, as amended, to the contrary notwithstanding, particularly in Paragraph IX of said cross-license agreement, the "Company" may retain and use, for the purposes set forth in Paragraph IX of said cross-license agreement, up to twelve and one-half percent (12½%) of such amounts as may be paid to the "Company", on or after the 10th day of October 1922, with relation to the use of after-acquired patents in accordance with Subdivisions (c) and (e) of Paragraph VIII of said cross-license agreement;

Second. That, anything in said cross-license agreement, as amended, to the contrary notwithstanding, particularly in Paragraph IX of said cross-license agreement, the "Company" may retain and use, for the purpose set forth in Paragraph IX of said cross-license agreement, up to twelve and one-half percent (12½%) of that part of any amount paid to the "Company" on or after the 10th day of October 1922 in accordance with Subdivision (e) of Paragraph VIII as is not required for the payments provided for in subdivisions (a), (b), and (c) of Paragraph IX of said cross-license agreement.

Third. Except as herein modified, the original agreement of July 24, 1917, as amended April 19, 1918, shall be and remain in full force and effect between the parties thereto and all other persons, firms, or corporations who may become "Supbscribers" thereto.

Fourth. This agreement may be executed by the "Subscribers" in any number of counterparts, but when so executed shall constitute but one and the same agreement, and shall be as binding, and of the same force and effect, as

Digitized by Google

if all the "Subscribers" had executed but one and the same instrument, and as if all executions had been at the same time.

In witness whereof, the parties hereto have executed this instrument as of the day and year first above written.

MANUFACTURERS AIRCRAFT ASSOCIATION, INC.,
By _____
President.

Attest:

_____,
Secretary.

Attest:

THE AMENDED CROSS-LICENSE AGREEMENT OF DECEMBER 31, 1928

This agreement, made this 31st day of December 1928, between the Manufacturers Aircraft Association, Inc., a New York corporation (hereinafter called the "Company") party of the first part, and each person, firm, corporation, or association (hereinafter called the "Subscriber" or "Subscribers") as are and shall become stockholders of the said "Company" in the manner and under the conditions provided in the By-Laws thereof (which for the purpose of this Agreement are made a part hereof), parties of the second part:

Whereas an Agreement (hereinafter called the original Cross-License Agreement) dated the 24th day of July 1917, was entered into between the "Company" and certain "Subscribers", which Agreement was amended by a Supplemental Agreement dated the 19th day of April 1918, between the same parties, and which Agreement was further amended by a second Supplemental Agreement dated the 12th day of January 1923, between the same parties, and

Whereas the parties hereto are interested in the manufacture, sale, and use of airplanes, as hereinafter defined, and desire to promote and develop the industry in which they are engaged, and to encourage and advance the art applicable thereto; and

Whereas the said development and advancement, prior to the execution of the original Cross-License Agreement was not capable of complete accomplishment because of the existence of certain United States patents claimed to be basic in their nature, upon which suits have been brought, or threatened, for alleged infringement and for the collection of royalties and damages in connection therewith; and

Whereas it is desired to prevent and avoid such litigations or threatened litigations in the future and to give to all of the "Subscribers" the right to manufacture, sell, and use airplanes embodying the inventions of each of the "Subscribers" and to that end it is desired that licenses be granted as herein expressed; and

Whereas on account of conditions which did not exist and which were not anticipated at the date of execution of said original Cross-License Agreement, nor at the date of execution of the Supplemental Agreements of April 19, 1918, and January 12, 1923, respectively, and in an effort to better serve the art and industry as they now exist, it is desired to further modify and amend said original Cross-License Agreement as hereinafter set forth:

Now, therefore, this agreement witnesseth: That for and in consideration of the premises, covenants, and conditions herein contained, and other good and valuable considerations moving between the "Company" and each of the "Subscribers" hereto, and between the "Subscribers" themselves:

It is covenanted and agreed: That the said original Cross-License Agreement as amended by the Supplemental Agreements of April 19, 1918, and January 12, 1923, anything therein contained to the contrary notwithstanding, shall from December 31st, 1928, which is fixed as the date of execution of this Agreement, be modified and amended to read henceforth as follows:

I. DEFINITIONS

The word "Airplane" as used in this agreement shall be understood to mean any form of heavier-than-air craft, using wing surfaces for sustaining it, and

Digitized by Google

to include such indirect power plant appurtenances as radiators, oil-coolers, fuel and oil tanks, and motor controls; but not to include the engine and such engine accessories as propellers, propeller hubs, super-chargers, starters, magnetos, mufflers, carburetors, and reduction gears.

The words "Airplane patent", as used in this agreement, shall be understood to mean any patent covering inventions for or capable of use in or in connection with airplanes, including such indirect power plant appurtenances as radiators, oil-coolers, fuel and oil tanks, and motor controls; but not including the engine and such engine accessories as propellers, propeller hubs, super-chargers, starters, magnetos, mufflers, carburetors, and reduction gears.

The words "selling price", as used in this agreement, shall be understood to mean the manufacturer's regular selling price of an airplane, completely equipped according to contract, if and when delivered under formal written contract, or in the absence of such contract, a completely equipped airplane ready to operate, as above defined, minus the then prevailing selling price of the engine and such engine accessories as propellers, propeller hubs, super-chargers, starters, magnetos, mufflers, carburetors, and reduction gears, irrespective of any and all discounts and rebates of whatsoever character.

II. LICENSES AND POWERS GRANTED

The "Subscribers" grant, agree to grant, and cause to be granted to each other, licenses to make, use and sell airplanes—under all airplane patents of the United States now or hereafter owned or controlled by them or any of them, or by any firm, corporation, or association owned or controlled by them or under which they or any of them, or any such firm, corporation, or association, have or shall have the right to grant licenses—in and throughout the United States, its territories and dependencies, for use therein or abroad, except that no rights, express or implied, are hereby granted under any foreign patents, nor shall said rights or the license herein provided for, apply to or include the use of said patents in their application to other than airplanes.

All licenses provided for herein shall run to the full end of the term of the letters patent under which the license is or is to be granted and shall be personal, indivisible, non-assignable, and irrevocable, except for the causes and in the manner hereinafter stated.

The "Subscribers" hereby designate, constitute, and appoint the "Company" (and the "Company" hereby accepts the appointment) as their true, sufficient, and lawful agent and attorney in fact, for them and in their respective names, to make and execute licenses in writing in the form hereto annexed, and to deliver the same to those of the "Subscribers" who, at the time, are stockholders of the "Company" not in default hereunder and who shall have executed an agreement in writing of like tenor to this; and to enforce said licenses and any and all other obligations (including the obligation to make payments) of the "Subscribers" under this Agreement and the "Subscribers" hereby give and grant unto said "Company" as full, complete, and ample power and authority in the premises as the "Subscribers" themselves now have and possess.

The "Subscribers" hereby designate, constitute, and appoint the "Company" (and the "Company" hereby accepts the appointment) as their true, sufficient, and lawful agent and attorney in fact, for them in their respective names, to make and execute licenses to the Government of the United States and/or the various branches, bureaus, and departments thereof, for the use by the Government and/or the various branches, bureaus, and departments thereof of the patents covered by this Agreement, upon the agreement by the Government of the United States and/or the various branches, bureaus, and departments thereof, to pay to the "Company" the rates of royalty fixed in paragraph VII hereof, and to demand and receive of the Government of the United States and/or the various branches, bureaus, and departments thereof, royalties due the "Company" and to give the said Government of the United States and/or the various branches, bureaus, and departments thereof, receipts for royalties so collected, and to disburse the royalties so received in the same manner as the "Company" is herein authorized to disburse the royalties received by it from the "Subscribers" hereto.

All licenses provided for herein, when made, executed, and delivered in accordance with the provisions hereof, shall have the same force and effect as if they had been executed and delivered by the "Subscribers" themselves.

Digitized by Google

III. COVENANT OF FURTHER ASSURANCE

(a) Each "Subscriber" now or hereafter, having rights under any United States airplane patent or invention, of such character that it has legal right and power to procure the grant of rights thereunder to others, but is not itself empowered to grant such rights, covenants to procure the execution of such further instrument as may be necessary to empower the "Company" to grant rights under such patent, or with reference to such invention, to the extent and in the manner herein provided.

(b) Each "Subscriber" covenants that it will not contract for or obtain any rights under any such patent or invention in such manner that its owner would be prevented from granting to other "Subscribers" hereto similar rights on the same terms unless the "Subscriber" obtains, at the same time, the further privilege to grant rights under said patent or said invention, whereby the same may and will be brought under the operation of this instrument.

IV. COVENANTS AGAINST OTHER LICENSES

Each "Subscriber" covenants that it has not heretofore and will not hereafter enter into any contract or arrangement, whereby its privileges under United States airplane patents, issued or to be issued, inventions and rights, owned or controlled by it, have been or shall be diminished or surrendered so as to exclude or restrict the operation of this instrument in respect thereto. Each "Subscriber" further covenants that it will not grant licenses under any such patents for use in airplanes, with reference to which it is receiving royalties hereunder, to any other person, firm, or corporation on more favorable, or lower terms of royalty, than those herein provided, or which may become more favorable or lower during the term of such license.

V. AFTER ACQUIRED PATENTS

When a "Subscriber" shall hereafter acquire a United States airplane patent, or any right thereunder, he shall be entitled to compensation for the use thereof if the patent or patent right covers an invention which secures the performance of a function not before known to the art or constitutes an adaptation for the first time to a commercial use of an invention known to the industry to be desirable of use but not used because of lack of adaptation, or is otherwise of striking character or constitutes a radical departure from previous practice, or if either the price paid therefor or the amount expended in developing the same is such as to justify such compensation, provided that at the time said patent or patent right is reported to the "Company" as required in subdivision (b) of Paragraph VI, the "Subscriber" claims such compensation and states the grounds on which such claim is based. Such report and claims shall be submitted to a Board of Arbitration to be selected in the manner provided for in Paragraph XIV hereof, which Board shall determine whether such compensation shall be paid, and if so, the total amount thereof and the rate of royalty, or other payments which shall be paid (toward such compensation) by each "Subscriber" upon the issuance of a license under said patent and the use by any "Subscriber" of the subject matter covered by said patent, and shall also fix the time or times when said royalties or other amounts shall be paid. Licenses shall be issued to each "Subscriber" as a matter of course, through the offices of the "Company" within thirty days (30 days) after the rendition by such Board of Arbitration of its final report, whether or not compensation, under such after acquired patent, is or is not required to be paid.

VI. REPORTS TO THE "COMPANY"

The following reports in writing shall be rendered to the "Company" by each "Subscriber" at the time or times hereinafter set forth:

(a) At the time of the execution of this Agreement each "Subscriber" shall report all United States airplane patents and inventions, together with serial numbers and filing dates of all pending applications for such patents and all rights under such patents and inventions then owned or controlled by it, but no omission from such report shall exclude the patent, application, or right so omitted from the operation of this Agreement.

Digitized by Google

(b) Within thirty days after the acquisition by any "Subscriber" of any United States patent (other than patents to be issued upon inventions now owned by it) or right within the scope of this Agreement, each such "Subscriber" shall report such acquisition, together with all the facts known to it as to such patent or right and its manner of acquistion. If such "Subscriber" claims that additional compensation should be paid to it for licenses under such patent or right, it shall so claim in its report.

(c) On the 10th days of January, April, July, and October, in each year, each "Subscriber" shall report the number of airplanes (with or without engines) sold and delivered by it, together with the names of the purchasers, the selling price of each airplane, and the dates of delivery, or the number of airplanes put into use for other than experimental or development purposes, and the number of airplanes (with or without engines) shipped out of the United States, during the preceding three calendar months.

(d) Each License to other than "Subscribers", as provided in Paragraph IV hereof, shall be reported within thirty days after its delivery.

(e) Each suit instituted against infringers of the patents licensed hereunder shall be reported in a reasonable time.

The first report under sub-division (c) hereof shall be made by each "Subscriber" on the tenth day of January, April, July, or October first occurring after it has become a "Subscriber" hereto and shall cover the period from December 31, 1928, to the first day of the month in which the report is due.

Each of the "Subscribers" hereto shall keep separate books of account showing all business done under or subject to the operation of this Agreement. The "Company" may at any time have a New York Certified Public Accountant, to be designated by it, audit such books of account of the "Subscribers", together with such other accounts as the accountant may deem necessary, in order to verify or correct the report herein provided for, and the "Company" shall have such audit made when any "Subscriber" so demands. Such audit, however, shall be limited to ascertaining whether the reports herein provided for are properly made and to correcting the same, if necessity for correction shall appear. No information obtained from any such audit shall be reported by the accountant or given to any of the parties hereto, except as it directly applies to the reports required by this Agreement.

VII. PAYMENTS TO THE "COMPANY"

Each "Subscriber" agrees to pay into the treasury of the "Company" on the 10th days of January, April, July, and October in each year the following sums of money, to wit:

(a) On each airplane, with or without engine, required to be reported as provided, in sub-division (c) of Paragraph VI hereof, the sum of two per cent (2%) of the selling price of such airplane, with a maximum of Two Hundred Dollars ($200) on any one airplane regardless of its cost or selling price until such time as the Curtiss Airplane & Motor Company, Inc., shall have been paid the aggregate sums provided for in Paragraph VIII hereof, or until United States Patent No. 1203550, issued October 31, 1916, shall have expired.

(b) On each airplane, with or without engine, required to be reported as provided for in sub-division (c) of Paragraph VI hereof, such sum not to exceed one-quarter of one per cent of the selling price of such airplane, but in no case to exceed twenty-five dollars ($25.00) per airplane, as the Board of Directors of the "Company" may, from time to time, fix and determine as payable after October 31, 1933, or after the above mentioned aggregate sums shall have been paid to the Curtiss Airplane & Motor Company, Inc.

(c) Such amount or amounts as the Board of Arbitration may specify as special compensation for after acquired patents as provided in Paragraph V hereof and required to be reported in subdivision (b) of Paragraph VI.

(d) All royalties received under Licenses referred to in subdivision (d) of Paragraph VI.

(e) All monies received as the result of suits reported under sub-division (e) of Paragraph VI, less deductions for actual cost to the Subscriber of such suit.

Each "Subscriber" who shall become a party hereto after the thirty-first day of December 1928 shall, on the 10th day of January, April, July, or October next thereafter occurring, pay to the "Company" those amounts which it would have been obliged to pay in accordance with the foregoing if it had been a "Subscriber" on December 31, 1928.

Monies paid into the treasury of the "Company" pursuant to any provisions hereof shall not be or constitute or be deemed to be or constitute the assets,

Digitized by Google

property, or profits of said "Company" but shall be received and disbursed by it as the agent and the attorney in fact of the "Subscriber" in the manner and for the purposes herein mentioned.

VIII. PAYMENTS BY THE "COMPANY"

Out of the monies paid into the treasury of the "Company" pursuant to the provisions hereof and of the predecessor agreements hereinabove mentioned, the following payments shall be made by the Company on the 20th days of January, April, July, and October in each year, to wit:

(a) To the Curtiss Aeroplane & Motor Company, Inc., eighty-seven and one-half percent (87½%) of all sums received on account of each of said airplanes with reference to which payments have been or shall be made in accordance with sub-divisions (a) and (d) of Paragraph VII hereof, until the payments so made to Curtiss Airplane & Motor Company, Inc., under the original Cross-License Agreement, when increased by the payments made after the execution of this Amended Agreement, shall aggregate the sum of Two Million Dollars ($2,000,000), or until the United States Patent No. 1203550, issued October 31, 1916, shall have expired, when all payments to it hereunder shall cease, except as hereinafter provided.

(b) To each of the "Subscribers" entitled thereto such amounts as may have been paid to the "Company" with relation to the use of after acquired patents in accordance with Sub-division (c) of Paragraph VII, subject to the reservation in sub-division (a) of Paragraph IX.

(c) To any "Subscriber" who shall have granted licenses to other than subscribers, as provided in Paragraph IV, the royalties received under such licenses which are not required for payments provided for in sub-division (a) of this Paragraph VIII, subject to the reservation of sub-division (b) of Paragraph IX.

IX. MONEYS RETAINED BY THE COMPANY

(a) The "Company" may retain and use, for the purposes set forth in sub-division (c) of this Paragraph IX up to twelve and one-half per cent (12½%) of such amounts as may be paid to the "Company" with relation to the use of after acquired patents in accordance with sub-division (c) of Paragraph VII.

(b) The "Company" may retain and use for the purposes set forth in sub-division (c) of this Paragraph IX, up to twelve and one-half per cent (12½%) of that part of any amount paid to the "Company" on account of direct licenses given and reported in accordance with sub-division (d) of Paragraph VI.

(c) Out of the balance of said moneys paid into the treasury of the "Company" under sub-division (a) of Paragraph VII of this Agreement, and not paid out by the Company under sub-division (a) of Paragraph VIII, the "Company" may retain and use sufficient to cover its operating expenses and to create such fund as, in the judgment of the Board of Directors of said "Company" shall be necessary and proper for the further development of the airplane art and industry, and the purchase of patents and rights for the benefit of the "Subscribers" hereto.

X. DISPOSITION OF SURPLUS

If, after making the payments and reservations herein provided for, any surplus or balance remains out of the funds so paid into the treasury of the "Company" the same shall be distributed by the "Company" from time to time, among those "Subscribers" who have contributed to said moneys, in proportion to their respective contributions under sub-divisions (a) and (b) of Paragraph VII other than those required for payments under this Paragraph X.

XI. BREACH OF AGREEMENT

In the event that any "Subscriber" is claimed by the "Company" or any other "Subscriber" to be in default in the performance of any of its obligations hereunder, and such claimed default continues after thirty days' notice in writing, by the "Company" or any "Subscriber" claiming the default, then the Board of Arbitration, hereinafter provided for, shall determine whether there has been such specified default and if such default is found to exist, shall fix the time within which it must be repaired, and shall assess such damages and impose upon the "Subscriber" in default such other requirements (including the forfeiture of its stock and license) as may seem to the said Board of

Digitized by Google

Arbitration to be proper under the circumstances. Each "Subscriber" covenants and agrees that it will pay such damages and comply with such requirements as may be specified by the said Board of Arbitration.

Nothing contained in this Paragraph shall deprive the "Company" of the power to make, execute, and deliver licenses under the patents or patent rights owned and controlled by any defaulting "Subscriber" or to which the "Subscriber" may be entitled at the time to cease to be a stockholder or "Subscriber" nor to deprive other than defaulting "Subscribers" of any right which they may have received to the use of the said patents or patent rights.

XII. WITHDRAWAL FROM AGREEMENT

Any "Subscriber" may withdraw from this Agreement at any time after one (1) year after executing and delivering it, providing that written notice of its election to do so shall be given to the "Company" at least thirty (30) days in advance of the date when the next quarterly report is required to be filed under sub-division (c) of Paragraph VI hereof and on fulfilling all of its obligations up to the date of such withdrawal, but no withdrawal shall relieve the other parties and other "Subscribers" from their obligations to each other hereunder, nor deprive them of their rights acquired under the patents and patent rights owned or controlled by the withdrawing "Subscriber" at the time of withdrawal, all of said patents and patent rights remaining under this Agreement, but such withdrawing "Subscriber" shall cease to have any rights under the patents of the other "Subscribers" hereto, or any other right under this Agreement, from and after such withdrawal.

XIII. REPURCHASE OF STOCK

In the event of the death of any person who is a stockholder in the "Company" or in the event of the dissolution of any corporation or firm which is a stockholder therein, or in the event of the bankruptcy or insolvency of any such stockholders, or in the event of withdrawal under Paragraph XII hereof, the "Company" shall have the right to purchase for the benefit of the other "Subscribers" the stock held by such person, firm, or corporation at a sum not to exceed the distributive share or shares of such stockholder in the funds held by the "Company" and the license or licensees issued to such stockholder shall be surrendered to the "Company" and cancelled.

XIV. ARBITRATION OF CLAIMS AND DISPUTES

In case of any dispute or controversy between the "Subscribers" hereto, or between the "Subscribers" and the "Company" or in case of a claim by a "Subscriber" for special compensation for license under patents or rights hereafter acquired by it, or in case of breach of this Agreement, the said dispute, controversy, claim, or breach shall, within thirty days after a "Subscriber" or "Subscribers" shall have given notice in writing to the "Company" or the "Company" shall have given notice in writing to the "Subscribers" hereof, be referred to a board of disinterested arbitrators, consisting of three persons, for determination.

In the case of a claim for special compensation, one member of such Board of Arbitration shall be appointed by the Board of Directors of the "Company", another by the "Subscriber" making the claim, and the third by the other two arbitrators.

In the case of any dispute between the "Company" and a "Subscriber" or "Subscribers" one member of the Board of Arbitration shall be appointed by the Board of Directors of the "Company", another by the "Subscriber" (or if more than one "Subscriber" is involved in the same dispute, then by a majority of those so involved) and the third by the other two arbitrators.

In case of a breach of this Agreement asserted by the "Company" or a "Subscriber" against another "Subscriber", one member of the Board of Arbitration shall be appointed by the Board of Directors of the "Company", another by the "Subscriber" against whom the assertion of breach is made, and the third by the other two arbitrators.

If either the Board of Directors or the "Subscribers" fail to appoint a member of the Board of Arbitration within the time specified, the other party or parties may appoint such member or fill such vacancy.

Digitized by Google

The decision of a majority of the members of said Board upon all matters submitted to them for adjudication shall be final and binding upon all the parties hereto.

XV. RELEASE TO "SUBSCRIBERS"

The "Subscribers" hereby waive and release any and all claims which they or any of them may have had against each other for damages and profits on account of any infringement or alleged infringement prior to December 31, 1928, of any patent included within this instrument in the manufacture, sale, or use of airplanes.

XVI. BINDING UPON PARTIES, CONTROLLED COMPANIES, LEGAL REPRESENTATIVES, ETC.

This Agreement is binding upon the parties hereto and their several successors, legal representatives and assigns, but shall inure to the benefit of only their several successors in business. Each "Subscriber" agrees that all persons, firms, and corporations now or hereafter controlled by it and engaged in the manufacture of airplanes, or owning or controlling United States airplane patents shall be caused to execute this Agreement.

XVII. EXECUTION OF AGREEMENT

Nothing herein contained shall be construed to relieve either the "Company" or any "Subscriber" hereto of any act or obligation to be performed or any duty to be fulfilled under the terms and conditions of the original Cross-License Agreement as amended April 19, 1918, and January 12, 1923, respectively, which act, obligation, or duty, as and of December 31, 1928, shall remain at such time unperformed or unfulfilled.

This Agreement may be executed by the "Subscriber" in any number of counterparts, but when so executed shall constitute but one and the same Agreement, and shall be as binding, and of the same force and effect as if all the "Subscribers" had executed but one and the same instrument, and as if all executions had been dated December 31, 1928, which date shall be the date on which this Agreement becomes effective.

This Agreement of December 31, 1928, amending the original Cross-License Agreement of July 24, 1917, in turn amended by the Supplemental Agreements of 1918 and January 12, 1923, respectively, shall, for convenience, be referred to as "The Amended Cross-License Agreement of December 31, 1928."

In witness whereof, the parties hereto have executed this instrument as of the day and year first above written.

MANUFACTURERS AIRCRAFT ASSOCIATION, INC.,
By _____, *President.*
_____, *Secretary.*

_____
By _____, *President.*
_____, *Secretary.*

CERTIFICATION OF INCORPORATION OF MANUFACTURERS AIRCRAFT ASSOCIATION, INC.

This is to certify that we, the undersigned, citizens of the United States, all being of full age, and at least one of whom is a resident of the State of New York, desiring to form a stock corporation pursuant to the provisions of the business corporations law of the State of New York, do hereby make, sign, acknowledge, and file this instrument of writing for that purpose, as follows:

First. The name of the proposed corporation is Manufacturers Aircraft Association, Inc.

Second. The objects and purposes for which it is formed are the following:

(1) To manufacture, buy, sell, and deal in all kinds of aircraft, aircraft engines, and all parts and accessories used or useful in aircraft.

Digitized by Google

(2) To acquire by purchase or otherwise and sell and dispose of all kinds of personal property, including patents, patent rights, applications for patents and licenses and shop rights under patents, and to issue licenses; sublicenses or cross-licenses under letters patent.

(3) To acquire by purchase, lease, or otherwise any real property or any rights or privileges in real property which the company may deem necessary and proper for the purposes of its business.

(4) To acquire and take over the goodwill, property, and assets and assume the liabilities of any person, firm, association, or corporation engaged in similar or kindred business for the purpose herein specified.

(5) To acquire, purchase, hold, sell, and deal in or dispose of stocks, bonds, securities, and other evidences of debt of any other corporation, domestic or foreign, and issue in exchange therefor, its stocks, bonds, or other obligations, and while the owner of any stocks, bonds, or other obligations, to possess and exercise in respect thereto all rights, powers, and privileges of individual owners or holders and to exercise any and all voting powers thereunder.

(6) To establish and maintain in connection with the business of the corporation and as lawfully incidental thereto, laboratories for the purpose of the development and extension of the business herein referred to, together with such books of reference as may be required for said purposes.

(7) To make and enter into all kinds of contracts, agreements, and obligations with any person, firm, or corporation, for purchasing, acquiring, manufacturing, exchanging, or dealing in any article of personal property of any kind or nature, to the extent that the same may be permitted by the business corporations' law.

(8) To act as agent or attorney in fact or representative of firms, corporations, or individuals, and as such to develop, extend, and promote the business interests thereof.

(9) To consolidate the business of this corporation with that of any corporation engaged in or authorized to conduct a similar business to that herein provided for, insofar as the laws of the State of New York permit such consolidation.

(10) To purchase, hold, and reissue the shares of its own capital stock in the manner authorized by statute.

(11) Generally, to do every act and thing necessary, suitable and proper for the accomplishment of any or all of the objects, the attainment of any or all of the purposes or in furtherance of any and all of the powers herein set forth, either alone or in association with any other corporation, firm, or individual and to do any other act, thing or things incident or appertaining to, or growing out of, or connected with the aforesaid business or powers, or any part or parts thereof, provided the same are not inconsistent with the business corporations law of the State of New York, under which this corporation is organized.

Third. The number of shares of capital stock that may be issued by the corporation is one hundred (100), which shall have no nominal or par value.

Fourth. The amount of capital with which said corporation will commence and carry on business is one thousand ($1,000) dollars.

Fifth. The corporation may issue and sell its authorized shares from time to time for such consideration as shall be the fair market value of such shares.

Sixth. The principal business office of the corporation shall be located in the Borough of Manhattan, city, county, and State of New York.

Seventh. The duration of said corporation shall be perpetual.

Eighth. The number of its directors shall be seven (7), but they need not be stockholders of said corporation. They may hold their meetings at their principal office in the State of New York, or at such other place or places within or outside of said State, which they may determine.

Ninth. The names and post-office addresses of the directors for the first year are as follows: Albert H. Flint, 500 West End Avenue, New York City, N. Y.; Benjamin S. Foss, Hyde Park, Boston, Mass.; George H. Houston, 360 Riverside Drive, New York City, N. Y.; Harry B. Mingle, 233 Broadway, New York City, N. Y.; Frank H. Russell, Marblehead, Mass.; Harold E. Talbott, Jr., Dayton, Ohio; John P. Tarbox, Buffalo, N. Y.

Tenth. The names and post-office addresses of the subscribers to this certificate, and the number of shares of stock which each agrees to take in the corporation are as follows: Joseph S. Ames, Baltimore, Md., one; W. Benton Crisp, New York City, N. Y., one; Albert H. Flint, New York City, N. Y., one;

Digitized by Google

George H. Houston, New York City, N. Y., one; John P. Tarbox, Buffalo, N. Y., one.

In witness whereof, we have made, signed, and acknowledged this certificate in duplicate, this 16th day of July, in the year one thousand nine hundred and seventeen.

JOSEPH S. AMES. [L. S.]
W. BENTON CRISP. [L. S.]
ALBERT H. FLINT. [L. S.]
GEORGE H. HOUSTON. [L. S.]
JOHN P. TARBOX. [L. S.]

In the presence of:
[NOTARIAL SEAL]

ALBERT F. SMITH,
Notary Public, New York County,
Clerk's No. 419, Register's No. 9204.

Term expires March 30, 1919.

STATE OF NEW YORK,
County of New York, ss:

On this 16th day of July, in the year one thousand nine hundred and seventeen, before me personally appeared Joseph S. Ames, W. Benton Crisp, Albert H. Flint, George H. Houston, and John P. Tarbox, to me known, and known to me to be the individuals described in and who executed the foregoing certificates, and they severally duly acknowledged to me that they executed the same.

[NOTARIAL SEAL]

ALBERT F. SMITH,
Notary Public, New York County,
Clerk's No. 419, Register's No. 9204.

Term expires March 30, 1919.

No. 48064, series B.

STATE OF NEW YORK,
County of New York, ss:

I, William F. Schneider, clerk of the county of New York, and also clerk of the supreme court for the said county, the same being a court of record, do hereby certify that Albert P. Smith, whose name is subscribed to the deposition or certificate of the proof or acknowledgement of the annexed instrument, and thereupon written, was, at the time of taking such deposition, or proof and acknowledgement, a notary public in and for such county, duly commissioner and sworn, and authorized by the laws of said State, to take depositions and to administer oaths to be used in any court of said State and for general purposes; and also to take acknowledgments and proofs of deeds of conveyances for land, tenements or hereditaments in said State of New York. And further, that I am well acquainted with the handwriting of such notary public and verily believe that the signature to which said deposition or certificate of proof or acknowledgment is genuine.

In testimony whereof, I have hereunto set my hand and affixed the seal of the said court and county, the 17 day of July 1917.

[SEAL] W. F. SCHNEIDER, *Clerk.*

BY-LAWS OF THE MANUFACTURERS AIRCRAFT ASSOCIATION, INC.

(As Amended to February 16, 1931)

ARTICLE I. STOCKHOLDERS[1]

SECTION 1. *Qualification of Stockholders.*—To entitle a person, firm, or corporation to become a stockholder of this corporation, he or it, as the case may be, shall be[1] a responsible manufacturer of aircraft or aircraft engines, or parts and accessories thereof; or a responsible manufacturer who intends to become a bona fide producer of the same; or a manufacturer to whom the United States Government has given a contract for the construction of ten or more complete aircraft or aircraft engines; or any person, firm, or corporation owning a controlling United States patents relating to any of the foregoing.[1] No one becoming a stockholder of this corporation[1] shall, however, acquire, own or hold at any time more than one (1) share of stock of the corporation.[1]

Digitized by Google

ARTICLE II. DIRECTORS

SECTION 1. *Directors.*—The affairs of the corporation shall be managed and controlled by a Board of Directors to consist of twelve persons, who shall be elected annually at the regular annual meetings of the stockholders and who shall serve for one year, or until their successors are elected.

SECTION 2. *Vacancies.*—Vacancies in the Board of Directors occurring during the year shall be filled by a majority vote of the remaining members of the Board at any regular meeting thereof, or at any special meeting called for the purpose of filling any such vacancies.

ARTICLE III. OFFICERS AND THEIR DUTIES

SECTION 1. *Officers.*—The officers of the corporation shall consist of a President, as many Vice-Presidents as the Board of Directors may from time to time deem necessary or expedient, a Treasurer, and a Secretary. The Board may also elect or appoint at any time an Assistant Treasurer and Assistant Secretary, and such other officers, agents, and employees as it may deem proper and for such periods as it may determine. The offices of Secretary and Treasurer may be held by one and the same person and the offices of Assistant Treasurer and Assistant Secretary may also be held by one and the same person.

SECTION 2. *Election of Officers.*—As soon as practicable after the election of the Board of Directors in each year, such newly elected Directors shall hold an Annual Meeting and elect a President from their number and also elect one or more Vice-Presidents, as provided in Section 1 of this Article, a Treasurer and a Secretary, all of whom shall serve for the ensuing year or until their successors are elected.

SECTION 3. Vacancies.—In the event of a vacancy in any of said offices, either by death, resignation, or otherwise, the same shall be filled by the Board of Directors at any regular or special meeting of said board.

SECTION 4. *The President—His Duties.*—The President shall preside at all meetings of the corporation and at all meetings of the Board of Directors. He, together with the Secretary, unless otherwise ordered by the Board of Directors, shall sign all contracts, deeds, leases, licenses, or other instruments or writings necessary for the due and proper conduct of the business of the corporation. He, together with the Treasurer, unless otherwise ordered by the Board of Directors, shall sign all certificates of stock, and bonds, issued by the corporation, and shall countersign all checks, drafts, notes, or bills which may be required for the purposes of the corporation. He shall have general supervision of the affairs of the corporation and shall perform such other duties as may be required of him from time to time by the Board of Directors or as are required of him by the laws of the State of New York.

SECTION 5. *The Vice-Presidents—Their Duties.*—All Vice-Presidents shall have equal rank. In the absence of the President they shall perform all the duties of the President and such other duties as may be required of them from time to time by the Board of Directors and as are required of them by the laws of the State of New York.

SECTION 6. *The Treasurer—His Duties.*—The Treasurer shall have charge of all moneys, bills, notes, and other evidences of debt of the corporation; shall deposit all moneys coming into his hands in the name of the corporations, and shall keep true and accurate books of account of all such moneys and other property of the corporation received by him. He, together with the President, unless otherwise ordered by the Board of Directors, shall sign all certificates of stock, and bonds, checks, drafts, and notes or bills issued by or required for the purposes of the corporation. He shall also perform such other duties as may be required of him from time to time by the Board of Directors or as are required of him by the laws of the State of New York. He shall report from time to time to the Board of Directors or as often as may be required by said Board, concerning all matters pertaining to his office. He shall give a bond for the faithful discharge of the duties of his office in such amount as shall be fixed by the Board of Directors.

SECTION 7. *The Assistant Treasurer—His Duties.*—The Assistant Treasurer, in the absence of the Treasurer, shall perform all the duties of the Treasurer, and shall perform such other duties as may be required of him from time to time by the Board of Directors or as are required of him by the laws of the State of New York. He shall give a bond for the faithful discharge of the duties of his office in such amount as shall be fixed by the Board of Directors.

Digitized by Google

SECTION 8. *The Secretary—His Duties.*—The Secretary shall have charge of the corporate seal and shall attend all sessions of the stockholders and the Board of Directors; act as the clerk thereof and keep true and accurate records and minutes of all proceedings of said stockholders and Board in a book or books to be kept for that purpose. He, together with the President, unless otherwise ordered by the Board of Directors, shall execute all contracts, deeds, leases, licenses, or other instruments or writing necessary for the due and proper conduct of the business of the corporation. He shall send out all notices of meetings of stockholders and directors of the corporation, and shall perform such other duties as may be required of him by the Board of Directors or as are required of him by the laws of the State of New York.

SECTION 9. *The Assistant Secretary—His Duties.*—The Assistant Secretary, in the absence of the Secretary, shall perform all the duties of the Secretary and shall perform such other duties as may be required of him from time to time by the Board of Directors or as are required of him by the laws of the State of New York.

SECTION 10. *Compensation.*—The officers and directors of the corporation may receive by way of compensation for services rendered by them such salary or salaries as the Board of Directors of said corporation may from time to time approve.

ARTICLE IV. MEETINGS, QUORUMS, ETC.

SECTION 1. *Annual Meetings of Stockholders.*—There shall be an annual meeting of the stockholders of the corporation to be held at 11 A. M. on the last Friday in January of each year. At such meeting the stockholders may transact any and all business which may properly come before them, and shall elect the directors for the ensuing year in the manner hereinbefore set forth.

SECTION 2. *Annual Meetings of Directors.*—Immediately after the annual stockholders' meeting hereinbefore referred to, or as soon thereafter as may be convenient, there shall be held an annual meeting of the Board of Directors of the corporation. At such meeting said Board shall elect the officers for the ensuing year, and may transact any and all other business which may properly come before it.

SECTION 3. *Special Meetings of Stockholders.*—Special meetings of the stockholders shall be called at the request of holders of the stock owning at least ten (10) per cent. thereof, by the officers of the corporation, or any of them, to be held within fifteen (15) days after said request has been made, or by the President without request. The notice of the meeting shall be in writing and signed by the President, or a Vice-President, or the Secretary, or an Assistant Secretary. Such notice shall state the purpose or purposes for which the meeting is called, the time and the place where the same is to be held, and a copy thereof shall be served either personally or by mail upon each stockholder of record entitled to vote at such meeting and to any stockholder who by reason of any action proposed at such meeting would be entitled to have his stock appraised if such action were taken, not less than ten (10) nor more than forty (40) days before the meeting. If mailed, it shall be directed to a stockholder at his address as it appears on the stock book unless he shall have filed with the Secretary of the corporation a written request that notices intended for him be mailed to some other address, in which case it shall be mailed to the address designated in such request.

SECTION 4. *Special Meeting of Board of Directors.*—The officers of the corporation, or any of them, upon the request of any two members of the Board of Directors, shall call a special meeting of said Board, to be held within five (5) days after the receipt of said request, and the Secretary shall give by mail and by telegraph to each member of said Board at his last-known post office address, a notice of said meeting stating the purposes thereof, at least three (3) days before the date upon which such meeting is to be held. The President may, without request, upon like notice, call a special meeting of said Board.

SECTION 5. *Quorum of Stockholders' Meetings.*—At all meetings of stockholders, except where it is otherwise provided by law, it shall be necessary that stockholders representing in person or by proxy a majority of the capital stock, issued and outstanding, be present in order to constitute a quorum for the transaction of business.

SECTION 6. *Quorum of Directors' Meetings.*—At all meetings of the Board of Directors at least one-third of the number thereof shall be present to constitute a quorum for the transaction of business.

Digitized by Google

SECTION 7. *Failure to Perform Duty.*—Should any person whose duty it is to call a meeting at the time or times required by these by-laws, fail or refuse to do so, the meeting may be called by any other officer or director.

ARTICLE V. BALLOTING AND INSPECTORS

SECTION 1. *Balloting.*—At all meetings of the stockholders the voting shall be by ballot. At all meetings of the Board of Directors the voting may be viva voce.

SECTION 2. *Inspectors.*—The stockholders may at their annual meetings provided for in Section 1, of Article IV hereof, in each year, designate two (2) persons who shall act as inspectors of election for the ensuing year. Upon their failure so to designate inspectors, the Board of Directors may, at any time prior to election, designate the same. Upon the failure of both to so designate inspectors prior to any election, the President is authorized to make such designation.

ARTICLE VI. AMENDMENT

SECTION 1. These by-laws may not be amended, altered or suspended by the Board of Directors, but only by stockholders at an annual or special meeting, by the affirmative vote of stockholders representing at least seventy-five (75%) per cent. in amount of the stock then outstanding.[1]

CONTRACT BETWEEN MANUFACTURERS AIRCRAFT ASSOCIATION, INC., AND THE WAR AND NAVY DEPARTMENTS OF THE UNITED STATES GOVERNMENT, GRANTING A NON-EXCLUSIVE LICENSE TO THE LATTER UNDER ALL AIRPLANE PATENTS EMBRACED WITHIN AND ACCORDING TO THE TERMS OF THE AMENDED CROSS-LICENSE AGREEMENT OF SAID ASSOCIATION

(Effective December 31st, 1928)

Contract of the thirty-first day of December 1928, by and between Manufacturers Aircraft Association, Inc., a New York Corporation, hereinafter termed "Association", acting in behalf of its subscribers and in its own behalf, party of the first part, and the United States of America, represented by the Secretary of War and the Secretary of the Navy, hereinafter termed "The Government", party of the second part, witnesseth:

Whereas the Association controls and has power to grant licenses under certain United States patents covering important inventions relating to aircraft; as listed and shown in appendix A hereto attached, and has been authorized to act herein; and

Whereas the use of several of these patented inventions is necessary in the successful operation of airplanes or hydro-airplanes, the term planes being hereinafter used to include airplanes, hydro-airplanes, and flying boats; and

Whereas the Government has acquired or desires to acquire aircraft, using certain or all of the aforesaid inventions; and

Whereas all formal and informal Agreements between the Government and the Association relating to the period of the War for the licensed use of said patented inventions and for payment of royalties, were terminated on July 2, 1921, except only such matters as are in dispute in a certain action now pending in the United States Court of Claims entitled "Manufacturers Aircraft Association, Inc., vs. United States of America", which action covers the period both before and after July 2, 1921; and

Whereas the Government desires to secure licenses for the future use of said patented inventions under as favorable terms and conditions as is provided in the Amended Cross-License Agreement of the thirty-first day of December 1928, to which reference is made herein.

Now therefore, in consideration of the premises, covenants, and conditions herein contained and other good and valuable considerations moving between the parties hereto, it is covenanted and agreed as follows, viz:

1. The Association hereby grants to the Government a non-exclusive license to make, or cause to be made, and use and sell in the United States, its terri-

[1] Provisions for Voting Trust Agreement, which expired by limitation in July 1925, omitted.

Digitized by Google

tories and possessions during the term of this contract, and thereafter to use and to sell airplanes under any and all of such airplane patents as defined in said Cross-License Agreement as are enumerated in Appendix A of the Amended Cross-License Agreement, dated December 31, 1928, copy of which is attached hereto and by reference made a part hereof, and under all other patents which have been or may be reported to or acquired by or come into the control of the Manufacturers Aircraft Association, Inc., and/or Subscribers thereto: Provided, however, that no licenses are so granted to the Government hereunder in patents reported to the Association with a claim for extra compensation under Paragraph V of said Amended Cross-License Agreement: Provided further, that an option is hereby granted to the Government to acquire licenses under those patents so reported on the same terms as granted to said Subscribers.

2. The Government agrees to pay for such use of the inventions described in any and all of said patents, a sum equal to two percent (2%) of the cost or purchase price of such airplanes, as it may either make or acquire, as provided in Paragraph 1, above, provided that the Government shall not be required to pay nor shall any obligation accrue to pay royalties on airplanes upon which members or nonmembers of the Manufacturers Aircraft Association, Inc., have paid or have agreed to pay royalties; provided further, however, that in no instance shall said royalty exceed the sum of Two Hundred Dollars ($200) per airplane, regardless of what the cost or price thereof may amount to; and provided that the cost or price thereof as used herein shall be understood to mean the price paid to a manufacturer, if procured from a manufacturer, completely equipped, ready to operate, including all parts of airplanes and accessories used therein except the engine and such engine accessories as propellers, propeller hubs, super-chargers, starters, magnetos, mufflers, carburetors, and reduction gears, and if such airplane is built or manufactured by the Government the cost shall be the amount expended in the direct construction thereof, including the cost of materials entering therein completely equipped ready to operate including all parts of airplanes and accessories used or useful therein, except the engine and such engine accessories as propellers, propeller hubs, super-chargers, starters, magnetos, mufflers, carburetors, and reduction gears.

The Government agrees to pay said royalties for use of the inventions described in any and all of said patents until the maximum payments provided for in the Amended Cross-License Agreement shall have been made or until Patent No. 1203550 shall expire, on the 31st day of October 1933, after which the Government shall enjoy the license herein conveyed and granted without the payment of any further royalties.

The word "use" as employed herein shall be held to include the manufacturing of planes by the Government or through the procurement of the Government or the purchases by the Government of planes from others.

3. For the purpose of carrying out the above, the Government shall on the tenth day of April, July, October, and January in each year make reports to the Association of the number of planes manufactured or otherwise acquired by its War and Navy Departments during the preceding three months.

Upon receipt of each report the Association shall forthwith render invoices to said Departments in accordance with said reports and the terms and provisions of Paragraph 2 of this contract. The Government agrees to receive such invoices and to authorize and instruct its disbursing officers to make payments accordingly.

Payments under this contract shall be made to the Association and when payments are so made and received, they shall constitute and be accepted for and on behalf of the owners of the patents by the Association as full and complete compensation as to the airplanes to which they apply for licenses to use any and all of the said patents as set out hereinbefore.

The Association shall disburse and account for each of such payments in precisely the same manner as if the same had been made to the Association under the Cross-License Agreement by a Subscriber thereto and as if the royalty for each plane had been received from a Subscriber by the Association at the time when such plane was acquired by the Government.

The Association shall furnish to officers of the Government, when required, a statement by a certified public accountant of the total amount of royalties paid by it to each of the owners of the patents under the Cross-License Agreement and the Amended Cross-License Agreement, and when the maximum

Digitized by Google

payments provided thereunder for the owners of the patents have been completed, no further payment of royalties on the part of the Government shall be demanded or paid.

4. The Government shall have the right to terminate this contract by serving a written notice upon the Association at least five days before the beginning of each additional year; but in the absence of such action it is agreed that the provisions thereof shall be automatically renewed and continue in force until such a notice shall be served or the contract shall be terminated in accordance with the other provisions thereof; provided that, if upon demand by the United States to the Association and owners of the patents, the owners of the patents fail for ninety days to bring suit to enforce the rights of the patents herein licensed, all liability to pay royalties shall cease thereafter and until such suit is brought.

5. The Government does not admit, and is not to be understood as admitting, by virtue of the license hereunder, the validity of any of said Letters Patent heretofore or hereafter issued and is to be held free to dispute the validity of each and any of them in case the public interest should so require, save that this provision shall not be construed to give it any right, if such right be now otherwise lacking, to dispute validity in connection with any claims growing out of past operations under previous formal, informal or implied contracts.

6. Any department, bureau, or independent establishment of the Government, not signatory hereto, may avail itself of the license herein granted upon the same terms as the War and Navy Departments upon written notice to the Association of its intention so to do, and by paying the royalties prescribed herein and otherwise complying with the terms hereof.

7. No Senator or Member or Delegate to Congress, officers of the Army or the Navy, nor any person holding any office or appointment under the Army or the Navy Department, is or shall be admitted to any share or part of this contract or to any profits that may arise therefrom, but this provision shall not be construed to extend to stockholders of the Manufacturers' Aircraft Association or any Subscriber thereto.

MANUFACTURERS AIRCRAFT ASSOCIATION, INC.,
By _____, *President.*

Attest:

_____, *Secretary.*

UNITED STATES OF AMERICA,

_____
Secretary of War.

_____
Secretary of Navy.

Executed in quintuplicate.

Form No. 2

PATENT LICENSE

License, granted this _____ day of _____, 19__, by _____ (hereinafter called the Licensors), to _____ (hereinafter called the Licensee).

Whereas the Licensors and certain other stockholders of the Manufacturers Aircraft Association, Inc. (hereinafter called "Subscribers") heretofore entered into a certain agreement dated July 24, 1917, known as the Cross-License Agreement and/or having entered into an Amended Agreement, entitled "The Amended Cross-License Agreement of December 31, 1928", wherein and whereby the Licensors agreed to grant certain licenses to the other "Subscribers" to said agreement, and

Whereas both said Cross-License Agreement and said Amended Cross-License Agreement authorized and empowered the Manufacturers Aircraft Association, Inc., as the agent for and attorney in fact of the Licensors, to make, execute, and deliver such licenses in the name of the Licensors, and

Whereas certain licenses have been issued to the Licensee herein under patents heretofore reported to the Association by Subscribers, and additional patents having been subsequently reported by Subscribers to said Association, it is now desired to issue licenses thereunder to the Licensee;

Digitized by Google

Now, therefore, this license witnesseth: That for and in consideration of the premises and other good and valuable considerations moving between the parties hereto, it is covenanted and agreed as follows:

1. The Licensors do hereby give and grant unto the said Licensee, the unrestricted but non-exclusive license to make, use, and sell airplanes under the patents described in Schedule "A—", hereto annexed and made a part thereof, in and throughout the United States, its territories and dependencies, for use therein or abroad, except that no rights, express or implied, are hereby granted under any foreign patents, nor shall the licenses herein provided for, apply to or include the use of said patents in their application to other than airplanes.

2. This license shall run to the full end of the term of the Letters Patent under which it is granted, and shall be personal, indivisible, non-assignable, and irrevocable, except for the causes and in the manner set forth in said Amended Cross-License Agreement.

3. This license is made subject to all the terms, conditions, covenants, and agreements contained in said Amended Cross-License Agreement, which is made a part hereof with the same force and effect as if herein set forth at large.

In Witness Whereof, the parties hereto have caused this license to be executed as of the day and year first above written.

MANUFACTURERS AIRCRAFT ASSOCIATION, INC.,

As Agent and Attorney in fact of the Licensors.

---, *Licensee.*

---, *President.*

---, *Secretary.*

SCHEDULE A

Name of licensor and patent number	Issue date	Title of invention

(License Form No. 3 after-acquired patents granted royalty compensation)

PATENT LICENSE

ISSUED PURSUANT TO AWARD OF ROYATY COMPENSATION BY BOARD OF ARBITRATION NO.—

License, granted this _____ day of _____, by _____ (hereinafter called the Licensor), to _____ (hereinafter called the Licensee).

Whereas the Licensor and certain other stockholders of the Manufacturers Aircraft Association, Inc., (hereinafter called Subscribers) heretofore entered into a cerain agreement, dated July 24, 1917, known as the Cross-License Agreement and/or entered into an Amended Agreement, entitled "The Amended Cross-License Agreement of December 31, 1928", wherein provision is made for the cross-licensing of airplane patents owned or controlled by Subscribers, and

Whereas both said Cross-License Agreement and said Amended Cross-License Agreement authorize and empower the Manufacturers Aircraft Association, Inc., as the agent and attorney in fact of the Subscribers, to make, execute and deliver such licenses in the names of the Licensors, and

Whereas, in reporting to said Association the patents hereinafter described, the Licensor claimed compensation under Article V of said Cross-License Agreement or said Amended Cross-License Agreement for the issuance of licenses thereunder to other Subscribers, and the use by them of the inventions covered by said patents, and

Digitized by Google

Whereas a Board of Arbitration was duly constituted in the manner provided for in said Agreements which, after considering the claims of the Licensor on the patents hereinafter described, rendered its award thereunder providing for the payment by Subscribers of the royalties hereinafter set forth.

Now, therefore, this license witnesseth: That for and in consideration of the premises and other good and valuable considerations moving between the parties hereto, it is covenanted and agreed as follows:

1. The Licensor does hereby give and grant unto the Licensee a non-exclusive license to make, use and sell airplanes under the following described patents in and throughout the United States, its territories and dependencies, for use therein or abroad, except that no rights, express or implied, are hereby granted under any foreign patents, nor shall the licenses herein provided for, apply to or include the use of said patents in their application to other than airplanes:

No. _____ Issue Date _____ Title _____

2. This license is effective from the issue dates of the patents hereinbefore described, unless otherwise herein provided, and shall run to the full end of the terms thereof. It is personal, indivisible, non-assignable and irrevocable, except for the causes and in the manner set forth in said Amended Cross-License Agreement.

4. This license is subject to all the terms, conditions, covenants and stipulations contained in said Amended Cross-License Agreement, which is made a part hereof, with the same force and effect as if herein set forth at large.

In Witness whereof, the parties hereto have caused this license to be executed as of the day and year first above written.

MANUFACTURERS AIRCRAFT ASSOCIATION, INC.,

_____

_____

As Agent and Attorney in fact of the Licensors.

_____ *Licensee.*

_____ *President.*

_____ *Secretary.*

LICENSE ISSUED UNDER THE AMENDED CROSS-LICENSE AGREEMENT OF DECEMBER 31, 1928

License, granted this _____ day of _____, 19____, by Aeromarine Plane & Motor Company, Inc., Boeing Airplane Company, Curtiss Aeroplane and Motor Company, Inc., Dayton-Wright Company, G. Elias & Bro., Inc., Gallaudet Aircraft Corporation, L. W. F. Engineering Company, Glenn L. Martin Company, Packard Motor Car Company, Sturtevant Aeroplane Company, Thomas-Morse Aircraft Corporation, Wright Aeronautical Corporation (hereinafter called the Licensors) to _____ (hereinafter called the Licensee).

Whereas, the Licensors and certain other stockholders of the Manufacturers Aircraft Association, Inc. (hereinafter called "Subscribers"), having heretofore entered into a certain agreement dated July 24, 1917, known as the Original Cross-License Agreement and/or having entered into an amended agreement, dated December 31, 1928. entitled "The Amended Cross-License Agreement of December 31, 1928" (copy of which said Amended Agreement is hereto annexed), wherein and whereby the Licensors agreed to grant certain licenses to each other as Subscribers to said Agreements, and

Whereas both said Original Cross-License Agreement and said Amended Cross-License Agreeemnt authorized and empowered the Manufacturers Aircraft Association, Inc., as the agent for an attorney in fact of the Licensors, to make, execute, and deliver such licenses in the names of the Licensors; and it is desired to execute the powers therein granted;

Now, this license witnesseth: That for and in consideration of the premises and other good and valuable considerations moving between the parties hereto, it is covenanted and agreed as follows:

Digitized by Google

1. The Licensors do hereby give and grant unto the said Licensee the unrestricted, but non-exclusive license to make, use, and sell airplanes—under all airplane patents of the United States now or hereafter owned or controlled by them, or any of them, or by any firm, corporation, or association owned or controlled by them, or any of them, or under which they or any such firm, corporation, or association have or shall have the right to grant licenses—in and throughout the United States, its territories, and dependencies for use therein or abroad, except that no rights, express or implied, are hereby granted under any foreign patents, nor shall the licenses herein provided for apply to or include the use of said patents in their application to other than airplanes.

The patents which the Licensors have a right to grant licenses at the present time, and which are intended to be included in this license are set forth in Appendix "A", hereto annexed.

2. This license shall run to the full end of the term of the Letters Patent under which this license is granted, and shall be personable, indivisible, non-assignable, and irrevocable, except for the causes and in the manner set forth in "The Amended Cross-License Agreement of December 31, 1928", hereinbefore referred to.

3. This license is made subject to all the terms, conditions, covenants, and agreements contained in said "The Amended Cross License Agreement of December 31, 1928", which is made a part hereof with the same force and effect as if herein set forth at large.

In Witness Whereof, the parties hereto have caused this instrument to be executed as of the day and year first above written.

Aeromarine Plane & Motor Company, Inc.; Boeing Airplane Company; Curtiss Aeroplane and Motor Company, Inc.; Dayton-Wright Company; G. Elias & Bro., Inc.; Gallaudet Aircraft Corporation; L. W. F. Engineering Company; Glenn L. Martin Company; Packard Motor Car Company; Sturtevant Aeroplane Company; Thomas-Morse Aircraft Corporation; Wright Aeronautical Corporation. *Licensors,*

By MANUFACTURERS AIRCRAFT ASSOCIATION, INC.,
_____*President.*
_____*Secretary.*
As Agent and Attorney in fact of the Licensors.
_____*Licensee.*
_____*President.*
_____*Secretary.*

APPENDIX A

List of Patents

Name of Licensor and Patents No.	Issue Date	Title of Invention
Aeromarine Plane & Motor Company, Inc.:		
1345885	July 6, 1920	Aeroplane.
1375199	Apr. 19, 1921	Aeroplane Control.
1358247	Nov. 9, 1920	Aeroplane Fitting.
1361495	Dec. 7, 1920	Do.
1564826	Dec. 8, 1925	Float Structure.
1537973	May 19, 1925	Flying Boat Hull.
1552258	Sept. 1, 1925	Airplane Land Gear.
1567222	Dec. 29, 1925	Tail Skid.
1552259	Sept. 1, 1925	Retractable Landing Gear.
1571989	Feb. 9, 1926	Aerofoil.
1579905	Apr. 6, 1926	Airplane Structure.
1597306	Aug. 24, 1926	Stabalizer lock.
1579905	Apr. 6, 1926	Pontoon.
1597305	Aug. 24, 1926	Retractable Landing Gear.
1603304	Oct. 19, 1926	Hydro Airplane.
1653341	Dec. 20, 1927	Propeller Mounting.
Boeing Airplane Company:		
1264498	Apr. 30, 1918	Controlling devices for Airplanes.
1284918	Nov. 12, 1918	Clips for attaching wires.
1284919	do	Joint Fittings for Truss Structures.
1290280	Jan. 7, 1919	Steering Mechanism for Airplanes.
1290281	do	Fittings for Airplanes.
1295202	Feb. 25, 1919	Molds for Pontoons.
1295203	do	Shop Inventions.
1363422	Dec. 28, 1920	Wire Wrapping Machine.

Digitized by Google

List of Patents—Continued

Name of Licensor and Patents No.	Issue Date	Title of Invention
Curtiss Aeroplane and Motor Company, Inc.:		
1010842	Dec. 5, 1911	Flying Machine.
1001106	do	Do.
1027242	May 21, 1912	Means for Launching Flying Machines.
1050901	Jan. 14, 1913	Flying Machine.
1085575	Jan. 27, 1914	Control Mechanism for Flying Machines.
1104036	July 21, 1914	Flying Machine.
1108490	Aug. 25, 1914	Do.
1142754	June 8, 1915	Flying Boat.
1156215	Oct. 12, 1915	Heavier-than-air Flying Machine.
1176965	Feb. 8, 1916	Hydroaeroplane.
1195142	Aug. 15, 1916	Fuselage for Aeroplanes.
1197746	Sept. 12, 1916	Hydroplane Wing Pontoons.
1203550	Oct. 31, 1916	Hydroaeroplane.
1204380	Nov. 7, 1916	Improvements in Flying Machines.
1210374	Dec. 26, 1916	Hulls for Flying Boats.
1210379	do	Aileron System.
1223298	Apr. 17, 1917	Spoke Stays.
1223315	do	Landing Gear for Aircraft.
1223316	do	Multiple Control System for Prime Movers
1223317	do	Folding Wing Aeroplane.
1223318	do	Boat Hull.
1223319	do	Flying Boat Hulls.
1223320	do	Multiple Step Flying Boat.
1223321	do	Propeller.
1228375	May 29, 1917	Universal Wing Post Socket.
1228380	do	Method of Operating Rudders on Aircraft.
1228381	do	Improvements in Hydroaero Machines.
1228382	do	Aeroplane.
1246010	Nov. 6, 1917	Inherently Stable Flying Boat.
1246011	do	Aeroplane Construction.
1246012	do	Flying Boat.
1246013	do	Balancing System for Aircraft.
1246014	do	Hydroaeroplane.
1246015	do	Aeroplane.
1246016	do	Fying Boats.
1246017	do	Boat Type Wing Pontoon.
1246018	do	Draft System for Flying Boats.
1246019	do	Flying Boat Hull.
1246020	do	Landing Gear.
1246021	do	Streamline Shock Absorber.
1246022	do	Aeroplane Motor Support.
1246023	do	Aerial Propeller Fastening.
1246024	do	Gas Tank Cradle.
1246025	do	Dual Interlocking Control.
1246026	do	Tail Skid Clip.
1246027	do	Aeroplane Control Mechanism.
1246028	do	Aeroplane Wing Hinge.
1246029	do	Impregnating Apparatus.
1256878	Feb. 19, 1918	Hydroaeroplane Boat.
1269397	June 11, 1918	Hydroaeroplane Pontoon.
1269570	do	Convertible Running Gear.
1283529	Nov. 5, 1918	Fan Pump.
1283684	do	Flying Boat Cruiser.
1284906	Nov. 12, 1918	Hydro Landing Base for Aircraft.
1284907	do	Landing Gear for Aircraft.
1285021	Nov. 19, 1918	Aeroplane Wing Construction.
1285229	do	Flying Boat Hulls.
1285230	do	Hydroaeroplane Pontoon.
1287249	Dec. 10, 1918	Tilting Wing Flying Boat.
1287341	do	Handling Truck for Flying Boats.
1289683	Dec. 31, 1918	Flying Boat.
1290004	do	Aeroplane Fitting.
1290005	do	Fuselage Cover.
1290102	Jan. 7, 1919	Landing Gear.
1290235	do	Triplane.
1290236	do	Tail Skid for Aeroplanes.
1290237	do	Engine Bed Mounting.
1290838	do	Aeroplane Construction.
1291678	Jan. 14, 1919	Wing Construction.
1294389	Feb. 18, 1919	Hydro-aero-Machine.
1294412	do	Twin Fuselage Construction.
1294413	do	Autoplane.
1294414	do	Hull for Flying Boats.
1294415	do	Flying Boat.
1294476	do	Duplex V-Strut Landing Gear.
1294477	do	Tail Skid for Aeroplanes.
1295084	do	Aeroplane Construction.
1296630	Mar. 11, 1919	Hydroaircraft.
1296667	do	Wing Post Socket.
1296730	do	Pusher Hydroaeroplane.
1296770	do	Airplane Landing Gear.

Digitized by Google

List of Patents—Continued

Name and Licensor and Patents No.	Issue Date	Title of Invention
Curtis Aeroplane and Motor Company, Inc.—Continued.		
1296773	Mar. 11, 1919	Convertible Control System.
1296774	do	Magneto Switch for Aeroplanes.
1296775	do	Aeroplane Construction.
1296876	do	Skid Structure for Hydroaircraft.
1298515	Mar. 25, 1919	Fuselage Clip.
1298516	do	Aeroplane Control Bridge.
1298625	do	Landing Gear for Aeroplanes.
1306749	June 17, 1919	Twin Float Hydroaeroplane.
1306750	do	Airplane Wing Truss.
1306751	do	Combination Landing Gear.
1306764	do	Aeroplane Wing Hinge.
1306765	do	Landing Gear for Aircraft.
1310737	July 22, 1919	Reconnoitering Airplane.
1310764	do	Airplane Wing Fastening.
1310942	do	Airplane Wing Construction.
1311129	do	Control System.
1316277	Sept. 16, 1919	Cruising Hydroaeroplane.
1316278	do	Triplane Speed Scout.
1316279	do	Speed Scout Aeroplane.
1316280	do	Folding Wing Aeroplane.
1316281	do	Thrust Measuring Device.
1323842	Dec. 2, 1919	Reconnoitering Aeroplane.
1323843	do	Fuel Supply System.
1323959	do	Pusher Triplane.
1326008	Dec. 23, 1919	Turnbuckle.
1329336	June 27, 1920	Flying Boat Hull.
1329342	do	Aeroplane Construction.
1336405	Apr. 6, 1920	Airplane.
1336406	do	Convertible Multiplane.
1336632	Apr. 13, 1920	Airplane Control Mechanism.
1336633	do	Landing Gear for Aircraft.
1336634	do	Flying Boat.
1349677	Aug. 17, 1920	Strut Fitting.
1351742	Sept. 7, 1920	Flying Boat Construction.
1351743	do	Airplane Wing Structure Truss.
1351764	do	Hoisting Connection for Airplane.
1355736	Oct. 12, 1920	Hydro Aircraft.
1355738	do	Aeroplane Wing Structure.
1355741	do	Airplane Fuselage.
1355767	do	Airplane Fitting.
1357950	Nov. 9, 1920	Airplane Control Surface Operating Brace.
1358527	do	Tripod Flying Boat.
1358605	do	Fuselage Wiring.
1363794	Dec. 28, 1920	Control Mechanism.
1363844	do	Airplane Fitting.
1363847	do	Aeroplane.
1364425	Jan. 4, 1921	Flying Boat Hull.
1364431	do	Airplane Wing Structure.
1364614	do	Airplane Wing Construction.
1368542	Feb. 15, 1921	Longitudinal Control System.
1368548	do	Aileron Braking System.
1368549	do	Airplane Construction.
1368550	do	Triplane.
1370693	Mar. 8, 1921	Airplane Landing Gear.
1373408	Apr. 5, 1921	Pontoon Mounting.
1373433	do	Control Column.
1382387	June 21, 1921	Engine Bed Support.
1382421	do	Hydroaeroplane Landing Gear.
1386841	Aug. 9, 1921	Method and Apparatus for Making Aerofoils.
1386846	do	Fuel Supply System.
1392271	Sept. 27, 1921	Streamline Wiring.
1392272	do	Airplane V-Strut Landing Gear.
1392277	do	Airplane Landing Gear.
1392278	do	Fuselage.
1392279	do	Flying Boat Hull.
1398330	Nov. 21, 1921	Radiator for Airplanes.
1406575	Feb. 14, 1922	Landing Gear for Aircraft.
1406600	do	Propeller Hub Construction.
1406617	do	Control for Aircraft.
1420609	June 20, 1922	Hydroaeroplane.
1420610	do	Method of Getting a Hydroairplane off the Water into the Air.
1430640	Oct. 3, 1922	Airplane.
1434547	Nov. 7, 1922	Do.
1434559	do	Wing Jig.
1437465	Dec. 5, 1922	Airplane Fitting.
1437469	do	Aeroplane Wing Structure.
1437471	do	Propeller Hub Fastening.
1445135	Feb. 13, 1923	Fighting Airplane.
1445142	do	Propeller Mounting.

Digitized by Google

List of Patents—Continued

Name of Licensor and Patents No	Issue Date	Title of Invention
Curtis Aeroplane and Motor Company, Inc.—Continued.		
1454505	May 8, 1923	Multiple Control System for Multi-Motored Aircraft.
1465937	Aug. 28, 1923	Triplane Flying Boat.
1466634	do	Wing Shedding Means for Flying Boats.
1486607	Mar. 11, 1924	Tanks and Method of Making.
1494787	May 20, 1924	Tail Skid for Aeroplanes.
1509251	Sept. 23, 1924	Wing Radiator Fastening.
1511666	Oct. 14, 1924	Twin Fuselage Monoplane.
1511667	do	Cooling System for Power Plants of Aircraft.
1511689	do	Combination Land, Air, and Water Craft.
1511691	do	Airplane Radiator.
1535526	Apr. 28, 1925	Aeroplane Wing.
1535532	do	Aeroplane.
1543651	June 23, 1925	Wing Strut Fastening for Aeroplanes.
1555409	Sept. 29, 1925	Airplane Wing.
1556348	Oct. 6, 1925	Aeroplane Landing Gear.
1565097	Dec. 8, 1925	Differential Aileron Control.
1575328	Mar. 2, 1926	Aeroplane Landing Gear.
1554053	May 11, 1926	Engine Bed Mounting.
1633602	Jan. 11, 1927	Aerofoil.
1613619	do	Aeroplane Radiator.
1631259	June 7, 1927	Variable Lift—Variable Resistance Aerfoil.
1639029	Aug. 16, 1927	Aeroplane.
1653122	Dec. 20, 1927	Aeroplane Landing Gear.
1666769	Apr. 17, 1928	Airplanes.
1682202	Aug. 28, 1928	Beam.
1682204	do	Aeroplane Radiator.
1682229	Nov. 20, 1928	Adjustable Wind Shield.
1692010	Aug. 28, 1928	Retractable Landing Gear.
1694496	Dec. 11, 1928	Rudder Operating Mechanism for Aircraft.
Dayton-Wright Company:		
D52685	Nov. 12, 1918	Insignia.
1290025	Dec. 31, 1918	Aeroplane Control.
1298080	Mar. 25, 1919	Fuel Tank.
1342385	June 1, 1920	Steering Device.
1441984	Jan. 9, 1923	Fuselage.
1452641	Apr. 24, 1923	Aeroplane Wing.
1462531	July 24, 1923	Rudder Controls.
1462533	do	Fuselage Construction.
1476438	Dec. 4, 1923	Airplane Construction.
1483164	Feb. 12, 1924	Door for Aircraft Bodies.
1494787	May 20, 1924	Tail Skids for Airplanes.
1496200	June 3, 1924	Airplane Control.
1500235	July 8, 1924	Airplane—Wing Spar.
1501522	July 15, 1924	Aircraft Observation Window.
1501523	do	Airplane.
1501530	do	Do.
1501549	do	Aeroplane Structure.
1501560	do	Standard Stick Control.
1501592	do	Valve.
1501601	do	Tail Skid.
1501608	do	Landing Skid.
1503478	Aug. 5, 1924	Apparatus for Doping Airplane Wings.
1503887	do	Fuselage Fittings.
1504663	Aug. 12, 1924	Airplane.
1509297	Sept. 23, 1924	Pontoon Skid.
1512912	Oct. 28, 1924	Aeroplane.
1522672	Jan. 13, 1925	Tail Skid.
1545239	July 7, 1925	Airplane Controls.
1549202	Aug. 11, 1925	Retractable Radiator.
1549251	do	Method of making Welded Tube Fuselage.
1552111	Sept. 1, 1925	Airplane.
1552112	do	Moulded Airplane Wings.
1556589	Oct. 13, 1925	Metal Wing Spar.
1557214	do	Airplane Control Mechanism.
1557242	do	Landing Chassis.
1616682	Feb. 8, 1927	Wing or Similar Member for Airplane.
G. Elias & Bro., Inc.:		
1342138	June 1, 1920	Landing Gears for Flying Machines.
1346772	July 13, 1920	Hoisting Devices for Flying Machines.
1350947	Aug. 24, 1920	Launching Devices for Flying Machines.
1350948	do	Detachable Stabilizer Fins for Flying Machines.
1354353	Sept. 28, 1920	Rudders for Hydroaeroplanes.
1357260	Nov. 2, 1920	Driving Mechanism for Flying Machines.
1358596	Nov. 9, 1920	Hydroaeroplanes.
1424996	Aug. 8, 1922	Wing Construction for Airplanes.

Digitized by Google

List of Patents—Continued

Name of Licensor and Patents No.	Issue Date	Title of Invention
Gallaudet Aircraft Corporation:		
1058422	Apr. 8, 1913	System of Aeroplane Control.
D-44168	June 10, 1913	Hydroaeroplane Body.
1074256	Sept. 30, 1913	System of Aerial Control.
1074257	do	System of Aeroplane Control.
D-45106	Jan. 6, 1914	Hydroaeroplane Body.
1145013	July 6, 1915	Aeroplane.
1165770	Dec. 28, 1915	Aerohydroplane.
1200097	Oct. 3, 1916	Aeroplane.
1200098	do	Do.
1203557	Oct. 31, 1916	Propeller
1203558	do	Aeroplane
1214536	Feb. 6, 1917	Do.
1219285	Mar. 13, 1917	Do.
1262660	Apr. 16, 1918	Do.
1303052	May 6, 1919	Aeroplane Stay.
L. W. F. Engineering Company:		
1310850	July 22, 1919	Guy-Wire Attachment.
1315356	Sept. 9, 1919	Aeroplane Securing Member.
1353538	Sept. 21, 1920	Strut Construction.
1393488	Oct. 11, 1921	Fuselage.
1394459	Oct. 18, 1921	Fuselage Construction.
1394460	do	Aeroplane Construction.
1395254	Nov. 1, 1921	Aeroplane Control Systems.
1398244	Nov. 29, 1921	Processes of Producing Laminated Constructions and Apparatus for use in connection therewith.
1418762	June 6, 1922	Landing Gears for Aeroplanes.
1428143	Sept. 5, 1922	Fuselage Construction for Aeroplanes.
1434367	Nov. 7, 1922	Armed Aeroplanes.
1441319	Jan. 9, 1923	Wing Connections for Aeroplanes.
1441329	do	Internal Combustion Engines.
Glenn L. Martin Company:		
1480390	Jan. 15, 1924	Gunner's Chair.
1486493	Mar. 11, 1924	Controls.
1608611	Nov. 30, 1926	Adjustable Rudder Controls.
1669380	May 8, 1928	Wing Leveling Device.
Packard Motor Car Company:		
D-52066	May 28, 1918	Design for Aircraft Fuselage.
1325054	Dec. 16, 1919	Aircraft.
1329390	Feb. 3, 1920	Airplane Brake.
1377858	May 10, 1921	Aircraft.
1406251	Feb. 14, 1922	Detachable Aircraft Propeller Hub.
1415052	May 9, 1922	Airplane.
1434604	Nov. 7, 1922	Windshield.
1434620	do	Gear Driving Mechanism.
1443100	Jan. 23, 1923	Airplane.
1464670	Aug. 14, 1923	Do.
1513945	Nov. 4, 1924	Gear Driving Mechanism.
1517765	Dec. 2, 1924	Airplane.
1558942	Oct. 27, 1925	Do.
1632862	June 21, 1927	Do.
Sturtevant Aeroplane Company:		
1162177	Nov. 30, 1915	Airplane Landing Gears.
1283828	Nov. 5, 1918	Aeroplane.
1357177	Oct. 26, 1920	Aeroplane Trucks.
Thomas-Morse Aircraft Corporation:		
1370242	Mar. 1, 1921	Airplane.
1389106	Aug. 30, 1921	Do.
1394870	Oct. 25, 1921	Driving Connections for Airplane Engines.
1443155	Jan. 23, 1923	Clips for Airplane Construction.
Wright Aeronautical Corporation:		
566954	June 15, 1910	Flying Machine.
821393	May 22, 1906	Do.
908929	Jan. 5, 1909	Mechanism for Flexing the Rudder of a Flying Machine or the like.
987662	Mar. 21, 1911	Flying Machine.
1075533	Oct. 14, 1913	Do.
1122348	Dec. 29, 1914	Do.
1165891	Dec. 28, 1915	Do.
1239500	Sept. 11, 1917	Flying Boat.

Digitized by Google

WRIGHT AERONAUTICAL CORPORATION,
New York, N. Y., December 6, 1935.

Hon. WILLIAM I. SIROVICH,
Chairman, Committee on Patents, House of Representatives,
New York, N. Y.

DEAR SIR: There is submitted herewith, in behalf of Wright Aeronautical Corporation, answers to the questionnaire contained in your letter of November 9, 1935.

Very truly yours,

WRIGHT AERONAUTICAL CORPORATION,
By E. S. CRAMER, *Secretary.*

WRIGHT AERONAUTICAL CORPORATION

1. Question. A complete list of all patents owned by you, your company, or corporation, and also those patents now being used by you or them through cross-license or patent pooling agreements, or otherwise.

Answer. Wright Aeronautical Corporation owns the following patents, to wit:

Patentee	Number	Date of issue	Date of application
O. & W. Wright	821393	May 22, 1906	Nov. 27, 1899
Do	908929	Jan. 5, 1909	Do.
Do	987662	Mar. 21, 1911	Do.
Do	1075533	Oct. 14, 1913	Do.
Do	1122348	Dec. 29, 1914	Do.
G. L. Martin	1165891	Dec. 28, 1915	Feb. 11, 1914
Do	1235500	Sept. 11, 1917	Jan. 14, 1914
N. F. Vanderlipp	1642278	Sept. 13, 1927	Nov. 8, 1926

Wright Aeronautical Corporation, as a member of the Manufacturers Aircraft Association, Inc., is licensed to make use of all patents subject to the cross-license agreement which said association administers. (It is the writer's understanding that your committee has already been furnished by said association with a complete list of all patents subject to the cross-license agreement.)

Wright Aeronautical Corporation, by an agreement entered into with the Pratt & Whitney Aircraft Co., dated June 3, 1931, is licensed to make use of two Pratt & Whitney owned engine patents, to wit: patents nos. 1704851 and 1705458.

Wright Aeronautical Corporation is also licensed to make use of a number of engine and engine-accessory patents, title to which is vested in a patent-holding company. None of the patents comprised in this group are cross-licensed (except insofar as is required by the terms of the Wright-Pratt & Whitney argeement above referred to) nor are they included in any patent pooling agreement. The engine and engine accessory patents which said patent-holding company owns may be identified as follows: 1723175, 1737122, 1739690, 1743173, 1773399, 1803995, 1823883, 1832320, 1860813, 1860814, 1860851, 1874444, 1874446, 1896222, 1908820, 1910591, 1914940, 1926329, 1926349, 1933966, 1934399, 1944219, 1950970, 1950971, 1958264, 1962246, 1267962, 1280760, 1283803, 1284250, 1286345, 1287339, 1294474, 1294475, 1310913, 1316244, 1326405, 1329038, 1336704, 1338310, 1349676, 1351763, 1357992, 1363793, 1368439, 1370692, 1373432, 1386787, 1392276, 1398194, 1398315, 1404617, 1404618, 1404861, 1423334, 1432817, 1437466, 1437861, 1439798, 1447788, 1463171, 1465989, 1479993, 1511672, 1543479, 1545684, 1565100, 1568578, 1569245, 1575359, 1598738, 1621326, 1621494, 1632562, 1674191, 1714806, 1714807, 1722821, 1974802, 1974803, 1974804, 1976483, 1979025, 1980185, 1983378, 1988119, 1990979, 1993875, 1995601, 1997279, 2000714, 2018012.

Wright Aeronautical Corporation, by negotiated contracts, is licensed to make use of the following patents, none of which are owned by Wright, and all of which have to do with engine and engine accessories or processes required in connection with the manufacture thereof: 1127398, 1137254, 1142299, 1164064, 1394534, 1426384, 1508556, 1572487, 1713814, 1750706, 1770125, 1778999, 1781008, 1804010, 1811625, 1845474, 1846031, 1864374, 1960898, 1960899, Re-17266, Re-18115.

2. Question. If you are not using some of your patents at this time, why not?

Answer. Wright Aeronautical Corporation makes no current use whatsoever of the airplane patents which it owns, nor of the patents under which it is

Digitized by Google

licensed by reason of its membership in the Manufacturers' Aircraft Association, Inc. For a number of years Wright has confined its activities exclusively to the manufacture and sale of engines and engine accessories as distinguished from airplanes. Patents relating or pertaining to engine and such engine accessories as propellers, propeller hubs, superchargers, starters, magnetos, mufflers, carburetors, and reduction gears are specifically excluded from the operations of the cross-license agreement.

Use is currently made by Wright Aeronautical Corporation of all engine and engine accessory patents under which it is licensed.

3. Question. "A copy of the constitution and bylaws or articles of agreement of your organization or association."

Answer. A copy of the constitution and of the bylaws of the Manufacturers' Aircraft Association, Inc., are hereto attached.

4. Question. "Copies of cross-license or patent-pooling agreements to which you, your company, or corporation are parties."

Answer. A copy of the original cross-license agreement and of all subsequent modifications thereof are hereto attached.

5. Question. "A copy of the different forms of cross-licensing or pooling agreements made between your organization and others to date."

Answer. A copy of each form of license which the Manufacturers' Aircraft Association, Inc., is authorized to grant is hereto attached. Also hereto attached is a copy of the Wright-Pratt & Whitney agreement above referred to.

6. Question. The names of the inventors of all such patents in such cross-license agreement or patent pools, date and number of patent, date of assignment to you, amount paid for same, estimated value of patent at date of purchase and now.

Answer. The names of the inventors, the dates and numbers of the patents, and the dates of assignment thereof to Wright, of all Wright-owned patents subject to the cross-license agreement are given in the answer to question 1.

The names of the inventors, the dates and numbers of the patents, and the dates of assignment thereof to Wright, of the two patents licensed Pratt & Whitney by Wright under the Wright-Pratt & Whitney agreement are as follows:

Patentee	Number	Date of issue	Date of assignment
C. L. Lawrance	1398194	Nov. 22, 1921	Dec. 29, 1921
A. V. D. Willgoos	1569245	Jan. 12, 1926	Apr. 14, 1925

NOTE.—Title to the 2 patents above identified is now vested in the patent-holding company above referred to. At the time of the execution of the Wright-Pratt & Whitney agreement said patents were owned by Wright.

The Vanderlipp, Lawrance, and Willgoos patents are predicated upon developments occurring within the Wright organization, which were assigned to Wright by reason of the existence, at the date of assignment, of an employer-employee agreement (a copy of the standard form of employer-employee agreement used by Wright is hereto attached).

The O. & W. Wright and the Martin patents above referred to have long since expired. These patents are of no value to Wright today.

As to the Vanderlipp, Lawrance, and Willgoos patents, there is no basis upon which the value thereof to Wright, either today or at the time it acquired title thereto, can be estimated or determined.

As indicative of the cost to the predecessor Wright Co. at the time it acquired title to the now expired O. & W. Wright patents, it may be pointed out that said company, in 1909, paid to O. & W. Wright stock having a par value of $700,000, and agreed to pay, as additional compensation, a royalty of 10 percent of the selling price on all airplanes which it, or its successors, subsequently manufactured and sold.

G. L. Martin, as an officer of the Wright-Martin Aircraft Co., a predecessor of Wright, assigned to it the two Martin patents above referred to.

7. Question. Are any of said patents controlled by said cross-license and patent pooling agreements used as a basis for charter or corporation franchises? If so, valuation of said patents.

Answer. No Wright-owned patents are currently used as a basis for charter or corporation franchises.

Digitized by Google

8. Question. Was inventor an employee of assignee at time of making invention, and is the inventor an employee of such assignee now? If so, does assignee retain contract providing such invention shall belong to employer without additional cost?

Answer. Vanderlipp, Lawrance, and Willgoos were employed by Wright at the time the inventions resulted in patents identified opposite their names were made. G. L. Martin was at one time an officer of the Wright-Martin Aircraft Corporation, the predecessor of Wright Aeronautical Corporation. Neither O. nor W. Wright have at any time been either officers or employees of the Wright organization. None of the patentees above named are at the present time employed by Wright. None of said patentees retained any interest whatsoever in the patents assigned.

9. Question. Please give number, name, ownership, and valuation of existing patents now being used by your company through cross-license or with a patent pool.

Answer. The patents under which which Wright Aeronautical Corporation is licensed by reason of its membership in the Manufacturers Aircraft Association, Inc., are of no value to Wright. The value to Wright, during that period of its history when it was actively engaged in the manufacture of airplanes, under said patents, cannot be estimated, nor is there any way of estimating the value to Wright of the license which it now owns under the two Pratt & Whitney owned patents above referred to.

It is the writer's understanding that your committee has already been furnished with the number, name, and ownership of the patents under which it is licensed by reason of its association membership.

10. Question. Do you cross-license nonmembers of the patent pool—if such exists—and if so, on what terms?

Answer. At no time has Wright Aeronautical Corporation refused any concern or airplane manufacturing company a license under any or all of the airplane patents which it now or previously owned. Licenses have been granted to nonmembers of the association, subsequent to the formation of the association, at the same royalty rate as that required to be met by association members.

11. Question. What are the eligibility requirements for outsiders to join this patent pool?

Answer. To entitle a person, firm, or corporation to become a stockholder of the Manufacturers Aircraft Association, Inc., he or it, as the case may be, shall be a responsible manufacturer of aircraft or aircraft engines, or parts and accessories thereof; or a responsible manufacturer who intends to become a bona-fide producer of the same; or a manufacturer to whom the United States Government has given a contract for the construction of ten or more complete aircraft or aircraft engines; or a person, firm, or corporation owning or controlling United States patents relating to any of the foregoing.

12. Question. Do you suggest any amendments to existing patent laws? If so, enumerate.

Answer. It is recommended that the Act of June 25, 1910 (36 Stat. 851), as amended by the Act of July 1, 1918 (40 Stat. 705), be repealed.

AGREEMENT FOR SERVICES

In consideration of my employment by the Wright Aeronautical Corporation, herein termed "company", upon the terms and conditions of this agreement, I _____, of _____, agree with the Company as follows:

1. To devote my whole time and ability so long as I shall remain in the employ of the Company to the services of the Company in such capacity as it shall from time to time direct, and to perform my duties faithfully and diligently.

2. Without charge, but at the cost of the Company, to assign to it any and all inventions which I may make while in the employ of the Company relating to the business of the character carried on or contemplated by the Company and any and all Letters Patent, and any and all reissues, renewals, and extensions thereof that may be granted to me therefor; and that I will do, execute, and deliver any and all acts and instruments that may be necessary or proper to vest said inventions and patents in the Company and to enable it to obtain such Letters Patent; and that I will render to the Company all such assistance as it may require in the prosecution of applications for the reissue of said

Digitized by Google

patents and in the prosecution or defense of all interferences which may be declared involving any of said applications or patents, but the expense of all such proceedings shall be borne by the Company; and the Company shall pay to me the sum of Twenty-five Dollars ($25) for each of such granted Letters Patent.

8. I further agree—

(a) That my employment with the Company is an employment at will and not for any stated period of time.

(b) That the Company may terminate my employment at any time regardless of cause, and in such event the Company shall be obligated to pay me only up to the date of such termination of my employment.

(c) That the semi-monthly basis upon which my salary is adjusted is not to be considered or construed as indicating or defining the length of the term of my employment.

(d) That I shall obey and be bound by any and all rules and regulations of the Company as they now exist and as they may hereafter be changed or amended.

(e) I will regard and preserve as confidential all information pertaining to the Corporation's business that may be obtained by me from specifications, drawings, blue-prints, reproductions, and other sources of any sort as a result of such employment and I will not, without written authority from the Corporation so to do, disclose to others during my employment or thereafter, such or any other confidential information obtained by me while in the employ of the Corporation.

Signed _____.

LICENSE AND AGREEMENT

This agreement entered into this 3rd day of June 1931, by and between the Pratt and Whitney Aircraft Co., of East Hartford, Connecticut, a Delaware Corporation, hereinafter called "Pratt & Whitney", which corporation shall include its successors and assigns where the context so requires or admits, and Wright Aeronautical Corporation, of Paterson, New Jersey, a New York Corporation, hereinafter called "Wright", which corporation shall include its successors and assigns where the context so requires or admits.

WITNESSETH:

Whereas Pratt & Whitney is the owner of all right, title, and interest in and to U. S. Letters Patent #1,704,815 dated March 12, 1929, and U. S. Letters Patent #1,705,458 dated April 9, 1930; and

Whereas Wright is the owner of all right, title, and interest in and to U. S. Letters Patent #1,398,194, dated November 22, 1921, and U. S. Letters Patent #1,569,245, dated January 12, 1926; and

Whereas Pratt & Whitney is desirous of obtaining a right and license to manufacture, use, and/or sell the invention or inventions described and claimed in said Wright owned patents; and

Whereas Wright is desirous of obtaining a right and license to manufacture, use, and/or sell the invention or inventions described and claimed in said Pratt & Whitney owned patents; and

Whereas both Pratt & Whitney and Wright are desirous of reaching an agreement as to ways and means of avoiding, if possible, patent litigation involving other United States Letters Patent issued or to be issued.

Now, therefore, in consideration of their mutual grants and undertakings, the parties hereto agree as follows:

1. Pratt & Whitney, by these presents, hereby grants and conveys to Wright under said Letters Patent #1,704,815 and #1,705,458, above identified, a non-exclusive right and license to manufacture, use, and/or sell the invention or inventions described and claimed therein to the full end of the term or terms for which said Letters Patent, or either of them, shall or may have been granted.

2. Wright, by these presents, hereby grants and conveys to Pratt & Whitney under said Letters Patent #1,398,194 and #1,569,245, above identified, a non-exclusive right and license to manufacture, use and/or sell the invention or inventions described and claimed therein to the full end of the term or terms for which said Letters Patent or either of them shall or may have been granted.

Digitized by Google

3. It is mutually understood and agreed that no royalty or other payment is required or expected to be made by either party hereto to the other for any past infringement or for any subsequent manufacture, use, and/or sale of any invention or inventions described and claimed in any patent or patents referred to in either Paragraph 1 or Paragraph 2 hereof.

4. As to the other U. S. Letters Patents, issued or to be issued, owned, or controlled by either party, it is mutually understood and agreed as follows:

(a) Should either party own or control one or more U. S. Letters Patent which it is believed that the other party is infringing, the party owning such patent or patents may call upon the other party for a determination of the following questions: (1) Does the infringement complained of actually exist: (2) Is the patent upon which the claim is predicated of "minor" or "major" importance; (3) Is the patent valid: and (4) Does the party against whom the claim is made own or control one or more patents upon which a counter-claim, in the nature of a set-off, may be based; and the other party, i. e., the party against whom such claim is made, having first been given the opportunity to agree or disagree with the party making the claim, hereby agrees to arbitrate the claim in the manner herein provided.

(b) Arbitration of patent disputes or of the claim or claims of one party hereto against the other shall proceed as follows: The party initiating the dispute or claim shall designate concurrently with the presentation of the claim two arbitrators. The party against whom the claim is made shall, within sixty (60) days from the date such claim is made, likewise designate two arbitrators, and at the same time notify the complaining party of such designation. Within thirty (30) days from the date of notification of the last two designated arbitrators, the four arbitrators thus designated shall confer. At such conference the questions referred to in the preceding paragraph hereof shall be considered and a meeting of the minds of the four arbitrators brought about, if possible. Should the arbitrators agree as to a settlement plan whereby the questions raised by the party initiating the claim may be disposed of, such plan, together with appropriate recommendations, shall be made by the said arbitrators to the respective parties hereto for final determination. Should the respective parties hereto concur in the recommendations and findings of the arbitrators, it is mutually agreed that appropriate steps will, within a reasonable time, be taken to fully and finally dispose of the claim or claims thus arbitrated.

(c) It is mutually understood and agreed that should the four arbitrators classify any patent or patents complained of as "minor" importance, and should such classification be accepted by both parties hereto, then and in such event, and providing there is no existing counter-claim to act as an offset, and providing further that the parties hereto agree that infringement actually exists and that the patent or patents under consideration is or are valid, the party charged with the infringing act or acts, if it elects to continue to manufacture, use, and/or sell the patented device or part, shall pay to the owner of the patent or patents upon which the complaint is based a royalty in an amount to be agreed upon by the arbitrators after careful and full consideration of all facts and circumstances surrounding the ownership of the particular patent or patents which it is desired at the time shall be licensed.

(d) Nothing in this agreement shall be construed to affect in any way patents classified as of "major" importance.

(e) If, after arbitration, as herein provided, the parties hereto are unable to effect a settlement of future claims one against the other, nothing herein shall be considered to affect in any way the rights of the respective parties either at Law or in Equity.

(f) There is no obligation on the part of either party hereto to submit its patent or patents to either arbitration or classification except and unless it is claimed of a particular patent, that the other party hereto is at the time infringing the particular patent upon which such charge of infringement is based.

(g) This license and/or agreement may be terminated by either party hereto, by the one party giving to the other party written notice six months in advance of the date which it is desired that such termination shall become effective. Such termination, however, shall in no way affect any existing license since it is the desire of both parties hereto that patent licenses, once extended and/or granted, shall continue for the full duration of the patent or patents therein referred to.

Digitized by Google

(h) It is further mutually understood and agreed that so long as this agreement shall remain in full force and effect, it shall be binding upon all subsidiary or controlled companies of both parties hereto, and that this agreement shall be assignable as to each of the parties hereto as a part of its entire business, but not otherwise.

THE PRATT & WHITNEY AIRCRAFT CO. [SEAL]
(Signed) C. W. DEEDS, *Vice President.*

Witness:
(Signed) E. G. MANKE.

WRIGHT AERONAUTICAL CORPORATION [SEAL]
(Signed) M. B. GORDON, *Treasurer.*

Witness:
(Signed) C. C. KING.

CROSS-LICENSE AGREEMENT

This agreement, made this 24th day of July 1917 between the Manufacturers Aircraft Association, Inc., a New York corporation (hereinafter called the "company"), party of the first part, and each person, firm, or corporation (hereinafter called the "Subscriber" or "Subscribers") as shall become stockholders of the said "Company" in the manner and under the conditions provided in the by-laws thereof (which for the purpose of this agreement are made a part hereof), and become parties to this agreement, parties of the second part.

Whereas the parties hereto are interested in the manufacture, sale, and use of airplanes, as hereinafter defined, and desire to promote and develop the industry in which they are engaged, and to encourage and advance the art applicable thereto; and

Whereas the said development and advancement in the past have not been capable of as complete accomplishment as is desirable, because of the existence of certain United States patents claimed to be basic in their nature, upon which suits have been brought, or threatened, for alleged infringement and for the collection of royalties and damages in connection therewith; and

Whereas it is desired to prevent and avoid such litigations or threatened litigations in the future and to give to all of the "Subscribers" the right to manufacture, sell, and use airplanes embodying the inventions of each of the "Subscribers" and to that end it is desired that licenses be granted as herein expressed:

Now, this agreement witnesseth: That for and in consideration of the premises, the covenants, and conditions herein contained, and of other good and valuable considerations moving between the "company" and each of the "subscribers" hereto, and between the "Subscribers" themselves, it is covenanted and agreed as follows:

I. DEFINITIONS

The word "airplane", as used in this agreement, shall be understood to mean any form of heavier-than-air craft using wing surfaces for sustaining it, and to include propelling means, propellers, propeller hubs, radiators, and all parts and accessories used or useful in the airplane, except the engine and its accessories.

The words "airplane patent", as used in this agreement, shall be understood to mean any patent covering inventions for or capable of use in or in connection with airplanes, including propellers, propeller hubs, radiators, and all parts of airplanes and accessories used or useful in the airplane, except the engine and its accessories.

II. LICENSES AND POWERS GRANTED

The "Subscribers" grant, agree to grant, and cause to be granted to each other, licenses to make, use, and sell airplanes—under all airplane patents of the United States now or hereafter owned or controlled by them or any of them, or by any firm, corporation, or association owned or controlled by them, or under which they, or any of them, or any such firm, corporation, or association, have or shall have the right to grant licenses—in and throughout the United States, its territories and dependencies, for use therein or abroad, except that no rights, express or implied, are hereby granted under any foreign pat-

Digitized by Google

ents, nor shall said rights or the licenses herein provided for apply to or include the use of said patents in their application to other than airplanes, and except further that no licenses are hereby granted under the Dunne patents no. 975403 issued November 15, 1910 and no. 1003721 issued September 19, 1911, rights under which are held by the Burgess Co.

All licenses provided for herein shall run to the full end of the term of the letters patent under which the license is or is to be granted and shall be personal, indivisible, nonassignable, and irrevocable, except for the causes and in the manner hereinafter stated.

The "Subscribers" hereby designate, constitute, and appoint the "Company" (and the "Company" hereby accepts the appointment) as their true, sufficient, and lawful agent and attorney in fact, for them and in their respective names, to make and execute licenses in writing in the form hereto annexed, and to deliver the same to those of the "Subscribers" who, at the time, are stockholders of the "Company" not in default hereunder, and who shall have executed an agreement in writing of like tenor to this; and to enforce said licenses and any and all other obligations (including the obligation to make payments), of the "Subscribers" under this agreement; and the "Subscribers" hereby give and grant unto said "Company" as full, complete, and ample power and authority in the premises as the "Subscribers" themselves now have and possess.

All licenses provided for herein, when made, executed, and delivered in accordance with the provisions hereof, shall have the same force and effect as if they had been executed and delivered by the "Subscribers" themselves.

III. COVENANTS OF FURTHER ASSURANCE

(a) Each "Subscriber", now or hereafter, having rights under any United States airplane patent or invention, of such character that it has legal right and power to procure the grant of rights thereunder to others, but is not itself empowered to grant such rights, covenants to procure the execution of such further instrument as may be necessary to empower the "Company" to grant rights under such patent, or with reference to such invention, to the extent and in the manner herein provided.

(b) Each "Subscriber" covenants that it will not contract for or obtain any rights under any such patent or invention in such manner that its owner would be prevented from granting to other "Subscribers" hereto similar rights on the same terms, unless the "Subscriber" obtains, at the same time, the further privilege to grant rights under said patent or said invention, whereby the same may and will be brought under the operation of this instrument.

IV. COVENANTS AGAINST OTHER LICENSES

Each "Subscriber" covenants that it has not heretofore entered and will not hereafter enter into any contract or arrangement, whereby its privileges under United States airplane patents, issued or to be issued, inventions, and rights, owned or controlled by it, have been or shall be diminished or surrendered so as to exclude or restrict the operation of this instrument in respect thereto. Each "Subscriber" further covenants that it will not grant licenses under any such patents for use in airplanes, with reference to which it is receiving royalties hereunder, to any other person, firm, or corporation on more favorable, or lower terms of royalty, than those herein provided, or which may become more favorable or lower during the term of such license.

V. AFTER ACQUIRED PATENTS

When a "Subscriber" shall hereafter acquire a United States airplane patent, or any right thereunder, he shall be entitled to compensation for the use thereof if the patent or patent right covers an invention which secures the performance of a function not before known to the art, or constitututes an adaptation for the first time to commercial use of an invention known to the industry to be desirable of use but not used because of lack of adaptation, or is otherwise of striking character or constitutes a radical departure from previous practice, or if either the price paid therefor or the amount expended in developing the same is such as to justify such compensation, provided that at the time said patent or patent right is reported to the "Company", as required in subdivision (*b*) of paragraph VII, the "Subscriber" claims such compensation, and states the grounds on which such claim is based. Such report and claim shall be

Digitized by Google

submitted to a Board of Arbitration to be selected in the manner provided for in paragraph XIII hereof, which Board shall determine whether such compensation shall be paid, and, if so, the total amount thereof and the rate of royalty, or other payments, which shall be paid (towards such compensation) by any "Subscriber" desiring and taking a license under said patent and shall also fix the time or times when said royalties or other amounts shall be paid.

VI. SPECIAL MODELS

If any "Subscriber" shall have developed the design and manufacture of any special model of airplane, or airplane engine or other device used in an airplane (except the airplanes manufactured by the Burgess Company under the Dunne patents hereinbefore mentioned, and the Hispano-Suiza aeronautical engine manufactured by the Wright Martin Aircraft Corporation or its subsidiaries), which the United States Government may at any time desire to have manufactured in the factory of any other "Subscriber" or in the factory of any manufacturer not a "Subscriber" hereto, the said "Subscriber" agrees that it will furnish to the other "Subscriber" or said other manufacturer such complete specifications, drawings, and other production data, as may be required, for use in the manufacture of such special model, provided that and upon condition that the "Subscriber" or other manufacturer in whose factory the work is placed by the United States Government shall agree with said Government and with the "Subscriber" owning said specifications, etc., to pay and shall pay into the treasury of the "Company" one per cent, upon the contract price paid by the Government for each airplane or airplane engine or other device manufactured for it in accordance with said specifications, etc.

If the manufacture of such special model is conducted by one not a "Subscriber", such manufacturer shall also agree to pay into the treasury of the "Company" such royalty as a "Subscriber" would have been obliged to pay had it made and sold the airplane, engine, or other device, including the amount specified in subdivisions (a) and (b) of paragraph VIII hereof, if an airplane with or without engine is the thing manufactured for and sold to the Government.

VII. REPORTS TO THE "COMPANY"

The following reports in writing shall be rendered to the "Company" by each "Subscriber" at the time or times hereinafter set forth:

(a) At the time of the execution of this agreement each "Subscriber" shall report all United States airplane patents and inventions together with serial numbers and filing dates of all pending applications for such patents, and all rights under such patents and inventions then owned or controlled by it, but no omission from such report shall exclude the patent, application, or right so omitted from the operation of this agreement.

(b) Within 30 days after the acquisition by any "Subscriber" of any United States patent (other than patents to be issued upon inventions now owned by it) or right within the scope of this agreement, each such "Subscriber" shall report such acquisition together with all the facts known to it as to such patent or right and its manner of acquisition. If such "Subscriber" claims that additional compensation should be paid to it for licenses under such patent or right, it shall so claim in its report.

(c) On the 10th days of January, April, July, and October in each year, each "Subscriber" shall report the number of airplanes (with or without engine), sold and delivered by it, together with the names of the purchasers, and the dates of delivery, or put into use for other than experimental or development purposes, or shipped out of the United States, during the three preceding calendar months.

(d) On the 10th days of January, April, July, and October in each year, each "Subscriber" shall report the number of airplanes, airplane engines, or other devices for use in airplanes, which it has sold and delivered during the preceding three calendar months, made from specifications, drawings, and other production data obtained from any other "Subscriber", as provided in paragraph VI hereof, together with the sales price and the dates of delivery; and there shall be included in the same report a copy of any agreement which the "Subscriber" shall have made with another manufacturer as provided in said paragraph.

Digitized by Google

(e) Each license to other than "Subscribers" as provided in paragraph IV hereof, shall be reported within 30 days after its delivery.

The first of each of the reports specified in subdivisions (c) and (d) hereof shall be made by each 'Subscriber" on the tenth days of January, April, July, or October, first occurring after it has become a "Subscriber" hereto, and shall cover the period from July 1, 1917, to the first day of the month in which the report is due.

Each of the "Subscribers" hereto shall keep separate books of account showing all business done under or subject to the operation of this agreement. The "Company" may at any time have a New York Certified Public Accountant, to be designated by it, audit such books of account of the "Subscribers", together with such other accounts as the accountant may deem necessary, in order to verify or correct the reports herein provided for, and the "Company" shall have such audit made when any "Subscriber" so demands. Such audit, however, shall be limited to ascertaining whether the reports herein provided for are properly made and to correcting the same, if necessity for correction shall appear. No information obtained from any such audit shall be reported by the accountant or given to any of the parties hereto, except as it directly applies to the reports required by this agreement.

VIII. PAYMENTS TO THE "COMPANY"

Each "Subscriber" agrees to pay into the treasury of the "Company" on the 10th days of January, April, July, and October in each year the following sums of money, to wit:

(a) On each airplane, with or without engine required to be reported as provided in subdivision (c) of paragraph VII hereof, the sum of two hundred dollars until such time as the Wright-Martin Aircraft Corporation and the Curtiss Aeroplane and Motor Corporation shall have been paid the aggregate sums provided for in subdivisions (a) and (b) of paragraph IX hereof.

(b) On each airplane, with or without engine required to be reported as provided for in subdivision (c) of paragraph VII hereof, such sum not to exceed twenty-five dollars, as the Board of Directors of the "Company" may, from time to time, fix and determine as payable after the above-mentioned aggregate sums shall have been paid to the Wright-Martin Aircraft Corporation and the Curtiss Aeroplane and Motor Corporation.

(c) Such amount or amounts as the Board of Arbitration may specify as special compensation for after acquired patents as provided in paragraph V hereof, and required to be reported in subdivision (c) of paragraph VII.

(d) Such amount or amounts as may be payable with reference to the use of specifications, drawings and data as provided in paragraph VI hereof, including the royalty payments therein provided for, but all one (1%) per cent. payments on account of the use of such specifications, drawings, and data covering any one model shall cease when the total paid by all users shall aggregate Fifty thousand ($50,000) dollars.

(e) All royalties received under licenses referred to in subdivision (e) of paragraph VII.

Each "Subscriber" who shall become a party hereto after the first day of July 1917, shall on the 10th day of January, April, or October next occurring pay to the "Company" those amounts which it would have been obliged to pay in accordance with the foregoing if it had been a "Subscriber" on July 1, 1917.

Moneys paid into the treasury of the "Company" pursuant to any provisions hereof shall not be or constitute or be deemed to be or constitute the assets, property, or profits of said "Company", but shall be received and disbursed by it as the agent and attorney in fact of the "Subscribers" in the manner and for the purposes herein mentioned.

IX. PAYMENTS BY THE "COMPANY"

Out of the moneys paid into the treasury of the "Company" pursuant to the provisions hereof, the following payments shall be made by the Company on the 20th days of January, April, July, and October in each year, to wit:

(a) To the Wright-Martin Aircraft Corporation One hundred and thirty-five dollars ($135) on each airplane with or without engine, with reference to which payments shall have been made in accordance with subdivisions (a) and (e) of paragraph VIII hereof, during the preceding three calendar months, until U. S. Patent No. 821393 issued May 22, 1906, shall have expired, or until the aggregate sum of Two million ($2,000,000) dollars shall have been paid

Digitized by Google

to the said Wright-Martin Aircraft Corporation when all payments to it hereunder shall cease, except as hereinafter provided.

(b) To the Curtiss Aeroplane and Motor Corporation Forty dollars ($40) on each airplane, with or without engine with reference to which payments shall have been made in accordance with subdivisions (a) and (e) of paragraph VIII hereof, during the preceding three calendar months, until such time as the Wright-Martin Aircraft Corporation shall have been paid in full as provided for in subdivision (a) of this paragraph, after which there shall be paid to the Curtiss Aeroplane and Motor Corporation at the times herein mentioned the sum of One hundred and seventy-five dollars ($175) on each of said airplanes until the aggregate sum of Two million ($2,000,000) dollars shall have been paid to it or until U. S. Patent No. 1203550 issued October 31st, 1916, shall have expired, when all payments to it hereunder shall cease, except as hereinafter provided.

(c) To each of the "Subscribers" entitled thereto such amounts as may have been paid to the "Company" with relation to the use of after acquired patents in accordance with subdivisions (c) and (e) of paragraph VIII hereof.

(d) To each of the "Subscribers" entitled thereto such amounts as may have been paid to the "Company" on account of the use of specifications, drawings and data as provided in paragraph VI and in subdivision (d) of paragraph VIII hereof, but any royalty payment received from outside manufacturers shall be distributed as though received from "Subscribers."

(e) To any "Subscriber" who shall have granted licenses to others than "Subscribers", as provided in paragraph IV, the royalties received under such licenses which are not required for payments provided for in subdivisions (a), (b), and (c) of this paragraph.

Out of the balance of said moneys paid into the treasury of the "Company" under this agreement, the "Company" may retain and use sufficient to cover its operating expenses and to create such fund as, in the judgment of the Board of Directors of said "Company", shall be necessary and proper for the further development of the airplane art and industry, and the purchase of patents and rights for the benefit of the "Subscribers" hereto.

If after making the the payments and reservations herein provided for, any surplus or balance remains out of the funds so paid in the treasury of the "Company", the same shall be distributed by the "Company" from time to time, among those "Subscribers" who have contributed to said moneys, in proportion to their respective contributions under subdivisions (a) and (b) of paragraph VIII other than those required for payments under subdivisions (a) and (b) of this paragraph IX.

X. BREACH OF AGREEMENT

In the event that any "Subscriber" is claimed by the "Company", or any other "Subscriber", to be in default in the performance of any of its obligations hereunder, and such claimed default continues after thirty days' notice in writing, by the "Company" or any "Subscriber" hereto, to the "Subscriber" claimed to be in default, then the Board of Arbitration, hereinafter provided for, shall determine whether there has been such specified default, and if such default is found to exist, shall fix the time within which it must be repaired, and shall assess such damages and impose upon the "Subscriber" in default such other requirements (including the forfeiture of its stock and license) as may seem to the said Board of Arbitration to be proper under the circumstances. Each "Subscriber" covenants and agrees that it will pay such damages and comply with such requirements as may be specified by the said Board of Arbitration.

Nothing contained in this paragraph shall deprive the "Company" of the power to make, execute and deliver licenses under the patents or patent rights owned and controlled by any defaulting "Subscriber", or to which the "Subscriber" may be entitled, at the time he ceases to be a stockholder or "Subscriber", nor deprive other than defaulting "Subscribers" of any right which they may have received to the use of the said patents or patent rights.

XI. WITHDRAWAL FROM AGREEMENT

Any "Subscriber" may withdraw from this agreement at any time after ten years from the date hereof, on giving to the "Company" written notice of its election so to do and on fulfilling all of its obligations up to the date of such withdrawal. But no withdrawal shall relieve the other parties and other

Digitized by Google

"Subscribers" from their obligations to each other hereunder, nor deprive them of their rights acquired under the patents and patent rights owned or controlled by the withdrawing "Subscriber" at the time of withdrawal, all of said patents and patent rights remaining under this agreement, but such withdrawing "Subscriber" shall cease to have any rights under the patents of the other "Subscribers" hereto, or any other right under this agreement, from and after such withdrawal.

XII. REPURCHASE OF STOCK

In the event of the death of any person who is a stockholder in the "Company", or in the event of the dissolution of any corporation or firm which is a stockholder therein, or in the event of the bankruptcy or insolvency of any such stockholders, or in the event of withdrawal under paragraph XI hereof, the "Company" shall have the right to purchase for the benefit of the other "Subscribers" the stock held by such person, firm, or corporation at a sum not to exceed the distributive share or shares of such stockholder in the funds held by the "Company", and the license or licenses issued to such stockholder shall be surrendered to the "Company" and cancelled.

XIII. ARBITRATION OF CLAIMS AND DISPUTES

In case of any dispute or controversy between the "Subscribers" hereto, or between the "Subscribers" and the "Company", or in case of a claim by a "Subscriber" for special compensation for licenses under patents or rights hereafter acquired by it, or in case of breach of this agreement, the said dispute, controversy, claim, or breach shall, within thirty days after a "Subscriber" or "Subscribers" shall have given notice to the "Company" or the "Company" shall have given notice to the "Subscribers" thereof, be referred to a board of disinterested Arbitrators consisting of three persons, for determination.

In the case of a claim for special compensation, one member of such Board of Arbitration shall be appointed by the Board of Directors of the "Company", another by the "Subscriber" making the claim and the third by the other two arbitrators.

In the case of any dispute between the "Company" and a "Subscriber" or "Subscribers", one member of the Board of Arbitration shall be appointed by the Board of Directors of the "Company", another by the "Subscriber" (or if more than one "Subscriber" is involved in the same dispute, then by a majority of those so involved) and the third by the other two arbitrators.

In case of a breach of this agreement asserted by the "Company" or a "Subscriber" against another "Subscriber", one member of the Board of Arbitration shall be appointed by the Board of Directors of the "Company", another by the "Subscriber" against whom the assertion of breach is made, and the third by the other two arbitrators.

If either the Board of Directors or the "Subscribers" fail to appoint a member of the Board of Arbitration within the time specified, the other party or parties may appoint such member or fill such vacancy.

The decision of a majority of the members of said Board upon all matters submitted to them for adjudication shall be final and binding upon all the parties hereto.

XIV. RELEASE TO "SUBSCRIBERS"

The "Subscribers" hereby waive and release any and all claims which they or any of them may have had against each other for damages and profits on account of any infringement or alleged infringement, prior to July 1, 1917, of any patent included within this instrument in the manufacture, sale, or use of airplanes.

XV. BINDING UPON PARTIES, CONTROLLED COMPANIES, LEGAL REPRESENTATIVES, ETC.

This agreement is binding upon the parties hereto and their several successors, legal representatives and assigns, but shall enure to the benefit of only their several successors in business. Each "Subscriber" agrees that all persons, firms and corporations now or hereafter controlled by it, and engaged in the manufacture of airplanes, or owning or controlling United States airplane patents, shall be caused to execute this agreement.

Digitized by Google

XVI. EXECUTION OF AGREEMENT

This agreement may be executed by the "Subscribers" in any number of counterparts, but when so executed shall constitute but one and the same agreement, and shall be as binding, and of the same force and effect, as if all the "Subscribers" had executed but one and the same instrument, and as if all executions had been at the same time.

In Witness Whereof, the parties hereto have executed this instrument as of the day and year first above written.

MANUFACTURERS AIRCRAFT ASSOCIATION, INC.

LICENSE

License, granted this _____ day of _____, 1917, by the (hereinafter called the Licensor), to _____ (hereinafter called the Licensee).

Whereas the Licensor and certain other stockholders of the Manufacturers Aircraft Association, Inc. (hereinafter called "Subscribers"), heretofore, entered into a certain agreement dated July 24, 1917, entitled "Cross License Agreement" (a copy of which is hereto annexed), wherein and whereby the Licensor agreed to grant certain licenses to the other "Subscribers"; and

Whereas the said agreement also authorized and empowered the Manufacturers Aircraft Associatiton, Inc., as the agent and attorney in fact of the Licensor, to make, execute and deliver such licenses in the name of the Licensor; and it is desired to execute the powers therein granted;

Now, this license witnesseth: That for and in consideration of the premises and other good and valuable considerations moving between the parties hereto, it is convenanted and agreed as follows:

1. The Licensor does hereby give and grant unto the said Licensee the unrestricted, but non-exclusive license to make, use and sell airplanes—under all airplane patents of the United States now or hereafter owner or controlled by it, or by any firm, corporation, or association owned or controlled by it, or under which it or any such firm, corporation or association have or shall have the right to grant licenses—in and throughout the United States, its territories and dependencies for use therein or abroad, except that no rights, express or implied, are hereby granted under any foreign patents, nor shall the licenses herein provided for, apply to or include the use of said patents in their application to other than airplanes, and except further that no licenses are hereby granted under the Dunne patents, No. 975,403, issued November 15, 1910, and No. 1,003,721 issued September 19, 1911, the rights under which are held by the Burgess Company.

The patents; the patents to issue on inventions; and the agreements with reference to which the Licensor has a right to grant licenses at the present time, and which are intended to be included in this license are set forth in Schedule "A", hereto annexed.

2. This license shall run to the full end of the term of the Letters Patent under which the license is or is to be granted, and shall be personal, indivisible, non-assignable and irrevocable, except for the causes and in the manner set forth in the "Cross License Agreement" hereinbefore referred to.

3. This license is made subject to all the terms, conditions, covenants and agreements contained in said "Cross License Agreement", which is made a part hereof with the same force and effect as if herein set forth at large.

In Witness Whereof, the parties hereto have caused this instrument to be executed as of the day and year first above written.

By MANUFACTURERS AIRCRAFT ASSOCIATION, INC.

Digitized by Google

SUPPLEMENTAL CROSS-LICENSE AGREEMENT

This supplemental agreement, made this _____ day of _____, 1918, between the Manufacturers Aircraft Association, Inc., a New York Corporation (hereinafter called the "Company"), party of the first part, and each person, firm, or corporation (hereinafter called the "Subscriber" or "Subscribers"), as are and shall become stockholders of the said "Company", in the manner and under the conditions provided in the By-laws thereof (which for the purposes of this agreement are made a part hereof), parties of the second part;

Whereas an agreement dated the 24th day of July 1917 was entered into between the "Company" and certain "Subscribers", wherein and whereby it was agreed, among other things, that the "Company" should issue licenses to said "Subscribers" to manufacture, sell, and use airplanes embodying the patents owned and controlled by the "Subscriber", and that the "Subscribers" should pay, as a royalty for such licenses, for the use of the patents now owned or controlled by them, the sum of Two Hundred ($200) dollars upon each of said airplanes; and

Whereas it is desired to modify said agreement and to reduce the amount of the royalty which said "Subscribers" shall be obliged to pay for the use of said patents upon airplanes sold and delivered by them to the United States Government, during the period of the present war with the Imperial German Government:

Now, therefore, this agreement witnesseth: That for and in consideration of the premises, covenants, and conditions herein contained and other good and valuable considerations moving between the "Company" and each of the "Subscribers" hereto, and between the "Subscribers" themselves: It is covenanted and agreed, as follows:

First. That on the 10th days of January, April, July, and October, in each year, each "Subscriber" shall report to the "Company" the number of airplanes (with or without engines) sold and delivered by it, during the three preceding calendar months, to the United States Government; (1) Under flat-price contracts entered into prior to April 1st, 1918; (2) Under flat-price contracts entered into after March 31, 1918; (3) Under cost-plus contracts on which deliveries were made prior to January 1st, 1918, unless the same have been heretofore reported; (4) Under cost-plus contracts on which deliveries have been or shall be made after December 31, 1917.

Second. On the 10th days of January, April, July, and October in each year, each "Subscriber" shall pay into the treasury of the "Company" on each airplane (with or without engines) delivered to the United States Government by it during the three preceding calendar months, the following sums of money, to-wit: (1) Two hundred ($200) dollars on each airplane which has been or shall be delivered under flat-price contracts entered into prior to April 1st, 1918; (2) One hundred ($100) dollars on each airplane which shall be delivered under flat-price contracts entered into after March 31, 1918; (3) Two hundred ($200) dollars on each airplane delivered prior to January 1st, 1918, under cost-plus contracts; and (4) One hundred ($100) dollars on each airplane which has been or shall be delivered after December 31, 1917, under cost-plus contracts. Said payments to be made until such time as the Wright-Martin Aircraft Corporation and the Curtiss Aeroplane and Motor Corporation shall have been paid the aggregate sum of Two million ($2,000,000) dollars as provided for in paragraph "Third" hereof.

Third. Out of the moneys paid into the "Company" pursuant to the provisions of paragraph "Second" hereof, the following payments shall be made by the "Company", on the 20th days of January, April, July, and October in each year, to-wit: To the Wright-Martin Aircraft Corporation, Sixty-seven and one-half per cent (67½%) of the amount received on each airplane (with or without engines), and to the Curtiss Aeroplane and Motor Corporation Twenty per cent (20%) of the amount received on each airplane (with or without engines). Said payments shall be made until the sums paid to the Wright-Martin Aircraft Corporation and the Curtiss Aeroplane and Motor Corporation under and pursuant to the terms of this supplemental agreement and the original agreement of July 24th, 1917, and from any other source paying royalties to the Manufacturers Aircraft Association, shall amount in the aggregate to Two Million ($2,000,000) dollars, when and after which time the said "Subscribers" shall not be obliged to pay any royalties for the use of the patents now owned or controlled by the "Subscribers" or the "Company" in any airplane

Digitized by Google

sold and delivered by them to the United States Government during the period of the present war with the Imperial German Government.

Fourth. Except as herein modified the original agreement of July 24th, 1917, shall be and remain in full force and effect between the parties thereto and all other persons, firms, or corporations who may become "Subscribers" thereto, it being understood, however, that such sums as are paid to the Wright-Martin Aircraft Corporation and Curtiss Aeroplane and Motor Corporation pursuant to the provisions of this supplemental agreement shall be credited upon and shall constitute a part of the moneys which they are entitled to receive under and pursuant to the provisions of paragraph IX of said original agreement.

Fifth. Nothing herein contained shall be taken, considered, or construed as fixing the reasonable value of the royalties to be paid for the use of the patents now owned or controlled by the "Subscribers." The price herein agreed upon for royalties upon airplanes furnished during the present emergency to the United States Government is so fixed for the sole purpose of enabling the Government to acquire airplanes manufactured under said patents upon a preferential basis during the period of the present war.

Sixth. This agreement may be executed by the "Subscribers" in any number of counterparts, but when so executed shall constitute but one and the same agreement, and shall be as binding, and of the same force and effect, as if all the "Subscribers" had executed but one and the same instrument, and as if all executions had been at the same time.

In Witness Whereof the parties hereto have executed this instrument as of the day and year first above written.

MANUFACTURERS AIRCRAFT ASSOCIATION, INC

Attest: By ——— ———, *President.*
——— ———, *Secretary.*

Attest:

SECOND SUPPLEMENTAL CROSS-LICENSE AGREEMENT

This supplemental agreement, made this 12th day of January 1923, between the Manufacturers Aircraft Association, Inc., a New York corporation (hereinafter called the "Company"), party of the first part, and each person, firm, or corporation (hereinafter called the "Subscriber" or "Subscribers") as are and shall become stockholders of the said "Company", in the manner and under the conditions provided in the By-Laws thereof (which for the purpose of this agreement are made a part hereof), parties of the second part:

Whereas an agreement dated the 24th day of July 1917, was entered into between the "Company" and certain "Subscribers", which agreement was amended by supplemental agreement dated the 19th day of April 1918, between the same parties; and

Whereas it is desired to modify the said agreement as hereinafter set forth:

Now, therefore, this agreement witnesseth: That for and in consideration of the premises, covenants, and conditions herein contained, and other good and valuable considerations moving between the "Company" and each of the "Subscribers" hereto, and between the "Subscribers" themselves: It is covenanted and agreed, as follows:

First. That, anything in said cross-license agreement, as amended, to the contrary notwithstanding, particularly in Paragraph IX of said cross-license agreement, the "Company" may retain and use, for the purposes set forth in Paragraph IX of said cross-license agreement, up to twelve and one-half percent (12½%) of such amounts as may be paid to the "Company", on or after the 10th day of October 1922, with relation to the use of after-acquired patents in accordance with subdivisions (c) and (e) of Paragraph VIII of said cross-license agreement.

Second. That, anything in said cross-license agreement, as amended, to the contrary notwithstanding, particularly in Paragraph IX of said cross-license agreement, the "Company" may retain and use, for the purpose set forth in Paragraph IX of said cross-license agreement, up to twelve and one-half percent (12½%) of that part of any amount paid to the "Company" on or after

Digitized by Google

the 10th day of October 1922, in accordance with Subdivision (e) of Paragraph VIII as is not required for the payments provided for in subdivisions (a), (b), and (c) of Paragraph IX of said cross-license agreement.

Third. Except as herein modified, the original agreement of July 24, 1917, as amended April 19, 1918, shall be and remain in full force and effect between the parties thereto and all other persons, firms, or corporations who may become "Subscribers" thereto.

Fourth. This agreement may be executed by the "Subscribers" in any number of counterparts, but when so executed shall constitute but one and the same agreement, and shall be as binding, and of the same force and effect, as if all the "Subscribers" had executed but one and the same instrument, and as if all executions had been at the same time.

In witness whereof, the parties hereto have executed this instrument as of the day and year first above written.

MANUFACTURERS AIRCRAFT ASSOCIATION, INC.,
By ----------, *President.*

Attest:

----------, *Secretary.*

Attest:

THE AMENDED CROSS-LICENSE AGREEMENT OF DECEMBER 31, 1928

This agreement, made this 31st day of December 1928, between the Manufacturers Aircraft Association, Inc., a New York corporation (hereinafter called the "Company") party of the first part, and each person, firm, corporation, or association (hereinafter called the "Subscriber" or "Subscribers") as are and shall become stockholders of the said "Company" in the manner and under the conditions provided in the By-Laws thereof (which for the purpose of this Agreement are made a part hereof), parties of the second part:

Whereas an Agreement (hereinafter called the original Cross-License Agreement) dated the 24th day of July 1917, was entered into between the "Company" and certain "Subscribers", which Agreement was amended by a Supplemental Agreement dated the 19th day of April 1918, between the same parties, and which Agreement was further amended by a second Supplemental Agreement dated the 12th day of January 1923, between the same parties, and

Whereas the parties hereto are interested in the manfacture, sale, and use of airplanes, as hereinafter defined, and desire to promote and develop the industry in which they are engaged, and to encourage and advance the art applicable thereto; and

Whereas the said development and advancement, prior to the execution of the original Cross-License Agreement was not capable of complete accomplishment because of the existence of certain United States patents claimed to be basic in their nature, upon which suits have been brought, or threatened, for alleged infringement and for the collection of royalties and damages in connection therewith; and

Whereas it is desired to prevent and avoid such litigations or threatened litigations in the future and to give to all of the "Subscribers" the right to manufacture, sell, and use airplanes embodying the inventions of each of the "Subscribers" and to that end it is desired that licenses be granted as herein expressed; and

Whereas on account of conditions which did not exist and which were not anticipated at the date of execution of said original Cross-License Agreement, nor at the date of execution of the Supplemental Agreements of April 19, 1918, and January 12, 1923, respectively, and in an effort to better serve the art and industry as they now exist, it is desired to further modify and amend said original Cross-License Agreement as hereinafter set forth:

Now, therefore, this agreement witnesseth: That for and in consideration of the premises, covenants, and conditions herein contained, and other good and valuable considerations moving between the "Company" and each of the "Subscribers" hereto, and between the "Subscribers" themselves:

It is covenanted and agreed: That the said original Cross-License Agreement as amended by the Supplemental Agreements of April 19, 1918, and January 12,

Digitized by Google

1923, anything therein contained to the contrary notwithstanding, shall from December 31st, 1928, which is fixed as the date of execution of this Agreement, be modified and amended to read henceforth as follows:

I. DEFINITIONS

The word "Airplane" as used in this agreement, shall be understood to mean any form of heavier-than-air craft, using wing surfaces for sustaining it, and to include such indirect power plant appurtenances as radiators, oil-coolers, fuel and oil tanks, and motor controls; but not to include the engine and such engine accessories as propellers, propeller hubs, super-chargers, starters, magnetos, mufflers, carburetors, and reduction gears.

The words "Airplane patent", as used in this agreement, shall be understood to mean any patent covering inventions for or capable of use in or in connection with airplanes, including such indirect power plant appurtenances as radiators, oil-coolers, fuel and oil tanks, and motor controls; but not including the engine and such engine accessories as propellers, propeller hubs, super-chargers, starters, magnetos, mufflers, carburetors, and reduction gears.

The words "selling price", as used in this agreement, shall be understood to mean the manufacturer's regular selling price of an airplane, completely equipped according to contract, if and when delivered under formal written contract, or in the absence of such contract, a completely equipped airplane, ready to operate, as above defined, minus the then prevailing selling price of the engine and such engine accessories as propellers, propeller hubs, super-chargers, starters, magnetos, mufflers, carburetors, and reduction gears, irrespective of any and all discounts and rebates of whatsoever character.

II. LICENSES AND POWERS GRANTED

The "Subscribers" grant, agree to grant, and cause to be granted to each other, licenses to make, use, and sell airplanes—under all airplane patents of the United States now or hereafter owned or controlled by them or any of them, or by any firm, corporation or association owned or controlled by them or under which they or any of them, or any such firm, corporation, or association, have or shall have the right to grant licenses—in and throughout the United States, its territories and dependencies, for use therein or abroad, except that no rights, express or implied, are hereby granted under any foreign patents, nor shall said rights or the license herein provided for, apply to or include the use of said patents in their application to other than airplanes.

All licenses provided for herein shall run to the full end of the term of the letters patent under which the license is or is to be granted and shall be personal, indivisible, non-assignable, and irrevocable, except for the causes and in the manner hereinafter stated.

The "Subscribers" hereby designate, constitute, and appoint the "Company" (and the "Company" hereby accepts the appointment) as their true, sufficient, and lawful agent and attorney in fact, for them and in their respective names, to make and execute licenses in writing in the form hereto annexed, and to deliver the same to those of the "Subscribers" who, at the time, are stockholders of the "Company" not in default hereunder and who shall have executed an agreement in writing of like tenor to this; and to enforce said licenses and any and all other obligations (including the obligation to make payments) of the "Subscribers" under this Agreement, and the "Subscribers" hereby give and grant unto said "Company" as full, complete, and ample power and authority in the premises as the "Subscribers" themselves now have and possess.

The "Subscribers" hereby designate, constitute, and appoint the "Company" (and the "Company" hereby accepts the appointment) as their true, sufficient, and lawful agent and attorney in fact, for them in their respective names, to make and execute licenses to the Government of the United States and/or the various branches, bureaus, and departments thereof, for the use by the Government and/or the various branches, bureaus, and departments thereof of the patents covered by this Agreement, upon the agreement by the Government of the United States and/or the various branches, bureaus, and departments thereof, to pay to the "Company" the rates of royalty fixed in paragraph VII hereof, and to demand and receive of the Government of the United States and/or the various branches, bureaus, and departments thereof, royalties due the "Company", and to give the said Government of the United States and/or the various branches, bureaus, and departments thereof, receipts for royalties

Digitized by Google

so collected, and to disburse the royalties so received in the same manner as the "Company" is herein authorized to disburse the royalties received by it from the "Subscribers" hereto.

All licenses provided for herein, when made, executed, and delivered in accordance with the provisions hereof, shall have the same force and effect as if they had been executed and delivered by the "Subscribers" themselves.

III. COVENANTS OF FURTHER ASSURANCE

(a) Each "Subscriber" now or hereafter, having rights under any United States airplane patent or invention, of such character that it has legal right and power to procure the grant of rights thereunder to others but is not itself empowered to grant such rights, covenants to procure the execution of such further instrument as may be necessary to empower the "Company" to grant rights under such patent, or with reference to such invention, to the extent and in the manner herein provided.

(b) Each "Subscriber" covenants that it will not contract for or obtain any rights under any such patent or invention in such manner that its owner would be prevented from granting to other "Subscribers" hereto similar rights on the same terms unless the "Subscriber" obtains, at the same time, the further privilege to grant rights under said patent or said invention, whereby the same may and will be brought under the operation of this instrument.

IV. COVENANTS AGAINST OTHER LICENSES

Each "Subscriber" covenants that it has not heretofore and will not hereafter enter into any contract or arrangement whereby its privileges under United States airplane patents, issued or to be issued, inventions, and rights owned or controlled by it, have been or shall be diminished or surrendered so as to exclude or restrict the operation of this instrument in respect thereto. Each "Subscriber" further covenants that it will not grant licenses under any such patents for use in airplanes, with reference to which it is receiving royalties hereunder, to any other person, firm, or corporation on more favorable or lower terms of royalty than those herein provided, or which may become more favorable or lower during the term of such license.

V. AFTER ACQUIRED PATENTS

When a "Subscriber" shall hereafter acquire a United States airplane patent, or any right thereunder, he shall be entitled to compensation for the use thereof if the patent or patent right covers an invention which secures the performance of a function not before known to the art or constitutes an adaptation for the first time to a commercial use of an invention known to the industry to be desirable of use but not used because of lack of adaptation, or is otherwise of striking character or constitutes a radical departure from previous practice, or if either the price paid therefor or the amount expended in developing the same is such as to justify such compensation, provided that at the time said patent or patent right is reported to the "Company" as required in subdivision (b) of Paragraph VI, the "Subscriber" claims such compensation and states the grounds on which such claim is based. Such report and claims shall be submitted to a Board of Arbitration to be selected in the manner provided for in Paragraph XIV hereof, which Board shall determine whether such compensation shall be paid, and if so, the total amount thereof and the rate of royalty or other payments which shall be paid (toward such compensation) by each "Subscriber" upon the issuance of a license under said patent and the use by any "Subscriber" of the subject matter covered by said patent, and shall also fix the time or times when said royalties or other amounts shall be paid. Licenses shall be issued to each "Subscriber" as a matter of course, through the offices of the "Company" within thirty days (30 days) after the rendition by such Board of Arbitration of its final report, whether or not compensation, under such after acquired patent, is or is not required to be paid.

VI. REPORTS TO THE "COMPANY"

The following reports in writing shall be rendered to the "Company" by each "Subscriber" at the time or times hereinafter set forth:

(a) At the time of the execution of this Agreement each "Subscriber" shall report all United States airplane patents and inventions, together with serial

Digitized by Google

numbers and filing dates of all pending applications for such patents and all rights under such patents and inventions then owned or controlled by it, but no omission from such report shall exclude the patent, application, or right so omitted from the operation of this Agreement.

(b) Within thirty days after the acquisition by any "Subscriber" of any United States patent (other than patents to be issued upon inventions now owned by it) or right within the scope of this Agreement, each such "Subscriber" shall report such acquisition, together with all the facts known to it as to such patent or right and its manner of acquisition. If such "Subscriber" claims that additional compensation should be paid to it for licenses under such patent or right, it shall so claim in its report.

(c) On the 10th days of January, April, July, and October, in each year, each "Subscriber" shall report the number of airplanes (with or without engines) sold and delivered by it, together with the names of the purchasers, the selling price of each airplane, and the dates of delivery, or the number of airplanes put into use for other than experimental or development purposes, and the number of airplanes (with or without engines) shipped out of the United States, during the preceding three calendar months.

(d) Each License to other than "Subscribers" as provided in Paragraph IV hereof, shall be reported within thirty days after its delivery.

(e) Each suit instituted against infringers of the patents licensed hereunder shall be reported in a reasonable time.

The first report under subdivision (c) hereof shall be made by each "Subscriber" on the tenth day of January, April, July, or October first occurring after it has become a "Subscriber" hereto and shall cover the period from December 31, 1928, to the first day of the month in which the report is due.

Each of the "Subscribers" hereto shall keep separate books of account showing all business done under or subject to the operation of this Agreement. The "Company" may at any time have a New York Certified Public Accountant to be designated by it, audit such books of account of the "Subscribers", together with such other accounts as the accountant may deem necessary, in order to verify or correct the report herein provided for, and the "Company" shall have such audit made when any "Subscriber" so demands. Such audit, however, shall be limited to ascertaining whether the reports herein provided for are properly made and to correcting the same, if necessity for correction shall appear. No information obtained from any such audit shall be reported by the accountant or given to any of the parties hereto, except as it directly applies to the reports required by this Agreement.

VII. PAYMENTS TO THE "COMPANY"

Each "Subscriber" agrees to pay into the treasury of the "Company" on the 10th days of January, April, July, and October in each year the following sums of money, to wit:

(a) On each airplane, with or without engine, required to be reported as provided in subdivision (c) of Paragraph VI hereof, the sum of two per cent (2%) of the selling price of such airplane, with a maximum of Two Hundred Dollars ($200) on any one airplane regardless of its cost or selling price until such time as the Curtiss Airplane & Motor Company, Inc., shall have been paid the aggregate sums provided for in Paragraph VIII hereof, or until United States Patent No. 1203550, issued October 31, 1916, shall have expired.

(b) On each airplane, with or without engine, required to be reported as provided for in sub-division (c) of Paragraph VI hereof, such sum not to exceed one-quarter of one per cent of the selling price of such airplane, but in no case to exceed twenty-five dollars ($25.00) per airplane, as the Board of Directors of the "Company" may, from time to time, fix and determine as payable after October 31, 1933, or after the above mentioned aggregate sums shall have been paid to the Curtiss Airplane & Motor Company, Inc.

(c) Such amount or amounts as the Board of Arbitration may specify as special compensation for after acquired patents as provided in Paragraph V hereof, and required to be reported in sub-division (b) of Paragraph VI.

(d) All royalties received under Licenses referred to in sub-division (d) of Paragraph VI.

(e) All monies received as the result of suits reported under sub-division (e) of Paragraph VI less deductions for actual cost to the Subscriber of such suit.

Digitized by Google

Each "Subscriber" who shall become a party hereto after the thirty-first day of December 1928 shall on the 10th day of January, April, July, or October next thereafter occurring pay to the "Company" those amounts which it would have been obliged to pay in accordance with the foregoing if it had been a "Subscriber" on December 31, 1928.

Monies paid into the treasury of the "Company" pursuant to any provisions hereof shall not be or constitute or be deemed to be or constitute the assets, property, or profits of said "Company" but shall be received and disbursed by it as the agent and the attorney in fact of the "Subscriber" in the manner and for the purposes herein mentioned.

VIII. PAYMENTS BY THE "COMPANY"

Out of the monies paid into the treasury of the "Company" pursuant to the provisions hereof and of the predecessor agreements hereinabove mentioned, the following payments shall be made by the Company on the 20th days of January, April, July, and October in each year, to wit:

(a) To the Curtiss Aeroplane & Motor Company, Inc., eighty-seven and one-half percent (87½%) of all sums received on account of each of said airplanes with reference to which payments have been or shall be made in accordance with sub-divisions (a) and (d) of Paragraph VII hereof, until the payments so made to Curtiss Airplane & Motor Company, Inc., under the original Cross-License Agreement, when increased by the payments made after the execution of this Amended Agreement, shall aggregate the sum of Two Million Dollars ($2,000,000) or until the United States Patent No. 1,203,550 issued October 31, 1916, shall have expired, when all payments to it hereunder shall cease, except as hereinafter provided.

(b) To each of the "Subscribers" entitled thereto such amounts as may have been paid to the "Company" with relation to the use of after acquired patents in accordance with subdivision (c) of Paragraph VII, subject to the reservation in subdivision (a) of Paragraph IX.

(c) To any "Subscriber" who shall have granted licenses to other than subscribers, as provided in Paragraph IV, the royalties received under such licenses which are not required for payments provided for in subdivision (a) of this Paragraph VIII subject to the reservation of subdivision (b) of Paragraph IX.

IX. MONEYS RETAINED BY THE COMPANY

(a) The "Company" may retain and use, for the purposes set forth in subdivision (c) of this Paragraph IX up to twelve and one-half per cent (12½%) of such amounts as may be paid to the "Company" with relation to the use of after acquired patents in accordance with subdivision (c) of Paragraph VII.

(b) The "Company" may retain and use for the purposes set forth in subdivision (c) of this Paragraph IX, up to twelve and one-half per cent (12½%) of that part of any amount paid to the "Company" on account of direct licenses given and reported in accordance with subdivision (d) of Paragraph VI.

(c) Out of the balance of said moneys paid into the treasury of the "Company" under subdivision (a) of Paragraph VII of this Agreement, and not paid out by the Company under subdivision (a) of Paragraph VIII, the "Company may retain and use sufficient to cover its operating expenses and to create such fund as, in the judgment of the Board of Directors of said "Company" shall be necessary and proper for the further development of the airplane art and industry, and the purchase of patents and rights for the benefit of the "Subscribers" hereto.

X. DISPOSITION OF SURPLUS

If, after making the payments and reservations herein provided for, any surplus of balance remains out of the funds so paid into the treasury of the "Company" the same shall be distributed by the "Company" from time to time, among those "Subscribers" who have contributed to said moneys, in proportion to their respective contributions under subdivisions (a) and (b) of Paragraph VII other than those required for payments under this Paragraph X.

XI. BREACH OF AGREEMENT

In the event that any "Subscriber" is claimed by the "Company" or any other "Subscriber" to be in default in the performance of any of its obligations hereunder, and such claimed default continues after thirty days' notice

Digitized by Google

in writing, by the "Company" or any "Subscriber" claiming the default, then the Board of Arbitration, hereinafter provided for, shall determine whether there has been such specified default and if such default is found to exist, shall fix the time within which it must be repaired, and shall assess such damages and impose upon the "Subscriber" in default such other requirements (including the forfeiture of its stock and license) as may seem to the said Board of Arbitration to be proper under the circumstances. Each "Subscriber" covenants and agrees that it will pay such damages and comply with such requirements as may be specified by the said Board of Arbitration.

Nothing contained in this Paragraph shall deprive the "Company" of the power to make, execute, and deliver licenses under the patents or patent rights owned and controlled by any defaulting "Subscriber" or to which the "Subscriber" may be entitled at the time to cease to be a stockholder or "Subscriber", nor deprive other than defaulting "Subscribers" of any right which they may have received to the use of the said patents or patent rights.

XII. WITHDRAWAL FROM AGREEMENT

Any "Subscriber" may withdraw from this Agreement at any time after one (1) year after executing and delivering it, providing that written notice of its election to do so shall be given to the "Company" at least thirty (30) days in advance of the date when the next quarterly report is required to be filed under subdivision (c) of Paragraph VI hereof and on fulfilling all of its obligations up to the date of such withdrawal, but no withdrawal shall relieve the other parties and other "Subscribers" from their obligations to each other hereunder, nor deprive them of their rights acquired under the patents and patent rights owned or controlled by the withdrawing "Subscriber" at the time of withdrawal, all of said patents and patent rights remaining under this Agreement, but such withdrawing "Subscriber" shall cease to have any rights under the patents of the other "Subscribers" hereto, or any other right under this Agreement, from and after such withdrawal.

XIII. REPURCHASE OF STOCK

In the event of the death of any person who is a stockholder in the "Company" or in the event of the dissolution of any corporation or firm which is a stockholder therein, or in the event of the bankruptcy or insolvency of any such stockholders, or in the event of withdrawal under Paragraph XII hereof, the "Company" shall have the right to purchase for the benefit of the other "Subscribers" the stock held by such person, firm, or corporation at a sum not to exceed the distributive share or shares of such stockholder in the funds held by the "Company" and the license or licenses issued to such stockholder shall be surrendered to the "Company" and cancelled.

XIV. ARBITRATION OF CLAIMS AND DISPUTES

In case of any dispute or controversy between the "Subscribers" hereto, or between the "Subscribers" and the "Company" or in case of a claim by a "Subscriber" for special compensation for license under patents or rights hereafter acquired by it, or in case of breach of this Agreement, the said dispute, controversy, claim, or breach shall, within thirty days after a "Subscriber" or "Subscribers" shall have given notice in writing to the "Company" or the "Company" shall have given notice in writing to the "Subscribers" hereof, be referred to a board of disinterested arbitrators consisting of three persons, for determination.

In the case of a claim for special compensation, one member of such Board of Arbitration shall be appointed by the Board of Directors of the "Company", another by the "Subscriber" making the claim and the third by the other two arbitrators.

In the case of any dispute between the "Company" and a "Subscriber" or "Subscribers" one member of the Board of Arbitration shall be appointed by the Board of Directors of the "Company", another by the "Subscriber" (or if more than one "Subscriber" is involved in the same dispute, then by a majority of those so involved), and the third by the other two arbitrators.

In case of a breach of this Agreement asserted by the "Company" or a "Subscriber" against another "Subscriber", one member of the Board of Arbitration shall be appointed by the Board of Directors of the "Company" another by the "Subscriber" against whom the assertion of breach is made and the third by the other two arbitrators.

Digitized by Google

If either the Board of Directors or the "Subscribers" fail to appoint a member of the Board of Arbitration within the time specified the other party or parties may appoint such member or fill such vacancy.

The decision of a majority of the members of said Board upon all matters submitted to them for adjudication shall be final and binding upon all the parties hereto.

XV. RELEASE TO "SUBSCRIBERS"

The "Subscribers" hereby waive and release any and all claims which they or any of them may have had against each other for damages and profits on account of any infringement or alleged infringement prior to December 31, 1928, of any patent included within this instrument in the manufacture, sale, or use of airplanes.

XVI. BINDING UPON PARTIES, CONTROLLED COMPANIES, LEGAL REPRESENTATIVES, ETC.

This Agreement is binding upon the parties hereto and their several successors, legal representatives and assigns, but shall inure to the benefit of only their several successors in business. Each "Subscriber" agrees that all persons, firms, and corporations now or hereafter controlled by it and engaged in the manufacture of airplanes, or owning or controlling United States airplane patents, shall be caused to execute this Agreement.

XVII. EXECUTION OF AGREEMENT

Nothing herein contained shall be construed to relieve either the "Company" or any "Subscriber" hereto of any act or obligation to be performed or any duty to be fulfilled under the terms and conditions of the original Cross-License Agreement as amended April 19, 1918 and January 12, 1923, respectively, which act, obligation or duty, as and of December 31, 1928, shall remain at such time unperformed or unfulfilled.

This Agreement may be executed by the "Subscriber" in any number of counterparts, but when so executed shall constitute but one and the same Agreement, and shall be as binding, and of the same force and effect as if all the "Subscribers" had executed but one and the same instrument, and as if all executions had been dated December 31, 1928 which date shall be the date on which this Agreement becomes effective.

This Agreement of December 31, 1928 amending the original Cross-License Agreement of July 24, 1917, in turn amended by the Supplemental Agreements of 1918 and January 12, 1923, respectively, shall, for convenience, be referred to as

"THE AMENDED CROSS-LICENSE AGREEMENT OF DECEMBER 31, 1928."

IN WITNESS WHEREOF, the parties hereto have executed this instrument as of the day and year first above written.

MANUFACTURERS AIRCRAFT ASSOCIATION, INC.,

By _____, *President.*

_____, *Secretary.*

By _____, *President.*

_____, *Secretary.*

CERTIFICATE OF INCORPORATION OF MANUFACTURERS AIRCRAFT ASSOCIATION, INC.

This is to certify, that we, the undersigned, citizens of the United States, all being of full age, and at least one of whom is a resident of the State of New York, desiring to form a stock corporation pursuant to the provisions of the Business Corporations Law of the State of New York, do hereby make, sign, acknowledge, and file this instrument of writing for that purpose, as follows:

First. The name of the proposed corporation is Manufacturers Aircraft Association, Inc.

Second. The objects and purposes for which it is formed are the following:

1. To manufacture, buy, sell, and deal in all kinds of aircraft, aircraft engines, and all parts and accessories used or useful in aircraft.

Digitized by Google

2. To acquire by purchase or otherwise, and sell and dispose of all kinds of personal property, including patents, patent rights, applications for patents, and licenses and shop rights under patents, and to issue licenses; sub-licenses, or cross-licenses under letters patent.

3. To acquire by purchase, lease, or otherwise any real property or any rights or privileges in real property which the company may deem necessary and proper for the purposes of its business.

4. To acquire and take over the good will, property, and assets and assume the liabilities of any person, firm, association, or corporation engaged in similar or kindred business for the purpose herein specified.

5. To acquire, purchase, hold, sell, and deal in or dispose of stocks, bonds, securities, and other evidences of debt of any other corporation, domestic or foreign, and issue in exchange therefor, its stocks, bonds, or other obligations, and while the owner of any stocks, bonds, or other obligations, to possess and exercise in respect thereto all rights, powers, and privileges of individual owners or holders and to exercise any and all voting powers thereunder.

6. To establish and maintain in connection with the business of the corporation and as lawfully incidental thereto, laboratories for the purpose of the development and extension of the business herein referred to, together with such books of reference as may be required for said purposes.

7. To make and enter into all kinds of contracts, agreements, and obligations with any person, firm, or corporation, for purchasing, acquiring, manufacturing, exchanging, or dealing in any article of personal property of any kind or nature, to the extent that the same may be permitted by the Business Corporations Law.

8. To act as agent or attorney in fact or representative of firms, corporations, or individuals, and as such to develop, extend, and promote the business interests thereof.

9. To consolidate the business of this corporation with that of any corporation engaged in or authorized to conduct a similar business to that herein provided for, in so far as the laws of the State of New York permit such consolidation.

10. To purchase, hold, and reissue the shares of its own capital stock in the manner authorized by statute.

11. Generally, to do every act and thing necessary, suitable, and proper for the accomplishment of any or all of the objects, the attainment of any or all of the purposes, or in furtherance of any and all of the powers herein set forth, either alone or in association with any other corporation, firm, or individual, and to do any other act, thing, or things incident or appertaining to, or growing out of, or connected with the aforesaid business or powers, or any part or parts thereof, provided the same are not inconsistent with the Business Corporations Law of the State of New York, under which this corporation is organized.

Third. The number of shares of Capital Stock that may be issued by the corporation is one hundred (100), which shall have no nominal or par value.

Fourth. The amount of capital with which said corporation will commence and carry on business is one thousand dollars ($1,000).

Fifth. The corporation may issue and sell its authorized shares from time to time for such consideration as shall be the fair market value of such shares.

Sixth. The principal business office of the corporation shall be located in the Borough of Manhattan, City, County, and State of New York.

Seventh. The duration of said corporation shall be perpetual.

Eighth. The number of its directors shall be seven (7), but they need not be stockholders of said corporation. They may hold their meetings at their principal office in the State of New York, or at such other place or places within or outside of said State, which they may determine.

Ninth. The names and post office addresses of the directors for the first year are as follows: Albert H. Flint, 500 West End Avenue, New York City, N. Y.; Benjamin S. Foss, Hyde Park, Boston, Massachusetts; George H. Houston, 360 Riverside Drive, New York City, N. Y.; Harry B. Mingle, 233 Broadway, New York City, N. Y.; Frank H. Russell, Marblehead, Massachusetts; Harold E. Talbott, Jr., Dayton, Ohio; John P. Tarbox, Buffalo, N. Y.

Tenth. The names and post office addresses of the subscribers to this certificate, and the number of shares of stock which each agrees to take in the corporation, are as follows: Joseph S. Ames, Baltimore, Maryland, One; W. Benton Crisp, New York City, N. Y., One; Albert H. Flint, New York City,

Digitized by Google

N. Y., One; George H. Houston, New York City, N. Y., One; John P. Tarbox, Buffalo, N. Y., One.

In witness whereof we have made, signed, and acknowledged this certificate in duplicate, this 16th day of July, in the year one thousand nine hundred and seventeen.

JOSEPH S. AMES. (L. S.)
W. BENTON CRISP. (L. S.)
ALBERT H. FLINT. (L. S.)
GEORGE H. HOUSTON. (L. S.)
JOHN P. TARBOX. (L. S.)

In the presence of—
ALBERT F. SMITH.

STATE OF NEW YORK,
County of New York, ss:

On this 16th day of July, in the year one thousand nine hundred and seventeen, before me personally appeared Joseph S. Ames, W. Benton Crisp, Albert H. Flint, George H. Houston, and John P. Tarbox, to me known, and known to me to be the individuals described in and who executed the foregoing certificates, and they severally duly acknowledged to me that they executed the same.

[SEAL]

ALBERT F. SMITH,
Notary Public, New York County,
Clerk's No. 419, Register's No. 9204.

Term Expires March 30, 1919.

No. 48064 Series B.

STATE OF NEW YORK,
County of New York, ss:

I, William F. Schneider, Clerk of the County of New York, and also Clerk of the Supreme Court for the said County, the same being a Court of Record, do hereby certify that Albert F. Smith, whose name is subscribed to the deposition or certificate of the proof or acknowledgment of the annexed instrument, and thereon written, was, at the time of taking such deposition, or proof and acknowledgment, a Notary Public in and for such County, duly commissioned and sworn, and authorized by the laws of said State to take depositions and to administer oaths to be used in any Court of said State and for general purposes; and also to take acknowledgments and proofs of deeds, of conveyances for land, tenements, or hereditaments in said State of New York. And further, that I am well acquainted with the handwriting of such Notary Public and verily believe that the signature to said deposition or certificate of proof or acknowledgment is genuine.

In testimony whereof, I have hereunto set my hand and affixed the seal of the said Court and County, the 17 day of July 1917.

[SEAL]

W. F. SCHNEIDER, *Clerk.*

BY-LAWS OF THE MANUFACTURERS AIRCRAFT ASSOCIATION, INC.

(As amended to February 16, 1931)

ARTICLE I. STOCKHOLDERS [1]

SECTION 1. *Qualification of Stockholders.*—To entitle a person, firm, or corporation to become a stockholder of this corporation, he or it, as the case may be, shall be [1] a responsible manufacturer of aircraft or aircraft engines, or parts and accessories thereof; or a responsible manufacturer who intends to become a bona fide producer of the same; or a manufacturer to whom the United States has given a contract for the construction of ten or more complete aircraft engines; or any person, firm, or corporation owning a controlling United States patents relating to any of the foregoing.[1] No one becoming a stockholder of this corporation [1] shall, however, acquire, own, or hold at any time more than one (1) share of stock of the Corporation.[1]

[1] Provisions for Voting Trust Agreement, which expired by limitation in July 1935, omitted.

Digitized by Google

ARTICLE II. DIRECTORS

SECTION 1. *Directors.*—The affairs of the corporation shall be managed and controlled by a Board of Directors to consist of twelve persons, who shall be elected annually at the regular annual meetings of the stockholders and who shall serve for one year, or until their successors are elected.

SECTION 2. *Vacancies.*—Vacancies in the Board of Directors occurring during the year shall be filled by a majority vote of the remaining members of the Board at any regular meeting thereof, or at any special meeting called for the purpose of filling any such vacancies.

ARTICLE III. OFFICERS AND THEIR DUTIES

SECTION 1. *Officers.*—The officers of the corporation shall consist of a President, as many Vice-Presidents as the Board of Directors may from time to time deem necessary or expedient, a Treasurer, and a Secretary. The Board may also elect or appoint at any time an Assistant Treasurer and Assistant Secretary, and such other officers, agents, and employees as it may deem proper and for such periods as it may determine. The offices of Secretary and Treasurer may be held by one and the same person, and the offices of Assistant Treasurer and Assistant Secretary may also be held by one and the same person.

SECTION 2. *Election of Officers.*—As soon as practicable after the election of the Board of Directors in each year, such newly elected Directors shall hold an Annual Meeting and elect a President from their number and also elect one or more Vice-Presidents, as provided in Section 1 of this Article, a Treasurer and a Secretary, all of whom shall serve for the ensuing year or until their successors are elected.

SECTION 3. *Vacancies.*—In the event of a vacancy in any of said offices, either by death, resignation, or otherwise, the same shall be filled by the Board of Directors at any regular or special meeting of said board.

SECTION 4. *The President—His Duties*—The President shall preside at all meetings of the corporation and at all meetings of the Board of Directors. He, together with the Secretary, unless otherwise ordered by the Board of Directors, shall sign all contracts, deeds, leases, licenses, or other instruments or writings necessary for the due and proper conduct of the business of the corporation. He, together with the Treasurer, unless otherwise ordered by the Board of Diectors, shall sign all certificates of stock, and bonds, issued by the corporation, and shall countersign all checks, drafts, notes, or bills which may be required for the purposes of the corporation. He shall have general supervision of the affairs of the corporation and shall perform such other duties as may be required of him from time to time by the Board of Directors or as are required of him by the laws of the State of New York.

SECTION 5. *The Vice-Presidents—Their Duties.*—All Vice-Presidents shall have equal rank. In the absence of the President, they shall perform all the duties of the President and such other duties as may be required of them from time to time by the Board of Directors and as are required of them by the laws of the State of New York.

SECTION 6. *The Treasurer*—His Duties.—The Treasurer shall have charge of all moneys, bills, notes, and other evidences of debt of the corporation; shall deposit all moneys coming into his hands in the name of the corporation, and shall keep true and accurate books of account of all such moneys and other property of the corporation received by him. He, together with the President, unless otherwise ordered by the Board of Directors, shall sign all certificates of stock, and bonds, checks, drafts, and notes or bills issued by or required for the purposes of the corporation. He shall also perform such other duties as may be required of him from time to time by the Board of Directors or as are required of him by the laws of the State of New York. He shall report from time to time to the Board of Directors or as often as may be required by said Board, concerning all matters pertaining to his office. He shall give a bond for the faithful discharge of the duties of his office in such amount as shall be fixed by the Board of Directors.

SECTION 7. *The Assistant Treasurer—His Duties.*—The Assistant Treasurer, in the absence of the The Treasurer, shall perform the duties of the Treasurer, and shall perform such other duties as may be required of him from time by

Digitized by Google

the Board of Directors or as are required of him by the laws of the State of New York. He shall give a bond for the faithful discharge of the duties of his office in such amount as shall be fixed by the Board of Directors.

SECTION 8. *The Secretary—His Duties.*—The Secretary shall have charge of the corporate seal and shall attend all sessions of the stockholders and the Board of Directors; act as the clerk thereof and keep true and accurate records and minutes of all proceedings of said stockholders and Board in a book or books to be kept for that purpose. He, together with the President, unless otherwise ordered by the Board of Directors, shall execute all contracts, deeds, leases, licenses, or other instruments or writings necessary for the due and proper conduct of the business of the corporation. He shall send out all notices of meetings of stockholders and directors of the corporation, and shall perform such other duties as may be required of him by the Board of Directors or as are required of him by the laws of the State of New York.

SECTION 9. *The Assistant Secretary—His Duties.*—The Assistant Secretary, in the absence of the Secretary, shall perform all the duties of the Secretary, and shall perform such other duties as may be required of him from time to time by the Board of Directors or as are required of him by the laws of the State of New York.

SECTION 10. *Compensation.*—The officers and directors of the corporation may receive by way of compensation for services rendered by them such salary or salaries as the Board of Directors of said corporation may from time to time approve.

ARTICLE IV. MEETINGS, QUORUMS, ETC.

SECTION 1. *Annual Meetings of Stockholders.*—There shall be an annual meeting of the stockholders of the corporation to be held at 11 a. m. on the last Friday in January of each year. At such meeting the stockholders may transact any and all business which may properly come before them, and shall elect the directors for the ensuing year in the manner hereinbefore set forth.

SECTION 2. *Annual Meetings of Directors.*—Immediately after the annual stockholders' meeting hereinbefore referred to, or as soon thereafter as may be convenient, there shall be held an annual meeting of the Board of Directors of the corporation. At such meeting said Board shall elect the officers for the ensuing year, and may transact any and all other business which may properly come before it.

SECTION 3. *Special Meetings of Stockholders.*—Special meetings of the stockholders shall be called at the request of holders of the stock owning at least ten (10 per cent thereof, by the officers of the corporation, or any of them, to be held within fifteen (15) days after said request has been made, or by the President without request. The notice of the meeting shall be in writing, and signed by the President or a Vice-President, or the Secretary or an Assistant Secretary. Such notice shall state the purpose or purposes for which the meeting is called, the time and the place where the same is to be held, and a copy thereof shall be served either personally or by mail upon each stockholder of record entitled to vote at such meeting and to any stockholder who by reason of any action proposed at such meeting would be entitled to have his stock appraised if such action were taken, not less than ten (10) nor more than forty (40) days before the meeting. If mailed, it shall be directed to a stockholder at his address as it appears on the stock book unless he shall have filed with the Secretary of the corporation a written request that notices intended for him be mailed to some other address, in which case it shall be mailed to the address designated in such request.

SECTION 4. *Special Meeting of Board of Directors.*—The officers of the corporation, or any of them, upon the request of any two members of the Board of Directors, shall call a special meeting of said Board, to be held within five (5) days after the receipt of said request, and the Secretary shall give by mail and by telegraph to each member of said Board at his last known post office address, a notice of said meeting stating the purposes thereof, at least three (3) days before the date upon which such meeting is to be held. The President may, without request, upon like notice, call a special meeting of said Board.

SECTION 5. *Quorum of Stockholders' Meetings.*—At all meetings of stockholders, except where it is otherwise provided by law, it shall be necessary that stockholders representing in person or by proxy a majority of the capital

Digitized by Google

stock, issued and outstanding, be present in order to constitute a quorum for the transaction of business.

SECTION 6. *Quorum of Directors' Meetings.*—At all meetings of the Board of Directors at least one-third of the number thereof shall be present to constitute a quorum for the transaction of business.

SECTION 7. *Failure to Perform Duty.*—Should any person whose duty it is to call a meeting at the time or times required by these by-laws, fail or refuse to do so, the meeting may be called by any other officer or director.

ARTICLE V. BALLOTING AND INSPECTORS

SECTION 1. *Balloting.*—At all meetings of the stockholders the voting shall be by ballot. At all meetings of the Board of Directors the voting may be viva voce.

SECTION 2. *Inspectors.*—The stockholders may at their annual meetings provided for in Section 1, of Article IV hereof, in each year, designate two (2) persons who shall act as inspectors of election for the ensuing year. Upon their failure so to designate inspectors, the Board of Directors may, at any time prior to election, designate the same. Upon the failure of both to so designate inspectors prior to any election, the President is authorized to make such designation.

ARTICLE VI. AMENDMENT

SECTION 1. These by-laws may not be amended, altered, or suspended by the Board of Directors, but only by stockholders at an annual or special meeting, by the affirmative vote of stockholders representing at least seventy-five (75%) per cent in amount of the stock then outstanding.[1]

CONTRACT BETWEEN MANUFACTURERS AIRCRAFT ASSOCIATION, INC. AND THE WAR AND NAVY DEPARTMENTS OF THE UNITED STATES GOVERNMENT GRANTING A NON-EXCLUSIVE LICENSE TO THE LATTER UNDER ALL AIRPLANE PATENTS EMBRACED WITHIN AND ACCORDING TO THE TERMS OF THE AMENDED CROSS-LICENSE AGREEMENT OF SAID ASSOCIATION

(Effective December 31st, 1928)

Contract of the thirty-first day of December 1928, by and between Manufacturers Aircraft Association, Inc., a New York Corporation, hereinafter termed "Association", acting in behalf of its subscribers and in its own behalf, party of the first part, and the United States of America, represented by the Secretary of War and the Secretary of the Navy, hereinafter termed "The Government", party of the second part, witnesseth:

Whereas the Association controls and has power to grant licenses under certain United States patents covering important inventions relating to aircraft; as listed and shown in appendix "A" hereto attached, and has been authorized to act herein; and

Whereas the use of several of these patented inventions is necessary in the successful operation of airplanes or hydro-airplanes, the term planes being hereinafter used to include airplanes, hydro-airplanes, and flying boats; and

Whereas the Government has acquired or desires to acquire aircraft, using certain or all of the aforesaid inventions; and

Whereas all formal and informal Agreements between the Government and the Association relating to the period of the War for the licensed use of said patented inventions and for payment of royalties, were terminated on July 2, 1921, except only such matters as are in dispute in a certain action now pending in the United States Court of Claims entitled "Manufacturers Aircraft Association, Inc., vs. United States of America", which action covers the period both before and after July 2, 1921; and

Whereas the Government desires to secure licenses for the future use of said patented inventions under as favorable terms and conditions as is provided in the Amended Cross-License Agreement of the thirty-first day of December 1928, to which reference is made herein.

[1] Provisions for Voting Trust Agreement, which expired by limitation in July 1935 omitted.

Digitized by Google

Now therefore, in consideration of the premises, covenants, and conditions herein contained and other good and valuable considerations moving between the parties hereto, it is covenanted and agreed as follows, viz,

1. The Association hereby grants to the Government a non-exclusive license to make, or cause to be made and use and sell in the United States, its territories and possessions during the term of this contract and thereafter to use and to sell airplanes under any and all of such airplane patents as defined in said Cross-License Agreement as are enumerated in Appendix "A" of the Amended Cross-License Agreement, dated December 31, 1928, copy of which is attached hereto and by reference made a part hereof and under all other patents which have been or may be reported to or acquired by or come into the control of the Manufacturers Aircraft Association, Inc., and/or Subscribers thereto; Provided, however that no licenses are so granted to the Government hereunder in patents reported to the Association with a claim for extra compensation under Paragraph V of said Amended Cross-License Agreement; Provided, further that an option is hereby granted to the Government to acquire licenses under those patents so reported on the same terms as granted to said Subscribers.

2. The Government agrees to pay for such use of the inventions described in any and all of said patents, a sum equal to two per cent (2%) of the cost or purchase price of such airplanes, as it may either make or acquire, as provided in Paragraph 1, above, provided that the Government shall not be required to pay nor shall any obligation accrue to pay royalties on airplanes upon which members or nonmembers of the Manufacturers Aircraft Association, Inc., have paid or have agreed to pay royalties; provided further, however that in no instance shall said royalty exceed the sum of Two Hundred Dollars ($200) per airplane, regardless of what the cost or price thereof may amount to, and provided that the cost or price thereof as used herein shall be understood to mean the price paid to a manufacturer, if procured from a manufacturer, completely equipped, ready to operate, including all parts of airplanes and accessories used therein except the engine and such engine accessories as propellers, propeller hubs, super-chargers, starters, magnetos, mufflers, carburetors and reduction gears, and if such airplane is built or manufactured by the Government the cost shall be the amount expended in the direct construction thereof, including the cost of materials entering therein completely equipped ready to operate including all parts of airplanes and accessories used or useful therein, except the engine and such engine accessories as propellers, propeller hubs, super-chargers, starters, magnetos, mufflers, carburetors and reduction gears.

The Government agrees to pay said royalties for use of the inventions described in any and all of said patents until the maximum payments provided for in the Amended Cross-License Agreement shall have been made or until Patent No. 1,203,550 shall expire, on the 31st day of October 1933, after which the Government shall enjoy the license herein conveyed and granted without the payment of any further royalties.

The word "use" as employed herein shall be held to include the manufacturing of planes by the Government or through the procurement of the Government or the purchases by the Government of planes from others.

3. For the purpose of carrying out the above, the Government shall on the tenth day of April, July, October, and January in each year make reports to the Association of the number of planes manufactured or otherwise acquired by its War and Navy Departments during the preceding three months.

Upon receipt of each report the Association shall forthwith render invoices to said Departments in accordance with said reports and the terms and provisions of Paragraph 2 of this contract. The Government agrees to receive such invoices and to authorize and instruct its disbursing officers to make payments accordingly.

Payments under this contract shall be made to the Association and when payments are so made and received, they shall constitute and be accepted for and on behalf of the owners of the patents by the Association as full and complete compensation as to the airplanes to which they apply for licenses to use any and all of the said patents as set out hereinbefore.

The Association shall disburse and account for each of such payments in precisely the same manner as if the same had been made to the Association under the Cross-License Agreement by a Subscriber thereto and as if the royalty for each plane had been received from a Subscriber by the Association at the time when such plane was acquired by the Government.

Digitized by Google

The Association shall furnish to officers of the Government, when required, a statement by a certified public accountant of the total amount of royalties paid by it to each of the owners of the patents under the Cross-License Agreement and the Amended Cross-License Agreement, and when the maximum payments provided thereunder for the owners of the patents have been completed, no further payment of royalties on the part of the Government shall be demanded or paid.

4. The Government shall have the right to terminate this contract by serving a written notice upon the Association at least five days before the beginning of each additional year; but in the absence of such action it is agreed that the provisions thereof shall be automatically renewed and continue in force until such notice shall be served or the contract shall be terminated in accordance with the other provisions thereof; provided that, if upon demand by the United States to the Association and owners of the patents, the owners of the patents fail for ninety days to bring suit to enforce the rights of the patents herein licensed, all liability to pay royalties shall cease thereafter and until such suit is brought.

5. The Government does not admit, and is not to be understood as admitting, by virtue of the license hereunder, the validity of any of said Letters Patent heretofore or hereafter issued and is to be held free to dispute the validity of each and any of them in case the public interest should so require, save that this provision shall not be construed to give it any right, if such right be now otherwise lacking, to dispute validity in connection with any claims growing out of past operations under previous formal, informal, or implied contracts.

6. Any department, bureau, or independent establishment of the Government, not signatory hereto, may avail itself of the license herein granted upon the same terms as the War and Navy Departments upon written notice to the Association of its intention so to do, and by paying the royalties prescribed herein and otherwise complying with the terms hereof.

7. No Senator or member or delegate to Congress, officers of the Army or the Navy, nor any person holding any office or appointment under the Army or the Navy Department, is or shall be admitted to any share or part of this contract or to any profits that may arise therefrom, but this provision shall not be construed to extend to stockholders of the Manufacturers' Aircraft Association or any Subscriber thereto.

MANUFACTURERS AIRCRAFT ASSOCIATION, INC.,
By _____, *President.*

Attest:

_____, *Secretary.*

UNITED STATES OF AMERICA,
By _____,
Secretary of War.

_____
Secretary of Navy.

Executed in quintuplicate.

Form No. 2.

PATENT LICENSE

License, granted this _____ day of _____ 19__, by _____ _____ (hereinafter called the Licenors), to _____ _____ (hereinafter called the Licensee).

Whereas the Licensors and certain other stockholders of the Manufacturers Aircraft Association, Inc., (hereinafter called "Subscribers") heretofore entered into a certain agreement dated July 24, 1917, known as the Cross-License Agreement and/or having entered into an Amended Agreement, entitled "The Amended Cross-License Agreement of December 31, 1928", wherein and whereby the Licensors agreed to grant certain licenses to the other "Subscribers" to said agreement, and

Whereas both said Cross-License Agreement and said Amended Cross-License Agreement authorized and empowered the Manufacturers Aircraft Association, Inc., as the agent for and attorney in fact of the Licensors, to make, execute, and deliver such licenses in the name of the Licensors, and

Whereas certain licenses have been issued to the Licensee herein under patents heretofore reported to the Associatiton by Subscribers, and additional

Digitized by Google

patents having been subsequently reported by Subscribers to said Association, it is now desired to issue licenses thereunder to the Licensee;

Now, therefore, this license witnesseth: That for and in consideration of the premises and other good and valuable considerations moving between the parties hereto, it is covenanted and agreed as follows:

1. The Licensors do hereby give and grant unto the said Licensee, the unrestricted but non-exclusive license to make, use and sell airplanes under the patents described in Schedule "A __", hereto annexed and made a part thereof, in and throughout the United States, its territories and dependencies, for use therein or abroad, except that no rights, express or implied, are hereby granted under any foreign patents, nor shall the licenses herein provided for, apply to or include the use of said patents in their application to other than airplanes.

2. This license shall run to the full end of the term of the Letters Patent under which it is granted, and shall be personal, indivisible, nonassignable, and irrevocable, except for the causes and in the manner set forth in said Amended Cross-License Agreement.

3. This License is made subject to all the terms, conditions, covenants and agreements contained in said Amended Cross-License Agreement, which is made a part hereof with the same force and effect as if herein set forth at large.

In Witness Whereof, the parties hereto have caused this license to be executed as of the day and year first above written.

MANUFACTURERS AIRCRAFT ASSOCIATION, INC.

_____

_____

As Agent and Attorney in fact of the Licensors.

_____, *Licensee.*

_____, *President.*

_____, *Secretary.*

SCHEDULE A

Name of licensor and patent no.	Issue date	Title of invention

(License Form No. 3—After-acquired patents granted royalty compensation)

PATENT LICENSE ISSUED PURSUANT TO AWARD OF ROYALTY COMPENSATION BY BOARD OF ARBITRATION NO. —

LICENSE, granted this_____day of_____, by_____ _____(hereinafter called the Licensor), to_____ _____(hereinafter called the Licensee).

Whereas the Licensor and certain other stockholders of the Manufacturers Aircraft Association, Inc. (hereinafter called Subscribers), heretofore entered into a certain agreement, dated July 24, 1917, known as the Cross-License Agreement and/or entered into an Amended Agreement, entitled "The Amended Cross-License Agreement of December 31, 1928", wherein provision is made for the cross-licensing of airplane patents owned or controlled by Subscribers, and

Whereas both said Cross-License Agreement and said Amended Cross-License Agreement authorize and empower the Manufacturers Aircraft Association, Inc., as the agent and attorney in fact of the Subscribers, to make, execute, and deliver such licenses in the names of the Licensors, and

Whereas, in reporting to said Association the patents hereinafter described, the Licensor claimed compensation under Article V of said Cross-License Agreement or said Amended Cross-License Agreement for the issuance of licenses

Digitized by Google

thereunder to other Subscribers, and the use by them of the inventions covered by said patents, and

Whereas, a Board of Arbitration was duly constituted in the manner provided for in said Agreements which, after considering the claims of the Licensor on the patents hereinafter described, rendered its award thereunder providing for the payment by Subscribers of the royalties hereinafter set forth.

Now, therefore, this license witnesseth: That for and in consideration of the premises and other good and valuable considerations moving between the parties hereto, it is covenanted and agreed as follows:

1. The Licensor does hereby give and grant unto the Licensee a non-exclusive license to make, use, and sell airplanes under the following described patents in and throughout the United States, its territories and dependencies, for use therein or abroad, except that no rights, express or implied, are hereby granted under any foreign patents, nor shall the licenses herein provided for, apply to or include the use of said patents in their application to other than airplanes:

No. _____ Issue Date _____ Title _____

2. This license is effective from the issue dates of the patents hereinbefore described, unless otherwise herein provided, and shall run to the full end of the terms thereof. It is personal, indivisible, non-assignable, and irrevocable, except for the causes and in the manner set forth in said Amended Cross-License Agreement.

4. This license is subject to all the terms, conditions, covenants, and stipulations contained in said Amended Cross-License Agreement, which is made a part hereof, with the same force and effect as if herein set forth at large.

In Witness Whereof, the parties hereto have caused this license to be executed as of the day and year first above written.

MANUFACTURERS AIRCRAFT ASSOCIATION, INC.

_____

_____

As Agent and Attorney in fact of the Licensors.

_____, *Licensee.*

_____, *President.*

_____, *Secretary.*

KEYSTONE AIRCRAFT CORPORATION,
New York, N. Y., December 6, 1935.

HON. WILLIAM I. SIROVICH,
Chairman, House of Representatives, Committee on Patents,
Fifth Avenue Hotel, 24 Fifth Avenue,
New York, N. Y.

DEAR SIR: There is submitted herewith, in behalf of Keystone Aircraft Corporation, answer to the questionnaire contained in your letter of November 9, 1935.

Very truly yours,

KEYSTONE AIRCRAFT CORPORATION,
By E. S. CRAMER, *Agent.*

KEYSTONE AIRCRAFT CORPORATION

Keystone Aircraft Corporation was legally dissolved September 28, 1934. It accordingly owns no patents, makes use of no patents, is licensed under no patents, and is not now a party to any cross-licensing or patent pooling agreement. All patents previously owned by Keystone Aircraft Corporation were assigned to Curtiss Aeroplane & Motor Co., Inc., November 18, 1933.

The above, it is believed, is a complete answer to the questionnaire dated November 9, 1935, sponsored by your committee.

Digitized by Google

CURTISS-WRIGHT CORPORATION,
New York, December 6, 1935.

HON. WILLIAM I. SIROVICH,
Chairman, House of Representatives, Committee on Patents,
Fifth Avenue Hotel, 24 Fifth Avenue,
New York, N. Y.

DEAR SIR: There is submitted herewith, in behalf of Curtiss-Wright Corporation, answer to the questionnaire contained in your letter of November 9, 1935.

Very truly yours,

CURTISS-WRIGHT CORPORATION,
By E. S. CRAMER, *Secretary.*

CURTISS-WRIGHT CORPORATION

Curtiss-Wright Corporation owns no patents, makes use of no patents, is licensed under no patents, is not now nor has it ever been a party to any cross-licensing or patent-pooling agreement.

The above, it is believed, is a complete answer to the questionnaire dated November 9, 1935, sponsored by your committee.

JANUARY 9, 1936.

Mr. V. J. BURNELLI,
Burnelli Aircraft, Ltd.,
Keyport, N. J.

MY DEAR MR. BURNELLI: Your very kind letter of recent date is hereby acknowledged. I would respectfully ask you to prepare any memoranda or brief that you desire regarding the aircraft situation as it affects your organization. If you will send it to me within the next week or two, I shall have it incorporated in the record of the patent-pooling hearings.

With every good and kind wish to you, I beg to remain,

Very sincerely yours,

WILLIAM I. SIROVICH.

BURNELLI AIRCRAFT, LTD.,
Keyport, N. J., December 28, 1935.

Hon. WILLIAM SIROVICH,
Chairman, Patent Committee, House of Representatives,
Washington, D. C.

DEAR DR. SIROVICH: We greatly appreciate the consideration you extended our associates and myself in connection with the hearings of your committee in New York. Its recommendations, beyond doubt, will have valuable effect in correcting known abuses and encourage more fair practice in the dealings between the government branches and the unentrenched or independent contributors also in industrial relations with invention and development which, in most cases, originates from new and unexpected sources.

While it is understandable for the strong to attempt to devour the week, based on our heritage of nature's laws, it is the duty of government to prevent the employment of this primitive instinct which clashes with present civilized order.

It is necessary to encourage the government branches to set a better example and in an unbiased way encourage and consider creative work beyond the limits fixed by patent pools and cross license clanishness. Also, the purpose and rights granted by a related branch of Government, the Patent Office, especially when backed by reduction to practice should be properly regarded and not treated as contributing only nuisance value from any source outside the circle.

Your advising us that the hearings are to be continued in Washington and that we will be granted ample time and consideration for such constructive suggestions as we may contribute, based on our timely and practical experience, is appreciated.

The attached photostat briefly applies notice regarding the broad phase of our situation based on our reduction to practice and patent position which applies to the most modern form of aircraft.

Under the old deal we had to face the harrassing issue that financial might was right, however, we have recently applied effective and thorough engineering and demonstrating effort to bring about government consideration of the

Digitized by Google

proven advancement, of our all-wing lifting fuselage type of design, for military service and anticipate fair decision.

Our firm has received no government contract work or assistance, or sold a share of stock to bring about proof of the advantages of our type which has been demonstrated on private means by the construction and operation of large airplanes of our type since 1920. During the early period our planes were among the largest commercial airplanes in the world.

Respectfully yours,

BURNELLI AIRCRAFT, LTD.,
V. J. BURNELLI, *Vice President.*

[Proof of advertisement for the January 1933 issue of Aero Digest]

THE ALL-WING PRINCIPLE OF AIR TRANSPORT DESIGN AS PIONEERED BY BURNELLI

The Burnelli transport, developed and refined over a period of years, has reduced to practice a new trend of airplane design. It provides the desired aerodynamic advancement to meet the growing demands of air transportation for increased safety, speed, and space.

The Burrelli design is based on the all-wing principle (an airfoil section with cargo space within and multi-engines at the entering edge) concerning which our extensive patent properties relate. The evolutionary advancement of the all-wing principle is readily discernible in the accompanying illustrations of development planes.

This program was begun with the RB–1, which incorporated the fundamentals of the future giant flying wing airplane, in part, by using a central airfoil body element with complementary supporting area. This permitted the founding of engineering and construction values with control and stability qualities on a preliminary test basis.

Enlargement in span and capacity would consequently permit usual wing proportions for the entire span, to provide required thickness to enclose power plant, useful load and other exposed elements within the lifting structure, with propellers directly forward. Thereby, with giant machines, the power required to overcome parasite resistance is saved and the load distributed over the span with consequent weight reduction.

In applying this principle to transport design of present size, the compromise now employed combines suitable accommodations with high aerodynamic efficiency. Excess chord and thickness are used for the center wing section with normal high efficiency sections for required wing surface.

The production application of this design, incorporating the stressed skin construction developed with the UB–20, will assist the economical advancement of air-transport design and construction. In operation, it will achieve the high aerodynamic efficiency for the finest single engine design combined with the greater power reliability and required size increase of the nacelle type. Other desirable safety, structural, and accommodation advantages are a direct result. The accessibility and ability of the duplex power installation, to permit satisfactory single engine flight, is a main design feature.

The following briefly covers opinion regarding consideration that should be applied to improving the aircraft patent situation.

Since the formation of the cross-license agreement of the N. A. A. during the war, based on the Wright airplane and Curtiss flying-boat patents including a mass of details contributed by other members, the Government branches apparently took it for granted that that was the source of all aircraft design patent rights for the past, present, and future. Through the Government's association with this group, indifference was applied to any patent affecting aircraft which was outside the circle. These tactics were practiced by the Government procurement branches and of course the members of the favored select circle which established their entrenched position under the distress of the war, reaped generous financial profits.

The fact that the Government formerly held the association members harmless from infringement in Government contracting required the Government to maintain patent department for the purpose of defending any possible claim or litigation that would be brought about through infringement by members on patented elements which were outside of the cross-license circle.

The Morrow board in 1926, following considerable pressure from certain independents, recommended that a board be appointed to encourage and determine new invention and consider infringement in connection with Govern-

Digitized by Google

ment work. This board to be composed of an Assistant Secretary of War, Assistant Secretary of Navy, and a member of the National Advisory Committee of Aeronautics, which organization has always been closely associated with the cross-license interests though supported by funds appropriated by Congress.

Hearings on the bill were intended to bring out suggestions and means to remedy the evil and give encouragement to outside invention and consideration to those who had been infringed on. The final bill contained provision to pay, not to exceed $75,000 for each patent infringed or which may be later bought by the Government. This small item, in a field where development cost may run into hundred of thousands of dollars, was apparently intended to destroy incentive and discourage capital interests from backing development work and new invention. The tendency has been for the Government branches, if possible, to refuse to have anything to do with patent devices, particularly regarding airplane design and construction. This of course is not in the spirit of Federal policies because the patent office is a sister branch of the Government and its purpose and functions should not be held in contempt and prejudiced by other Government branches.

The air procurement law of 1926 provides a clause, section K, which was intended to permit the Government to purchase new and patented designs of aircraft without requiring the design competition which was intended for procurement of standard types based on degree of engineering refinement. Instead of confining section K to patented products the wording was changed to cover proprietary rights and not the intended expression of patent rights. This change made it possible for the Government to give the majority of the contract work, under this clause, to the then-established groups and it was the generous interpretation of section K and proprietary rights that gave established firms a preferential position outside of patent law.

The Military Affairs Committee, since the present administration, brought out the unfairness of this procedure through hearings conducted by the aviation subcommittee and considered that the wording of section K be amended to specifically apply to patented products which could not be a subject of open bidding. This change would be to the fair interest of those who contribute to aviation invention and advanced development upon which progress depends. The Government could encourage same by awarding an experimental contract instead of being in a position opposed to patent rights or at least inclined to discount the other then nuisance aspects of same.

The Government should set a good example in this regard as the Patent Office is a related institution and provides considerable Federal income in contrast to the deficit incurred by the others.

Substitute License Agreement (B2) Between General Electric Co. and American Telephone & Telegraph Co., and Agreements Relating Thereto

Substitute License Agreement (B2) Dated July 1, 1932, Between General Electric Co., and American Telephone & Telegraph Co.

Agreement dated July 1, 1932, between General Electric Co., a New York Corporation (herein called the General Company), and American Telephone and Telegraph Co., a New York corporation (herein called the Telephone Company).

Whereas the parties hereto heretofore entered into an agreement made the first day of July 1920, generally known as Agreement "B", which was subsequently modified by an agreement dated July 1, 1926, generally known as "Modified Agreement B", and

Whereas it is now the mutual desire of the parties to substitute therefor this agreement and the licenses herein granted.

Now, in consideration of the premises and the mutual agreements herein contained, the parties agree each with the other as follows:

Article I. Termination of Existing Agreements and Licenses

The said agreements of July 1, 1920, and July 1, 1926, generally known as Agreement B and Modified Agreement B, respectively, and all licenses therein granted and agreed to be granted are hereby terminated as of the

Digitized by Google

date hereof, and this agreement and the licenses herein granted and agreed to be granted are substituted therefor.

ARTICLE II. DEFINITIONS

For the purposes of this agreement the following terms are defined as follows:

"*Wire telephony*" is the art of communicating or reproducing sound waves (created, directly or indirectly, by the voice or by musical instruments) by means of electricity, magnetism, or electro-magnetic waves, variations, or impulses conveyed or guided by wires, and includes all generating, measuring, switching, signaling, and other means or methods incidental to or involved in such communication.

"*Wireless telephony*" has the same meaning as "wire telephony", except that the waves, variations, or impulses are radiated through space.

"*Wire telegraphy*" is the art of communicating messages by code signals (such as the Morse Code, for example), and of picture transmission, by means of electricity, magnetism, or electro-magnetic waves, variations or impulses conveyed or guided by wires, and includes all generating, measuring, switching, signaling, and other means or methods incidental to or involved in such communication, but does not include such devices as annunciators, elevator signals, engine-room telegraphs, etc.

"*Wireless telegraphy*" has the same meaning as "wire telegraphy", except that the waves, variations, or impulses are radiated through space.

"*Picture transmission*" is the art of transmitting, or receiving at another point than the point of transmission, by means of electricity, magnetism or electro-magnetic waves, variations or impulses, the aspect or shape of things, including pictures, whether still or moving, drawings, writings, forms, and other graphic, printed and written matter of all kinds; and includes television.

"*Programs*" means pictures, news, music, speeches, sermons, advertising, and entertainment, educational, and similar matter, or any of them or combinations of any of them, for the purpose of exhibition, entertainment, or instruction.

"*Power purposes*" means all prime movers and their accessories and all generation, use, measurement, control, and application of electricity for light, heat, power, and traction, but does not include any communication purpose.

"*Public address system*" means a combination including one or more telephone transmitters, an electrical amplifier or amplifiers and one or more loud speaking telephone receivers, either adjacent to said transmitters or at a distance therefrom, operating by one-way wire telephony for the reproduction of sound with increased volume, but does not include apparatus for (1) wireless telephone reception, or (2) reception of programs over electric light, electric heat, electric power, or electric traction lines, or (3) the production or reproduction of sound from sound records.

"*Phonographs*" means all apparatus for the reproduction of sound from sound records used in or in connection with such apparatus, to be heard in the immediate vicinity of the apparatus, but does not include apparatus for the transmission to, or reception at, other points of sound reproduced from such records.

"*Electric Phonograph*" means a phonograph in which the sound record used therein gives rise to or controls an electric current or electro-motive force in such a way that the variations of the electric current or electro-motive force correspond in some way to the recorded sounds, and the electric current or electro-motive force directly or indirectly brings about the production of the sound from the phonograph.

"*Transoceanic*" communication means all communication which crosses any ocean, gulf, or sea between two continents, or between a continent and an island more than one hundred miles from its shores (islands within one hundred miles of the shores of a continent being considered parts thereof), or between two islands which are not parts of the same continent, except that communication between ships or aircraft, between ships and aircraft, or between ships or aircraft and shore, and communication between parts of the same continent, is not transoceanic communication. North America, including the Panama Canal Zone and all of Central America north thereof, is to be considered as one continent, and South America and all of Central America south of the Panama Canal Zone as another.

"*The United States Government*" means not only the Federal Government but also the Governments of the Philippines, Porto Rico, and other Federal

Digitized by Google

possessions, present or future; but does not include any municipal, county, or State government.

"*Train dispatching*" is telegraphic or telephonic conveyance of tran orders or operating information between the office of a train dispatcher or similar official and railway trains or other automotive land vehicles (not including airplanes or airships), or points along the line of way for directing the movements of such automotive vehicles.

"*Railway signalling*" is the operation of signals, switches, brakes, stops, crossing gates, etc., controlling or signalling the movements of trains or other automotive vehicles, controlled by or in accordance with train or vehicle movements or track conditions, including block signalling, cab signals, and train stops. It does not include train dispatching.

"*Apparatus*" includes machines, devices, and appliances and the materials entering into the construction thereof.

"*Household devices*" are electric or electrically operated apparatus, not herein otherwise specified, designed primarily for domestic use, but do not include apparatus for communication purposes.

"*Homes*" means all places of residence, permanent or temporary, including, however, as to hotels, hospitals, and clubhouses only the private living rooms thereof.

"*Amateur*" means one, not a professional investigator, who is more than a mere broadcast listener and who evidences his interest in the art of wireless telephony by study, investigation, or experiment in the art.

"*Printing telegraph apparatus*" means, and is limited to, mechanisms and devices for use in telegraphy, whether wire or wireless, whereby electrical signals corresponding to the characters of a message—

(*a*) are created in an electric circuit by the operation of a manual device upon which such characters are represented, or by the operation of an automatic transmitter controlled by a tape or other record having holes or other marks corresponding respectively to the characters of the message impressed thereon by the operation of such manual device, and/or

(*b*) are utilized to cause said characters to be successively recorded or displayed (directly or through storage means) in typed or other form, or are utilized to select successively devices or elements corresponding to said characters, and/or

(*c*) are sequentially distributed or delivered by the apparatus referred to in clause (*a*) to a transmission channel, (such as a wire circuit, carrier-current circuit, or radio apparatus) or from a transmission channel to the apparatus referred to in clause (*b*);

but this definition does not include the transmission channel or any apparatus, circuits, systems, or methods for electrical transmission or reception the functions of which are distinct from those of the apparatus referred to in clauses (*a*), (*b*), or (*c*) hereof, nor any mechanism or devices for enabling automatic comparison of sequential repetition of said signals or records thereof; and this definition does not include any apparatus for "picture transmission" as herein defined.

"*Subsidiaries*" of either party are corporations a majority of whose stock having power to vote for the election of directors is owned, directly or indirectly, either by such party, or by such party and one or more of its other subsidiaries, or by one or more of its other subsidiaries. The party hereto so controlling, directly or indirectly, any subsidiary is herein called the "*parent company*" of such subsidiary.

"*Companies of the Bell System*" are those companies which, in connection directly or indirectly with the Telephone Company, provide a telephone service throughout the United States, or from the United States to foreign countries. These companies at present comprise the Telephone Company, Western Electric Company, Incorporated, Cuban American Telephone and Telegraph Company, and the so-called Associate Companies and Connecting Companies, and the several subsidiaries of each of said Companies.

Any dispute arising as to the meaning or application of the foregoing definitions shall be settled by arbitration, as hereinafter provided.

ARTICLE III. THE PATENTS INCLUDED IN THIS AGREEMENT

The licenses provided for herein are granted and agreed to be granted under all patents, and rights to or under patents, of the United States now or hereafter during the term of this agreement owned or controlled by the parties

Digitized by Google

hereto, and under all such patents hereafter issued upon inventions now or hereafter during said term so owned or controlled, and to the extent to which the parties have or may have the right to grant licenses, insofar as the inventions covered by such patents are or shall be applicable to the respective fields for which said licenses are expressed as granted or to be granted, excepting (1) as otherwise specified in connection with the several grants hereinafter contained, and (2) such patents and inventions as may hereafter be excluded from the operation of this agreement in the following manner:

Each party agrees to furnish to the other, upon request, a list of all United States patents under which said other party is entitled to receive licenses hereunder. Such lists shall separately identify those patents, and shall also include those applications, as to which rights, if granted hereunder, would be restricted in scope or would involve continuing obligations not implied by law. Copies of all contracts creating such restrictions or obligations shall, upon request, be furnished by each party to the other. Thereupon, and within six months after the receipt of the lists to be furnished as aforesaid, each party may in writing advise the other as to the patents and applications described in such list, furnished by the other, which (or the patents to issue on which) it desires to exclude from this agreement; and no licenses are granted by this agreement under any patents so excluded.

ARTICLE IV. SCOPE OF LICENSES

1. All of the licenses herein granted are, unless otherwise expressed in connection with the several grants, licenses to use methods and processes, and to make, use, sell, lease, or otherwise dispose of apparatus and systems in the fields in which the licenses are granted.

2. A license to make apparatus includes a license to have such apparatus manufactured for the licensee by others, except that no rights are granted to either party to manufacture or to have manufactured, under patents under which it receives licenses hereunder, apparatus of the character at the time manufactured by the other party, except in factories owned or operated by one or the other of the parties hereto, or by their subsidiaries, without the written consent of the party granting such licenses.

3. Every license herein granted to either party includes, unless otherwise herein provided, all incidental rights necessary to the full enjoyment and exercise of the license granted, notwithstanding that such incidental rights may lie primarily in a field in which the said party is not herein expressly granted a license.

4. The making, using, selling, leasing, or otherwise disposing of parts is subject to the same restrictions and conditions as are applicable under this agreement to apparatus of which they are or may be parts.

ARTICLE V. RESERVATIONS AND EXCEPTIONS TO WHICH THE LICENSES ARE SUBJECT

1. No licenses are granted by either party with reference to the manufacture or sale of wire or cable for the transmission of electric current for light, heat, traction, or other power purposes, or for telephone or telegraph purposes.

2. No licenses are granted to the Telephone Company for electric lamps or other lighting apparatus (except non-exclusive licenses with reference to telephone and telegraph signal lamps and telephone and telegraph ballast lamps for use solely in fields in which the Telephone Company is otherwise licensed under this agreement).

3. The licenses herein granted to the Telephone Company, in so far as they cover rights to sell or lease carrier current, wireless, or vacuum tube apparatus for use on electric railroads, are limited to sales or leases of said apparatus to the railroads.

4. Wherever in this agreement either party receives from the other a license with the right to license others, such party shall have the right to release others for past infringement in the fields for which it receives such licenses and to retain for itself all considerations paid to it on account of such past infringements.

ARTICLE VI. LICENSES GRANTED

Subject to the foregoing reservations, each party grants and agrees to grant to the other the following licenses in the following fields of use:

1. *Government Uses.*—Each party grants to the other non-exclusive licenses to make for, and sell or lease to, the United States Government wireless apparatus and systems.

Digitized by Google

2. *Wireless Telegraphy.*—(*a*) The General Company grants to the Telephone Company non-exclusive licenses, including the right to grant non-exclusive licenses to others, in the field of wireless telegraphy for combined wireless telephone and telegraph sets for use on ships; except that where such combined sets are for use on ocean-going and coast-wise ships of American registry (excluding harbor tug-boats and other harbor craft), said licenses are only to manufacture; and the Telephone Company grants to the General Company non-exclusive licenses, including the right to grant non-exclusive licenses to others, to use, lease, or sell or otherwise dispose of, but not to manufacture such sets. The Telephone Company agrees, upon request, to make such sets and sell them for such use to the General Company upon reasonable terms.

(*b*) The General Company grants to the Telephone Company non exclusive licenses in the field of wireless telegraphy to make and use (but not to sell, lease, or otherwise dispose of, except to Companies of the Bell System), apparatus and systems for its own communication or that of Companies of the Bell System, and for use solely as an incidental facility in fields in which it is otherwise licensed under this agreement, but not for transmission of messages for the public except temporarily in emergencies due to storms or other catastrophes.

(*c*) The General Company grants to the Telephone Company non-exclusive licenses in the field of wireless telegraphy to make and use (but not to sell, lease, or otherwise dispose of, except leases to subscribers in connection with a service given by Companies of the Bell System in this paragraph described) apparatus and systems for the purpose of giving within the continental United States, and between the continental United States and other parts of continental North America, a business, commercial, or official service limited to a particular customer or class of customers and analogous to the service given by Companies of the Bell System by wire telegraphy at the date of this agreement, commonly designated as leased wire or special contract service, but said licenses do not include the making or using of such apparatus for (1) transmission or reception for the public generally or (2) transoceanic communication or (3) transmission or reception of programs.

(*d*) The General Company grants to the Telephone Company non-exclusive licenses in the field of wireless telegraphy to make and use (but not to sell, lease, or otherwise dispose of, except to Companies of the Bell System) apparatus and systems for television for use solely in combination with apparatus and systems for two-way telephony for the purpose of giving a public service combining television and speech, but said licenses do not include the making or using of such apparatus for transmission or reception of programs.

(*e*) The General Company grants to the Telephone Company non-exclusive licenses in the field of wireless telegraphy for combined wireless telephone and telegraph sets, other than sets for transoceanic communication, (1) for use in communication by, with, and between airplanes, airships, and other automotive devices other than ships and railway vehicles, and (2) for export from the continental United States for use for any purpose other than transoceanic communication.

(*f*) The Telephone Company grants to the General Company: (1) exclusive licenses, including the right to grant licenses to others, in the field of wireless telegraphy for purposes of public service communication, subject, however, to non-exclusive rights which the Telephone Company reserves for itself and its present and future subsidiaries under its and their patents to make, use, and sell in said field and to grant to the United States Government licenses to make and to have made for it and to use apparatus for such purposes; and (2) non-exclusive licenses, including the right to grant non-exclusive licenses to others, for all other purposes in the field of wireless telegraphy other than the purposes covered by paragraph (a) of this section 2 and by section 8 of this Article VI.

(*g*) The General Company grants to the Telephone Company non-exclusive licenses for printing telegraph apparatus for use in the fields of wire and wireless telegraphy.

(*h*) The Telephone Company agrees that printing telegraph apparatus manufactured by Teletype Corporation (which is a subsidiary of Western Electric Company, Incorporated), shall be sold by Teletype Corporation to the General Company, upon the basis defined in Article X hereof, for use only within the fields for which licenses are herein granted to the General Company. The

Digitized by Google

Telephone Company agrees that Teletype Corporation will grant to the General Company, under patents and inventions owned or controlled by the Teletype Corporation (so far as and to the extent that Teletype Corporation has the right, in view of its existing obligations, to grant such licenses) licenses of the same character and scope as the licenses herein granted by the Telephone Company to the General Company, except that no licenses are agreed to be granted with respect to printing telegraph apparatus under any patents or inventions of the Teletype Corporation; and the General Company agrees that all non-exclusive rights and licenses granted to or reserved by the Telephone Company hereunder may be extended by the Telephone Company to the Teletype Corporation.

(*i*) The licenses granted to the General Company in this section 2 do not cover the use of wireless telegraph stations for giving a telephone service, except as licensed in section 4 of this Article VI.

3. *Wire Telegraphy.*—(*a*) The Telephone Company grants to the General Company non-exclusive licenses, including the right to grant non-exclusive licenses to others, in the field of wire telegraphy for the transmission and reception of programs over electric light, electric heat, electric power, and electric traction lines, subject, however, to the provisions of paragraph (*b*) of section 5 of this Article VI regarding electrical interference.

(*b*) The Telephone Company grants to the General Company non-exclusive licenses in the field of wire telegraphy to make (but not to sell, lease, or otherwise dispose of), apparatus and systems, and (1) to use such apparatus and systems for its own communication and for use sole'y as an incidental facility in fields in which it is otherwise licensed under this agreement, and (2) to use (but not to furnish to others) such apparatus and systems upon wire telegraph systems owned by it, or leased to it for its operation (other than transoceanic cables), for all purposes other than giving a service by wire telegraphy analogous to the services given by the Companies of the Bell System by wire telegraphy at the date of this agreement, commonly designated as leased wire service, special contract service or teletypewriter exchange service, and other than train dispatching; but no licenses are granted with reference to transoceanic wire telegraphy.

(*c*) The Telephone Company grants to the General Company non-exclusive licenses in the field of wire telegraphy for apparatus and systems for communication only in connection with the operation of apparatus for power purposes, but not for transmission of messages for the public.

(*d*) The Telephone Company grants to the General Company non-exclusive licenses in the field of wire telegraphy for apparatus and systems for communication between parts of a train (without regard to the nature of the motive power thereof), or between trains following or approaching each other upon the same system of tracks, or between trains approaching a cross-over or junction point of the systems of tracks upon which they are running, or between trains and signal towers or way-stations within short distances thereof, but in each instance only for use in connection with the operation of such trains but not for train dispatching.

(*e*) The General Company grants to the Telephone Company non-exclusive licenses, including the right to grant non-exclusive licenses to others, for all purposes in the field of wire telegraphy (other than that covered by paragraph (*a*) of this section 3) on land, and over ocean cables not more than one hundred miles in length, and between the main body of the United States and Cuba; but no licenses are granted with reference to other transoceanic wire telegraphy.

4. *Wireless Telephony.*—*A. In General.*—(*a*) The Telephone Company grants to the General Company non-exclusive licenses in the field of wireless telephony to make and use (but not to sell, lease, or otherwise dispose of) apparatus and systems for its own communication and for use solely as an incidental facility in fields in which it is otherwise licensed under this agreement, but not for transmission of messages (as distinguished from programs) for the public except temporarily in emergencies due to storms or other catastrophes.

(*b*) The Telephone Company grants to the General Company non-exclusive licenses, including the right to grant non-exclusive licenses to others in the field of amateur wireless telephony; and the General Company grants to the Telephone Company non-exclusive licenses to make and sell apparatus in the field of amateur wireless telephony limited as hereinafter in this paragraph (*b*) provided. The licenses by this paragraph (*b*) granted by the Telephone Company to the General Company shall be free of royalties, but all apparatus

Digitized by Google

sold by the Telephone Company under the licenses granted by this paragraph (*b*) shall be treated as if such apparatus were apparatus for one-way wireless telephone reception of programs under the provisions of paragraph (*d*) of subdivision C of this section 4 and shall be governed by all the provisions of said paragraph (*d*).

(*c*) Each party grants to the other non-exclusive licenses for headphones for all purposes in all fields covered by this agreement; provided, however, that headphones sold by the Telephone Company as part of complete apparatus for one-way wireless telephone reception of programs shall be included in the determination of the royalties payable by the Telephone Company under the provisions of paragraph (*d*) of subdivision C of this section 4.

(*d*) Each party grants to the other non-exclusive licenses in the field of wireless telephony for apparatus and systems for communication only in connection with the operation of apparatus for power purposes, but not for transmission of messages for the public.

(*e*) Each party grants to the other non-exclusive licenses in the field of wireless telephony for apparatus and systems for communication between parts of a train (without regard to the nature of the motive power thereof), or between trains following or approaching each other upon the same system of tracks, or between trains approaching a cross-over or junction point of the systems of tracks upon which they are running, or between trains and signal towers or way-stations within short distances thereof, but in each instance only for use in connection with the operation of such trains but not for train dispatching.

B. *Two-way wireless telephony.*—(*a*) The General Company grants to the Telephone Company non-exclusive licenses, including the right to grant non-exclusive licenses to others, in the field of two-way transoceanic wireless telephony to make and use (but not to sell, lease, or otherwise dispose of), apparatus and systems for use in the continental United States; but such licenses do not include use for transmission or reception of messages offered for telephonic transmission.

(*b*) The General Company grants to the Telephone Company non-exclusive licenses in the field of two-way transoceanic wireless telephony, to make and sell to stations outside the continental United States engaged in cooperation with the Telephone Company in giving for the public a transoceanic telephone service, apparatus for use in giving such service; and the Telephone Company grants to the General Company non-exclusive licenses including the right to grant non-exclusive licenses to others in the field of two-way transoceanic wireless telephony for apparatus for export from the continental United States.

(*c*) The Telephone Company grants to the General Company non-exclusive licenses in the field of two-way wireless telephony for combined wireless telephone and telegraph sets, other than sets for transoceanic communication, (1) for use in communication by, with, and between airplanes, airships, and other automotive devices other than ships and railway vehicles, and (2) for export from the continental United States for use for any purpose other than transoceanic communication.

(*d*) The General Company grants to the Telephone Company non-exclusive licenses, including the right to grant non-exclusive licenses to others, in the field of two-way wireless telephony (other than in the field of transoceanic wireless telephony) for all purposes other than the purposes covered by subdivision A of this section 4.

(*e*) The licenses granted to the Telephone Company in this subdivision B do not include the use of wireless telephone stations for giving a telegraph service, except as licensed in section 2 of this Article VI.

C. *One-way wireless telephony.*—(*a*) Each party grants to the other non-exclusive licenses in the field of one-way wireless telephony for apparatus and systems for the purpose of giving a business, commercial, or official service limited to a particular customer or class of customers; but the licenses granted to a particular customer or class of customers; but the licenses granted by this paragraph (a) do not include the making or using of such apparatus for (1) transmission or reception of messages for the public generally or (2) transmission or reception of programs; and the licenses granted to the Telephone Company with respect to transmission for the purposes covered by this paragraph (*a*) include only apparatus for the transmission of such service from and within the continental United States.

Digitized by Google

(*b*) Each party grants to the other non-exclusive licenses in the field of one-way wireless telephony for apparatus and systems for use for transmitting for purposes other than that covered by paragraph (*a*) of this subdivision C, including, however, apparatus for wireless telephone reception furnished as a part of the equipment of transmitting stations; but the licenses granted by this paragraph (*b*) do not include apparatus in the field of amateur wireless telephony.

(*c*) The General Company grants to the Telephone Company non-exclusive licenses to make and use (but not to sell, lease, or otherwise dispose of, except to Companies of the Bell System), apparatus for one-way wireless telephone reception (including apparatus for the reception of programs), for its own communication or that of Companies of the Bell System, and for use solely as an incidental facility in fields which it is otherwise licensed under this agreement.

(*d*) The General Company grants to the Telephone Company non-exclusive licenses for apparatus for one-way wireless telephone reception of programs; provided, however, that the licenses granted in this paragraph (*d*) shall be subject to the following terms and limitations:

(1) Tubes (thermionic devices) sold as separate devices for use in apparatus covered by this paragraph (*d*), or in apparatus which under other provisions of this agreement shall be treated as apparatus covered by this paragraph (*d*), shall be to the amount of $1,000,000 free of royalties during each calendar year, and said tubes in excess of said amount in any year shall be subject to a royalty of five percent computed as hereinafter provided; but no licenses are granted in this paragraph (*d*) for tubes in excess of $2,000,000 in amount or 1,000,000 in number during any calendar year; and provided further that where said tubes are sold as parts of receiving sets or other complete units designed for operation with such sets, such tubes shall be treated as parts of the receiving set or other unit and shall not be classified under this subparagraph (1).

(2) Receiving sets and apparatus which under other provisions of this agreement shall be treated as apparatus covered by this paragraph (*d*), or parts thereof (including loud speakers, amplifiers, and tubes other than thermionic devices), shall be to the aggregate amount of $1,500,000 free of royalty in each calendar year, and such sets, apparatus, or parts in excess of said amount shall be subject to a royalty of five percent computed as hereinafter provided; but no licenses are granted in this paragraph (*d*) for receiving sets, apparatus, and parts in excess of $3,000,000 in amount in any calendar year, provided, that if the sales of tubes sold as separate devices amount to less than $2,000,000 during any year, the amount of such deficiency shall be added to the amount of receiving sets, apparatus, and parts which may be sold under the license granted in this paragraph (*d*).

(3) For any portion of the first or last calendar year of this agreement, less than an entire calendar year, during which royalties shall be payable hereunder, the amounts which may be sold free of royalty and subject to royalty respectively shall be those proportions of the amounts which may be sold free of royalty and subject to royalty respectively in the entire calendar year which said fractional part of a calendar year bears to a calendar year.

(4) The aforementioned amounts sold free of royalty, and the amounts subject to royalty, shall be based on the price at which the apparatus is sold by the manufacturer thereof, before cash discount, freight and advertising allowance or other similar deductions.

(5) Sales for export shall be included in determining the amounts sold free of royalty, and the amounts subject to royalty, on the basis of the price at which the sale is made.

(6) In ascertaining the amount of the sales which are free from royalty and the amount of the sales upon which royalties are to be paid hereunder, where apparatus is sold any part of which embodies any invention of any of the patents in force at the time of such sale under which licenses are granted in this paragraph (*d*), the selling price of the apparatus sold shall be taken as the basis; but apparatus not covered by any of said patents when sold not assembled for operation with apparatus covered by such patents, shall not be taken into account in computing the amount of sales which are free from royalty or the amount of sales which are subject to royalty, unless such apparatus not covered by such patents is adapted for operation with

Digitized by Google

apparatus covered by such patents and is sold in such manner that its sale or its use in connection with apparatus covered by such patents would, except for the licenses granted by this paragraph (*d*), constitute contributory infringement of the patents under which such licenses are granted. Where radio receiving sets are sold for use in combination with public address apparatus or other apparatus not subject to royalties under this agreement, the sale price of the public address or other apparatus shall not be included in the amount of the sales which are free from royalty or the amount of the sales which are subject to royalty. Chemical primary batteries, wet or dry, and chemical storage batteries, not sold as part of apparatus upon which royalties are payable hereunder, or wiring in a building in connection with a sale of such apparatus, shall not be taken into account in computing the amount of sales which are free from royalty or the amount of sales which are subject to royalty.

(*e*) The Telephone Company grants to the General Company nonexclusive licenses, including the right to grant nonexclusive licenses to others, for apparatus and systems for one-way wireless telephone reception of programs.

(*f*) Subdivision A of this section 4 and paragraphs (*a*) to (*e*), inclusive, of this subdivision C are intended to make provision for all anticipated fields of use of apparatus for one-way wireless telephone reception. If it should develop that there are other fields of use of such apparatus not covered herein licenses shall be granted in such other fields of use to the respective parties in accordance with the principle underlying said other paragraphs of this subdivision C, with special reference to the interest of the General Company in the field of one-way wireless telephone reception of programs, on th one hand, and of the Telephone Company in the field of one-way wireless telephone reception for giving a service of a business, commercial or official nature, on the other hand. If the parties can not agree with respect to such licenses, their respective rights shall be determined by arbitration in accordance with the provisions of Article XIII.

5. *Wire Telephony.*—(*a*) The Telephone Company grants to the General Company non-exclusive licenses, including the right to grant non-exclusive licenses to others, and the General Company grants to the Telephone Company non-exclusive licenses, in the field of wire telephony for apparatus for carrier current telephone communication, both one-way and two-way, over electric light, electric heat, electric power, and electric traction lines, or partly over such lines and partly across wireless gaps, but in each instance only for the use of the owner or operator of such lines in the business of such owner or operator, and not for transmission of messages for the public except temporarily in emergencies due to storms or other catastrophes.

(*b*) The Telephone Company grants to the General Company non-exclusive licenses, including the right to grant non-exclusive licenses to others, in the field of one-way wire telephony for apparatus for the transmission and reception of programs over electric light, electric heat, electric power and electric traction lines including the use of such lines for pick-up lines or for connecting two or more separate electric systems in connection with the transmission or reception of programs over such lines or by means of wireless telephony, but not including the use of other wires for such purposes except as licensed in paragraph (*c*) of this section 5; provided, however, that no apparatus is licensed under this paragraph (*b*), or under paragraph (*a*) of section 3 of this Article VI, the use of which would electrically interfere unreasonably with the Telephone Company's systems of wire communication for which it is licensed under this agreement, as the same may now exist or may hereafter normally be developed, or with any system of the Telephone Company for transmitting programs by wire telephony over lines other than electric light, electric heat, electric power, and electric traction lines, where such system exists prior to the installation in the same locality by the General Company of apparatus licensed under this paragraph (*b*), and the Telephone Company shall be the sole judge of the existence of such unreasonable interference. The Telephone Company agrees whenever requested by the General Company, but at the expense of the General Company consented to by it before being incurred, to co-operate with the General Company in every reasonable way to enable the General Company to develop apparatus within the licenses granted by this paragraph (*b*) which will avoid such electrical interference.

(*c*) The Telephone Company grants to the General Company non-exclusive licenses in the field of wire telephony, both one-way and two-way, to make (but not to sell, lease, or otherwise dispose of) apparatus and systems, and

Digitized by Google

to use such apparatus and systems solely upon systems owned by it, for its own communication and for use solely as an incidental facility in fields in which it is otherwise licensed under this agreement, but not for transmission of messages (as distinguished from programs) for the public except temporarily in emergencies due to storms or other catastrophes. The Telephone Company agrees to furnish to the General Company, when requested, pick-up or connecting wires, if available, for its use in the transmission of programs to or from its stations for such transmission either by means of wireless telephony or over electric light, electric heat, electric power, and electric traction lines, or for its use in electrical sound recording, on terms at least as favorable as the terms given to others than the General Company, and agrees that in furnishing such pick-up and connecting wires for such service there shall be no discrimination against the General Company.

(d) The Telephone Company grants to the General Company non-exclusive licenses in the field of wire telephony for apparatus for the distribution, to an assembled audience, or to rooms within a building or a group of substantially adjacent buildings commonly owned or operated, or to rooms within a ship, airship or train, of matter from apparatus for one-way wireless telephone reception, or from apparatus for reception in the field covered by paragraph (*b*) of this section 5, or from phonographs, in each case located in the immediate vicinity of such audience or within the building or group of buildings, ship, airship, or train within which such distribution is made.

(*e*) The Telephone Company grants to the General Company non-exclusive licenses in the field of wire telephony, both one-way and two-way, for apparatus and systems for communication only over wires used in connection with apparatus for remote control or actuation of apparatus for power purposes and only in connection with the operation of apparatus for power purposes, but not for transmission of messages for the public.

(*f*) The Telephone Company grants to the General Company non-exclusive licenses in the field of wire telephony, both one-way and two-way, for apparatus for communication between parts of a train (without regard to the nature of the motive power thereof), or between trains following or approaching each other upon the same system of tracks, or between trains approaching a cross-over or junction point of the systems of tracks upon which they are running, or between trains and signal towers or way-stations within short distances thereof, but in each instance only for use in connection with the operation of such trains but not for train dispatching.

(*g*) The General Company grants to the Telephone Company nonexclusive licenses, including the right to grant non-exclusive licenses to others, in the field of wire telephony, both one-way and two-way, for all purposes other than for the purposes covered by the paragraphs (*a*) and (*b*) of this section 5; provided, however, that the licenses granted by this paragraph (*g*) for apparatus for reception of programs in connection with a service of transmitting programs by wire telephony (analogous to wireless broadcasting) over lines other than electric light, electric heat, electric power and electric traction lines, are licenses only to make and use, to lease to subscribers to such a service, and to sell only at retail (except as to sales for export) either directly or through the Telephone Company's own direct agents, and said licenses are subject to the condition that the Telephone Company shall retain in itself, or in one or more of its subsidiaries, title to the apparatus and control of its disposition until it is so sold.

6. Power Purposes and Household Devices.—The Telephone Company grants to the General Company non-exclusive licenses, including the right to grant non-exclusive licenses to others, in the fields of (*a*) distance actuation and control by wireless, (*b*) power purposes (including apparatus for distance actuation and control of apparatus for power purposes and apparatus for indicating at remote points the condition or position, of apparatus for power purposes) and (*c*) household devices, in each case for purposes other than communication purposes.

7. Railroad Signalling Radio Goniometry, X-ray Apparatus.

(*a*) The General Company grants to the Telephone Company non-exclusive licenses in the field of radio goniometry for apparatus for use as part of apparatus in respect of which the Telephone Company is otherwise licensed under this agreement.

(*b*) The General Company grants to the Telephone Company non-exclusive licenses in the field of railway signalling for apparatus incidental to apparatus for train dispatching, for use only by the train dispatcher or similar official

Digitized by Google

for operating at will, and not automatically, signals, switches, brakes, and stops.

(*c*) The Telephone Company grants to the General Company non-exclusive licenses, including the right to grant non-exclusive licenses to others, in the fields of railroad signalling, X-ray apparatus and apparatus associated therewith, and radio goniometry.

8. *Train Dispatching.*

The General Company grants to the Telephone Company non-exclusive licenses, including the right to grant non-exclusive licenses to others, in the field of train dispatching.

9. *Electric Sound Recording.*—(*a*) The General Company grants to the Telephone Company non-exclusive licenses, including the right to grant non-exclusive licenses to others, for electrical apparatus for the production of sound records (which records are for the private use of the maker, and not for commercial use or sale) in combination or connection with apparatus in the field of wire telephony other than in connection with apparatus in the field covered by paragraph (*b*) of section 5 of this Article VI.

(*b*) The Telephone Company grants to the General Company non-exclusive licenses, including the right to grant non-exclusive licenses to others, for electrical apparatus for the production of sound records (which records are for the private use of the maker, and not for commercial use or sale) in combination or connection with apparatus for one-way wireless telephone reception of programs and with apparatus in the field covered by paragraph (*b*) of section 5 of this Article VI.

(*c*) The Te'ephone Company grants to the General Company non-exclusive licenses, including the right to grant non-exclusive licenses to others, for electrical apparatus for the production in homes (which records are for the private use of the maker, and not for commercial use or sale) of sound records of entertainment and educational matter, other than appartus covered by paragraphs (*a*) and (*b*) of this section 9.

(*d*) The General Company grants to the Telephone Company non-exclusive licenses for electrical apparatus for the production of sound records in homes, for entertainment or educational purposes (which records are for the private use of the maker and not for commercial use or sale), provided that all apparatus sold under the licenses granted in this paragraph (other than that covered by paragraphs (*a*) and (*c*) hereof) shall be treated as if such apparatus were apparatus for one-way wireless telephone reception of programs under the provisions of pragraph (*d*) of sub-division C of Section 4 of Article VI and all of the provisions of said paragraph (*d*) shall apply thereto.

(*e*) Each party grants to the other non-exclusive licenses for electrical apparatus for the production of sound records other than apparatus covered by parag aphs (*a*), (*b*), (*c*), and (*d*) of this section 9.

10. *Electric Phonographs.*—(*a*) The General Company grants to the Telephone Company non-exclusive licenses, including the right to grant non-exclusive licenses to others, for electric phonographs for use in combination or connection with apparatus in the field of wire telephony other than in combination or connection with apparatus in the field covered by paragraph (*b*) of section 5 of this Article VI; provided, however, that the licenses granted by this paragraph (*a*) for phonographs for private use in homes for entertainment and educational purposes are licenses only to make and use in connection with a service of transmitting programs by wire telephony over lines other than electric light, electric heat, electric power, and electric traction lines, to lease to subscribers to such a service, and to sell only at retail (except as to sales for export) either directly or through the Telephone Company's own direct agents, and said licenses are subject to the condition that the Telephone Company shall retain in itself, or in one or more of its subsidiaries, title to the apparatus and control of its disposition until it is so sold.

(*b*) The General Company grants to the Telephone Company a non-exclusive license for electric phonographs (including electric phonographs in combination or connection with apparatus for wireless telephone reception) for private use in homes for entertainment and educational purposes, other than for the purposes covered by paragraph (*a*) of section 10 of this Article VI, but all apparatus sold by the Telephone Company under the licenses granted by this paragraph (*b*) shall be treated as if such apparatus were apparatus for one-way wireless telephone reception of programs under the provisions of paragraph (*d*) of sub-division C of section 4 of Article VI and shall be governed by all of the said provisions of said paragraph (*d*).

Digitized by Google

(*c*) The Telephone Company grants to the General Company nonexclusive licenses, including the right to grant non-exclusive licenses to others, for electric phonographs in combination or connection with apparatus for one-way wireless telephone reception, and in combination or connection with apparatus in the field covered by paragraph (*b*) of section 5 of this Article VI.

(*d*) The Telephone Company grants to the General Company non-exclusive licenses, including the right to grant non-exclusive licenses to others, for electric phonographs for private use in homes for all entertainment and educational purposes other than those covered by paragraphs (*a*) and (*c*) of this section 10.

(*e*) Each party grants to the other non-exclusive licenses for electric phonographs for all purposes other than those covered by paragraphs (*a*), (*b*), (*c*), and (*d*) of this section 10.

11. *Apparatus for Co-ordination of Sound and Pictures.*—(*a*) The rights and licenses of the parties hereto in respect of apparatus for transmitting, receiving, recording, or reproducing sound in co-ordination, synchronism, or timed relation with the taking, transmission or projection of pictures shall, in so far as the fields of wire and wireless telegraphy and telephony, electrical sound recording, and electric phonographs are involved, be governed by the other provisions of this agreement relating to said fields.

(*b*) In so far as apparatus for the taking or projection of pictures and apparatus for co-ordinating, synchronizing, or timing such taking or projection in relation to the recording or reproduction of sound are not covered by the provisions of paragraph (*a*) of this section 11, the Telephone Company grants to the General Company non-exclusive licenses, including the right to grant non-exclusive licenses to others, for such apparatus for private use in homes for entertainment and educational purposes, and each party grants to the other non-exclusive licenses for such apparatus for all other purposes.

(*c*) The General Company grants to the Telephone Company a non-exclusive license for apparatus for private use in homes for entertainment and educational purposes for the projection of pictures and the reproduction of sound from sound records in co-ordination, synchronism, or timed relation therewith, but all apparatus sold by the Telephone Company under the licenses granted by this paragraph (*c*) shall be treated as if such apparatus were apparatus for one-way wireless telephone reception of programs under the provisions of paragraph (*d*) of sub-division C of section 4 of this Article VI and shall be governed by all of said provisions of said paragraph (*d*).

12. *Public Address Systems.*—The Telephone Company grants to the General Company non-exclusive licenses for public address systems, including the combination or connection thereof with other apparatus for which the General Company is otherwise licensed hereunder, provided, however, that the licenses granted in this section 12 (1) do not include apparatus for giving by wire telephony a service analogous to wireless broadcasting (but do include apparatus for use in localities specified in paragraph (*d*) of section 5 of this Article VI), and (2) shall be subject to the following terms and limitations:

(1) Public address system apparatus and parts thereof shall be to the aggregate amount of $1,500,000 free of royalty in each calendar year and such apparatus and parts thereof in excess of said amount shall be subject to a royalty of 5% computed as hereinafter provided; but no license is granted for public address system apparatus and parts thereof in excess of $5,000,000 in amount during any calendar year.

(2) For any portion of the first or last calendar year of this agreement, less than an entire calendar year, during which royalties shall be payable hereunder, the amounts which may be sold free of royalty and subject to royalty, respectively, shall be those proportions of the amounts which may be sold free of royalty and subject to royalty, respectively, in the entire calendar year which said fractional part of a calendar year bears to a calendar year.

(3) The aforementioned amounts sold free of royalty, and the amounts subject to royalty, shall be based on the price at which such apparatus is sold by the manufacturer thereof, before cash discount, freight, and advertising allowances or other similar deductions.

(4) Sales for export shall be included in determining the amounts sold free of royalty, and the amounts subject to royalty, on the basis of the price at which the sale is made.

(5) In ascertaining the amount of the sales which are free from royalty and the amount of the sales upon which royalties are to be paid hereunder, where apparatus is sold any part of which embodies any invention of any of the patents in force at the time of such sale under which licenses are granted

Digitized by Google

in this section 12, the selling price of the apparatus sold shall be taken as the basis; but the apparatus not covered by any of said patents, when sold not assembled for operation with apparatus covered by such patents, shall not be taken into account in computing the amount of sales which are free from royalty or the amount of sales which are subject to royalty, unless such apparatus not covered by such patents is adapted for operation with apparatus covered by such patents and is sold in such manner that its sale or its use in connection with apparatus covered by such patents would, except for the licenses granted by this agreement, constitute contributory infringement of the patents under which such licenses are granted. Where public address system apparatus is sold for use in combination with apparatus for one-way wireless telephone reception of programs, the sale price of such receiving apparatus shall not be included in the amount of the sales which are free from royalty or the amount of the sales which are subject to royalty. Chemical primary batteries, wet or dry, and chemical storage batteries not sold as part of apparatus upon which royalties are payable hereunder, or wiring in a building in connection with a sale of apparatus shall not be taken into account in computing the amount of sales which are free from royalty or the amount of sales which are subject to royalty.

13. *Submarine Signaling, Scientific and Therapeutic Apparatus, Tools, and Other Applications.*—Each party grants to the other, non-exclusive licenses in the following fields:

Submarine signaling.

Scientific apparatus for use of laboratories, colleges, and scientific societies, as distinguished from commercial use.

Mechanical phonographs.

Wireless apparatus for use of professional investigators (as distinguished from amateurs) for experimental purpose only.

Therapeutic apparatus other than X-ray devices and appliances.

Tools, machinery, appliances, materials, methods, and processes for the manufacture, installation, and repair of apparatus for use in fields for which the grantee is licensed hereunder.

All applications, not herein otherwise specified, of inventions pertaining or applicable to or to the use of vacuum tubes, and to generating (directly or from other currents), modifying, amplifying, transmitting, or receiving electromagnetic waves, variations, or impulses for other than power purposes.

ARTICLE VII. PROVISIONS WITH REFERENCE TO FOREGOING LICENSES

1. Whenever licenses granted under the terms of this agreement are based upon rights held by the licensor under any agreement requiring the payment of royalties or other deferred payments, measured by the use made of the invention, the party accepting such licenses shall make payments measured by its use of the invention at the same rate and upon the same terms as those agreed to be made by the party originally acquiring the rights.

2. Upon the termination of this agreement under the provisions of Article XIV hereof all licenses herein granted shall, during the terms of the several patents, issued or to be issued, in respect of which such licenses exist at the date of termination, continue unaffected and of the same scope and character herein expressed, so far as the grantor thereof has the right to grant such licenses for such terms; and such licenses shall not be limited by the term of this agreement.

3. (*a*) The Telephone Company may grant sub-licenses to the operating Companies of the Bell System (but not manufacturing companies) which now or may from time to time be giving a communications service.

(*b*) Each party hereto may grant to its subsidiaries sub-licenses under the licenses granted to it herein; provided, however, that each subsidiary to which a sub-license shall be granted (excepting, however, sub-licensees pursuant to paragraph (*a*) of this section 3 and except also the Teletype Corporation as to which special provision is made elsewhere in this agreement) shall either have entered into an agreement with its parent company effectively subjecting to this agreement all United States patents then or thereafter during the term of this agreement owned or controlled by it, or have executed to the party hereto other than its parent company an instrument granting to such other party licenses under said patents co-extensive with the licenses herein granted to such other party. Use by any subsidiary of any sub-license granted under this agreement

Digitized by Google

shall for all purposes of this agreement, including determination of royalties payable hereunder, be deemed to be use by its parent company, and ownership, lease, or operation of any telephone or telegraph system or station by any subsidiary shall be deemed to be ownership, lease or operation of such system or station by its parent company for all purposes of this agreement. Wherever in this agreement either party is granted a general right to grant non-exclusive licenses to others such rights shall nevertheless be subject to the provision of this paragraph (*b*) so far as concerns the grant of sub-licenses to subsidiaries.

(*c*) In addition to the sublicensing provided for in the foregoing paragraphs (*a*) and (*b*), each party hereto may assign or grant sub-licenses under any of the rights granted to it hereunder, which are not expressed as including the right to grant sublicenses to others, provided that in each instance the assent of the other party is first obtained.

(*d*) When either party shall enter into an agreement with any of its subsidiaries effectively subjecting to this agreement all United States patents then or thereafter during the term of this agreement owned or controlled by such subsidiary, such party shall promptly give the other party appropriate notice of such agreement.

(*e*) Each party shall enter into an agreement with each of its subsidiaries which is engaged primarily or wholly in the conduct of research and development work in the fields for which licenses are granted to the other party under this agreement whereby the United States patents owned or controlled by such subsidiary during the term of this agreement shall become effectively subject to this agreement.

(*f*) Each party may, subject to the provisions of section 4 of this Article VII, sell or lease to any sub-licensee having a sub-license to use granted under the provisions of any of paragraphs (*a*), (*b*), and (*c*) of this section 3, apparatus for the use of such sub-licensee under such sub-license, notwithstanding that the party granting such sub-license may not be licensed under this agreement generally to sell, lease, or otherwise dispose of such apparatus.

(*g*) All sub-licenses granted hereunder shall be subject to all limitations and obligations attaching to the apparatus or system in respect of which sub-licenses are granted, whether under the patents, or under the instruments by which any party acquired the patents or licenses under them, or under this agreement.

(*h*) No disposition by either party of rights hereunder acquired by it, shall relieve such party of any of its obligations under this agreement, or restrict the rights of the parties hereto in operating under or modifying this agreement.

4. Each party agrees that, so far as practicable, it will, in disposing of apparatus embodying inventions pertaining or applicable to vacuum tubes, or to generating, modifying, amplifying, transmitting or receiving electromagnetic waves, or other apparatus or material the unrestricted sale of which would deprive the other party of rights to which it is entitled hereunder, use such precautions by contracts, leases, restricted licenses or otherwise as may be necessary or advisable in order to prevent its subsidiaries, sublicenses, customers or others from acquiring (by acquisition of apparatus from it or otherwise) licenses to use the same which the party disposing thereof has no right to grant.

5. All royalties payable under any provision of this agreement shall continue to be payable to the ends of the terms of the patents in respect of which such royalties are payable, notwithstanding any termination of this agreement.

6. The admission of validity implied in the acceptance of licenses hereunder is limited to the field for which such licenses are granted or agreed to be granted.

7. No licenses under foreign patents are now granted or are to be implied; but except as herein otherwise expressely provided the licenses to make, sell, lease or otherwise dispose of, herein granted under United States patents include the right to make, sell, lease or otherwise dispose of for use abroad in the fields for which such licenses under United States patents are granted, but not for use abroad in other fields. Each party agrees not to export to any country in which the other party has an affiliated company, apparatus purchased from such other party which such other party could not itself so export, in view of existing contract obligations, after notice of such obligations and without first securing a written waiver thereof.

8. Each party represents that in its best judgment it has no outstanding obligations which would prevent it from entering into the agreements and from granting the licenses herein expressed. If, however, it is found that there

Digitized by Google

are such conflicting obligations, the present agreement is made subject to the right to fulfill those obligations.

ARTICLE VIII. INTERFERENCES

The parties agree to use reasonable endeavors to settle, without litigation, interferences now pending or which may arise involving inventions within the scope of this agreement.

ARTICLE IX. CO-OPERATION AND EXCHANGE OF INFORMATION

1. Each party agrees that it will, from time to time during the term of this agreement, freely permit the other to have all information in its possession which it may have a right to dispose of with reference to its standardized apparatus or methods or processes applicable to the uses of the other party in fields in which such other party is granted licenses hereunder, but any secret process so disclosed shall be maintained in secrecy by the party to whom it is disclosed. Blue prints, etc., shall be furnished at the cost of preparing the same. For the purpose of acquiring such information each party shall at all reasonable times have access (through a reasonably limited number of accredited representatives who are regular employees under obligation to assign inventions to their employers), to the laboratories, factories, and wireless stations of the other, to the end that development work may be expedited and rendered the more effective.

Each party shall, with reference to inventions owned or controlled by it, under which the other party is entitled to rights hereunder and which either party deems to be of sufficient value to justify such action, endeavor to obtain or permit and aid the other to obtain proper patents thereon.

2. Each party shall afford the engineering representatives of the other the fullest possible facilities, consistent with the reasonable operation of the other, for experimenting and for developing and testing apparatus and systems for use in transoceanic telephony, and each shall at all times be given such an opportunity to make such tests, experiments, and observations in the transoceanic stations of the other as do not conflict with the service then being rendered by such stations, and each party shall afford to the other such facilities for test, experimentation, and observations on ships as it may be able to extend.

3. In the operation of wireless and carrier-current communication, the parties shall co-operate to the end that interference with the operations of either party, due to the operations of the other, shall be minimized, it being recognized that the available wave lengths are limited.

ARTICLE X. PURCHASES AS BETWEEN PARTIES

It is recognized that each party has and will normally continue to have facilities for manufacturing certain apparatus or parts thereof which may be required by the other party under its licenses hereunder, and that a duplication of such facilities may be wasteful and uneconomical. Each party agrees that it will upon request manufacture for and sell and deliver to the other, with reasonable business promptness and within its reasonable manufacturing capacity, on receipt of orders from time to time, and at favorable prices not to exceed those charged to others (except subsidiaries and, in the case of the Telephone Company, Companies of the Bell System) purchasing in like quantities for use in the United States, such apparatus and parts as the former is engaged in manufacturing from time to time and as the latter may desire for use in the fields for which licenses are granted to it by this agreement.

ARTICLE XI. LITIGATION

1. Neither party shall bring suit for infringement of patents against the other party, or against the distributors and jobbing houses owned by or affiliated with either party, because of sales by such party, or by its (or its subsidiaries') distributors or jobbing houses, of apparatus made, in the United States, by others than the parties hereto, it being agreed that the remedy in case of any such infringement shall be only by suit against the manufacturer of those devices; but nothing herein contained shall be construed as the granting of a right to sell infringing apparatus manufactured by others.

Digitized by Google

2. In all cases of infringement of a patent of either party in a field in which the licenses herein granted to the other party include the general right to grant sub-licenses, if the party holding title to such patent shall not bring suit against the infringer within thirty days after receipt from the other party of written notice and full information of such infringement together with a written offer from such other party to pay half the cost and expenses of such suit, then (*a*) the party having given such notice, information and offer may at its own expense bring suit against the infringer in question in the name of the party holding legal title to the patent, and (*b*) such party holding title to the patent shall assign to the other party all claims, demands, and rights of action against the particular infringer designated in such notice on account of any and all past and future infringements of such patent in said field.

3. If, however, the party holding title to such patent shall bring suit against the infringer within thirty days after receipt of said notice and information from the other party, then any recoveries from the infringer shall be applied first toward the reimbursement of the costs and expenses of such suit, and the remainder, if any, shall be divided between the parties as their interests appear. In any such case the party holding title to the patent in suit shall not release or license the infringer or otherwise settle or dismiss the suit without the consent of the party having the general right to grant sub-licenses.

ARTICLE XII. RELEASES

Each party reserves to itself the right to deal with the United States Government with reference to settlement for past use of its inventions in telephone and telegraph apparatus and systems. Subject to the foregoing, each party releases the other and the vendees and users of apparatus or systems made by it, from all claims growing out of past infringement of patents, by reason of the manufacture, use and sale of such apparatus and systems by the other party, and its resale or use by such vendees and users.

ARTICLE XIII. ARBITRATION

In case any controversy under this agreement (except in respect of interference or priority of rights to inventions or patents) shall arise between the parties to this agreement, which they are unable to adjust between themselves, it shall be settled by arbitration pursuant to the Arbitration Law of the State of New York in the following manner:

Either party may by notice in writing served on the other, appoint one arbitrator and call upon the other to appoint a second arbitrator within thirty days after the receipt of such notice; and each party agrees that upon receiving any such notice it will so appoint an arbitrator. The two arbitrators thus appointed shall, within thirty days after the appointment of the one last appointed, jointly appoint a third arbitrator. The controversy shall be submitted to the three arbitrators in such manner as they shall direct and their decision, or the decision of a majority of them, rendered in writing, shall be final, conclusive and binding upon the parties. In the event that a second arbitrator shall not be appointed as above provided or the two arbitrators first appointed shall fail to appoint a third, application may be made by either party to the Supreme Court of the State of New York, or to a judge thereof, to designate and appoint an arbitrator or arbitrators, as the case may require, as provided by said Arbitration Law. Each party shall pay its own expenses in connection with the arbitration but the compensation and expenses of the arbitrators shall be borne in such manner as may be specified in their decision in writing.

ARTICLE XIV. TERMINATION OF AGREEMENT

This agreement shall continue until December 31, 1954, but shall automatically continue thereafter until cancelled on three years' written notice given after December 31, 1951, by one party to the other party.

ARTICLE XV. FURTHER ASSURANCES

The parties agree to execute and deliver such further instruments as may reasonably be necessary for carrying out the provisions and purposes of this agreement.

Digitized by Google

ARTICLE XVI. SUCCESSORS

This agreement is binding upon and shall inure to the benefit of each of the parties hereto and their several successors in business, except that either party may transfer or dispose of any part or parts of its business not involving the grant of any licenses under this agreement, and in such case this agreement shall not be binding upon or inure to the benefit of the successor to that part of the business so transferred.

In witness whereof, the parties hereto have caused this instrument to be executed on the day and year first above written, by their proper officers thereunto duly authorized.

[SEAL] GENERAL ELECTRIC COMPANY,
By (Sgd.) CHARLES W. APPLETON, *Vice President.*
O. K. A. G. D.

Attest:
(Sgd.) J. W. LEWIS, *Asst. Secretary.*
AMERICAN TELEPHONE AND TELEGRAPH COMPANY,
By (Sgd.) WALTER S. GIFFORD, *President.*
G. E. F.
C. M. B.

Attest:
[SEAL] (Sgd.) A. A. MARSTERS, *Secretary.*

TERMINATION SYNCHRONIZATION AGREEMENT

Agreement made this 1st day of July 1932 between Electrical Research Products, Inc., a Delaware corporation, hereinafter called Products, and RCA Victor Company, Inc., a Maryland corporation, hereinafter called Radio:

WITNESSETH:

Whereas under date of January 11, 1928, Products and Victor Talking Machine Company entered into a certain license agreement relating among other things to synchronized records for use in motion picture theatres in the United States and certain other territory; and

Whereas Radio has succeeded to the rights and obligations of Victor Talking Machine Company under said contract, and the parties hereto desire to terminate said contract;

Now, therefore, in consideration of the premises the parties hereto agree that said contract of January 11, 1928, be and the same hereby is terminated as of the date hereof, and each of the parties releases and discharges the other from any and all liability thereunder.

Products hereby leases to Radio for a period of ten years from the date hereof without royalty or other consideration than herein expressed, all apparatus and equipment heretofore leased by Products to Victor Talking Machine Company or Radio under said contract, on the payment forthwith by Radio to Products of any of Products' charges with respect to said apparatus and equipment which have not been fully paid. At the end of said period of ten years said apparatus and equipment shall become the property of Radio.

In witness whereof, the parties have caused this instrument to be executed by their respective proper officers thereunto duly authorized and their corporate seals to be affixed as of the day and year first above written.

ELECTRICAL RESEARCH PRODUCTS, INC.,
[SEAL] By (Sgd.) H. G. KNOX, *Vice President.*
Attest:
(Sgd.) S. M. SPILLER, *Asst. Secretary.*
[SEAL] RCA VICTOR COMPANY, INC.,
Attest: O. S. S. By (Sgd.) J. R. McDONOUGH, *President.*
(Sgd.) F. S. KANE, *Secretary.*

The foregoing is assented to and accepted by the undersigned.

[SEAL]
Attest: O. S. S. By (Sgd.) I. E. LAMBERT, *Vice President.*
VICTOR TALKING MACHINE COMPANY,
(Sgd.) F. S. KANE, *Secretary.*

Digitized by Google

TERMINATION U. S. ACOUSTIC CONTRACT

Agreement made this 1st day of July 1932 between Electrical Research Products, Inc., a Delaware corporation, hereinafter called Products, and RCA Victor Company, Inc., a Maryland corporation, hereinafter called Radio:

WITNESSETH:

Whereas under date of June 26, 1925, Western Electric Company, Incorporated, and Victor Talking Machine Company entered into a certain license agreement relating to the manufacture, use, and sale of acoustic phonographs within the continental United States of America, Alaska, and Hawaii; and

Whereas, Products and Radio have succeeded, respectively, to the rights and obligations of Western Electric Company, Incorporated, and Victor Talking Machine Company under said contract, and desire to terminate the same upon the conditions herein set forth;

Now, therefore, in consideration of the premises and of the several covenants and agreements herein set forth, the parties hereto agree as follows:

1. Radio will pay to Products forthwith royalties in accordance with the provisions of said contract (including provisions for minimum) to and including December 31, 1931, and for the period from January 1, 1932, to June 30, 1932, will pay to Products the royalties other than the minimum royalty provided for in said contract. In each case Radio will furnish a certified statement and audit and Products will have the right to verify the same as provided in said contract.

2. Except as hereinabove otherwise provided, said contract shall terminate and all rights and obligations of the parties thereunder shall cease as of June 30th, 1932.

In witness whereof, the parties have caused this instrument to be executed by their respective proper officers thereunto duly authorized and their corporate seals to be affixed as of the day and year first above written.

[SEAL] ELECTRICAL RESEARCH PRODUCTS, INC.,
By (Sgd.) H. G. KNOX, *Vice President.*

Attest:
(Sgd.) S. M. SPILLER, *Asst. Secretary.*

[SEAL] RCA VICTOR COMPANY, INC.,
O. S. S. By (Sgd.) J. R. MCDONOUGH, *President.*

Attest:
(Sgd.) F. S. KANE, *Secretary.*

The foregoing is assented to and accepted by the undersigned.

[SEAL] VICTOR TALKING MACHINE COMPANY,
O. S. S. By (Sgd.) I. E. LAMBERT, *Vice President.*

Attest:
(Sgd.) F. S. KANE, *Secretary.*

TERMINATION U. S. RECORDING CONTRACT

Agreement made this 1st day of July 1932, between Electrical Research Products, Inc., a Delaware corporation, hereinafter called Products, and RCA Victor Company, Inc., a Maryland corporation, hereinafter called Radio:

WITNESSETH:

Whereas under date of March 18, 1925, Western Electric Company, Incorporated, and Victor Talking Machine Company entered into a certain license agreement relating to the electrical recording of sound for phonograph records, in the continental United States, Alaska, and Hawaii; and

Whereas Products and Radio have succeeded, respectively, to the rights and obligations of Western Electric Company, Incorporated, and Victor Talking Machine Company under said contract, and desire to terminate the same upon the conditions herein set forth;

Now, therefore, in consideration of the premises and of the several covenants and agreements herein set forth, the parties hereto agree as follows:

1. Radio will pay to Products forthwith royalties in accordance with the provisions of said contract (including provisions for minimum) to and in-

Digitized by Google

cluding December 31, 1931, and for the period from January 1, 1932, to June 30, 1932, will pay to Products the royalties other than the minimum royalties provided for in said contract. In each case Radio will furnish a certified statement and audit and Products will have the right to verify the same as provided in said contract.

2. Products hereby leases to Radio for a period of ten years from the date hereof without royalty or other consideration than herein expressed, all apparatus and equipment heretofore leased by Products to Victor Talking Machine Company or Radio under said contract, on the payment forthwith by Radio to Products of any of Products' charges with respect to said apparatus and equipment which have not been fully paid. At the end of said period of ten years said apparatus and equipment shall become the property of Radio.

3. Except as hereinabove otherwise provided, said contract shall terminate and all rights and obligations of the parties thereunder shall cease as of June 30th, 1932.

In witness whereof, the parties have caused this instrument to be executed by their respective proper officers thereunto duly authorized and their corporate seals to be affixed as of the day and year first above written.

[SEAL] ELECTRICAL RESEARCH PRODUCTS, INC.,
By (Sgd.) H. G. KNOX, *Vice President.*

Attest:
(Sgd.) S. M. SPILLER, *Asst. Secretary.*

[SEAL] RCA VICTOR COMPANY, INC.,
O. S. S. By (Sgd.) J. R. McDONOUGH, *President.*

Attest:
(Sgd.) F. S. KANE, *Secretary.*

The foregoing is assented to and accepted by the undersigned.

[SEAL] VICTOR TALKING MACHINE COMPANY,
O. S. S. By (Sgd.) I. E. LAMBERT, *Vice President.*

Attest:
(Sgd.) F. S. KANE, *Secretary.*

MODIFICATION FOREIGN ACOUSTIC CONTRACT

Agreement made this 1st day of July 1932 between Electrical Research Products, Inc., a Delaware corporation, hereinafter called Products, and RCA Victor Company, Inc., a Maryland corporation, hereinafter called Radio:

WITNESSETH:

Whereas under date of July 19, 1926, Western Electric Company, Incorporated, and Victor Talking Machine Company entered into a certain license agreement relating to the manufacture, use, and sale of acoustic phonographs in certain foreign countries; and

Whereas, Products and Radio have succeeded respectively to the rights and obligations of Western Electric Company, Incorporated, and Victor Talking Machine Company under said contract, and desire to modify the same as herein set forth;

Now, therefore, in consideration of the premises and of the several covenants and agreements herein set forth, the parties hereto agree as follows:

1. Said contract shall be and hereby is amended by eliminating therefrom all provisions that call for or relate to the payment of minimum royalties. For this purpose the following Sections are specifically cancelled:

(a) Section 9 of Article IV.

(b) Section 10 of Article IV (except the final paragraph thereof numbered (3)).

(c) Section 2 of Article V.

2. Said contract shall be and is hereby amended by eliminating therefrom all provisions that specify or imply that the license granted therein is more than a non-exclusive license or that place any restrictions upon the grant by Products to others than Radio of rights similar to those granted therein. For this purpose the following are specifically cancelled:

(a) Section 8 of Article II.

(b) The final paragraph numberer (3) of Section 10 of Article IV.

3. Said contract shall be and hereby is amended by inserting in substitution for Section 8 of Article II hereinbefore cancelled, the following:

"8. All licenses herein granted or agreed to be granted are and shall be non-exclusive."

Digitized by Google

4. The foregoing modifications shall take effect as of July 1st, 1932.
5. Except as hereinabove modified, said contract shall continue in full force and effect for the term thereof.

In witness whereof, the parties have caused this instrument to be executed by their respective proper officers thereunto duly authorized and their corporate seals to be affixed as of the day and year first above written.

[SEAL] ELECTRICAL RESEARCH PRODUCTS, INC.,
By (Sgd.) H. G. KNOX, *Vice President.*

Attest:
(Sgd.) S. M. SPILLER, *Asst. Secretary.*

[SEAL] RCA VICTOR COMPANY, INC.,
O. S. S. By (Sgd.) J. R. McDONOUGH, *President.*

Attest:
(Sgd.) F. S. KANE, *Secretary.*

The foregoing is assented to and accepted by the undersigned.

[SEAL] VICTOR TALKING MACHINE COMPANY,
O. S. S. By (Sgd.) I. E. LAMBERT, *Vice President.*

Attest:
(Sgd.) F. S. KANE, *Secretary.*

MODIFICATION FOREIGN RECORDING CONTRACT

Agreement made this 1st day of July 1932 between Electrical Research Products, Inc., a Delaware corporation, hereinafter called Products, and RCA Victor Company, Inc., a Maryland corporation, hereinafter called Radio:

WITNESSETH:

Whereas under date of May 1, 1925, International Western Electric Company, Incorporated, and Victor Talking Machine Company entered into a certain license agreement relating to the electrical recording of sound for phonograph records in certain foreign countries; and

Whereas Products and Radio have succeeded respectively to the rights and obligations of International Western Electric Company, Incorporated, and Victor Talking Machine Company under said contract, and desire to modify the same as herein set forth;

Now, therefore, in consideration of the premises and of the several covenants and agreements herein set forth, the parties hereto agree as follows:

1. Said contract shall be and hereby is amended by eliminating therefrom all provisions that call for or relate to the payment of minimum royalties. For this purpose the following paragraphs are specifically cancelled:
(a) The first paragraph of Section 8.
(b) The first two paragraphs of Section 9.

2. Said contract shall be and is hereby amended by eliminating therefrom all provisions that specify or imply that the license granted therein is more than a non-exclusive license or that place any restrictions upon the grant by Products to others than Radio of rights similar to those granted therein. For this purpose the following paragraph is specifically cancelled: The second paragraph of subsection (a) of Section 6.

3. Said contract shall be and hereby is amended by inserting as an additional paragraph to Section 7 the following:

Master records produced by Lessee and/or its associated and subsidiary companies in the United States on equipment supplied by Products, including derivative copies, shells, and matrices made from such master records, may be sold and/or shipped for export from the United States to the Empire of Japan for the exclusive use of Lessee, its associated and subsidiary companies in the manufacture of commercial records in the Empire of Japan, but royalties shall be paid upon all commercial phonograph records sold, leased, or put into commercial use manufactured from said master records so exported in the Empire of Japan by Lessee, its associated and subsidiary companies, in accordance with the terms hereof.

4. The foregoing amendments shall take effect as of July 1st, 1932.
5. Except as hereinabove modified said contract shall continue in full force and effect for the term thereof.

Digitized by Google

In witness whereof, the parties have caused this instrument to be executed by their respective proper officers thereunto duly authorized and their corporate seals to be affixed as of the day and year first above written.

[SEAL] ELECTRICAL RESEARCH PRODUCTS, INC.,
By (Sgd.) H. G. KNOX, *Vice President.*

Attest:
(Sgd.) S. M. SPILLER, *Asst. Secretary.*

[SEAL] RCA VICTOR COMPANY, INC.,
O. S. S. By (Sgd.) J. R. MCDONOUGH, *President.*

Attest:
(Sgd.) F. S. KANE, *Secretary.*

The foregoing is assented to and accepted by the undersigned.

[SEAL] VICTOR TALKING MACHINE COMPANY,
O. S. S. By (Sgd.) I. E. LAMBERT, *Vice President.*

Attest:
(Sgd.) F. S. KANE, *Secretary.*

Agreement made this 1st day of July 1932 between General Electric Company, a New York corporation (herein called the General Company), American Telephone and Telegraph Company, a New York corporation (herein called the Telephone Company), Western Electric Company, Incorporated, a New York corporation (herein called the Western Company), Radio Corporation of America, a Delaware corporation (herein called RCA), and Broadcasting Company of America, Inc., a Delaware corporation (herein called the Broadcasting Company):

WITNESSETH:

Whereas certain of the parties have entered into the following agreements, each dated July 1, 1926:

(1) Letter agreement between the Telephone Company, the Western Company, the General Company and RCA, confirming the rights of, and consenting to the extension of the rights to, the United Fruit Company and others as therein provided;

(2) Agreement between the Telephone Company, the Broadcasting Company and RCA, relating to the purchase of Station WEAF, generally known as the Purchase Agreement; and

(3) Agreement between the Telephone Company and RCA, generally known as the Service Agreement; and

Whereas the General Company and the Telephone Company have entered into an Agreement dated July 1, 1932, of which the parties hereto have knowledge, which is a substitute license agreement for a certain license agreement between them dated July 1, 1920, which was modified by an agreement dated July 1, 1926;

Now, therefore, in consideration of the premises, the parties hereto agree that the agreements specified in the first preamble of this agreement are hereby modified so that where reference is made in any of said agreements to said license agreement dated July 1, 1920, as modified July 1, 1926, such reference shall be to the Substitute License Agreement between certain of the parties dated July 1, 1932, and each of the parties hereto, to the extent necessary, renews its assent to the extension of any rights reserved by any of the other parties hereto or acquired or to be acquired by such parties, respectively, under said Substitute License Agreement, to the same extent to which it has previously assented to the extension of such rights under said License Agreements dated July 1, 1920, or under the License Agreement dated July 1, 1926, modifying said License Agreement dated July 1, 1920.

This agreement shall be effective from and after the date hereof.

In witness whereof, the parties hereto have caused this instrument to be executed in five counterparts, by their proper officers thereunto duly authorized,

Digitized by Google

and the corporate seals to be hereunto affixed, as of the day and year first above written.

[SEAL] GENERAL ELECTRIC COMPANY,
By (Sgd.) CHARLES W. APPLETON, *Vice President.*
Attest:
(Sgd.) J. W. LEWIS, *Asst. Secretary.*

[SEAL] AMERICAN TELEPHONE AND TELEGRAPH COMPANY,
By (Sgd.) WALTER S. GIFFORD, *President.*
Attest:
(Sgd.) A. A. MARSTERS, *Secretary.*

[SEAL] WESTERN ELECTRIC COMPANY, INCORPORATED,
By (Sgd.) EDGAR S. BLOOM, *President.*
Attest:
(Sgd.) S. M. SPILLER, *Asst. Secretary.*

[SEAL] RADIO CORPORATION OF AMERICA,
By (Sgd.) DAVID SARNOFF, *President.*
Attest:
(Sgd.) LEWIS MACCONNAGH, *Secretary.*

BROADCASTING COMPANY OF AMERICA, INC.
By ——— ———, *Vice President.*
Attest:
——— ———, *Secretary.*

AMERICAN TELEPHONE AND TELEGRAPH COMPANY,
195 Broadway, New York, Exchange 3-6000, August 11, 1932.

RADIO CORPORATION OF AMERICA,
570 Lexington Avenue, New York, N. Y.

GENTLEMEN: The agreement of July 1, 1932, between General Electric Company, American Telephone and Telegraph Company, Western Electric Company, Radio Corporation of America, and Broadcasting Company of America, Incorporated (Agreement No. 6), has not been signed by the Broadcasting Company of America, Incorporated, for the reason that as provided in the Purchase Agreement of July 1, 1926, the said Broadcasting Company was dissolved as provided in Article III of said Agreement of July 1, 1926. You may take this letter as an assurance that any obligations of said Broadcasting Company of America, Incorporated, under said Purchase Agreement, are hereby assumed by the American Telephone and Telegraph Company.

Very truly yours,

(Sgd.) C. P. COOPER, *Vice President.*

G. E. F.
C. M. B.
O. S. S.

Agreement made this 1st day of July 1932 between American Telephone and Telegraph Company, a New York corporation (herein called the Telephone Company), and General Electric Company, a New York corporation (herein called the General Company):

WITNESSETH:

Whereas the parties entered into a certain letter agreement dated August 26, 1930, modifying the License Agreement between the parties dated July 1, 1920, as modified by an agreement dated July 1, 1926, and relating, among other things, to a grant by the Telephone Company to the General Company of certain licenses with respect to close-talking microphones; and

Whereas the parties hereto desire to terminate said letter agreement;

Now, therefore, in consideration of the premises, the parties hereto agree that said letter agreement, dated August 26, 1930, be, and the same hereby is, terminated as of the date hereof, and each of the parties releases and discharges the other from any and all liability thereunder.

Digitized by Google

In witness whereof the parties have caused this instrument to be executed by their respective officers, thereunto duly authorized, and their corporate seals to be affixed, as of the day and year first above written.

[SEAL] AMERICAN TELEPHONE AND TELEGRAPH COMPANY,
By (Sgd.) WALTER S. GIFFORD, *President.*
Attest:
(Sgd.) A. A. MARSTERS, *Secretary.*

[SEAL] GENERAL ELECTRIC COMPANY,
By (Sgd.) CHARLES W. APPLETON, *Vice-President.*
Attest:
(Sgd.) J. W. LEWIS, *Asst. Secretary.*

Agreement made this 1st day of July 1932 between General Electric Company, a New York corporation (herein called the General Company), and American Telephone and Telegraph Company, a New York corporation (herein called the Telephone Company):

WITNESSETH:

Whereas under date of July 1, 1926, the parties entered into a certain agreement (generally known as Agreement "Y") relating, among other things, to termination, otherwise than as provided for in a certain modified license agreement between the parties, generally known as Modified Agreement "B"; and

Whereas the parties hereto desire to terminate said Agreement "Y";

Now, therefore, in consideration of the premises, the parties hereto agree that said Agreement "Y", dated July 1, 1926, be and the same hereby is terminated as of the date hereof, and each of the parties releases and discharges the other from any and all liability thereunder.

In witness whereof, the parties have caused this instrument to be executed by their respective officers, thereunto duly authorized, and their corporate seals to be affixed, as of the day and year first above written.

[SEAL] GENERAL ELECTRIC COMPANY,
By (Sgd.) CHARLES W. APPLETON, *Vice President.*
Attest:
(Sgd.) J. W. LEWIS, *Asst. Secretary.*

[SEAL] AMERICAN TELEPHONE AND TELEGRAPH COMPANY,
By (Sgd.) WALTER S. GIFFORD, *President.*
Attest:
(Sgd.) A. A. MARSTERS, *Secretary.*

Agreement made this 1st day of July 1932 between American Telephone and Telegraph Company, a New York corporation, General Electric Company, a New York corporation, Radio Corporation of America, a Delaware corporation, and Westinghouse Electric & Manufacturing Company, a Pennsylvania corporation:

WITNESSETH:

Whereas the parties have entered into a certain letter agreement, under date of July 1, 1926, relating to postponing for ninety (90) days the effect of certain provisions of an agreement generally known as Modified Agreement "B", and providing specifically as to sales of apparatus prior to October 1, 1926; and

Whereas the parties hereto desire to terminate said letter agreement;

Now, therefore, in consideration of the premises, the parties hereto agree that said letter agreement, dated July 1, 1926, be and the same hereby is terminated as of the date hereof, and each of the parties releases and discharges the others from any and all liability thereunder.

Digitized by Google

In witness whereof the parties have caused this instrument to be executed by their respective officers, thereunto duly authorized, and their corporate seals to be affixed, as of the day and year first above written.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY,
By ——— ———, *Vice President.*

Attest:

———— ———, *Secretary.*

GENERAL ELECTRIC COMPANY,
By ——— ———, *Vice President.*

Attest:

———— ———, *Secretary.*

RADIO CORPORATION OF AMERICA,
By ——— ———, *Vice President.*

Attest:

———— ———, *Secretary.*

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY,
By ——— ———, *Vice President.*

Attest:

———— ———, *Secretary.*

[Not executed because deemed unnecessary.]

SUBSTITUTE EXTENSION AGREEMENT

Agreement, dated July 1, 1932, between General Electric Company, a New York corporation (hereinafter called the General Company), Radio Corporation of America, a Delaware corporation (hereinafter called the Radio Company), American Telephone and Telegraph Company, a New York corporation (hereinafter called the Telephone Company), and Western Electric Company, Incorporated, a New York corporation (hereinafter called the Western Company).

Whereas, the parties hereto have heretofore entered into an agreement dated July 1, 1920, known as the Extension Agreement, in which agreement reference is made to a License Agreement dated July 1, 1920, between the General Company and the Telephone Company;

Whereas, the General Company and the Telephone Company have entered into an agreement dated July 1, 1926, of which the parties hereto have knowledge, modifying said License Agreement dated July 1, 1920;

Whereas, the parties hereto, under date of July 1, 1926, have entered into an agreement generally known as Modified Agreements C and X modifying said Extension Agreement; and

Whereas, the General Company and the Telephone Company have entered into an agreement dated July 1, 1932, of which the parties hereto have knowledge, which is a substitute license agreement for said License Agreement dated July 1, 1920, as modified by Agreement dated July 1, 1926; and

Whereas, the General Company desires to extend rights under said Substitute License Agreement of July 1, 1932, to the Radio Company; and

Whereas, the Telephone Company desires to extend rights under said Substitute License Agreement of July 1, 1932, to the Western Company; and

Whereas, the Radio Company and the Western Company, respectively, desire to obtain such rights and the assent of both parties to the Substitute License Agreement of July 1, 1932, may be desirable or necessary for the extension of such rights;

Whereas, it is now the mutual desire of the parties to substitute this agreement and the licenses herein granted for said Extension Agreement dated July 1, 1920, as modified by an agreement known as Modified Agreements C and X dated July 1, 1926.

Now, therefore, in consideration of the premises and the mutual agreements herein contained, the parties agree with each other as follows:

I. The said agreements between the parties hereto, dated July 1, 1920, and July 1, 1926, generally known as the Extension Agreement and Modified Agreements C and X, respectively, and all licenses therein granted and agreed to be

Digitized by Google

granted, are hereby terminated as of the date hereof, and this agreement and the licenses herein granted and agreed to be granted are substituted therefor.

II. The General Company may extend to the Radio Company, and the Telephone Company may extend to the Western Company, any of the said rights reserved and acquired by each, respectively, under this present agreement and under said Substitute License Agreement of July 1, 1932, whether or not expressed in said Substitute License Agreement of July 1, 1932, as including the right to grant sub-licenses, or as personal or non-assignable, except any right to terminate under the provisions of Article XIV of said agreement.

III. The Western Company hereby grants and agrees to grant to the General Company under the present and future patents of the Western Company, rights of the same character and scope, and for the same fields and subject to the same limitations and conditions, as the rights granted to the General Company in and by said Substitute License Agreement of July 1, 1932. And the Western Company hereby assumes toward the General Company (and the Telephone and Western Companies assume toward the Radio Company, to the extent that the General Company, under the provisions of Article II hereof, extends or may hereafter extend its rights to the Radio Company) obligations similar to the obligations assumed by the Telephone Company toward the General Company in and by said Substitute License Agreement of July 1, 1932, except that the Western Company assumes no obligations as to operation of telephone or telegraph systems unless and until it shall engage in the commercial operation of such systems.

IV. The Radio Company hereby grants and agrees to grant to the Telephone Company under the present and future patents of the Radio Company, rights of the same character and scope, and for the same fields and subject to the same limitations and conditions, as the rights granted to the Telephone Company in and by said Substitute License Agreement of July 1, 1932. And the Radio Company hereby assumes toward the Telephone Company (and the General and Radio Companies assume toward the Western Company, to the extent that the Telephone Company, under the provisions of Article II hereof, extends or may hereafter extend its rights to the Western Company) obligations similar to the obligations assumed by the General Company toward the Telephone Company in and by said Substitute License Agreement of July 1, 1932, except that the Radio Company assumes no obligations as to manufacturing or selling articles or devices which it is not from time to time engaged in commercially manufacturing.

V. This Agreement shall terminate at the same time that the said Substitute License Agreement of July 1, 1932, terminates.

VI. This Agreement shall be effective from and after the date hereof.

In witness whereof, the parties hereto have caused this instrument to be executed in quadruplicate as of the 1st day of July 1932 by their proper officers thereunto duly authorized.

[SEAL] GENERAL ELECTRIC COMPANY,
By (Sgd.) CHARLES W. APPLETON, *Vice President.*
Attest:
(Sgd.) J. W. LEWIS, *Asst. Secretary.*

[SEAL] RADIO CORPORATION OF AMERICA,
By (Sgd.) DAVID SARNOFF, *President.*
Attest:
(Sgd.) LEWIS MACCONNACH, *Secretary.*

[SEAL] AMERICAN TELEPHONE AND TELEGRAPH COMPANY,
By (Sgd.) WALTER S. GIFFORD, *President.*
Attest:
(Sgd.) A. A. MARSTERS, *Secretary.*

[SEAL] WESTERN ELECTRIC COMPANY, INCORPORATED,
By (Sgd.) EDGAR S. BLOOM, *President.*
Attest:
(Sgd.) S. M. SPILLER, *Asst. Secretary.*

SUBSTITUTE TERMINATION AGREEMENT

Agreement, dated July 1, 1932, between General Electric Company, a New York corporation (hereinafter called the General Company), Radio Corporation of America, a Delaware corporation (hereinafter called the Radio Company),

Digitized by Google

American Telephone and Telegraph Company, a New York corporation (hereinafter called the Telephone Company), and Western Electric Company, Incorporated, a New York corporation (hereinafter called the Western Company).

Whereas the parties hereto have heretofore entered into an agreement dated July 1, 1920, known as the Termination Agreement, in which agreement reference is made to a License Agreement dated July 1, 1920, between the General Company and the Telephone Company;

Whereas, the General Company and the Telephone Company have entered into an agreement dated July 1, 1926, of which the parties hereto have knowledge, modifying said License Agreement dated July 1, 1920;

Whereas, the parties hereto, under date of July 1, 1926, have entered into an agreement generally known as Modified Agreements C and X modifying said Termination Agreement; and

Whereas, the General Company and the Telephone Company have entered into an agreement dated July 1, 1932, of which the parties hereto have knowledge, which is a Substitute License Agreement for said License Agreement dated July 1, 1920, as modified by Agreement dated July 1, 1926; and

Whereas, it is now the mutual desire of the parties to substitute this agreement and the licenses herein granted for said Termination Agreement dated July 1, 1920, as modified by said agreement known as Modified Agreements C and X dated July 1, 1926.

Now, therefore, in consideration of the premises and the mutual agreements herein contained, the parties agree with each other as follows:

I. The said agreements between the parties hereto, dated July 1, 1920, and July 1, 1926, generally known as Termination Agreement and Modified Agreements C and X, respectively, and all licenses therein granted and agreed to be granted, are hereby terminated as of the date hereof, and this agreement and the licenses herein granted and agreed to be granted are substituted therefor.

II. If the United States (except temporarily on account of war or otherwise) acquires the property of the Radio Company or of the Telephone Company, or the inventions or business of either of them, or any definite part thereof, so as to prevent either of said companies from continuing any substantial part or all of its then existing business so as substantially to adversely affect the rights of any of the other parties under the said Substitute License Agreement of July 1, 1932, the said Substitute License Agreement shall thereupon terminate so far as concerns the fields of business or inventions so acquired (all licenses which have theretofore vested continuing in force), it having been the purpose of the aforesaid Substitute License Agreement to provide for conditions which it was thought might be foreseen in the conduct of privately owned enterprises, but not for conditions which might arise from such radical changes as would be involved in Government ownership or operation.

III. The company whose property, business, or patents are so acquired shall have the right to grant to the Government licenses under the patent rights which it acquired through said Substitute License Agreement of July 1, 1932, in and for the same fields and uses as any licenses then (at the time of such taking over) possessed under said Substitute License Agreement by the party whose property, business, or patents have been taken over.

IV. This agreement shall be effective from and after the date hereof.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be executed in quadruplicate as of the day and year first above written by their proper officers thereunto duly authorized.

[SEAL] GENERAL ELECTRIC COMPANY,
By (Sgd.) CHARLES W. APPLETON, *Vice-President.*
Attest:
(Sgd.) J. W. LEWIS, *Asst. Secretary.*

[SEAL] RADIO CORPORATION OF AMERICA,
By (Sgd.) DAVID SARNOFF, *President.*
Attest:
(Sgd.) LEWIS MACCONNACH, *Secretary.*

Digitized by Google

[SEAL] AMERICAN TELEPHONE AND TELEGRAPH COMPANY,
By (Sgd.) WALTER S. GIFFORD, *President.*
Attest:
(Sgd.) A. A. MARSTERS, *Secretary.*

[SEAL] WESTERN ELECTRIC COMPANY, INCORPORATED.
By (Sgd.) EDGAR S. BLOOM, *President.*
Attest:
(Sgd.) S. M. SPILLER, *Asst. Secretary.*

Agreement, made this 1st day of July 1932, between American Telephone and Telegraph Company, a New York corporation (herein called the Telephone Company), Western Electric Company, Incorporated, a New York corporation (herein called the Western Company), and General Electric Company, a New York corporation (herein called the General Company),

WITNESSETH

Whereas, the parties have entered into a certain letter agreement dated July 1, 1926, dealing with the granting of sub-licenses under a certain license agreement dated July 1, 1926, between the Telephone Company and the General Company, modifying a certain License Agreement between the same parties dated July 1, 1920, said Modified License Agreement being generally known as Modified Agreement "B" and the assent to sub-licenses and the conditions attached thereto; and

Whereas, the parties hereto desire to terminate said letter agreement dated July 1, 1926, and the letter agreement therein referred to;

Now, therefore, in consideration of the premises, the parties hereto agree that said letter agreement dated July 1, 1926, and the letter agreement therein referred to be and the same hereby are terminated as of the date hereof, and each of the parties releases and discharges the others from any and all liability thereunder.

In witness whereof, the parties have caused this instrument to be executed by their respective officers, thereunto duly authorized, and their corporate seals to be affixed, as of the day and year first above written.

[SEAL] AMERICAN TELEPHONE AND TELEGRAPH COMPANY.
By (Sgd.) WALTER S. GIFFORD, *President.*
Attest:
(Sgd.) A. A. MARSTERS, *Secretary.*

[SEAL] WESTERN ELECTRIC COMPANY, INCORPORATED.
By (Sgd.) EDGAR S. BLOOM, *President.*
Attest:
(Sgd.) S. M. SPILLER, *Asst. Secretary.*

[SEAL] GENERAL ELECTRIC COMPANY,
By (Sgd.) CHARLES W. APPLETON, *Vice-President.*
Attest:
(Sgd.) J. W. LEWIS, *Asst. Secretary.*

SUBSTITUTE FOR MODIFIED AGREEMENT H

JULY 1, 1932.

GENERAL ELECTRIC COMPANY,
120 Broadway, New York, N. Y.
RADIO CORPORATION OF AMERICA,
570 Lexington Avenue, New York, N. Y.

DEAR SIRS: Under date of June 30, 1921, American Telephone and Telegraph Company and Western Electric Company, Incorporated, at your request, assented to the extension by you to Westinghouse Electric & Manufacturing Company of rights under licenses acquired by you under the patents of the undersigned companies through the License Agreement between General Electric Company and American Telephone and Telegraph Company, dated July 1,

Digitized by Google

1920, and through the agreement also dated July 1, 1920, permitting the extension of rights under said License Agreement to Radio Corporation of America and to Western Electric Company, Incorporated.

Said License Agreement and said Extension Agreement, dated July 1, 1920, were modified by the parties thereto by agreements dated July 1, 1926, and a Substitute License Agreement dated July 1, 1932, between the General Electric Company and American Telephone and Telegraph Company has been substituted therefor, and said Extension Agreement has been replaced by an agreement dated July 1, 1932 (hereinafter called the Substitute Extension Agreement).

American Telephone and Telegraph Company and Western Electric Company, Incorporated, pursuant to the provisions of Article VII, Section 3, subdivision (c) of said Substitute License Agreement dated July 1, 1932, and pursuant to said Substitute Extension Agreement, hereby assent to the extension by you to Westinghouse Electric & Manufacturing Company and its subsidiaries of any of the rights, whether or not expressed as including the right to grant sublicenses, or as personal or nonassignable, reserved by you or acquired or to be acquired by you, respectively, under said Substitute License Agreement dated July 1, 1932, and said Substitute Extension Agreement.

Yours very truly,

[SEAL] AMERICAN TELEPHONE AND TELEGRAPH COMPANY,
By (Sgd.) WALTER S. GIFFORD, *President.*

Attest:

(Sgd.) A. A. MARSTERS, *Secretary.*

[SEAL] WESTERN ELECTRIC COMPANY, INCORPORATED,
By (Sgd.) EDGAR S. BLOOM, *President.*

Attest:

(Sgd.) S. M. SPILLER, *Asst. Secretary.*

JULY 1, 1932.

GENERAL ELECTRIC COMPANY,
120 Broadway, New York, N. Y.
RADIO CORPORATION OF AMERICA,
570 Lexington Avenue, New York, N. Y.
WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY,
150 Broadway, New York, N. Y.

DEAR SIRS: In compliance with your request and pursuant to subdivision (c) Section 3 of Article VII of an agreement known as the Substitute License Agreement dated July 1, 1932, between General Electric Company and American Telephone and Telegraph Company, and pursuant to Agreements dated July 1, 1932 (some of which modify agreements dated July 1, 1926), permitting the extension of rights under the Substitute License Agreement dated July 1, 1932, to Radio Corporation of America and Westinghouse Electric & Manufacturing Company, the undersigned American Telephone and Telegraph Company and Western Electric Company, Incorporated, hereby assent to the extension by you, or any of you, to any corporation a majority of whose capital stock having power to vote for the election of directors is owned, directly or indirectly through one or more subsidiaries, either by General Electric Company, Radio Corporation of America, or Westinghouse Electric & Manufacturing Company alone, or by any two or more of said Companies, of any of the rights reserved by you or acquired or to be acquired by you under said Substitute License Agreement and under said agreements dated July 1, 1932 (some of which modify agreements dated July 1, 1926) permitting the extension of rights thereunder to Radio Corporation of America and Westinghouse Electric & Manufacturing Company; this assent being conditioned upon such corporation entering into an agreement with the respective company or companies so owning a majority of its capital stock entitled to vote for the election of directors, effectively subjecting to the Substitute License Agreement all United States patents then or thereafter during the term of said Substitue License Agreement owned or controlled by it, or upon such corporation having executed to American Telephone and Telegraph Company and Western Electric Company, Incorporated, an instrument granting to such Companies licenses under said patents coextensive with the licenses granted by General Electric Company to

Digitized by Google

American Telephone and Telegraph Company in said Substitute License Agreement.

Yours truly,

[SEAL] AMERICAN TELEPHONE AND TELEGRAPH COMPANY,
By (Sgd.) WALTER S. GIFFORD, *President.*

Attest:

(Sgd.) A. A. MARSTERS, *Secretary.*

[SEAL] WESTERN ELECTRIC COMPANY, INCORPORATED,
By (Sgd.) EDGAR S. BLOOM, *President.*

Attest:

(Sgd.) S. M. SPILLER, *Asst. Secretary.*

SUBSTITUTE FOR MODIFIED AGREEMENT I

Agreement, dated July 1, 1932, between American Telephone and Telephone Company, a New York corporation (hereinafter called the Telephone Company), Western Electric Company, Incorporated, a New York corporation (hereinafter called the Western Company), and Westinghouse Electric & Manufacturing Company, a Pennsylvania corporation (hereinafter called the Westinghouse Company).

Whereas an agreement, dated July 1, 1932, known as the Substitute License Agreement, has been entered into between the General Electric Company, a New York corporation (hereinafter called the General Company), and the Telephone Company, which agreement has been substituted for an agreement, dated July 1, 1926, between said parties, known as Modified Agreement B, said Modified Agreement B having modified a previous agreement, dated July 1, 1920, between said parties, known as Agreement B; a copy of said Substitute License Agreement is attached hereto and marked "Exhibit 1"; and

Whereas, by virtue of certain agreements, dated July 1, 1932, copies of which are hereto attached and marked "Exhibits 2 and 3", the General Company, Radio Corporation of America (hereinafter called the Radio Corporation), the Telephone Company and the Western Company have substituted said agreements for an agreement, dated July 1, 1926, between said parties, known as Modified Agreements C and X (and also for the agreements which it modified), which said Modified Agreements C and X modified an agreement, dated July 1, 1920, between said parties, known as the Extension Agreement, and also modified an agreement, dated July 1, 1920, between said parties, known as the Termination Agreement; and

Whereas, pursuant to the provisions of said Substitute License Agreement, the General Company desires to extend to the Westinghouse Company, at its request, certain of the rights under the patents and inventions of the Telephone Company and Western Company received by the General Company under the said agreements and, at the request of the General Company, the Telephone Company and the Western Company have assented thereto, as shown by the assent, dated July 1, 1932, known as "Substitute for Modified Agreement H", a copy of which is hereto attached and marked "Exhibit 4"; and

Whereas, in view of the above-mentioned agreements entered into contemporaneously herewith it is now the mutual desire of the parties hereto to substitute this agreement and the licenses herein contained for an agreement, dated July 1, 1926, between the parties hereto, known as "Modified Agreement I", which said Modified Agreement I modified an agreement, dated June 30, 1921, between the parties hereto, known as the "Telephone-Westinghouse Agreement";

Now, therefore, in consideration of the premises and the mutual agreements herein contained, the parties agree with each other as follows:

I. The said agreements between the parties hereto, dated June 30, 1921, and July 1, 1926, generally, known as the Telephone-Westinghouse Agreement and Modified Agreement I, respectively, and all licenses therein granted and agreed to be granted, are hereby terminated as of the date hereof, and this agreement and the licenses herein granted and agreed to be granted are substituted therefor.

II. The Westinghouse Company hereby grants and agrees to grant to the Telephone Company, and to the Western Company, under the present and future patents of the Westinghouse Company and rights to and under patents, in so far as it has or may have the right to do so, rights of the same character

Digitized by Google

and scope, and for the same fields of operation, and subject to the same limitations and conditions, as the rights granted by the General Company to the Telephone Company in and by the Substitute License Agreement, dated July 1, 1932; provided, however, that all rights, granted and agreed to be granted under this paragraph, are subject to rights which the Westinghouse Company hereby reserves for itself, for the General Company, and for the Radio Corporation, and their several subsidiaries and successors in business, and which are of the same character and scope, and for the same fields, and subject to the same limitations and conditions, as the rights reserved by the General Company in and by said Substitute License Agreement. The admission of validity implied in the acceptance of licenses hereunder, is limited to the fields for which such licenses exist.

III. The Telephone Company agrees, in addition to giving its assent to the extension of rights, under its patents, to the Westinghouse Company, as aforesaid, and to the granting of the other rights and privileges herein conferred, to pay to the Westinghouse Company one-third of the sums paid and payable by the Westinghouse Company to the Inventors under a certain agreement known as the "Armstrong and Pupin agreement", dated October 5, 1920, under which the Westinghouse Company acquired certain patents and applications of said Inventors. One-third of the payments made by the Westinghouse Company to date under said agreement have been paid by the Telephone Company, and one-third of future payments shall be paid by the Telephone Company as they are due and paid by the Westinghouse Company under the terms of said agreement.

IV. The Westinghouse Company agrees that it will not terminate its rights to and under the Armstrong and Pupin patents, under the provisions of paragraph 11 of the aforesaid "Armstrong and Pupin agreement", without first making such arrangements between the parties then interested in said patents that the Telephone Company shall continue to enjoy the rights herein granted under said patents without the payment of any consideration other than that herein provided.

V. The Telephone Company and the Western Company hereby assume toward the Westinghouse Company and its subsidiaries, to the extent that the General Company or the Radio Corporation, pursuant to said assent, extend or may hereafter extend rights to the Westinghouse Company and its subsidiaries, obligations similar to the obligations assumed by the Telephone Company and the Western Company toward the General Company and the Radio Corporation in and by said Substitute License Agreement and said Substitute Extension Agreement, except, that the Western Company assumes no obligations as to operation of telephone or telegraph systems unless and until it shall engage in the commercial operation of such systems.

The Westinghouse Company hereby assumes toward the Telephone Company and the Western Company obligations similar to the obligations assumed by the General Company and the Radio Corporation toward the Telephone Company and the Western Company in and by said Substitute License Agreement and said Substitute Extension Agreement.

Notwithstanding the provisions of Section 7 of Article VII of said Substitute License Agreement, it is understood and agreed that the Westinghouse Company hereby grants to the Telephone Company non-exclusive licenses and the right to grant non-exclusive licenses to the foreign associated and allied companies of the Telephone Company and Western Company, under all foreign patents which the Westinghouse Company acquires under the "Armstrong and Pupin Agreement" of October 5, 1920, so far as the Westinghouse has or may have the right to make such grants.

VI. Unless previously terminated by mutual consent, this agreement shall continue in force until December 31, 1954, and automatically thereafter until canceled on three years' written notice given on or after December 31, 1951, by either party to the other, provided, however, that it shall not be thus cancelled by the Westinghouse Company during the continuance of said Substitute License Agreement and said Substitute Extension Agreement and its enjoyment thereunder of rights under the patents of the Telephone Company and the Western Company. In the event that said Substitute License Agreement and said Substitute Extension Agreement, or either of them, are terminated prior to the termination of this agreement, as above specified, the parties hereto shall continue, during the continuance of this agreement, to enjoy rights under each other's patents, and rights to and under patents, the same as prior to the termination of such agreements. If this agreement is terminated by

Digitized by Google

three years' written notice as above specified, the then existing licenses of both parties shall continue during the lives of the several patents. For the purposes of this paragraph, the Telephone Company and the Western Company shall be regarded as one party and the Westinghouse Company as the other party.

VII. This agreement shall be effective from and after the date hereof.

In witness whereof, the parties hereto have caused this instrument to be executed in triplicate as of the day and year first above written, by their proper officers thereunto duly authorized.

[SEAL] AMERICAN TELEPHONE AND TELEGRAPH COMPANY,
Attest: (Sgd.) WALTER S. GIFFORD, *President.*
(Sgd.) A. A. MARSTERS, *Secretary.*

[SEAL] WESTERN ELECTRIC COMPANY, INCORPORATED,
Attest: By (Sgd.) EDGAR S. BLOOM, *President.*
(Sgd.) S. M. SPILLER, *Assistant Secretary.*

[SEAL] WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY,
Attest: By (Sgd.) HAROLD SMITH, *Vice-President.*
(Sgd.) WARREN H. JONES, *Secretary.*

EXHIBIT 1

SUBSTITUTE LICENSE AGREEMENT [B2] DATED JULY 1, 1932 BETWEEN GENERAL ELECTRIC COMPANY AND AMERICAN TELEPHONE AND TELEGRAPH COMPANY

Agreement dated July 1, 1932, between General Electric Company, a New York corporation (herein called the General Company), and American Telephone and Telegraph Company, a New York corporation (herein called the Telephone Company).

Whereas the parties hereto heretofore entered into an agreement made the first day of July, 1920, generally known as Agreement "B", which was subsequently modified by an agreement dated July 1, 1926, generally known as "Modified Agreement B", and

Whereas it is now the mutual desire of the parties to substitute therefor this agreement and the licenses herein granted.

Now, in consideration of the premises and the mutual agreements herein contained, the parties agree each with the other as follows:

ARTICLE I. TERMINATION OF EXISTING AGREEMENTS AND LICENSES

The said agreements of July 1, 1920, and July 1, 1926, generally known as Agreement B and Modified Agreement B, respectively, and all licenses therein granted and agreed to be granted are hereby terminated as of the date hereof, and this agreement and the licenses herein granted and agreed to be granted are substituted therefor.

ARTICLE II. DEFINITIONS

For the purposes of this agreement the following terms are defined as follows:

"*Wire telephony*" is the art of communicating or reproducing sound waves (created, directly or indirectly, by the voice or by musical instruments) by means of electricity, magnetism, or electro-magnetic waves, variations or impulses conveyed or guided by wires, and includes all generating, measuring, switching, signaling, and other means or methods incidental to or involved in such communication.

"*Wireless telephony*" has the same meaning as "wire telephony", except that the waves, variations, or impulses are radiated through space.

"*Wire telegraphy*" is the art of communicating messages by code signals (such as the Morse Code, for example) and of picture transmission, by means of electricity, magnetism, or electro-magnetic waves, variations or impulses conveyed or guided by wires, and includes all generating, measuring, switching, signaling, and other means or methods incidental to or involved in such communication, but does not include such devices as annunciators, elevator signals, engine-room telegraphs, etc.

Digitized by Google

"*Wireless telegraphy*" has the same meaning as "wire telegraphy," except that the waves, variations, or impulses are radiated through space.

"*Picture transmission*" is the art of transmitting, or receiving at another point than the point of transmission, by means of electricity, magnetism, or electro-magnetic waves, variations, or impulses, the aspect or shape of things, including pictures, whether still or moving, drawings, writings, forms, and other graphic, printed, and written matter of all kinds; and includes television.

"*Programs*" means pictures, news, music, speeches, sermons, advertising and entertainment, educational and similar matter, or any of them or combinations of any of them, for the purpose of exhibition, entertainment, or instruction.

"*Power purposes*" means all prime movers and their accessories and all generation, use, measurement, control, and application of electricity for light, heat, power, and traction, but does not include any communication purpose.

"*Public address system*" means a combination including one or more telephone transmitters, an electrical amplifier or amplifiers and one or more loud speaking telephone receivers, either adjacent to said transmitters or at a distance therefrom, operating by one-way wire telephony for the reproduction of sound with increased volume; but does not include apparatus for (1) wireless telephone reception, or (2) reception of programs over electric light, electric heat, electric power or electric traction lines, or (3) the production or reproduction of sound from sound records.

"*Phonographs*" means all apparatus for the reproduction of sound from sound records used in or in connection with such apparatus, to be heard in the immediate vicinity of the apparatus, but does not include apparatus for the transmission to, or reception at, other points of sound reproduced from such records.

"*Electric Phonograph*" means a phonograph in which the sound record used therein gives rise to or controls an electric current or electromotive force in such a way that the variations of the electric current or electromotive force correspond in some way to the recorded sounds, and the electric current or electromotive force directly or indirectly brings about the production of the sound from the phonograph.

"*Transoceanic*" communication means all communication which crosses any ocean, gulf, or sea between two continents, or between a continent and an island more than one hundred miles from its shores (islands within one hundred miles of the shore of a continent being considered parts thereof), or between two islands which are not parts of the same continent, except that communication between ships or aircraft, between ships and aircraft, or between ships or aircraft and shore, and communication between parts of the same continent, is not transoceanic communication. North America, including the Panama Canal Zone and all of Central America north thereof, is to be considered as one continent, and South America and all of Central America south of the Panama Canal Zone as another.

"*The United States Government*" means not only the Federal Government but also the Governments of the Philippines, Porto Rico, and other federal possessions, present or future; but does not include any municipal, county, or state government.

"*Train dispatching*" is telegraphic or telephonic conveyance of train orders or operating information between the office of a train dispatcher or similar official and railway trains or other automotive land vehicles (not including airplanes or airships) or points along the line of way, for directing the movements of such automotive vehicles.

"*Railway signalling*" is the operation of signals, switches, brakes, stops, crossing gates, etc., controlling or signalling the movements of trains or other automotive vehicles, controlled by or in accordance with train or vehicle movements or track conditions, including block signalling, cab signals, and train stops. It does not include train dispatching.

"*Apparatus*" includes machines, devices, and appliances and the materials entering into the construction thereof.

"*Household devices*" are electric or electrically operated apparatus, not herein otherwise specified, designed primarily for domestic use, but do not include apparatus for communication purposes.

"*Homes*" means all places of residence, permanent or temporary, including, however, as to hotels, hospitals and club houses only the private living rooms thereof.

"*Amateur*" means one, not a professional investigator, who is more than a mere broadcast listener and who evidences his interest in the art of wireless telephony by study, investigation or experiment in the art.

Digitized by Google

"*Printing telegraph apparatus*" means, and is limited to, mechanisms and devices for use in telegraphy, whether wire or wireless, whereby electrical signals corresponding to the characters of a message.

(*a*) are created in an electric circuit by the operation of a manual device upon which such characters are represented, or by the operation of an automatic transmitter controlled by a tape or other record having holes or other marks corresponding respectively to the characters of the message impressed thereon by the operation of such manual device, and/or

(*b*) are utilized to cause said characters to be successively recorded or displayed (directly or through storage means) in typed or other form, or are utilized to select successively devices or elements corresponding to said characters, and/or

(*c*) are sequentially distributed or delivered by the apparatus referred to in clause (*a*) to a transmission channel (such as a wire circuit, carrier-current circuit, or radio apparatus), or from a transmission channel to the apparatus referred to in clause (*b*);

but this definition does not include the transmission channel or any apparatus, circuits, systems or methods for electrical transmission or reception the functions of which are distinct from those of the apparatus referred to in clauses (*a*), (*b*) or (*c*) hereof, nor any mechanism or devices for enabling automatic comparison of sequential repetition of said signals or records thereof; and this definition does not include any apparatus for "picture transmission" as herein defined.

"*Subsidiaries*" of either party are corporations a majority of whose stock having power to vote for the election of directors is owned, directly or indirectly, either by such party, or by such party and one or more of its other subsidiaries, or by one or more of its other subsidiaries. The party hereto so controlling, directly or indirectly, any subsidiary is herein called the "*parent company*" of such subsidiary.

"*Companies of the Bell System*" are those companies which, in connection directly or indirectly with the Telephone Company, provide a telephone service throughout the United States, or from the United States to foreign countries. These companies at present comprise the Telephone Company, Western Electric Company, Incorporated, Cuban American Telephone and Telegraph Company, and the so-called Associate Companies and Connecting Companies, and the several subsidiaries of each of said Companies.

Any dispute arising as to the meaning or application of the foregoing definitions shall be settled by arbitration, as hereinafter provided.

ARTICLE III. THE PATENTS INCLUDED IN THIS AGREEMENT

The licenses provided for herein are granted and agreed to be granted under all patents, and rights to or under patents, of the United States now or hereafter during the term of this agreement owned or controlled by the parties hereto, and under all such patents hereafter issued upon inventions now or hereafter during said term so owned or controlled, and to the extent to which the parties have or may have the right to grant licenses, in so far as the inventions covered by such patents are or shall be applicable to the respective fields for which said licenses are expressed as granted or to be granted, excepting (1) as otherwise specified in connection with the several grants hereinafter contained, and (2) such patents and inventions as may hereafter be excluded from the operation of this agreement in the following manner:

Each party agrees to furnish to the other, upon request, a list of all United States patents under which said other party is entitled to receive licenses hereunder. Such lists shall separately identify those patents, and shall also include those applications, as to which rights, if granted hereunder, would be restricted in scope or would involve continuing obligations not implied by law. Copies of all contracts creating such restrictions or obligations shall, upon request, be furnished by each party to the other. Thereupon, and within six months after the receipt of the lists to be furnished as aforesaid, each party may in writing advise the other as to the patents and applications described in such list, furnished by the other, which (or the patents to issue on which) it desires to exclude from this agreement; and no licenses are granted by this agreement under any patents so excluded.

Digitized by Google

ARTICLE IV. SCOPE OF LICENSES

1. All of the licenses herein granted are, unless otherwise expressed in connection with the several grants, licenses to use methods and processes, and to make, use, sell, lease or otherwise dispose of apparatus and systems in the fields in which the licenses are granted.

2. A license to make apparatus includes a license to have such apparatus manufactured for the licensee by others, except that no rights are granted to either party to manufacture or to have manufactured, under patents under which it receives licenses hereunder, apparatus of the character at the time manufactured by the other party, except in factories owned or operated by one or the other of the parties hereto, or by their subsidiaries, without the written consent of the party granting such licenses.

3. Every license herein granted to either party includes, unless otherwise herein provided, all incidental rights necessary to the full enjoyment and exercise of the license granted, notwithstanding that such incidental rights may lie primarily in a field in which the said party is not herein expressly granted a license.

4. The making, using, selling, leasing or otherwise disposing of parts is subject to the same restrictions and conditions as are applicable under this agreement to apparatus of which they are or may be parts.

ARTICLE V. RESERVATIONS AND EXCEPTIONS TO WHICH THE LICENSES ARE SUBJECT

1. No licenses are granted by either party with reference to the manufacture or sale of wire or cable for the transmission of electric current for light, heat, traction, or other power purposes, or for telephone or telegraph purposes.

2. No licenses are granted to the Telephone Company for electric lamps or other lighting apparatus (except non-exclusive licenses with reference to telephone and telegraph signal lamps and telephone and telegraph ballast lamps for use solely in fields in which the Telephone Company is otherwise licensed under this agreement).

3. The licenses herein granted to the Telephone Company, in so far as they cover rights to sell or lease carrier current, wireless or vacuum tube apparatus for use on electric railroads, are limited to sales or leases of said apparatus to the railroads.

4. Wherever in this agreement either party receives from the other a license with the right to license others, such party shall have the right to release others for past infringement in the fields for which it receives such licenses and to retain for itself all considerations paid to it on account of such infringements.

ARTICLE VI. LICENSES GRANTED

Subject to the foregoing reservations, each party grants and agrees to grant to the other the following licenses in the following fields of use:

1. *Government Uses.*—Each party grants to the other non-exclusive licenses to make for, and sell or lease to, the United States Government wireless apparatus and systems.

2. *Wireless Telegraphy.*—(*a*) The General Company grants to the Telephone Company non-exclusive licenses, including the right to grant non-exclusive licenses to others, in the field of wireless telegraphy for combined wireless telephone and telegraph sets for use on ships; except that where such combined sets are for use on ocean-going and coast-wise ships of American registry (excluding harbor tug-boats and other harbor craft), said licenses are only to manufacture; and the Telephone Company grants to the General Company non-exclusive licenses, including the right to grant non-exclusive licenses to others, to use, lease, or sell or otherwise dispose of, but not to manufacture such sets. The Telephone Company agrees, upon request, to make such sets and sell them for such use to the General Company upon reasonable terms.

(*b*) The General Company grants to the Telephone Company non-exclusive licenses in the field of wireless telegraphy to make and use (but not to sell, lease, or otherwise dispose of, except to Companies of the Bell System) apparatus and systems for its own communication or that of Companies of the Bell System, and for use solely as an incidental facility in fields in which it is otherwise licensed under this agreement, but not for transmission of messages for the public except temporarily in emergencies due to storms or other catastrophes.

Digitized by Google

(*c*) The General Company grants to the Telephone Company non-exclusive licenses in the field of wireless telegraphy to make and use (but not to sell, lease, or otherwise dispose of, except leases to subscribers in connection with a service given by Companies of the Bell System in this paragraph described) apparatus and systems for the purpose of giving within the continental United States, and between the continental United States and other parts of continental North America, a business, commercial, or official service limited to a particular customer or class of customers and analogous to the service given by Companies of the Bell System by wire telegraphy at the date of this agreement, commonly designated as leased wire or special contract service, but said licenses do not include the making or using of such apparatus for (1) transmission or reception for the public generally or (2) transoceanic communication or (3) transmission or reception of programs.

(*d*) The General Company grants to the Telephone Company non-exclusive licenses in the field of wireless telegraphy to make and use (but not to sell, lease, or otherwise dispose of, except to Companies of the Bell System) apparatus and systems for television for use solely in combination with apparatus and systems for two-way telephony for the purpose of giving a public service combining television and speech, but said licenses do not include the making or using of such apparatus for transmission or reception of programs.

(*e*) The General Company grants to the Telephone Company non-exclusive licenses in the field of wireless telegraphy for combined wireless telephone and telegraph sets, other than sets or transoceanic communication, (1) for use in communication by, with, and between airplanes, airships, and other automotive devices other than ships and railway vehicles, and (2) for export from the continental United States for use for any purpose other than transoceanic communication.

(*f*) The Telephone Company grants to the General Company: (1) exclusive licenses, including the right to grant licenses to others, in the field of wireless telegraphy for purposes of public service communication, subject, however, to non-exclusive rights which the Telephone Company reserves for itself and its present and future subsidiaries under its and their patents to make, use, and sell in said field and to grant to the United States Government licenses to make and to have made for it and to use apparatus for such purposes; and (2) non-exclusive licenses, including the right to grant non-exclusive licenses to others, for all other purposes in the field of wireless telegraphy other than the purposes covered by paragraph (*a*) of this section 2 and by section 8 of this Article VI.

(*g*) The General Company grants to the Telephone Company nonexclusive licenses for printing telegraph apparatus for use in the fields of wire and wireless telegraphy.

(*h*) The Telephone Company agrees that printing telegraph apparatus manufactured by Teletype Corporation (which is a subsidiary of Western Electric Company, Incorporated) shall be sold by Teletype Corporation to the General Company, upon the basis defined in Article X hereof, for use only within the fields for which licenses are herein granted to the General Company. The Telephone Company agrees that Teletype Corporation will grant to the General Company, under patents and inventions owned or controlled by the Teletype Corporation (so far as and to the extent that Teletype Corporation has the right, in view of its existing obligations, to grant such licenses) licenses of the same character and scope as the licenses herein granted by the Telephone Company to the General Company, except that no licenses are agreed to be granted with respect to printing telegraph apparatus under any patents or inventions of the Teletype Corporation; and the General Company agrees that all non-exclusive rights and licenses granted to or reserved by the Telephone Company hereunder may be extended by the Telephone Company to the Teletype Corporation.

(*i*) The licenses granted to the General Company in this section 2 do not cover the use of wireless telegraph stations for giving a telephone service, except as licensed in section 4 of this Article VI.

3. Wire Telegraphy.—(*a*) The Telephone Company grants to the General Company non-exclusive licenses, including the right to grant non-exclusive licenses to others, in the field of wire telegraphy for the transmission and reception of programs over electric light, electric heat, electric power, and electric traction lines, subject, however, to the provisions of paragraph (*b*) of section 5 of this Article VI regarding electrical interference.

Digitized by Google

(*b*) The Telephone Company grants to the General Company non-exclusive licenses in the field of wire telegraphy to make (but not to sell, lease, or otherwise dispose of) apparatus and systems, and (1) to use such apparatus and systems for its own communication and for use solely as an incidental facility in fields in which it is otherwise licensed under this agreement, and (2) to use (but not to furnish to others) such apparatus and systems upon wire telegraph systems owned by it, or leased to it for its operation (other than transoceanic cables), for all purposes other than giving a service by wire telegraphy analogous to the services given by the Companies of the Bell System by wire telegraphy at the date of this agreement, commonly designated as leased wire service, special contract service or teletypewriter exchange service, and other than train dispatching; but no licenses are granted with reference to transoceanic wire telegraphy.

(*c*) The Telephone Company grants to the General Company non-exclusive licenses in the field of wire telegraphy for apparatus and systems for communication only in connection with the operation of apparatus for power purposes, but not for transmission of messages for the public.

(*d*) The Telephone Company grants to the General Company non-exclusive licenses in the field of wire telegraphy for apparatus and systems for communication between parts of a train (without regard to the nature of the motive power thereof), or between trains following or approaching each other upon the same system of tracks, or between trains approaching a cross-over or junction point of the systems of tracks upon which they are running, or between trains and signal towers or way-stations within short distances thereof, but in each instance only for use in connection with the operation of such trains but not for train dispatching.

(*e*) The General Company grants to the Telephone Company non-exclusive licenses, including the right to grant non-exclusive licenses to others, for all purposes in the field of wire telegraphy (other than that covered by paragraph (*a*) of this section 3) on land, and over ocean cables not more than one hundred miles in length, and between the main body of the United States and Cuba; but no licenses are granted with reference to other transoceanic wire telegraphy.

4. Wireless Telephony.—A. In general.—(*a*) The Telephone Company grants to the General Company nonexclusive licenses in the field of wireless telephony to make and use (but not to sell, lease or otherwise dispose of) apparatus and systems for its own communication and for use solely as an incidental facility in fields in which it is otherwise licensed under this agreement, but not for transmission of messages (as distinguished from programs) for the public except temporarily in emergencies due to storms or other catastrophes.

(*b*) The Telephone Company grants to the General Company nonexclusive licenses, including the right to grant non-exclusive licenses to others in the field of amateur wireless telephony; and the General Company grants to the Telephone Company non-exclusive licenses to make and sell apparatus in the field of amateur wireless telephony limited as hereinafter in this paragraph (*b*) provided. The licenses by this paragraph (*b*) granted by the Telephone Company to the General Company shall be free of royalties, but all apparatus sold by the Telephone Company under the licenses granted by this paragraph (*b*) shall be treated as if such apparatus were apparatus for one-way wireless telephone reception of programs under the provisions of paragraph (*d*) of subdivision C of this section 4 and shall be governed by all the provisions of said paragraph (*d*).

(*c*) Each party grants to the other non-exclusive licenses for headphones for all purposes in all fields covered by this agreement; provided, however, that headphones sold by the Telephone Company as part of complete apparatus for one-way wireless telephone reception of programs shall be included in the determination of the royalties payable by the Telephone Company under the provisions of paragraph (*d*) of subdivision C of this section 4.

(*d*) Each party grants to the other non-exclusive licenses in the field of wireless telephony for apparatus and systems for communication only in connection with the operation of apparatus for power purposes, but not for transmission of messages for the public.

(*e*) Each party grants to the other non-exclusive licenses in the field of wireless telephony for apparatus and systems for communication between parts of a train (without regard to the nature of the motive power thereof), or between trains following or approaching each other upon the same system of tracks, or between trains approaching a cross-over or junction of the systems

Digitized by Google

of tracks upon which they are running, or between trains and signal towers or way-stations within short distances thereof, but in each instance only for use in connection with the operation of such trains but not for train dispatching.

B. *Two-way wireless telephony.*—(*a*) The General Company grants to the Telephone Company non-exclusive licenses, including the right to grant non-exclusive licenses to others, in the field of two-way transoceanic wireless telephony to make and use (but not to sell, lease or otherwise dispose of) apparatus and systems for use in the continental United States; but such licenses do not include use for transmission or reception of messages offered for telephonic transmission.

(*b*) The General Company grants to the Telephone Company non-exclusive licenses in the field of two-way transoceanic wireless telephony, to make and sell to stations outside the continental United States engaged in cooperation with the Telephone Company in giving for the public a transoceanic telephone service, apparatus for use in giving such service; and the Telephone Company grants to the General Company non-exclusive licenses including the right to grant non-exclusive licenses to others in the field of two-way transoceanic wireless telephony for apparatus for export from the continental United States.

(*c*) The Telephone Company grants to the General Company non-exclusive rights in the field of two-way wireless telephony for combined wireless telephone and telegraph sets, other than sets for transoceanic communication, (1) for use in communication by, with, and between airplanes, airships and other automotive devices other than ships and railway vehicles, and (2) for export from the continental United States for use for any purpose other than transoceanic communication.

(*d*) The General Company grants to the Telephone Company non-exclusive licenses, including the right to grant non-exclusive licenses to others, in the field of two-way wireless telephony (other than in the field of transoceanic wireless telephony) for all purposes other than the purposes covered by subdivision A of this section 4.

(*e*) The licenses granted to the Telephone Company in this subdivision B do not include the use of wireless telephone stations for giving a telegraph service, except as licensed in section 2 of this Article VI.

C. *One-way wireless telephony.*—(*a*) Each party grants to the other non-exclusive licenses in the field of one-way wireless telephony for apparatus and systems for the purpose of giving a business, commercial, or official service limited to a particular customer or class of customers; but the licenses granted by this paragraph (a) do not include the making or using of such apparatus for (1) transmission or reception of messages for the public generally or (2) transmission or reception of programs; and the licenses granted to the Telephone Company with respect to transmission for the purposes covered by this paragraph (a) include only apparatus for the transmission of such service from and within the continental United States.

(*b*) Each party grants to the other non-exclusive licenses in the field of one-way wireless telephony for apparatus and systems for use for transmitting for purposes other than that covered by paragraph (*a*) of this subdivision C, including, however, apparatus for wireless telephone reception furnished as a part of the equipment of transmitting stations; but the licenses granted by this paragraph (*b*) do not include apparatus in the field of amateur wireless telephony.

(*c*) The General Company grants to the Telephone Company non-exclusive licenses to make and use (but not to sell, lease, or otherwise dispose of, except to Companies of the Bell System) apparatus for one-way wireless telephone reception (including apparatus for the reception of programs) for its own communication or that of Companies of the Bell System, and for use solely as an incidental facility in fields in which it is otherwise licensed under this agreement.

(*d*) The General Company grants to the Telephone Company non-exclusive licenses for apparatus for one-way wireless telephone reception of programs; provided, however, that the licenses granted in this paragraph (*d*) shall be subject to the following terms and limitations:

(1) Tubes (thermionic devices) sold as separate devices for use in apparatus covered by this paragraph (*d*), or in apparatus which under other provisions of this agreement shall be treated as apparatus covered by this paragraph (*d*), shall be to the amount of $1,000,000 free of royalties during each calendar year, and said tubes in excess of said amount in any year shall

Digitized by Google

be subject to a royalty of five percent computed as hereinafter provided; but no licenses are granted in this paragraph (d) for tubes in excess of $2,000,000 in amount or 1,000,000 in number during any calendar year; and provided further that where said tubes are sold as parts of receiving sets or other complete units designed for operation with such sets, such tubes shall be treated as parts of the receiving set or other unit and shall not be classified under this subparagraph (1).

(2) Receiving sets and apparatus which under other provisions of this agreement shall be treated as apparatus covered by this paragraph (*d*), or parts thereof (including loud speakers, amplifiers, and tubes other than thermionic devices), shall be to the aggregate amount of $1,500,000 free of royalty in each calendar year, and such sets, apparatus, or parts in excess of said amount shall be subject to a royalty of five percent computed as hereinafter provided; but no licenses are granted in this paragraph (d) for receiving sets, apparatus and parts in excess of $3,000,000 in amount in any calendar year, provided, that if the sales of tubes sold as separate devices amount to less than $2,000,000 during any year, the amount of such deficiency shall be added to the amount of receiving sets, apparatus, and parts which may be sold under the license granted in this paragraph (*d*).

(3) For any portion of the first or last calendar year of this agreement, less than an entire calendar year, during which royalties shall be payable hereunder, the amounts which may be sold free of royalty and subject to royalty respectively shall be those proportions of the amounts which may be sold free of royalty and subject to royalty respectively in the entire calendar year which said fractional part of a calendar year bears to a calendar year.

(4) The forementioned amounts sold free of royalty, and the amounts subject to royalty, shall be based on the price at which the apparatus is sold by the manufacturer thereof, before cash discount, freight and advertising allowances or other similar deductions.

(5) Sales for export shall be included in determining the amounts sold free of royalty, and the amounts subject to royalty, on the basis of the price at which the sale is made.

(6) In ascertaining the amount of the sales which are free from royalty and the amount of the sales upon which royalties are to be paid hereunder, where apparatus is sold any part of which embodies any invention of any of the patents in force at the time of such sale under which licenses are granted in this paragraph (*d*), the selling price of the apparatus sold shall be taken as the basis; but apparatus not covered by any of said patents when sold not assembled for operation with apparatus covered by such patents, shall not be taken into account in computing the amount of sales which are free from royalty or the amount of sales which are subject to royalty, unless such apparatus not covered by such patents is adapted for operation with apparatus covered by such patents and is sold in such manner that its sale or its use in connection with apparatus covered by such patents would, except for the licenses granted by this paragraph (*d*), constitute contributory infringement of the patents under which such licenses are granted. Where radio receiving sets are sold for use in combination with public address apparatus or other apparatus not subject to royalties under this agreement, the sale price of the public address or other apparatus shall not be included in the amount of the sales which are free from royalty or the amount of the sales which are subject to royalty. Chemical primary batteries, wet or dry, and chemical storage batteries, not sold as part of apparatus upon which royalties are payable hereunder, or wiring in a building in connection with a sale of such apparatus, shall not be taken into account in computing the amount of sales which are free from royalty or the amount of sales which are subject to royalty.

(*e*) The Telephone Company grants to the General Company non-exclusive licenses, including the right to grant non-exclusive licenses to others, for apparatus and systems for one-way wireless telephone reception of programs.

(*f*) Subdivision A of this section 4 and paragraphs (*a*) to (*e*), inclusive, of this subdivision C are intended to make provision for all anticipated fields of use of apparatus for one-way wireless telephone receiption. If it should develop that there are other fields of use of such apparatus not covered herein licenses shall be granted in such other fields of use to the respective parties in accordance with the principle underlying said other paragraphs of this subdivision C, with special reference to the interest of the General Company in the field of one-way wireless telephone reception of programs, one the one hand, and of the Telephone Company in the field of one-way wireless telephone reception for

Digitized by Google

giving a service of a business, commercial or official nature, on the other hand. If the parties cannot agree with respect to such licenses, their respective rights shall be determined by arbitration in accordance with the provisions of Article XIII.

5. *Wire Telephony.*—(*a*) The Telephone Company grants to the General Company non-exclusive licenses, including the right to grant non-exclusive licenses to others, and the General Company grants to the Telephone Company non-exclusive licenses, in the field of wire telephony for apparatus for carrier current telephone communication, both one-way and two-way, over electric light, electric heat, electric power and electric traction lines, or partly over such lines and partly across wireless gaps, but in each instance only for the use of the owner or operator of such lines in the business of such owner or operator, and not for transmission of messages for the public except temporarily in emergencies due to storms or other catastrophes.

(*b*) The Telephone Company grants to the General Company non-exclusive licenses, including the right to grant non-exclusive licenses to others, in the field of one-way wire telephony for apparatus for the transmission and reception of programs over electric light, electric heat, electric power, and electric traction lines including the use of such lines for pick-up lines or for connecting two or more separate electric systems in connection with the transmission or reception of programs over such lines or by means of wireless telephony, but not including the use of other wires for such purposes except as licensed in paragraph (*c*) of this section 5; provided, however, that no apparatus is licensed under this paragraph (*b*), or under paragraph (*a*) of section 3 of this Article VI, the use of which would electrically interfere unreasonably with the Telephone Company's systems of wire communication for which it is licensed under this agreement, as the same may now exist or may hereafter normally be developed, or with any system of the Telephone Company for transmitting programs by wire telephony over lines other than electric light, electric heat, electric power, and electric traction lines, where such system exists prior to the installation in the same locality by the General Company of apparatus licensed under this paragraph (*b*), and the Telephone Company shall be the sole judge of the existence of such unreasonable interference. The Telephone Company agrees whenever requested by the General Company, but at the expense of the General Company consented to by it before being incurred, to co-operate with the General Company in every reasonable way to enable the General Company to develop apparatus within the licenses granted by this paragraph (*b*) which will avoid such electrical interference.

(*c*) The Telephone Company grants to the General Company non-exclusive licenses in the field of wire telephony, both one-way and two-way, to make (but not to sell, lease, or otherwise dispose of) apparatus and systems, and to use such apparatus and systems solely upon systems owned by it, for its own communication and for use solely as an incidental facility in fields in which it is otherwise licensed under this agreement, but not for transmission of messages (as distinguished from programs) for the public except temporarily in emergencies due to storms or other catastrophes. The Telephone Company agrees to furnish to the General Company, when requested, pick-up or connecting wires, if available, for its use in the transmission of programs to or from its stations for such transmission either by means of wireless telephony or over electric light, electric heat, electric power, and electric traction lines, or for its use in electrical sound recording, on terms at least as favorable as the terms given to others than the General Company, and agrees that in furnishing such pick-up and connecting wires for such service there shall be no discrimination against the General Company.

(*d*) The Telephone Company grants to the General Company non-exclusive licenses in the field of wire telephony for apparatus for the distribution, to an assembled audience, or to rooms within a building or a group of substantially adjacent buildiugs commonly owned or operated, or to rooms within a ship, airship, or train, of matter from apparatus for one-way wireless telephone reception, or from apparatus for reception in the field covered by paragraph (*b*) of this section 5, or from phonographs, in each case located in the immediate vicinity of such audience or within the building or group of buildings, ship, airship, or train within which such distribution is made.

(*e*) The Telephone Company grants to the General Company non-exclusive licenses in the field of wire telephony, both one-way and two-way, for apparatus and systems for communication only over wires used in connection with apparatus for remote control or actuation of apparatus for power purposes

Digitized by Google

and only in connection with the operation of apparatus for power purposes, but not for transmission of messages for the public.

(*f*) The Telephone Company grants to the General Company non-exclusive licenses in the field of wire telephony, both one-way and two-way, for apparatus for communication between parts of a train (without regard to the nature of the motive power thereof), or between trains following or approaching each other upon the same system of tracks, or between trains approaching a cross-over or junction point of the systems of tracks upon which they are running, or between trains and signal towers or way-stations within short distances thereof, but in each instance only for use in connection with the operation of such trains but not for train dispatching.

(*g*) The General Company grants to the Telephone Company non-exclusive licenses, including the right to grant non-exclusive licenses to others, in the field of wire telephony, both one-way and two-way, for all purposes other than for the purposes covered by the paragraphs (*a*) and (*b*) of this section 5; provided, however, that the licenses granted by this paragraph (*g*) for apparatus for reception of programs in connection with a service of transmitting programs by wire telephony (analogous to wireless broadcasting) over lines other than electric light, electric heat, electric power and electric traction lines, are licenses only to make and use, to lease to subscribers to such a service, and to sell only at retail (except as to sales for export) either directly or through the Telephone Company's own direct agents, and said licenses are subject to the condition that the Telephone Company shall retain in itself, or in one or more of its subsidiaries, title to the apparatus and control of its disposition until it is so sold.

6. *Power Purposes and Household Devices.*—The Telephone Company grants to the General Company non-exclusive licenses, including the right to grant non-exclusive licenses to others, in the fields of (*a*) distance actuation and control by wireless, (*b*) power purposes (including apparatus for distance actuation and control of apparatus for power purposes and apparatus for indicating at remote points the condition or position, of apparatus for power purposes) and (*c*) household devices, in each case for purposes other than communication purposes.

7. *Railroad Signalling, Radio Goniometry, X-ray Apparatus.*—(*a*) The General Company grants to the Telephone Company non-exclusive licenses in the field of radio goniometry for apparatus for use as part of apparatus in respect of which the Telephone Company is otherwise licensed under this agreement.

(*b*) The General Company grants to the Telephone Company non-exclusive licenses in the field of railway signalling for apparatus incidental to apparatus for train dispatching, for use only by the train dispatcher or similar official for operating at will, and not automatically, signals, switches, brakes, and stops.

(*c*) The Telephone Company grants to the General Company non-exclusive licenses, including the right to grant non-exclusive licenses to others, in the fields of railroad signalling, X-ray apparatus and apparatus associated therewith, and radio goniometry.

8. *Train Dispatching.*—The General Company grants to the Telephone Company non-exclusive licenses, including the right to grant non-exclusive licenses to others, in the field of train dispatching.

9. *Electric Sound Recording.*—(*a*) The General Company grants to the Telephone Company non-exclusive licenses, including the right to grant non-exclusive licenses to others, for electrical apparatus for the production of sound records (which records are for the private use of the maker, and not for commercial use or sale) in combination or connection with apparatus in the field of wire telephony other than in connection with apparatus in the field covered by paragraph (*b*) of section 5 of this Article VI.

(*b*) The Telephone Company grants to the General Company non-exclusive licenses, including the right to grant non-exclusive licenses to others, for electrical apparatus for the production of sound records (which records are for the private use of the maker and not for commercial use or sale) in combination or connection with apparatus for one-way wireless telephone reception of programs and with apparatus in the field covered by paragraph (*b*) of section 5 of this Article VI.

(*c*) The Telephone Company grants to the General Company non-exclusive licenses, including the right to grant non-exclusive licenses to others, for electrical apparatus for the production in homes (which records are for the private use

Digitized by Google

of the maker and not for commercial use or sale) of sound records of entertainment and educational matter, other than apparatus covered by paragraphs (*a*) and (*b*) of this section 9.

(*d*) The General Company grants to the Telephone Company non-exclusive licenses for electrical apparatus for the production of sound records in homes, for entertainment or educational purposes (which records are for the private use of the maker and not for commercial use or sale), provided that all apparatus sold under the licenses granted in this paragraph (other than that covered by paragraphs (*a*) and (*e*) hereof) shall be treated as if such apparatus were apparatus for one-way wireless telephone reception of programs under the provisions of paragraph (*d*) of sub-division C of Section 4 of Article VI and all of the provisions of said paragraph (*d*) shall apply thereto.

(*e*) Each party grants to the other non-exclusive licenses for electrical apparatus for the production of sound records other than apparatus covered by paragraphs (*a*), (*b*), (*c*), and (*d*) of this section 9.

10. *Electric Phonographs.*—(*a*) The General Company grants to the Telephone Company non-exclusive licenses, including the right to grant non-exclusive licenses to others, for electric phonographs for use in combination or connection with apparatus in the field of wire telephony other than in combination or connection with apparatus in the field covered by paragraph (*b*) of section 5 of this Article VI; provided, however, that the licenses granted by this paragraph (*a*) for phonographs for private use in homes for entertainment and educational purposes are licenses only to make and use in connection with a service of transmitting programs by wire telephony over lines other than electric light, electric heat, electric power, and electric traction lines, to lease to subscribers to such a service, and to sell only at retail (except as to sales for export) either directly or through the Telephone Company's own direct agents, and said licenses are subject to the condition that the Telephone Company shall retain in itself, or in one or more of its subsidiaries, title to the apparatus and control of its disposition until it is so sold.

(*b*) The General Company grants to the Telephone Company a non-exclusive license for electric phonographs (including electric phonographs in combination or connection with apparatus for wireless telephone reception) for private use in homes for entertainment and educational purposes, other than for the purposes covered by paragraph (*a*) of section 10 of this Article VI, but all apparatus sold by the Telephone Company under the licenses granted by this paragraph (*b*) shall be treated as if such apparatus were apparatus for one-way wireless telephone reception of programs under the provisions of paragraph (*d*) of sub-division C of section 4 of Article VI and shall be governed by all of the said provisions of said paragraph (*d*).

(*c*) The Telephone Company grants to the General Company non-exclusive licenses, including the right to grant non-exclusive licenses to others for electric phonographs in combination or connection with apparatus for one-way wireless telephone reception, and in combination or connection with apparatus in the field covered by paragraph (*b*) of section 5 of this Article VI.

(*d*) The Telephone Company grants to the General Company non-exclusive licenses, including the right to grant non-exclusive licenses to others, for electric phonographs for private use in homes for all entertainment and educational purposes other than those covered by paragraphs (*a*) and (*c*) of this section 10.

(*e*) Each party grants to the other non-exclusive licenses for electric phonographs for all purposes other than those covered by paragraphs (*a*), (*b*), (*c*), and (*d*) of this section 10.

11. *Apparatus for Co-ordination of Sound and Pictures.*—(*a*) The rights and licenses of the parties hereto in respect of apparatus for transmitting, receiving, recording, or reproducing sound in co-ordination, synchronism, or timed relation with the taking, transmission, or projection of pictures shall, in so far as the fields of wire and wireless telegraphy and telephony, electrical sound recording and electric phonographs are involved, be governed by the other provisions of this agreement relating to said fields.

(*b*) In so far as apparatus for the taking or projection of pictures and apparatus for co-ordinating, synchronizing, or timing such taking or projection in relation to the recording or reproduction of sound are not covered by the provisions of paragraph (*a*) of this section 11, the Telephone Company grants to the General Company non-exclusive licenses, including the right to grant non-exclusive licenses to others, for such apparatus for private use in homes for entertainment and educational purposes, and each party

Digitized by Google

grants to the other non-exclusive licenses for such apparatus for all other purposes.

(*c*) The General Company grants to the Telephone Company a non-exclusive license for apparatus for private use in homes for entertainment and educational purposes for the projection of pictures and the reproduction of sound from sound records in co-ordination, synchronism or timed relation therewith, but all apparatus sold by the Telephone Company under the licenses granted by this paragraph (*c*) shall be treated as if such apparatus were apparatus for one-way wireless telephone reception of programs under the provisions of paragraph (*d*) of sub-division C of section 4 of this Article VI and shall be governed by all of said provisions of said paragraph (*d*).

12. *Public Address Systems.*—The Telephone Company grants to the General Company non-exclusive licenses for public address systems, including the combination or connection thereof with other apparatus for which the General Company is otherwise licensed hereunder, provided, however, that the licenses granted in this section 12 (1) do not include apparatus for giving by wire telephony a service analogous to wireless broadcasting (but do include apparatus for use in localities specified in paragraph (*d*) of section 5 of this Article VI), and (2) shall be subject to the following terms and limitations:

(1) Public address system apparatus and parts thereof shall be to the aggregate amount of $1,500,000 free of royalty in each calendar year and such apparatus and parts thereof in excess of said amount shall be subject to a royalty of 5% computed as hereinafter provided; but no license is granted for public address system apparatus and parts thereof in excess of $5,000,000 in amount during any calendar year.

(2) For any portion of the first or last calendar year of this agreement, less than an entire calendar year, during which royalties shall be payable hereunder, the amounts which may be sold free of royalty and subject to royalty respectively shall be those proportions of the amounts which may be sold free of royalty and subject to royalty respectively in the entire calendar year which said fractional part of a calendar year bears to a calendar year.

(3) The aforementioned amounts sold free of royalty, and the amounts subject to royalty, shall be based on the price at which such apparatus is sold by the manufacturer thereof, before cash discount, freight, and advertising allowances or other similar deductions.

(4) Sales for export shall be included in determining the amounts sold free of royalty, and the amounts subject to royalty, on the basis of the price at which the sale is made.

(5) In ascertaining the amount of the sales which are free from royalty and the amount of the sales upon which royalties are to be paid hereunder, where apparatus is sold any part of which embodies any invention of any of the patents in force at the time of such sale under which licenses are granted in this section 12, the selling price of the apparatus sold shall be taken as the basis; but the apparatus not covered by any of said patents, when sold not assembled for operation with apparatus covered by such patents, shall not be taken into account in computing the amount of sales which are free from royalty or the amount of sales which are subject to royalty, unless such apparatus not covered by such patents is adapted for operation with apparatus covered by such patents and is sold in such manner that its sale or its use in connection with apparatus covered by such patents would, except for the licenses granted by this agreement, constitute contributory infringement of the patents under which such licenses are granted. Where public address system apparatus is sold for use in combination with apparatus for one-way wireless telephone reception of programs, the sale price of such receiving apparatus shall not be included in the amount of the sales which are free from royalty or the amount of the sales which are subject to royalty. Chemical primary batteries, wet or dry, and chemical storage batteries not sold as part of apparatus upon which royalties are payable hereunder, or wiring in a building in connection with a sale of apparatus shall not be taken into account in computing the amount of sales which are free from royalty or the amount of sales which are subject to royalty.

13. *Submarine Signaling, Scientific and Therapeutic Apparatus, Tools and Other Applications.*—Each party grants to the other, non-exclusive licenses in the following fields:

Submarine signaling.

Scientific apparatus for use of laboratories, colleges, and scientific societies as distinguished from commercial use.

Digitized by Google

Mechanical phonographs.

Wireless apparatus for use of professional investigators (as distinguished from amateurs) for experimental purpose only.

Therapeutic apparatus other than X-ray devices and appliances.

Tools, machinery, appliances, materials, methods, and processes for the manufacture, installation, and repair of apparatus for use in fields for which the grantee is licensed hereunder.

All applications, not herein otherwise specified, of inventions pertaining or applicable to or to the use of vacuum tubes, and to generating (directly or from other currents), modifying, amplifying, transmitting, or receiving electromagnetic waves, variations, or impulses for other than power purposes.

ARTICLE VII. PROVISIONS WITH REFERENCE TO FOREGOING LICENSES

1. Whenever licenses granted under the terms of this agreement are based upon rights held by the licensor under any agreement requiring the payment of royalties or other deferred payments, measured by the use made of the invention, the party accepting such licenses shall make payments measured by its use of the invention at the same rate and upon the same terms as those agreed to be made by the party originally acquiring the rights.

2. Upon the termination of this agreement under the provisions of Article XIV hereof all licenses herein granted shall, during the terms of the several patents, issued or to be issued, in respect of which such licenses exist at the date of termination, continue unaffected and of the same scope and character herein expressed, so far as the grantor thereof has the right to grant such licenses for such terms; and such licenses shall not be limited by the term of this agreement.

3. (*a*) The Telephone Company may grant sub-licenses to the operating Companies of the Bell System (but not manufacturing companies) which now or may from time to time be giving a communications service.

(*b*) Each party hereto may grant to its subsidiaries sub-licenses under the licenses granted to it herein; provided, however, that each subsidiary to which a sub-license shall be granted (excepting, however, sub-licenses pursuant to paragraph (*a*) of this section 3 and except also the Teletype Corporation as to which special provision is made elsewhere in this agreement) shall either have entered into an agreement with its parent company effectively subjecting to this agreement all United States patents then or thereafter during the term of this agreement owned or controlled by it, or have executed to the party hereto other than its parent company an instrument granting to such other party licenses under said patents co-extensive with the licenses herein granted to such other party. Use by any subsidiary of any sub-license granted under this agreement shall for all purposes of this agreement, including determination of royalties payable hereunder, be deemed to be use by its parent company, and ownership, lease or operation of any telephone or telegraph system or station by any subsidiary shall be deemed to be ownership, lease or operation of such system or station by its parent company for all purposes of this agreement. Wherever in this agreement either party is granted a general right to grant non-exclusive licenses to others such rights shall nevertheless be subject to the provision of this paragraph (*b*) so far as concerns the grant of sub-licenses to subsidiaries.

(*c*) In addition to the sublicensing provided for in the foregoing paragraphs (*a*) and (*b*), each party hereto may assign or grant sub-licenses under any of the rights granted to it hereunder, which are not expressed as including the right to grant sublicenses to others, provided that in each instance the assent of the other party is first obtained.

(*d*) When either party shall enter into an agreement with any of its subsidiaries effectively subjecting to this agreement all United States patents then or thereafter during the term of this agreement owned or controlled by such subsidiary, such party shall promptly give the other party appropriate notice of such agreement.

(*e*) Each party shall enter into an agreement with each of its subsidiaries which is engaged primarily or wholly in the conduct of research and development work in the fields for which licenses are granted to the other party under this agreement whereby the United States patents owned or controlled by such subsidiary during the term of this agreement shall become effectively subject to this agreement.

Digitized by Google

(*f*) Each party may, subject to the provisions of section 4 of this Article VII, sell or lease to any sub-licensee having a sub-license to use granted under under the provisions of any of paragraphs (*a*), (*b*), and (*c*) of this section 3, apparatus for the use of such sub-licensee under such sub-license, notwithstanding that the party granting such sub-license may not be licensed under this agreement generally to sell, lease or otherwise dispose of such apparatus.

(*g*) All sub-licenses granted hereunder shall be subject to all limitations and obligations attaching to the apparatus or system in respect of which sub-licenses are granted, whether under the patents, or under the instruments by which any party acquired the patents or licenses under them, or under this agreement.

(*h*) No disposition by either party of rights hereunder acquired by it, shall relieve such party of any of its obligations under this agreement, or restrict the rights of the parties hereto in operating under or modifying this agreement.

4. Each party agrees that, so far as practicable, it will, in disposing of apparatus embodying inventions pertaining or applicable to vacuum tubes, or to generating, modifying, amplifying, transmitting, or receiving electro-magnetic waves, or other apparatus or material the unrestricted sale of which would deprive the other party of rights to which it is entitled hereunder, use such precautions by contracts, leases, restricted licenses, or otherwise as may be necessary or advisable in order to prevent its subsidiaries, sub-licensees, customers, or others from acquiring (by acquisition of apparatus from it or otherwise) licenses to use the same which the party disposing thereof has no right to grant.

5. All royalties payable under any provision of this agreement shall continue to be payable to the ends of the terms of the patents in respect of which such royalties are payable, notwithstanding any termination of this agreement.

6. The admission of validity implied in the acceptance of licenses hereunder is limited to the field for which such licenses are granted or agreed to be granted.

7. No licenses under foreign patents are now granted or are to be implied; but except as herein otherwise expressly provided the licenses to make, sell, lease, or otherwise dispose of, herein granted under United States patents include the right to make, sell, lease, or otherwise dispose of for use abroad in the fields for which such licenses under United States patents are granted, but not for use abroad in other fields. Each party agrees not to export to any country in which the other party has an affiliated company, apparatus purchased from such other party which such other party could not itself so export, in view of existing contract obligations, after notice of such obligations and without first securing a written waiver thereof.

8. Each party represents that in its best judgment it has no outstanding obligations which would prevent it from entering into the agreements and from granting the licenses herein expressed. If, however, it is found that there are such conflicting obligations, the present agreement is made subject to the right to fulfil those obligations.

ARTICLE VIII. INTERFERENCES

The parties agree to use reasonable endeavors to settle, without litigation, interferences now pending or which may arise involving inventions within the scope of this agreement.

ARTICLE IX. CO-OPERATION AND EXCHANGE OF INFORMATION

1. Each party agrees that it will, from time to time during the term of this agreement, freely permit the other to have all information in its possession which it may have a right to dispose of with reference to its standardized apparatus or methods or processes applicable to the uses of the other party in fields in which such other party is granted licenses hereunder, but any secret process so disclosed shall be maintained in secrecy by the party to whom it is disclosed. Blue prints, etc., shall be furnished at the cost of preparing the same. For the purpose of acquiring such information each party shall at all reasonable times have access (through a reasonably limited number of accredited representatives who are regular employees under obligation to assign inventions to their employers), to the laboratories, factories, and wireless stations of the other, to the end that development work may be expedited and rendered the more effective.

Digitized by Google

Each party shall, with reference to inventions owned or controlled by it, under which the other party is entitled to rights hereunder and which either party deems to be of sufficient value to justify such action, endeavor to obtain or permit and aid the other to obtain proper patents thereon.

2. Each party shall afford the engineering representatives of the other the fullest facilities, consistent with the reasonable operation of the other, for experimenting and for developing and testing apparatus and systems for use in transoceanic telephony, and each shall at all times be given such an opportunity to make such tests, experiments, and observations in the transoceanic stations of the other as do not conflict with the service then being rendered by such stations, and each party shall afford to the other such facilities for test, experimentation, and observations on ships as it may be able to extend.

3. In the operation of wireless and carrier-current communication, the parties shall co-operate to the end that interference with the operations of either party, due to the operations of the other, shall be minimized, it being recognized that the available wave lengths are limited.

ARTICLE X. PURCHASES AS BETWEEN PARTIES

It is recognized that each party has and will normally continue to have facilities for manufacturing certain apparatus or parts thereof which may be required by the other party under its licenses hereunder, and that a duplication of such facilities may be wasteful and uneconomical. Each party agrees that it will upon request manufacture for and sell and deliver to the other, with reasonable business promptness and within its reasonable manufacturing capacity, on receipt of orders from time to time, and at favorable prices not to exceed those charged to others (except subsidiaries and, in the case of the Telephone Company, Companies of the Bell System) purchasing in like quantities for use in the United States, such apparatus and parts as the former is engaged in manufacturing from time to time and as the latter may desire for use in the fields for which licenses are granted to it by this agreement.

ARTICLE XI. LITIGATION

1. Neither party shall bring suit for infringement of patents against the other party, or against the distributors and jobbing houses owned by or affiliated with either party, because of sales by such party, or by its (or its subsidiaries') distributors or jobbing houses, of apparatus made, in the United States, by others than the parties hereto, it being agreed that the remedy in case of any such infringement shall be only by suit against the manufacturer of those devices; but nothing herein contained shall be construed as the granting of a right to sell infringing apparatus manufactured by others.

2. In all cases of infringement of a patent of either party in a field in which the licenses herein granted to the other party include the general right to grant sub-licenses, if the party holding title to such patent shall not bring suit against the infringer within thirty days after receipt from the other party of written notice and full information of such infringement together with a written offer from such other party to pay half the cost and expenses of such suit, then (*a*) the party having given such notice, information and offer may at its own expense bring suit against the infringer in question in the name of the party holding legal title to the patent, and (*b*), such party holding title to the patent shall assign to the other party all claims, demands, and rights of action against the particular infringer designated in such notice on account of any and all past and future infringements of such patent in said field.

3. If, however, the party holding title to such patent shall bring suit against the infringer within thirty days after receipt of said notice and information from the other party, then any recoveries from the infringer shall be applied first toward the reimbursement of the costs and expenses of such suit, and the remainder, if any, shall be divided between the parties as their interests appear. In any such case the party holding title to the patent in suit shall not release or license the infringer or otherwise settle or dismiss the suit without the consent of the party having the general right to grant sub-licenses.

ARTICLE XII. RELEASES

Each party reserves to itself the right to deal with the United States Government with reference to settlement for past use of its inventions in telephone and telegraph apparatus and systems. Subject to the foregoing, each party releases

Digitized by Google

the other and the vendees and users of apparatus or systems made by it, from all claims growing out of past infringement of patents, by reason of the manufacture, use and sale of such apparatus and systems by the other party, and its resale or use by such vendees and users.

ARTICLE XIII. ARBITRATION

In case any controversy under this agreement (except in respect of interference or priority of rights to inventions or patents) shall arise between the parties to this agreement, which they are unable to adjust between themselves, it shall be settled by arbitration pursuant to the Arbitration Law of the State of New York in the following manner:

Either party may by notice in writing served on the other, appoint one arbitrator and call upon the other to appoint a second arbitrator within thirty days after the receipt of such notice; and each party agrees that upon receiving any such notice it will so appoint an arbitrator. The two arbitrators thus appointed shall, within thirty days after the appointment of the one last appointed, jointly appoint a third arbitrator. The controversy shall be submitted to the three arbitrators in such manner as they shall direct and their decision, or the decision of a majority of them, rendered in writing, shall be final, conclusive, and binding upon the parties. In the event that a second arbitrator shall not be appointed as above provided or the two arbitrators first appointed shall fail to appoint a third, application may be made by either party to the Supreme Court of the State of New York, or to a judge thereof, to designate and appoint an arbitrator or arbitrators, as the case may require, as provided by said Arbitration Law. Each party shall pay its own expenses in connection with the arbitration but the compensation and expenses of the arbitrators shall be borne in such manner as may be specified in their decision in writing.

ARTICLE XIV. TERMINATION OF AGREEMENT

This agreement shall continue until December 31, 1954, but shall automatically continue thereafter until cancelled on three years' written notice given after December 31, 1951, by one party to the other party.

ARTICLE XV. FURTHER ASSURANCES

The parties agree to execute and deliver such further instruments as may reasonably be necessary for carrying out the provisions and purposes of this agreement.

ARTICLE XVI. SUCCESSORS

This agreement is binding upon and shall inure to the benefit of each of the parties hereto and their several successors in business, except that either party may transfer or dispose of any part or parts of its business not involving the grant of any licenses under this agreement, and in such case this agreement shall not be binding upon or inure to the benefit of the successor to that part of the business so transferred.

In witness whereof the parties hereto have caused this instrument to be executed on the day and year first above written, by their proper officers thereunto duly authorized.

GENERAL ELECTRIC COMPANY,
By ——— ———, *President.*

Attest:

———— ———, *Secretary.*

AMERICAN TELEPHONE AND TELEGRAPH COMPANY,
By ——— ———, *President.*

Attest:

———— ———, *Secretary.*

EXHIBIT 2

SUBSTITUTE EXTENSION AGREEMENT

Agreement, dated July 1, 1932, between General Electric Company, a New York corporation (hereinafter called the General Company), Radio Corporation of America, a Delaware corporation (hereinafter called the Radio Company),

Digitized by Google

American Telephone and Telegraph Company, a New York corporation (hereinafter called the Telephone Company), and Western Electric Company, Incorporated, a New York corporation (hereinafter called the Western Company).

Whereas the parties hereto have heretofore entered into an agreement dated July 1, 1920, known as the Extension Agreement, in which agreement reference is made to a License Agreement dated July 1, 1920, between the General Company and the Telephone Company;

Whereas the General Company and the Telephone Company have entered into an agreement dated July 1, 1926, of which the parties hereto have knowledge, modifying said License Agreement dated July 1, 1920;

Whereas the parties hereto, under date of July 1, 1926, have entered into an agreement generally known as Modified Agreements C and X modifying said Extension Agreement; and

Whereas the General Company and the Telephone Company have entered into an agreement dated July 1, 1932, of which the parties hereto have knowledge, which is a substitute license agreement for said License Agreement dated July 1, 1920, as modified by Agreement dated July 1, 1926; and

Whereas the General Company desires to extend rights under said Substitute License Agreement of July 1, 1932, to the Radio Company; and

Whereas the Telephone Company desires to extend rights under said Substitute License Agreement of July 1, 1932, to the Western Company; and

Whereas the Radio Company and the Western Company, respectively, desire to obtain such rights and the assent of both parties to the Substitute License Agreement of July 1, 1932, may be desirable or necessary for the extension of such rights;

Whereas it is now the mutual desire of the parties to substitute this agreement and the licenses herein granted for said Extension Agreement dated July 1, 1920, as modified by an agreement known as Modified Agreements C and X dated July 1, 1926.

Now, therefore, in consideration of the premises and the mutual agreements herein contained, the parties agree with each other as follows:

I. The said agreements between the parties hereto, dated July 1, 1920, and July 1, 1926, generally known as the Extension Agreement and Modified Agreements C and X, respectively, and all licenses therein granted and agreed to be granted, are hereby terminated as of the date hereof, and this agreement and the licenses herein granted and agreed to be granted are substituted therefor.

II. The General Company may extend to the Radio Company, and the Telephone Company may extend to the Western Company, any of the said rights reserved and acquired by each, respectively, under this present agreement and under said Substitute License Agreement of July 1, 1932, whether or not expressed in said Substitute License Agreement of July 1, 1932, as including the right to grant sub-licenses, or as personal or non-assignable, except any right to terminate under the provisions of Article XIV or said agreement.

III. The Western Company hereby grants and agrees to grant to the General Company under the present and future patents of the Western Company, rights of the same character and scope, and for the same fields and subject to the same limitations and conditions, as the rights granted to the General Company in and by said Substitute License Agreement of July 1, 1932. And the Western Company hereby assumes toward the General Company (and the Telephone and Western Companies assume toward the Radio Company, to the extent that the General Company, under the provisions of Article II hereof, extends or may hereafter extend its rights to the Radio Company) obligations similar to the obligations assumed by the Telephone Company toward the General Company in and by said Substitute License Agreement of July 1, 1932, except that the Western Company assumes no obligations as to operation of telephone or telegraph systems unless and until it shall engage in the commercial operation of such systems.

IV. The Radio Company hereby grants and agrees to grant to the Telephone Company under the present and future patents of the Radio Company, rights of the same character and scope, and for the same fields and subject to the same limitations and conditions, as the rights granted to the Telephone Company in and by said Substitute License Agreement of July 1, 1932. And the Radio Company hereby assumes toward the Telephone Company (and the General and Radio Companies assume toward the Western Company, to the extent that the Telephone Company, under the provisions of Article II hereof, extends or may hereafter extend its rights to the Western Company) obligations similar

Digitized by Google

to the obligations assumed by the General Company towards the Telephone Company in and by said Substitute License Agreement of July 1, 1932, except that the Radio Company assumes no obligations as to manufacturing or selling articles or devices which it is not from time to time engaged in commercially manufacturing.

V. This Agreement shall terminate at the same time that the said Substitute License Agreement of July 1, 1932, terminates.

VI. This Agreement shall be effective from and after the date hereof.

In witness whereof, the parties hereto have caused this instrument to be executed in quadruplicate as of the 1st day of July, 1932, by their proper officers thereunto duly authorized.

GENERAL ELECTRIC COMPANY,
By ———— ————, *Vice President.*
Attest: ———— ————, *Secretary.*

RADIO CORPORATION OF AMERICA,
By ———— ————, *Vice President.*
Attest: ———— ————, *Secretary.*

AMERICAN TELEPHONE AND TELEGRAPH COMPANY,
By ———— ————, *Vice President.*
Attest: ———— ————, *Secretary.*

WESTERN ELECTRIC COMPANY, INCORPORATED,
By ———— ————, *Vice President.*
Attest: ———— ————, *Secretary.*

EXHIBIT 3

SUBSTITUTE TERMINATION AGREEMENT

Agreement, dated July 1, 1932, between General Electric Company, a New York corporation (hereinafter called the General Company), Radio Corporation of America, a Delaware corporation (hereinafter called the Radio Company), American Telephone and Telegraph Company, a New York corporation (hereinafter called the Telephone Company), and Western Electric Company, Incorporated, a New York corporation (hereinafter called the Western Company).

Whereas the parties hereto have heretofore entered into an agreement dated July 1, 1920, known as the Termination Agreement, in which agreement reference is made to a License Agreement dated July 1, 1920, between the General Company and the Telephone Company;

Whereas the General Company and the Telephone Company have entered into an agreement dated July 1, 1926, of which the parties hereto have knowledge, modifying said License Agreement dated July 1, 1920;

Whereas the parties hereto, under date of July 1, 1926, have entered into an agreement generally known as Modified Agreements C and X modifying said Termination Agreement; and

Whereas the General Company and the Telephone Company have entered into an agreement dated July 1, 1932, of which the parties hereto have knowledge, which is a Substitute License Agreement for said License Agreement dated July 1, 1920, as modified by Agreement dated July 1, 1926; and

Whereas it is now the mutual desire of the parties to substitute this agreement and the licenses herein granted for said Termination Agreement dated July 1, 1920, as modified by said agreement known as Modified Agreements C and X dated July 1, 1926.

Now, therefore, in consideration of the premises and the mutual agreements herein contained, the parties agree with each other as follows:

I. The said agreements between the parties hereto, dated July 1, 1920, and July 1, 1926, generally known as Termination Agreement and Modified Agreements C and X respectively, and all licenses therein granted and agreed to be granted, are hereby terminated as of the date hereof, and this agreement and the licenses herein granted and agreed to be granted are substituted therefor.

II. If the United States (except temporarily on account of war or otherwise) acquires the property of the Radio Company or of the Telephone Company, or

Digitized by Google

the inventions or business of either of them, or any definite part thereof, so as to prevent either of said companies from continuing any substantial part or all of its then existing business so as substantially to adversely affect the rights of any of the other parties under the said Substitute License Agreement of July 1, 1932, the said Substitute License Agreement shall thereupon terminate so far as concerns the fields of business or inventions so acquired (all licenses which have theretofore vested continuing in force), it having been the purpose of the aforesaid Substitute License Agreement to provide for conditions which it was thought might be foreseen in the conduct of privately-owned enterprises, but not for conditions which might arise from such radical changes as would be involved in Government ownership or operation.

III. The company whose property, business, or patents are so acquired shall have the right to grant to the Government licenses under the patent rights which it acquired through said Substitute License Agreement of July 1, 1932, in and for the same fields and uses as any licenses then (at the time of such taking over) possessed under said Substitute License Agreement by the party whose property, business, or patents have been taken over.

IV. This agreement shall be effective from and after the date hereof.

In witness whereof, the parties hereto have caused this instrument to be executed in quadruplicate as of the day and year first above written by their proper officers thereunto duly authorized.

GENERAL ELECTRIC COMPANY,
By ——— ———, *Vice President.*
Attest:
——— ———, *Secretary.*

RADIO CORPORATION OF AMERICA,
By ——— ———, *Vice President.*
Attest:
——— ———, *Secretary.*

AMERICAN TELEPHONE AND TELEGRAPH COMPANY,
By ——— ———, *Vice President.*
Attest:
——— ———, *Secretary.*

WESTERN ELECTRIC COMPANY, INCORPORATED,
By ——— ———, *Vice President.*
Attest:
——— ———, *Secretary.*

EXHIBIT 4

SUBSTITUTE FOR MODIFIED AGREEMENT H

JULY 1, 1932.

GENERAL ELECTRIC COMPANY,
120 Broadway, New York, N. Y.
RADIO CORPORATION OF AMERICA,
570 Lexington Avenue, New York, N. Y.

DEAR SIRS: Under date of June 30, 1921, American Telephone and Telegraph Company and Western Electric Company, Incorporated, at your request, assented to the extension by you to Westinghouse Electric & Manufacturing Company of rights under licenses acquired by you under the patents of the undersigned companies through the License Agreement between General Electric Company and American Telephone and Telegraph Company, dated July 1, 1920, and through the agreement also dated July 1, 1920, permitting the extension of rights under said License Agreement to Radio Corporation of America and to Western Electric Company, Incorporated.

Said License Agreement and said Extension Agreement, dated July 1, 1920, were modified by the parties thereto by agreements dated July 1, 1926, and a Substitute License Agreement dated July 1, 1932, between the General Electric Company and American Telephone and Telegraph Company has been substituted therefor, and said Extension Agreement has been replaced by an agreement dated July 1, 1932 (hereinafter called the Substitute Extension Agreement).

American Telephone and Telegraph Company and Western Electric Company, Incorporated, pursuant to the provisions of Article VII, Section 3,

Digitized by Google

subdivision (c) of said Substitute License Agreement dated July 1, 1932, and pursuant to said Substitute Extension Agreement, hereby assent to the extension by you to Westinghouse Electric & Manufacturing Company and its subsidiaries of any of the rights, whether or not expressed as including the right to grant sublicenses, or as personal or nonassignable, reserved by you or acquired or to be acquired by you, respectively, under said Substitute License Agreement dated July 1, 1932, and said Substitute Extension Agreement.

Yours very truly,

AMERICAN TELEPHONE AND TELEGRAPH COMPANY,
By ——— ———, *Vice President.*

Attest:

———— ———, *Secretary.*

WESTERN ELECTRIC COMPANY, INCORPORATED,
By ——— ———, *Vice President.*

Attest:

———— ———, *Secretary.*

Agreement dated July 1, 1932, between General Electric Company, a New York corporation (hereinafter called the General Company); Radio Corporation of America, a Delaware corporation (hereinafter called the Radio Corporation); Westinghouse Electric & Manufacturing Company, a Pennsylvania corporation (hereinafter called the Westinghouse Company); American Telephone and Telegraph Company, a New York Corporation (hereinafter called the Telephone Company); and Western Electric Company, Incorporated, a New York corporation (hereinafter called the Western Company).

Whereas the General Company and the Telephone Company have entered into an agreement dated July 1, 1932, of which the parties hereto have knowledge, which is a Substitute License Agreement for a License Agreement between the parties, dated July 1, 1920, which was modified by an agreement dated July 1, 1926;

Whereas paragraph (d) of subdivision C of Section 4 of Article VI of said Substitute License Agreement provides, among other things, for the payment of certain royalties by the Telephone Company to the General Company;

Whereas Section 12 of Article VI of said Substitute License Agreement provides, among other things, for the payment of certain royalties by the General Company to the Telephone Company; and

Whereas the Telephone Company and the Western Company, by certain agreements known to the parties, have assented to the extension to the Radio Corporation and the Westinghouse Company of certain rights, acquired or to be acquired by the General Company under said Substitute License Agreements; and

Whereas the General Company, the Radio Corporation, and the Westinghouse Company, by certain agreements known to the parties, have assented to the extension to the Western Company of certain rights, acquired or to be acquired by the Telephone Company under said Substitute License Agreement;

Now, therefore, in consideration of the premises and the mutual agreements herein contained, the parties agree, each with the other, as follows:

1. Apparatus covered by said paragraph (d) of sub-division C of Section 4 of Article VI of said Substitute License Agreement shall include not only apparatus covered by patents of the General Company, but also apparatus covered by patents of the Radio Corporation and of the Westinghouse Company and of any other company to which the General Company shall extend licenses granted to it by the said Substitute License Agreement and whose patents shall be subjected to said Substitute License Agreement, and apparatus covered by the patents of any or all of said Companies shall be subject to payment of royalties as provided in said paragraph (d), and all of such royalties shall be payable to the Radio Corporation.

2. Apparatus covered by said section 12 of Article VI of said Substitute License Agreement shall include not only apparatus covered by patents of the Telephone Company, but also apparatus covered by patents of the Western Company and of any other company to which the Telephone Company shall extend licenses granted to it by the said Substitute License Agreement and whose patents shall be subjected to said Substitute License Agreement, and apparatus covered by the patents of any or all of said companies shall be subject to payment of royalties as provided in said section 12, and all of such royalties shall be payable to the Western Company.

Digitized by Google

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be executed by their proper officers thereunto duly authorized and their corporate seals to be affixed as of the day and year first above written.

[SEAL] GENERAL ELECTRIC COMPANY,
By (Sgd.) CHARLES W. APPELTON, *Vice-President.*
Attest: (Sgd.) J. W. LEWIS, *Asst. Secretary.*

[SEAL] RADIO CORPORATION OF AMERICA,
By (Sgd.) DAVID SARNOFF, *President.*
Attest: (Sgd.) LEWIS MACCONNACH, *Secretary.*

[SEAL] WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY,
By (Sgd.) HAROLD SMITH, *Vice-President.*
Attest: (Sgd.) WARREN H. JONES, *Secretary.*

[SEAL] AMERICAN TELEPHONE AND TELEGRAPH COMPANY,
By (Sgd.) WALTER S. GIFFORD, *President.*
Attest: (Sgd.) A. A. MARSTERS, *Secretary.*

[SEAL] WESTERN ELECTRIC COMPANY, INCORPORATED,
By (Sgd.) EDGAR S. BLOOM, *President.*
Attest: (Sgd.) S. M. SPILLER, *Asst. Secretary.*

Agreement, to be known as Agreement N, dated July 1, 1932, between General Electric Company, a New York corporation (hereinafter called the General Company), Radio Corporation of America, a Delaware corporation (hereinafter called the Radio Corporation) and Westinghouse Electric & Manufacturing Company, a Pennsylvania corporation (hereinafter called the Westinghouse Company), witnesseth:

Whereas the the parties hereto, or some of them, and also certain other parties, have entered into the following patent license and other agreements:

Agreement B, between the General Company and American Telephone and Telegraph Company (hereinafter called the Telephone Company), dated July 1, 1920.

Agreement C, between the General Company, the Telephone Company, the Radio Corporation, and Western Electric Company, Incorporated (hereinafter called the Western Company), dated July 1, 1920.

Agreement F, between the General Company and the Westinghouse Company, dated June 30, 1921.

Agreement H, between the General Company, the Radio Corporation, the Telephone Company, and the Western Company, dated June 30 ,1921.

Agreement I, between the Westinghouse Company, the Telephone Company, and the Western Company, dated June 31, 1921.

Agreement K, between the Westinghouse Company, the Radio Corporation and, the General Company, dated June 30, 1921.

Agreement K1, between the Westinghouse Company, the General Company, and the Radio Corporation, dated January 29, 1923.

Agreement X, between the General Company, the Radio Corporation, the Telephone Company, and the Western Company, dated July 1, 1920.

Modified Agreement B, between the General Company and the Telephone Company, dated July 1, 1926.

Modified Agreements C and X, between the General Company, the Telephone Company, the Radio Corporation, and the Western Company, dated July 1, 1926.

Modified Agreement H, between the General Company, the Radio Corporation, the Telephone Company, and the Western Company, dated July 1, 1926.

Modified Agreement I, between the Westinghouse Company, the Telephone Company, and the Western Company, dated July 1, 1926.

Agreement Y, between the General Company and the Telephone Company, dated July 1, 1926.

Agreement L, between the General Company, the Radio Corporation, and the Westinghouse Company, dated June 11, 1929.

Agreement M, between the General Company, the Radio Corporation, and the Westinghouse Company, dated as of January 1, 1930.

Substitute License Agreement, between the General Company and the Telephone Company, dated July 1, 1932, which is a substitute license agreement for Agreement B and Modified Agreement B.

Substitute Extension Agreement, between the General Company, the Radio Corporation, the Telephone Company, and the Western Company, dated July 1, 1932, which is a substitute agreement for Agreement C and for Modified Agreements C and X so far as applicable to Agreement C.

Digitized by Google

Substitute Termination Agreement, between the General Company, the Radio Corporation, the Telephone Company, and the Western Company, dated July 1, 1932, which is a substitute agreement for Agreement X and for Modified Agreements C and X so far as applicable to Agreement X.

Substitute for Modified Agreement H, between the General Company, the Radio Corporation, the Telephone Company, and the Western Company, dated July 1, 1932, which is a substitute agreement for Agreement H and Modified Agreement H.

Substitute for Modified Agreement I, between the Telephone Company, the Western Company, and the Westinghouse Company, dated July 1, 1932, which is a substitute agreement for Agreement I and Modified Agreement I.

Agreement B, Agreement C, Agreement X, and Agreement H and Agreement I are hereinafter collectively called the Original Telephone Agreements.

Modified Agreement B, Modified Agreements C and X, Modified Agreement H, Modified Agreement I, and Agreement Y are hereinafter collectively called the Modified Telephone Agreements.

Substitute License Agreement, Substitute Extension Agreement, Substitute for Modified Agreement H and Substitute for Modified Agreement I are hereinafter collectively called the Substitute Telephone Agreements.

Now, therefore, in consideration of the premises, the parties hereto agree that the said Agreements F, K, K1, L, and M, respectively, are hereby modified so that where reference is made in any of said agreements to said Agreement B or to said Modified Agreement B, such reference for all purposes shall be to the Substitute License Agreement between the General Company and the Telephone Company, dated July 1, 1932, and so that where reference is made in any of said Agreements F, K, K1, L, and M, respectively, to any of the Original Telephone Agreements or to the Modified Telephone Agreements, or any of them, such reference shall for all purposes be to the Substitute Telephone Agreements, dated July 1, 1932, or to the appropriate substitute agreement; and each of the parties hereto, to the extent necessary, renews its assent to the extension of any rights acquired or to be acquired by any of the other parties hereto, respectively, under said Substitute License Agreement and/or under said Substitute Telephone Agreements, to the same extent to which it has previously assented to the extension of such rights under said Agreement B, or under Modified Agreement B, or under the Modified Telephone Agreements.

This agreement shall be effective from and after the date hereof.

In witness whereof the parties hereto have caused this instrument to be executed in three counterparts by their proper officers thereunto duly authorized, and their corporate seals to be hereunto affixed as of the day and year first above written.

[SEAL] GENERAL ELECTRIC COMPANY,
By (Sgd.) CHARLES W. APPLETON, *Vice President.*
Attest:
(Sgd.) J. W. LEWIS, *Asst. Secretary.*

[SEAL] RADIO CORPORATION OF AMERICA,
By (Sgd.) DAVID SARNOFF, *President.*
Attest:
(Sgd.) LEWIS MACCONNACH, *Secretary.*

[SEAL] WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY,
By (Sgd.) HAROLD SMITH, *Vice President.*
Attest:
(Sgd.) WARREN H. JONES, *Secretary.*

Agreement made this 1st day of July 1932 between Radio Corporation of America, a Delaware corporation, hereinafter called RCA, and American Telephone and Telegraph Co., a New York corporation, hereinafter called the Telephone Company, witnesseth:

Whereas under date of September 9, 1920, RCA and the Telephone Company entered into a certain agreement, generally known as Attachment of Wires and Exchange of Traffic Agreement;

Whereas the parties hereto now desire to terminate said contract;

Now, therefore, in consideration of the premises the parties hereto agree that said agreement of September 9, 1920, be and the same hereby is terminated as of the date hereof, and each of the parties releases and discharges the

Digitized by Google

other from any and all liability thereunder; provided, however, that the termination of this agreement shall in no wise affect the right of RCA or that of any of its subsidiaries to continue to maintain existing attachments made in pursuance of said agreement to the poles of the Telephone Company, of the wires of RCA or any of its subsidiaries, upon the terms and conditions set forth in Article 1 of said agreement; and nothing herein provided shall in any wise be construed as interfering with or preventing the continuance of the use by or availability to RCA or any of its subsidiaries of space on the poles of the Telephone Company for any attachments upon terms and conditions at least as favorable as those accorded to commercial telegraph companies.

In witness whereof, the parties have caused this instrument to be executed by their respective proper officers thereunto duly authorized and their corporate seals to be affixed as of the day and year first above written.

[SEAL] RADIO CORPORATION OF AMERICA,
By (Sgd.) DAVID SARNOFF, *President.*

Attest:
(Sgd.) LEWIS MACCONNACH, *Secretary.*

[SEAL] AMERICAN TELEPHONE AND TELEGRAPH COMPANY,
By (Sgd.) WALTER S. GIFFORD, *President.*

Attest:
(Sgd.) A. A. MARSTERS, *Secretary.*

JULY 1932.

RADIO CORPORATION OF AMERICA,
570 Lexington Avenue, New York, N. Y.

GENTLEMEN: This will confirm the understanding reached as the result of our conversations in regard to royalties upon sound records to accompany motion pictures distributed by a licensee of one party and heretofore or hereafter recorded by another producer who is a licensee of the other party.

Inasmuch as each party has, pursuant to agreements dated July 1, 1932, nonexclusive licenses under the United States patents of the other party in respect of such sound records for certain purposes, the United States patents under which both Electrical Research Products, Inc., and Radio Corporation of America have rights or licenses for such purposes shall not be used by either party or any of their respective subsidiaries as a basis for requiring the payment of royalties by any of its licensees upon such sound records distributed by such licensees, heretofore or hereafter recorded by another producer who is a licensee of the other party or any of its subsidiaries with apparatus involving the use of such patents furnished by such other party or its subsidiaries.

If you are in agreement, please indicate your acceptance upon the attached copy of this letter which is sent in duplicate, and return to us.

We enclose a copy of a form of letter which we propose to send to each of our producer licensees advising them of our position in the matter.

Yours very truly,

ELECTRICAL RESEARCH PRODUCTS, INC.,
By (Sgd.) H. G. KNOX.

Accepted:

RADIO CORPORATION OF AMERICA,
O. S. S. By (Sgd.) DAVID SARNOFF, *Pres.*

JULY 1932.

METRO GOLDWYN PICTURES CORPORATION,
1540 Broadway, New York, N. Y.

DEAR SIRS: Referring to the recording license agreement between us dated ----------, and particularly to paragraph (b) of Section 1 of Article III thereof:

The patents under which both we and RCA Photophone, Inc. have rights or licenses for sound recording will not be used by us as a basis for requiring the payments of royalties by you upon sound records distributed by you or your associated companies heretofore or hereafter recorded by another producer who is a licensee of RCA Photophone, Inc. with apparatus furnished by the latter involving the use of such patents.

Digitized by Google

This is not to be understood, however, as relieving you from the obligation to pay royalties in accordance with those provisions of our said agreement which are otherwise applicable.

Yours very truly,

O. S. S. H. G. KNOX.

LIST OF UNEXPIRED PATENTS OWNED OR CONTROLLED BY THE AMERICAN TELEPHONE & TELEGRAPH CO., APR. 1, 1933

Patent no.	Date of issue	Inventor	Title
1177848	Apr. 4, 1916	De Forest, L.	Apparatus for and Method of Recording Fluctuating Currents.
1178207	do	Baldwin, C. F.	Terminal Bank.
1180328	Apr. 25, 1916	Smith, W. F.	Insulated Electric Conductor.
1180510	do	Lanning, C. D.	Apparatus for Receiving Electrical Energy.
1180843	Apr. 25, 1916	Goodrum, C. L.	Automatic Telephone System.
1182179	May 9, 1916	Krum, C. L., and H. L.	Perforator for Telegraph Tape.
1182363	do	Forsberg, O. F.	Selector Switch.
1182538	do	Dyson, A. H.	Line Connecting Device.
1182591	do	Smith, W. F.	Machine for Covering Wire.
1182962	May 16, 1916	Beck, W. O., and Hoefer, A. U.	Coin Collector for Telephone Tolls.
1182963	do	do	Attachment for Coin Collectors.
1182964	do	do	Do.
1182997	do	Fondiller, W.	Magnetic Core for Inductance Coils.
1183135	do	Stolp, S. S.	Telephone Signaling Apparatus.
1183214	do	Lundell, A. E.	Telephone Exchange System.
1183802	do	De Forest, L.	Range Teller.
1183803	do	do	Wireless Telephone System.
Re 14959	Oct. 19, 1920	do	Do.
1183875	May 23, 1916	Hartley, R. V. L.	Electrical Circuit.
1183890	do	Lundell, A. E.	Electrical Controlling System.
1183923	do	Watkins, F. A.	Selecting Apparatus.
1183946	do	Bell, J. H.	Leak Nullifying Means for Telegraph Systems.
1184001	do	Merz, W.	Loading Coil for Telephone Lines.
1184017	do	Rainey, P. M.	Relay.
1184020	do	Reynolds, J. N.	Switch Stopping Mechanism.
1184434	do	Ehret, C. D.	Method of and Apparatus for Wireless Telephony and Telegraphy.
1184738	May 30, 1916	Gilson, A. F. F.	Switchboard Apparatus.
1184741	do	Goodrum, C. L.	Telephone Exchange System.
1184742	do	do	Do.
1184783	do	Speed, J. B.	Means for Observing and Signaling between Ships in Fog.
1185040	do	Armstrong, R. W.	Mounting for Incandescent Lamps.
1185086	do	Goodrum, C. L.	Lock-Out for Party Lines or Extension Telephones.
1185087	do	do	Do.
1185635	June 6, 1916	Deakin, G.	Automatic Telephone Exchange System.
1185712	do	Rainey, P. M.	Isochronizing and Synchronizing System.
1186051	do	Wallace, J. N.	Machine Telephone Switching System.
1186577	June 13, 1916	Hoefer, A. U., and Barrows, L. D.	Attachment for Coin Collecting Apparatus.
1187095	do	Reeves, F. N.	Telephone System.
1187634	June 20, 1916	Lorimer, J. H., and G. W.	Automatic Exchange.
1187928	do	Reeves, F. N.	Test Circuits.
1188053	do	Egerton, H. C.	Telephone Apparatus.
1188531	June 27, 1916	Carson, J. R.	Duplex Wireless System.
1188929	do	Goodrum, C. L.	Automatic Telephone Exchange System.
1189411	July 4, 1916	Van Kesteren, A. S. J.	Telephone Transmission System Wherein Reinforcing Repeaters are Employed.
1189458	do	Lundell, A. E.	Telephone Exchange System.
1189728	do	Olsson, A. H., and Pleijel, H. B. M.	Telephone Repeater.
1190259	July 11, 1916	Allen, R. M.	Telegraph Key.
1190412	do	Hudson, W. G.	Electrode for Devices for Varying Electrical Resistance.
1190625	do	Boyd, W. A.	Telegraph Key.
1190869	do	De Forest, L.	Quench Spark Discharger.
1191152	July 18, 1916	Bullard, A. M.	Automatic Trunk Selector.
1191265	do	Wright, J. L.	Telephone Exchange System.
1192165	July 25, 1916	Clausen, H. P.	Call Distributing System.
1192171	do	Dixon, A. F.	Controlling System.
1192175	do	Dyson, A. H.	Selector Switch.
1192270	do	Boyd, W. A.	Telegraph Key.
1193053	Aug. 1, 1916	Polinkowsky, L.	Machine Telephone System.
1193137	do	Goodrum, C. L.	Call Registering System for Automatic Telephone Systems.
1193206	do	Van der Bijl, H. J.	Thermionic Amplifier and Rectifier.
1194365	Aug. 15, 1916	Dixon, A. F.	Printing Telegraph Receiver.
1194367	do	Dunham, B. G.	Automatic Telephone Exchange System.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1194378	Aug. 15, 1916	Goodrum, C. L.	Recording Device.
1194721	do	Darrah, H. L.	Service Observing System.
1194820	do	Colpitts, E. H.	Multiplex Radio Telegraph System.
1194851	do	Lundell, A. E.	Automatic Telephone System.
1195600	Aug. 22, 1916	McIntosh, F. P., and Beaubien, E. F.	Signaling System.
1196277	Aug. 29, 1916	Pleijel, H. B. M., and Olsson, A. H.	Loading Coils for Phantom Circuits on Aerial Lines.
1196474	do	Nicolson, A. M.	Vacuum Tube Device.
1196482	do	Reynolds, J. N.	Automatic Selector Switch.
1196528	do	Dixon, A. F.	Selecting System.
1196532	do	Dunham, B. G.	Automatic Telephone Exchange System.
1196761	Sept. 5, 1916	Clausen, H. P.	Telephone System.
1196793	do	Lundell, A. E.	Automatic Telephone Exchange System.
1196805	do	Palmer, J. C. R.	Protective Circuit.
1196855	do	Goodrum, C. L.	Signal Transmitter Testing Device.
1197048	do	Matthies, W. H.	Machine Telephone Switching System.
1197542	do	Potts, L. M.	Electrical Step-by-Step Translating Device.
1198212	Sept. 12, 1916	Grissinger, E.	Telephone Repeater.
1198213	do	do	Do.
1198214	do	do	Telephone System.
1198345	do	do	Telephone Transmitter.
1198699	Sept. 19, 1916	Colpitts, E. H.	Control Device for Wireless Signaling.
Re 15538	Feb. 13, 1923	do	Do.
1198700	Sept. 19, 1916	do	Do.
1199011	do	Krum, C. L., and H. L.	Printing Telegraph.
1199158	Sept. 26, 1916	Clausen, H. P.	Call Distributing Telephone System.
1199180	do	Heising, R. A.	System for the Transmission of Intelligence.
Re 14967	Oct. 26, 1920	do	Do.
1199338	Sept. 26, 1916	Bell, J. H.	Telegraph System.
1199339	do	do	Do.
1199783	Oct. 3, 1916	Guthe, O. D. M.	Lock-Out for Party Lines or Extension Telephones.
1199788	do	Hinrichsen, E. E.	Telephone Exchange System.
1200040	do	Speed, J. B.	Electric Lamp.
1200041	do	do	Method of Insulating Conductors.
1200063	do	Wheeler, E. B., and Sultzer, M.	Electric Condenser.
1200081	do	Clausen, H. P.	Telephone Exchange System.
1200082	do	Colpitts, E. H.	Telephone Transmission System.
1200095	do	Field, J. C.	Selectively Operated Circuit Controlling Device.
1200474	Oct. 10, 1916	Dunlap, H. E.	Cable Rack Clamping Device.
1200547	do	Tromp, G. P.	Party Line Ringing Key.
1200788	do	Williams, S. B., Jr.	Telephone Exchange System.
1200796	do	Arnold, H. D.	Power Limiting Device.
Re14585	Jan. 14, 1919	do	Do.
1200829	Oct. 10, 1916	Goodrum, C. L.	Telephone Signaling System.
1200856	do	Kropp, J. A.	Substation Sender.
1200860	do	Lundell, A. E.	Selector Controller.
1201270	Oct. 17, 1916	De Forest, L.	Oscillating Current Generator.
1201271	do	do	Oscillating Audion.
1201272	do	do	Telegraph and Telephone Receiving System.
1201273	do	do	Oscillation Generator.
1201455	do	Goodrum, C. L.	Telephone Exchange System.
1201504	do	Roberts, J. G.	Code Impulse Signaling System.
1201621	do	Potts, L. M.	Means for Synchronizing Telegraphic and Other Apparatus.
1201809	do	Dixon, A. F.	Printing Telegraph Receiver.
1201810	do	do	Indicator.
1202275	Oct. 24, 1916	Dyson, A. H.	Register Controller.
1202281	do	Goodrum, C. L.	Machine Switching Telephone Exchange System.
1202446	do	Speed, J. B.	Electromagnetic Device.
1202952	Oct. 31, 1916	Adams, E. W.	Controlling System.
1203325	do	Grissinger, E.	Telephone Relay or Repeater.
1203326	do	do	Do.
1203336	do	Hinrichsen, E. E.	Telephone System.
1203407	do	Reinke, A. E.	Telephone Exchange System.
1203502	do	Deakin, G.	Do.
1203671	Nov. 7, 1916	Williams, S. B., Jr.	Do.
1203742	do	Johnson, L. H.	Do.
1203829	do	Williams, S. B., Jr.	Do.
1203851	do	Clark, E. H.	System for Controlling Electrical Circuits.
1203887	do	Lundell, A. E.	Machine Switching Telephone Exchange System.
1203908	do	Reynolds, J. N.	Do.
1204466	Nov. 14, 1916	McQuarrie, J. L.	Switch Actuating Mechanism.
1205518	Nov. 21, 1916	Craft, E. B., and Reynolds, J. N.	Telephone Exchange System.
1205520	do	Dobbin, H. F.	Selector Switch.
1205523	do	Dunham, B. G.	Telephone Exchange System.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1205536	Nov. 21, 1916	Heydt, G. H.	Automatic Switch.
1205538	do	Hinrichsen, E. E.	Telephone System.
1205617	do	Goodrum, C. L.	Telephone Exchange System.
1205618	do	Grissinger, E.	Speech Transmitting Mechanism.
1206524	Nov. 28, 1916	Fondiller, W.	Phantom Loading Coil.
1206906	Dec. 5, 1916	Persson, F.	Folding Scaling Ladder.
1206987	do	Clausen, H. P.	Dictating Phonograph System.
1207150	do	Dyson, A. H.	Automatic Telephone Switching System.
1207384	do	Egerton, H. C.	Electric Amplifier.
1207447	do	Van Deusen, W. M., and Persson, F.	Cable Lubricting Wheel.
1207736	Dec 12, 1916	Forsberg, O. F.	Electromagnetic Device.
1207836	do	Barrows, L. D.	Connecting System for Telephone Stations.
1209324	Dec. 19, 1916	Nicolson, A. M., and Hull, E. C.	Electron Emitting Cathode and Process of Manufacturing the Same.
1209834	Dec. 26, 1916	Goodrum, C. L.	Telephone Exchange System.
1210314	do	Hoefer, A. U., and Bascom, H. M.	Telephone Toll System.
1210424	Jan. 2, 1917	Craft, E. B.	Telephone Desk Set.
1210505	do	Lundell, A. E.	Point Finder System.
1210602	do	Clausen, H. P.	Telephone Exchange System.
1210603	do	do	Calling Device.
1210616	do	Dunham, B. G.	Machine Switching Telephone Exchange System.
1210617	do	do	Relay.
1210628	do	Fondiller, W.	Loading Coil.
1210642	do	Harlow, J. B.	Selective Signaling System.
1210652	do	Johnson, L. H.	Telephone Exchange System.
1210653	do	do	Do.
1210678	do	Nicolson, A. M.	Thermionic Amplifier.
1210722	do	Sultzer, M.	Method of Coating Condensers.
1210884	do	Baldwin, J. F., Jr.	Phantom Circuit Loading.
1210912	do	Dixon, A. F.	Selecting Mechanism and System.
1211031	do	Akin, A.	Telephone System and Apparatus.
1211044	do	Bascom, H. M.	Signaling System.
1211274	do	do	Party Line Signaling System.
1211434	Jan. 9, 1917	Goodrum, C. L.	Telephone Exchange System.
1211607	do	McGrath, M. K.	Telephone Apparatus.
1211612	do	Miller, D. D.	Switching Device for Telephone Systems.
1212492	Jan. 16, 1917	Johnson, L. H.	Telephone Exchange System.
1212493	do	do	Do.
1212494	do	do	Do.
1212495	do	do	Do.
1212531	do	McMurry, F. R.	Selecting Mechanism.
1212733	do	Bell, J. H.	Telegraph System.
1212755	do	Fondiller, W.	Method of Manufacturing Inductance Coils.
1212809	do	Reeves, F. N. and Lundell, A. E.	Telephone Exchange System.
1214258	Jan. 30, 1917	Arntzenius, C. R. H.	Telephone System for Toll Traffic.
1214511	Feb. 6, 1917	Clausen, H. P.	Telephone Switching System.
1214512	do	do	Do.
1214515	do	Danielson, O. A.	Switch Selector.
1215038	do	Lanning, C. D., and Drew, S. C.	Telephone Circuit Arrangements.
1215331	Feb. 13, 1917	Bascom, H. M.	Telephone Toll System.
1215378	do	Johnson, L. H.	Telephone Exchange System.
1215406	do	Persson, F.	Cutting Tool.
1215487	do	Clausen, H. P.	Telephone System.
1215702	do	Pleijel, H. B. M., and Olsson, A. H.	Loading Duplex or Multiplex Telephone Lines.
1215859	do	Reynolds, J. N.	Switch Mechanism.
1215860	do	do	Telephone Switch Mechanism.
1215911	do	Clausen, H. P.	Call Distributing System.
1215917	do	Danielson, O. A.	Selecting Mechanism.
1215918	do	Dixon, A. F.	Selecting Apparatus and System.
1215925	do	Goodrum, C. L.	Telephone Exchange System.
1216136	do	Kendall, B. W.	Transmission Circuit.
1216305	Feb. 20, 1917	Goodrum, C. L.	Automatic Telephone System.
1216615	do	Seibt, G.	Apparatus for Producing Powerful Electrical Oscillations.
1216844	do	Roberts, J. G.	Electrical Controlling System.
1217160	Feb. 27, 1917	Dunham, B. G.	Automatic Telephone Line Finder System.
1217168	do	Goodrum, C. L.	Telephone Exchange System.
1217241	do	Tracy, O. H.	Alarm Signaling Apparatus.
1217472	do	McQuarrie, J. L., and Loveridge, F. H.	Telephone Exchange System.
1218035	Mar. 6, 1917	Allen, R. M.	Telegraph Sounder.
1218195	do	Logwood, C. V.	System for Transmitting Communications.
1218274	do	Kitsee, I.	Quadruplex Telegraphy.
1218413	do	do	Do.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1218650	Mar. 13, 1917	Hartley, R. V. L.	System for Amplifying Electrical Energy.
1218795	do	Merritt, B. F.	Indicating and Recording Apparatus.
1218796	do	do	Signal Transmitter.
1218804	do	Reeves, F. N.	Selective Signaling System.
1218805	do	Roberts, J. G.	Automatic Call Distributing System.
1218806	do	do	Telephone Trunking System.
1218870	do	Kitsee, I.	Duplexing Telegraphic Lines.
1219110	do	do	Method of and Means for Quadruplexing Cables.
1219300	do	Hall, J. A.	Spark Coil.
1219517	Mar. 20, 1917	Wilbur, R. S.	Testing System.
1219561	do	Kitsee, I.	Quadruplex Telegraphy.
1219587	do	Reynolds, J. N.	Telephone Exchange System.
1219700	do	Bullard, A. M.	Telephone Exchange System and Apparatus Therefor.
1219727	do	Grissinger, E.	Telephone Repeating System.
1219760	do	Mills, J., and Hoyt, R. S.	Method of and Means for Correcting Loading Section Irregularities in Transmission Lines.
1219833	do	May, D. T.	Protector.
1219955	do	Kitsee, I.	Quadruplex Telegraphy.
1220238	Mar. 27, 1917	do	Do.
1220433	do	Krum, C. L., and H. L.	Electromagnet.
1220607	do	Clausen, H. P.	Testing Arrangement.
1220756	do	Kitsee, I.	Quadruplex Telegraphy.
1221033	Apr. 3, 1917	De Forest, L.	Wireless Telegraph Signaling System.
1221034	do	do	Oscillating Current Generator.
1221035	do	do	Apparatus for Use in Wire or Radio Communications.
1221124	do	Williams, S. B., Jr.	Machine Switching Telephone Exchange System.
1221134	do	Bradbury, C. C.	Secrecy System for Extension and Party Line Telephones.
1221140	do	Clausen, H. P.	Telephone Signaling System.
1221158	do	Dunham, B. G.	Automatic Telephone System.
1221166	do	Goodrum, C. L.	Telephone Exchange System.
1221167	do	do	Automatic Telephone Exchange System.
1221168	do	do	Telephone Exchange System.
1221169	do	do	Machine Switching Telephone Exchange System.
1221177	do	Hill, R. N.	Selectively Operated System.
1221182	do	Johnson, L. H.	Telephone Exchange System.
1221188	do	Kitsee, I.	Quadruplex Telegraphy.
1221191	do	Kolossvary, E.	Apparatus for Checking a Number of Telephone Calls.
1221238	do	Speed, J. B.	Phantom Circuit Loading.
1221262	do	Wright, J. L.	Telephone Exchange System.
1221308	do	Goodrum, C. L., and Dunham, B. G.	Apparatus for Transmitting Impulses of Current in Electric Circuits.
1221547	do	Kitsee, I.	Telegraphy.
1221773	do	Sperry, A. B.	Telephone Exchange System.
1221865	Apr. 10, 1917	Johnson, L. H.	Do.
1221866	do	do	Do.
1221870	do	Kitsee, I.	Telegraphy.
1221879	do	Lundell, A. E.	Semi-Automatic Telephone System.
1221917	do	Sperry, A. B.	Telephone Exchange System.
1222077	do	Cousins, V. D.	Fraud Detecting Telephone Toll System.
1222303	do	Kitsee, I.	Quadruplex Telegraphy.
1222311	do	Lundell, A. E.	Message Register Circuits.
1222323	do	Raynsford, A.	Telephone Exchange System.
1222342	do	Wilbur, R. S.	Do.
1222350	do	Bandfield, H. G.	Protector.
1222364	do	Clausen, H. P.	Connecting Circuit for Telephone Switching Systems.
1222771	Apr. 17, 1917	Kitsee, I.	Telegraphic Receiving Organisms.
1222810	do	Shaw, T.	Protective System for Composite Circuits.
1222853	do	Dixon, A. F.	Selecting System.
1222879	do	Lundell, A. E.	Telephone System.
1223304	Apr. 24, 1917	Aldendorff, F.	Control Circuit for Telephone Systems.
1223376	do	Espenschied, L.	Wireless Receiving System.
1223382	do	Goodrum, C. L.	Locking Mechanism for Impulse Transmitters.
1223434	do	Smith, W. F.	Manufacture of Electric Cables.
1223437	do	Speed, J. B.	Protective System.
1223752	do	Adams, A. H.	Apparatus for Reflecting Light Rays.
1223937	do	Clausen, H. P.	Telephone System.
1224140	May 1, 1917	do	Automatic Testing System.
1224161	do	Goodrum, C. L.	Telephone Exchange System.
1224342	do	Vreeland, F. K.	Multiplex Telegraphy.
1224374	do	Goodrum, C. L.	Two-Way Two-Wire Trunk for Multi-office Automatic Exchange Systems.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1224970	May 8, 1917	Singer, F. K	Lineman's Shield.
1226947	May 22, 1917	Clausen, H. P	Terminal Bank.
1226953	do	Dyson, A. H	Calling Device.
1226966	do	Goodrum, C. L	Telephone System and Apparatus.
1226981	do	Lundell, A. E., and Eddy, H. G.	Telephone Call Registering System.
1227010	do	Smythe, E. H	Telephone Exchange System.
1227113	do	Campbell, G. A	Electric Wave Filter.
1227114	do	do	Electrical Receiving, Translating, or Repeating Circuit.
1227153	do	Johnson, L. H	Telephone Exchange System.
1227582	May 29, 1917	Clausen, H. P	Do.
1227609	do	Goodrum, C. L	Do.
1227735	do	Barrows, L. D., and Charlesworth, H. P.	System for Connecting Telephone Stations.
1227895	do	Dunham, B. G	Telephone Exchange System.
1227904	do	Goodrum, C. L., and Dobbin, H. F.	Contact Bank for Automatic Switching Devices.
1227932	do	Reeves, F. N., and Lundell, A. E.	Automatic Telephone Exchange System.
1228167	do	Bascom, H. M	Auxiliary Supervisory Signal System.
1228468	June 5, 1917	Mouradian, H	Methods of Locating Special Transposition Points.
Re. 14593	Feb. 18, 1919	do	Do.
1229201	June 5, 1917	Potts, L. M	Selective Signaling Apparatus.
1229202	do	do	Telegraphic Receiver.
1230117	June 19, 1917	Clausen, H. P	Telephone Exchange System.
1230205	do	Nichols, H. W	Fluctuation Damping Means for Rotatable Members.
1230421	do	Lundell, A. E	Automatic Telephone Exchange System.
1230429	do	Palmer, J. C. R., and Holmes, F. J.	Electromagnetic Device.
1230564	do	Clausen, H. P	Telephone Exchange System.
1230565	do	do	Do.
1230566	do	do	Do.
1230578	do	Hinrichsen, E. E	Telephone Signaling System.
1230582	do	Johnson, L. H	Telephone Exchange System.
1230874	June 26, 1917	De Forest, L	Metallic Audion.
1231013	do	Goodrum, C. L	Automatic Telephone Exchange System.
1231024	do	Hinrichsen, E. E	Telephone Exchange System.
1231085	do	Sperry, A. B	Do.
1231086	do	do	Do.
1231140	do	Dixon, A. F	Telegraph System.
1231516	do	Fondiller, W	Phantom Loading Coil.
1231629	July 3, 1917	Lowry, H. H	Telephone Switchboard.
1231764	do	Lowenstein, F	Telephone Relay.
1231922	do	Lundell, A. E	Telephone Exchange System.
1231984	do	Arnold, H. D., and Nichols, H. W.	Radio Transmission.
1232045	do	Krum, C. L., and H. L	Selective Telegraph System and Apparatus.
1232087	do	Reeves, F. N., and Lundell, A. E.	Automatic Telephone Register Sender.
1232183	do	Bascom, H. M	Controlling System.
1232224	do	Clausen, H. P	Telegraph System.
1232250	do	Dyson, A. H	Semi-Automatic Telephone Exchange System.
1232279	do	Goodrum, C. L	Telephone Exchange System.
1232338	do	Lattig, J. W., and Goodrum, C. L.	Automatic Telephone Exchange System.
1232345	do	Lundell, A. E	Semi-Automatic Telephone System.
1232496	July 10, 1917	Clausen, H. P	Call Distributing System.
1232497	do	do	Telephone Exchange System.
1232498	do	do	Automatic Testing System.
1232499	do	do	Electric Signaling System.
1232507	do	Darrah, H. L	Telephone Exchange System.
1232514	do	Egerton, H. C	Electric Amplifier System.
1232515	do	do	Receiver Case.
1232580	do	Lundell, A. E	Selective Controlling System.
1232581	do	do	Substation Telephone Set.
1232582	do	do	Automatic Telephone System.
1232879	do	Wold, P. I	Thermionic Amplifying Circuit.
1232884	do	Benson, O. E	Operator's Telephone Circuit.
1232919	do	Heising, R. A	Thermionic Voltmeter.
Re. 15469	Oct. 17, 1922	do	Do.
1232943	July 10, 1917	Lundell, A. E	Telephone Exchange System.
1232944	do	do	Telephone Signaling System.
1233766	July 17, 1917	Espenschied, L	Duplex Circuit.
1233767	do	do	Do.
1233768	do	do	Inductance Device.
1233769	do	do	Duplex Circuit.
1233819	do	Sperry, A. B	Automatic Telephone Exchange System.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1233830	July 17, 1917	Wright, J. L.	Telephone Exchange System.
1233831	do	Adams, A. H., and Lundell, A. E.	Selector Switch.
1233870	do	Goodrum, C. L.	Automatic Telephone System.
1233891	do	Lundell, A. E.	Do.
1233892	do	do	Semi-Automatic Telephone System.
1233893	do	do	Telephone Exchange System.
1233894	do	do	Do.
1234187	July 24, 1917	do	Do.
1234246	do	Wright, J. L.	Do.
1235599	Aug. 7, 1917	Reeves, F. N.	Do.
1235688	do	Hinrichsen, E. E.	Do.
1235705	do	Lundell, A. E.	Do.
1236491	Aug. 14, 1917	Skinner, B. H.	Electrical Testing Set.
1236492	do	do	Message Register Test Set.
1236575	do	Kitsee, I.	Telegraphy.
1236576	do	do	Telegraphic Transmission.
1237433	Aug. 21, 1917	Williams, S. B., Jr.	Automatic Telephone System.
1237476	do	Clausen, H. P. and Goodrum, C. L.	Electrical Testing System.
1237477	do	Clausen, H. P.	Do.
1237503	do	Goodrum, C. L., and Von Nagy, L.	Impulse Sender.
1237531	do	Lundell, A. E.	Telephone Exchange System.
1238008	do	Fell, J. M.	Telegraph System.
1238009	do	do	Telegraph Repeater.
1238076	Aug. 28, 1917	Adams, A. H.	Impulse Transmitting Device.
1238106	do	Clausen, H. P.	Automatic Switch.
1238107	do	do	Impulse Sending Device.
1238129	do	Goodrum, C. L.	Automatic Telephone Exchange System.
1238130	do	do	Machine Switching Telephone Exchange System.
1238131	do	do	Calling Device.
1238140	do	Hill, O. E.	Automatic Telephone System.
1238141	do	Hinrichsen, E. E., and Johnson, L. H.	Telephone Exchange System.
1238153	do	Kelsall, G. A.	Loading Unit for Telephone Systems.
1238160	do	Lundell, A. E.	Telephone System.
1238161	do	do	Controlling System.
1238162	do	Lundquist, F. A.	Electric Switch.
1238163	do	do	Automatic Switch.
1238164	do	do	Do.
1238193	do	Reynolds, J. N.	Machine Switching Telephone Exchange System.
1238194	do	do	Automatic Switch.
1238265	do	Clausen, H. P.	Telephone Exchange System.
1240206	Sept. 18, 1917	Heising, R. A.	Oscillation Generator.
1240213	do	Hoyt, R. S.	Artificial Line.
1240257	do	Reeves, F. N., and Lundell, A. E.	Telephone System.
1240471	do	Miller, D. D.	Electromagnetic Device.
1240506	do	Smith, W. F.	Winding Machine.
1240565	do	Harris, J. W.	Insulating Compound and the Method of Forming the Same.
1240566	do	do	Do.
1240567	do	do	Do.
1241923	Oct. 2, 1917	Clausen, H. P.	Telephone Exchange System.
1241998	do	Lattig, J. W., and Goodrum, C. L.	Prepayment Coil Device.
1242008	do	Lundell, A. E.	Telephone Exchange System.
1242009	do	do	Impulse Control System.
1242010	do	do	Telephone Exchange System.
1242014	do	May, D. T.	Lightning Arrester.
1242022	do	Mueller, E. C., Jr.	Transmitter Mouthpiece.
1242384	Oct. 9, 1917	Sperry, A. B.	Automatic Telephone System.
1242655	do	Clausen, H. P.	Telephone Exchange System.
1242672	do	Finley, C. A.	Telephone Equipment.
1243066	Oct. 16, 1917	Hoyt, R. S.	Network for Neutralizing the Characteristic Reactance of a Loaded Line.
1243261	do	Clausen, H. P.	Circuit Controlling Device.
1243314	do	Lundell, A. E.	Telephone Metering System.
1243705	Oct. 23, 1917	Carson, J. R.	Method of and Means for Transmitting Signals.
1244488	Oct. 30, 1917	Goodrum, C. L.	Telephone Exchange System.
1244528	do	May, D. T.	Vacuum Lightning Arrester.
1244544	do	Rhoads, C. S., Jr.	Slector.
1244642	do	Pruessman, A.	Electrical Apparatus.
1244697	do	Carson, J. R.	Wireless Receiving System.
1244998	do	Lundell, A. E.	Selective Signaling System.
1244999	do	do	Telephone Exchange System.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1245321	Nov. 6, 1917	Davidson, J., Jr.	Testing Circuit for Measured Service Apparatus.
1245341	do	Hoffmann, H. L.	Service Observing System.
1245402	do	Toomey, J. F.	System for Observing Telephone Service.
1245417	do	Adams, E. W.	Electric Signaling System.
1245422	do	Baldwin, C. F.	Switching Device.
1245436	do	Clark, E. H.	Automatic Telephone System.
1245438	do	Clausen, H. P.	Telephone Exchange System
1245446	do	Englund, C. R.	Radio Telephony.
1245472	do	Lattig, J. W., and Goodrum, C. L.	Coin Collecting Device.
1245478	do	Lundell, A. E.	Telephone Exchange System.
1245481	do	McGrath, M. K.	Selector Switch.
1245490	do	Molina, E. C.	Telephone Service Observing System.
1245507	do	Rainey, P. M.	Telegraph System.
1245748	do	Lundell, A. E.	Telephone Exchange System.
1245894	do	Fell, J. M.	Telegraphic Receiving System.
1245900	do	Goodrum, C. L.	Telephone Switching System.
1246088	Nov. 13, 1917	do	Overflow Release Means.
1246125	do	Lundell, A. E.	Automatic Telephone Exchange System.
1246126	do	do	Call Recording System.
1246176	do	Sperry, A. B.	Machine Switching Telephone Exchange System.
1246201	do	Williams, S. B., Jr.	Telephone Toll Device and Circuits Therefor.
1246545	do	Clausen, H. P.	Telephone Exchange System.
1246546	do	do	Telephone System.
1246547	do	do	Telephone Exchange System.
1246548	do	do	Testing Arrangement for Telephone Exchange Systems.
1246619	do	Lattig, J. W., and Goodrum, C. L.	Automatic Telephone System.
1246625	do	Lundell, A. E.	Multi-Contact Switching Device.
1246881	Nov. 20, 1917	Clausen, H. P.	Telephone Exchange System.
1246882	do	do	Telephone System.
1246895	do	Egerton, H. C.	Phonograph Transmitter.
1246964	do	Lowe, C. W.	Electric Cable.
1247120	do	Kitsee, I.	Telegraphy.
1247358	do	Zwilling, J.	Reeling Device.
1247371	do	Carpenter, W. W.	Telephone Exchange System.
1247392	do	Glenn, H. H.	Telephone Cord.
1247395	do	Goodrum, C. L.	Automatic Telephone System.
1247399	do	Hendrickson, C. J.	Solenoid Operated Switch.
1247462	do	Smith, W. F.	Twisting Machine.
1247463	do	do	Winding Head.
1247669	Nov. 27, 1917	Goodrum, C. L.	Telephone Exchange System.
1247770	do	Williams, S. B., Jr.	Automatic Telephone System.
1274771	do	do	Do.
1247976	do	Lundell, A. E.	Line Finder System.
1248051	do	Agnew, H. D.	Grinding and Polishing Machine.
1248107	do	Hathaway, J. D.	Method and Apparatus for Coating Metallic Articles.
1248122	do	Hosford, W. F.	Electric Soldering Iron.
1248157	do	Piper, H. D.	Article Collecting Device for Grinding Machines.
1248461	Dec. 4, 1917	Crawford, G. C.	Electromagnetic Device.
1248466	do	Dunham, B. G.	Telephone Exchange System.
1248479	do	Goodrum, C. L.	Automatic Telephone Exchange System.
1248515	do	Lundell, A. E.	Telephone Exchange System.
1248979	do	Young, F. V.	Do.
1249145	do	Lundell, A. E.	Machine Switching Telephone Exchange System.
1249146	do	do	Telephone Exchange System.
1249154	do	McQuarrie, J. L.	Electric Switch.
1249155	do	do	Do.
1249570	Dec. 11, 1917	Watkins, S. S. A.	Signaling System.
1250116	do	Goodrum, C. L.	Telephone Exchange System.
1250192	Dec. 18, 1917	Lanning, C. D.	Telephone Repeating Instrument.
1250579	do	Goodrum, C. L.	Machine Switching Telephone System.
1250687	do	Smith, W. F.	Power Transmission System.
1250804	do	Coon, L. E.	Selective Signaling System.
1250854	do	Goodrum, C. L.	Electrical Registering System.
1250856	do	Griffin, J. T.	Electric Soldering Iron.
1250921	do	Martin, H. T.	Telephone Apparatus.
1251190	Dec. 25, 1917	Dixon, A. F.	Indicating and Recording System.
1251219	do	Goodrum, C. L.	Telephone Call Charge System and Apparatus.
1251363	do	Gherardi, B.	Signaling System.
1251364	do	do	Signaling System for Multiplex Telephone Circuits.
1251440	do	Sultzer, M.	Condenser Switch.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1251475	Jan. 1, 1918	Clausen, H. P.	Telephone Exchange System.
1251495	do	Forsberg, O. F.	Impulse Sending Mechanism.
1251503	do	Goodrum, C. L.	Two-Wire Multiple Automatic Telephone System.
1251504	do	do	Machine Switching Telephone Exchange System.
1251505	do	do	Telephone Exchange System.
1251536	do	Keckler, C. W.	Telephone System.
1251543	do	Lattig, J. W., and Goodrum, C. L.	Automatic Telephone System.
1251544	do	Lundell, A. E.	Machine Switching Telephone Exchange System.
1251545	do	Lundquist, F. A.	Telephone Switching System.
1251556	do	Miller, D. D.	Testing Device.
1251572	do	Price, C. S.	Electrical Protective Apparatus.
1251578	do	Riecken, W. E.	Shaping Machine.
1251604	do	Williams, S. B., Jr.	Ringing Control System for Telephone Exchanges.
1251637	do	Carpenter, W. W.	Telephone Exchange System.
1251644	do	Clausen, H. P.	Do.
1251651	do	Espenschied, L.	Core for Magneti Coils.
1251700	do	Shaw, T.	Shield for Magnetic Coils.
1251728	do	Young, F. V.	Telephone Exchange System.
1251750	do	Clausen, H. P.	Testing Arrangement.
1251751	do	do	Selective Switch.
1251752	do	Clausen, H. P. and Goodrum, C. L.	Telephone System.
1251768	do	Goodrum, C. L.	Telephone Exchange System.
1251795	do	McGrath, M. K.	Selector Switch.
1251797	do	McQuarrie, J. L.	Electrical Signaling System.
1251985	do	Lundquist, F. A.	Automatic Switch.
1251988	do	McQuarrie, J. L.	Automatic Selective Switch.
1251995	do	Forsberg, O. F.	Telephone Desk Stand.
1252028	do	Rasmussen, O. E.	Telephone Exchange System.
1252399	Jan. 8, 1918	Clausen, H. P.	Telephone Exchange.
1252412	do	Dickinson, L. E.	Protective Device for Electric Circuits.
1252420	do	Forsberg, O. F.	Telephone Exchange Switching Mechanism.
1252427	do	Goodrum, C. L.	Transmission System.
1252461	do	Lundell, A. E.	Telephone Exchange System.
1252462	do	Lundquist, F. A.	Automatic Switching Mechanism.
1252463	do	do	Telephone Exchange System.
1252464	do	do	Do.
1252465	do	McQuarrie, J. L.	Electric Switch.
1252466	do	McQuarrie, J. L., and Goodrum, C. L.	Machine Switching Telephone System.
1252475	do	Mueller, E. C., Jr.	Telephone Transmitter Mouthpiece.
1252502	do	Shreeve, H. E.	Protective Circuit.
1252813	do	Kochendorfer, F. S.	Baking Oven.
1252911	do	Lundell, A. E.	Telephone Exchange System.
1252948	do	Reeves, F. N.	Do.
1252978	do	Williams, S. B., Jr. and Sperry, A. B.	Machine Switching Telephone Exchange System.
Re. 15310	Mar. 14, 1922	do	Do.
1253228	Jan. 15, 1918	Goodrum, C. L.	Testing Arrangement.
1253365	do	Fondiller, W.	Loading Units for Telephone Systems.
1253657	do	Williams, S. B., Jr.	Telephone Exchange System.
1253671	do	Clausen, H. P.	Do.
1253684	do	Goodrum, C. L.	Do.
1253688	do	Hill, M. F.	Telephone Exchange.
1253698	do	Lundquist, F. A.	Automatic Switching Mechanism.
1254081	Jan. 22, 1918	Stearn, F. A.	Telephone System.
1254116	do	Campbell, G. A.	Signaling Circuit.
1254117	do	do	Do.
1254118	do	do	Do.
1254146	do	Martin, W. H.	Do.
1254254	do	Matthies, W. H.	Indicating System.
1254471	do	Campbell, G. A.	Signaling Circuit.
1254472	do	do	Do.
1254473	do	do	Do.
1254474	do	do	Do.
1254475	do	do	Do.
1254476	do	do	Do.
1254642	Jan. 29, 1918	Adams, A. H. and Polinkowsky, L.	Automatic Circuit Changing Switch.
1254650	do	Bollinger, C.	Recirculation System.
1254657	do	Clausen, H. P.	Telephone Exchange System.
1254658	do	do	Impulse Transmitting Device or Sender.
1254661	do	Dixon, A. F.	Counting Apparatus.
1254679	do	Goodrum, C. L.	Automatic Telephone Exchange System.
1254680	do	do	Automatic Telephone System.
1254681	do	do	Non-Numerical Switches.
1254682	do	do	Telephone Exchange System.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1254690	Jan. 29, 1918	Hazard, A. B.	Testing Process and Machine.
1254691	do	Hinrichsen, E. E.	Telephone System.
1254709	do	Levinger, D., and Anderson, O.	Tapping Machine.
1254710	do	Lundell, A. E.	Selector Switch Movement Controlling Circuit.
1254711	do	do	Telephone Exchange System.
1254712	do	do	Do.
1254713	do	Lundquist, F. A.	Automatic Switch.
1254725	do	Pennock, G. A.	Vapor and Fume Controlling System.
1255180	Feb. 5, 1918	Keckler, C. W.	Telephone System.
1255211	do	Nicolson, A. M.	System for the Successive Amplification of Energies.
1255861	Feb. 12, 1918	Crandall, I. B.	Damping Material for Telephones.
1256087	do	Williams, S. B., Jr., and Clark, E. H.	Telephone Exchange System.
1256126	do	Goodrum, C. L.	Automatic Telephone Exchange System.
1256500	do	Clausen, H. P., and Goodrum, C. L.	Telephone Exchange System.
1256661	Feb. 19, 1918	Clausen, H. P.	Do.
1256608	do	Johnson, L. H.	Do.
1256889	do	Espenschied, L.	Wireless Duplex Signaling System.
1256983	do	Colpitts, E. H.	Wireless Telegraphy and Telephony.
1257303	Feb. 26, 1918	Bell, J. H.	Repeater System.
1257317	do	Clausen, H. P.	Telephone Exchange System.
1257338	do	Goodrum, C. L.	Line Switch.
1257362	do	Keckler, C. W.	Telephone Exchange System.
1257363	do	do	Do.
1257370	do	Lundell, A. E., and Stearn, F. A.	Do.
1257381	do	Nichols, H. W.	Low Frequency Signal Repeater.
1257392	do	Reeves, F. N., and Lundell, A. E.	Telephone Line Selecting System.
1257394	do	Reynolds, J. N.	Terminal Bank.
1257684	do	Dixon, A. F.	Tuning Fork.
1257702	do	Harlow, J. B.	Railway Signaling System.
1257715	do	Kropp, J. A.	Selector Switch.
1257720	do	Lundell, A. E.	Automatic Telephone Exchange System.
1257960	do	Reich, J. C.	Machine for Cutting and Spacing Soft Rubber Rods and the Like.
1258374	Mar. 5, 1918	Stearn, F. A.	Telephone Exchange System.
1258540	do	Dixon, A. F.	Synchronizing System.
1258548	do	Englund, C. R.	Radio Telephony.
Re. 15089	Apr. 19, 1921	do	Do.
1258761	Mar. 12, 1918	Gauthier, E.	Crank Shaft.
1258782	do	Keckler, C. W.	Telephone Exchange System.
1258783	do	do	Do.
1258808	do	Poole, F. P.	Indexing Carrier.
1258809	do	Potts, L. M.	Transmitting Apparatus for Electric Telegraphs and the Like.
1260412	Mar. 26, 1918	Lundell, A. E.	Telephone Exchange System.
1260413	do	Lundell, A. E., and Stearn, F. A.	Listening Key Circuit.
1261096	Apr. 2, 1918	Blackwell, O. B.	Testing Apparatus.
1261290	do	Rainey, P. M.	Telegraph System.
1262315	Apr. 9, 1918	Dunham, B. G.	Telephone Exchange System.
1262323	do	Goodrum, C. L.	Do.
1262333	do	Hall, J. A.	Indicating Device.
1262359	do	Kropp, J. A.	Impulse Transmitting Device.
1262368	do	Martin, H. T.	Operating Button for Electrical Switching Apparatus and Process for Making Such Button.
1262496	do	Hinrichsen, E. E.	Telephone Exchange System.
1262526	do	Levinger, D.	Machine for Making Indentures.
1262639	Apr. 16, 1918	Clausen, H. P.	Telephone Exchange.
1262648	do	Danielson, O. A.	Telegraph System.
1262654	do	Dixon, A. F.	Selecting System.
1262655	do	do	Do.
1262752	do	Clausen, H. P.	Telephone System.
1262838	do	Poole, F. P.	Electromagnetic Apparatus.
1262912	do	Bascom, H. M.	Means for Preventing Disturbances in Substation Telephone Sets.
1262996	do	Stull, J. S.	Rotation Counter.
1263057	do	Griffin, J. T.	Mica Grinding Machine.
1263069	do	Keckler, C. W.	Telephone Exchange System.
1263083	do	Lundell, A. E.	Do.
1263376	Apr. 23, 1918	Clausen, H. P., and Goodrum, C. L.	Do.
1263377	do	Clausen, H. P.	Electrical Testing System.
1263383	do	Craft, E. B.	Electromagnetic Device.
1263405	do	Grondahl, H. H. C.	Twisting Machine.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1263421	Apr. 23, 1918	Johnson, K. S.	Telephone Substation Circuit.
1263429	do	Keckler, C. W.	Telephone Exchange System.
1263478	do	Smith, W. F.	Twisting Machine.
1263482	do	Stull, J. S.	Multiple Spindle, Drill, Tap and the Like.
1264156	Apr. 30, 1918	Clausen, H. P.	Telephone System.
1264366	do	do	Calling Device.
1264378	do	Dixon, A. F.	Controlling System.
1264388	do	Guthe, O. D. M.	Telephone System.
1264402	do	Lattig, J. W. and Goodrum, C. L.	Metering System for Automatic Telephone Exchanges.
Des. 52009	May 7, 1918	Forsberg, O. F.	Calling Device.
Des. 52010	do	do	Desk Telephone Stand.
1265728	May 14, 1918	Bell, J. H.	Telegraph System.
1265751	do	Conway, R. D.	Signaling System.
1265830	do	Swoboda, A. R.	Polarized Repeating Sounder.
1265851	do	Williams, H. C.	Mechanism for Installing Transmission Line Wires.
1266190	do	Adams, A. H.	Circuit Changing Switch.
1266623	May 21, 1918	Quass, R. L.	Telephone Signaling System.
1266714	do	Richey, C. V.	Telephone Metering System.
1266978	do	Noble, R. E.	Telephone Exchange System.
1267433	May 28, 1918	McQuarrie, J. L.	Automatic Switch.
1267980	do	Craft, E. B., and Reynolds, J. N.	Automatic Telephone Exchange System.
Re. 15341	Apr. 25, 1922	do	Do.
1268221	June 4, 1918	Dunham, B. G.	Do.
1269702	June 18, 1918	Goodrum, C. L.	Message Register Circuits for Machine Switching Telephone Exchange Systems.
1270326	June 25, 1918	Reynolds, J. N.	Call Finder for Automatic and Semi-Automatic Telephone Systems.
1270388	do	Dunham, B. G.	Telephone Exchange System.
1270465	do	Toomey, J. F.	Automatic Switching Means.
1270867	July 2, 1918	Price, C. S.	Fuse.
1271124	do	Booth, W. T.	Switching Device.
1271127	do	Britten, W. G.	Telephone System.
1271133	do	Clausen, H. P.	Do.
1271141	do	Dixon, A. F.	Printing Telegraph System.
1271164	do	Hovland, H.	Impulse Transmitter.
1271171	do	Johnson, L. H.	Telephone System.
1271185	do	Lundell, A. E.	Telephone Exchange System.
1271186	do	do	Do.
1271203	do	Baldwin, C. F.	Electromagnet.
1271320	do	Housekeeper, W. G.	Electric Conductor.
1271322	do	Keckler, C. W.	Telephone Exchange System.
1271335	do	Lundell, A. E.	Do.
1271336	do	do	Do.
1271337	do	do	Telephone System.
1271362	do	Rainey, P. M.	Fluctuating Damping Means for Rotatable Members.
1271652	July 9, 1918	Bellamy, H. T.	Method of Making Colored Glass.
1271794	do	Stevenson, G. H.	Protective Device.
1271824	do	Anderegg, G. A., and Mougey, W. E.	Telephone and Telegraph Cable.
1271855	do	Clausen, H. P.	Trunking System.
1271883	do	Fowler, C. B.	Telephone System.
1271897	do	Hinrichsen, E. E.	Telephone Exchange System.
1271924	do	Miller, D. D.	Electromagnetic Switching Device.
1272022	do	Dolmage, M. M.	Two-Way Repeater Circuits.
1272106	do	Young, C. R.	Loading Coil Case.
1272191	do	Bell, J. H.	Telegraph System.
1272221	do	Clausen, H. P.	Telephone Exchange System.
1272279	do	Lundell, A. E.	Circuit Interrupting Device.
1272280	do	do	Telephone System.
1272282	do	McQuarrie, J. L.	Telephone Exchange System.
1272374	July 16, 1918	Buckley, O. E.	Method of Preparing Vacuum Tubes.
1272402	do	Egerton, H. C.	Electromagnetic Switching Device.
1272624	do	Conway, R. D.	Telephone Exchange System.
1272641	do	Egerton, H. C.	Telephone System.
1272673	do	Keckler, C. W.	Service Observing Circuit for Telephone Lines.
1272689	do	MacDougall, H. W.	Telephone Exchange System.
1272692	do	Mather, G. E., and Bailey, B.	Transmitter Support.
1273154	July 23, 1918	Demarest, C. S.	Relay Selecting Circuit for Artificial Lines.
1273158	do	Dickinson, L. E.	Heat Coil Protective Device for Electric Circuits.
1273245	do	Lundell, A. E.	Electromagnetic Switching Device.
1273247	do	Lundquist, F. A.	Automatic Switch.
1273274	do	Reynolds, J. N., and Forsberg, O. F.	Terminal Bank.
1273351	do	Frederick, H. A.	Telephone Receiver.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1273850	July 30, 1918	Goodrum, C. L.	Selector Circuit for Automatic and Semi-Automatic Telephone Systems.
1274654	Aug. 6, 1918	Wright, J. L.	Telephone Exchange System.
1274952	do	Speed, J. B.	Magnet Core.
1275016	do	Goodrum, C. L.	Telephone Exchange System.
1275022	do	Harrison, H. C.	Method of and Apparatus for Manufacturing Telephone Diaphragms.
1275468	Aug. 13, 1918	Pruessman, A.	Condenser and Method of Making the Same.
Re. 15241	Nov. 29, 1921	do	Do.
1275469	Aug. 13, 1918	do	Flexible Conductor.
1276442	Aug. 20, 1918	Taggart, D. M.	Telephone Exchange System.
1276466	do	Wickstrom, C. A.	Spraying Machine.
1276491	do	Clausen, H. P.	Contact Bank.
1276521	do	Goodrum, C. L.	Telephone System.
1276549	do	Lundell, A. E.	Telephone Exchange System.
1276567	do	Price, C. S.	Protective Device.
1276570	do	Roberts, J. G.	Registering and Recording Device.
1276580	do	Scribner, C. E.	Synchronizing System.
1276581	do	do	Do.
1276761	Aug. 27, 1918	Hinrichsen, E. E.	Telephone Exchange System.
1276772	do	Keckler, C. W.	Do.
1277025	do	Anderegg, G. A., and Mougey, W. E.	Telephone and Telegraph Cable.
1277091	do	Lundquist, F. A.	Telephone Exchange System.
1277274	do	Toomey, J. F., and Read, W. V. H.	Artificial Line Selecting System.
1277385	Sept. 3, 1918	Clausen, H. P.	Machine Switching Telephone Exchange System.
1277386	do	do	Telephone Exchange System.
1277418	do	Hinrichsen, E. E.	Telephone System.
1277440	do	Lundell, A. E.	Telephone Exchange System.
1277444	do	MacDougall, H. W.	Do.
1277478	do	Reynolds, J. N.	Telephone Switch.
1277615	do	Lundell, A. E., and Eddy, H. G.	Testing Sender.
1278245	Sept. 10, 1918	Sperry, A. B.	Telephone Exchange System.
1278330	do	Goodrum, C. L.	Do.
1278331	do	do	Do.
1278448	do	Everett, S. H.	Electromagnetic Switching Device or Relay.
1278697	do	Lundell, A. E.	Telephone Exchange System.
1279489	Sept. 24, 1918	Anderson, F. E.	Do.
1279808	do	Wilbur, R. S.	Howler Circuits for Telephone Lines.
1279811	do	Williams, S. B., Jr.	Telephone Exchange System.
1279812	do	do	Do.
1279840	do	Clausen, H. P.	Switchboard Apparatus and Circuits.
1279841	do	do	Telephone Exchange System.
1279842	do	do	Do.
1279854	do	Forsberg, O. F.	Automatic Electromagnetic Switch.
1279875	do	Keckler, C. W.	Telephone Exchange System.
1279882	do	Kuhn, G. W.	Signaling System.
1279893	do	McQuarrie, J. L.	Selector Switch.
1279894	do	Mather, G. E.	Telephone Receiver.
1279905	do	Rainey, P. M.	Synchronizing System for Multiplex Telegraphs.
1279909	do	Reynolds, J. N.	Brake for Sequence Switches.
1280213	Oct. 1, 1918	Hach, C. A.	Method of and Apparatus for Electroplating.
1280249	do	Landry, G. A.	Do.
1280258	do	Lundell, A. E.	Call Indicating System.
1280324	do	Sperry, A. B.	Automatic Telephone Exchange System.
1280423	do	Dixon, A. F.	Synchronizing System.
1280714	Oct. 8, 1918	Goodrum, C. L.	Telephone System.
1280751	do	Johnson, K. S.	Do.
1280752	do	Johnson, L. H.	Telephone Exchange System.
1280969	do	Demarest, C. S.	Through Ringing Amplifier.
1281084	do	Shaw, T., and Koukol, C. J.	Demagnetizing Apparatus.
1281338	Oct. 15, 1918	Gargan, J. O.	Locking Device.
1281348	do	Goodrum, C. L.	Automatic Telephone Exchange System.
1281459	do	Wilbur, R. S.	Telephone Exchange System.
1281611	do	Lundius, E. R.	Telephone System.
1281811	do	Mortimer, L. A.	Testing System.
1283563	Nov. 5, 1918	Roberts, J. G.	Contact Bank.
1283687	do	Darrow, L. H.	Signaling System.
1283831	do	Lunquist, F. A.	Selecting Switch.
1283894	do	Rasmussen, O. E.	Automatic Switch.
1284206	Nov. 12, 1918	Adams, E. W.	Calling Device.
1284392	do	Lundell, A. E.	Telephone System.
1284480	do	Shreeve, H. E.	Vibrator.
1284533	do	Wright, J. L.	Telephone Exchange System.
1284623	do	Egerton, H. C.	Telephonic Recording and Reproduction Apparatus.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1284660	Nov. 12, 1918	Hall, J. A	Adapter for Ignition Systems.
1284672	do	Hendrickson, C. J	Automatic Switch.
1284730	do	Lundell, A. E	Party-line Ringing System.
1284732	do	Magrath, A. C	Electrical Controlling System.
1284742	do	McQuarrie, J. L	Automatic Switch.
1284823	do	Ulrich, H. W	Telephone System.
1284996	Nov. 19, 1918	McBerty, F. R	Semi-Automatic Telephone Exchange System.
1285278	do	McBerty, F. R., and Polinkowsky, L.	Special Service System for Machine Telephone Switching Exchanges.
1285834	Nov. 26, 1918	Stull, J. S	Vise.
1285997	do	Herbert, C. M	Do.
1286351	Dec. 3, 1918	Krum, H. L	Electric Selective System.
1286917	Dec. 10, 1918	Bell, J. H	Telegraph System.
1286959	do	Dixon, A. F	Printing Telegraph System.
1286965	do	Elmen, G. W	Magnet Core.
1286981	do	Ford, W. H. D	Impulse Transmitter.
1286982	do	Forsberg, O. F	Calling Device.
1286996	do	Goodrum, C. L., and Kropp, J. A.	Selecting Switch.
1287009	do	Harrison, W. H	Telephone Exchange System.
1287064	do	McQuarrie, J. L	Telephone System.
1287100	do	Reynolds, J. N	Terminal Strip.
1287101	do	do	Method of Manufacturing Multiple Contact Strips.
1287161	do	Wilson, R. H	Vacuum Tube Voltmeter.
1287715	Dec. 17, 1918	Lundquist, F. A	Automatic Selecting Switch.
1287716	do	do	Automatic Switch.
1287725	do	May, D. T	Protective Device.
1287805	do	White, C	Telephone Exchange System.
1287831	do	Bascom, H. M	System for Compensating for Differences of Potential.
1287886	do	Clausen, H. P., and Goodrum, C. L.	Telephone System.
1287982	do	Hartley, R. V. L	Modulating System.
1288358	do	Wotton, J. A	Impulse Transmitting Mechanism.
1288365	do	Young, C. R	Coil Support.
1288709	Dec. 24, 1918	Shaw, T	Duplex Balancing Circuit.
1288837	do	Clausen, H. P	Telephone Exchange System.
1289418	Dec. 31, 1918	Elmen, G. W	High Frequency Detector.
1289437	do	Garvin, J. S	Signaling System.
1289467	do	Hinrichsen, E. E	Telephone Exchange System.
1289941	do	Shaw, T., and Fondiller, W	Apparatus for Loaded Telephone Line Systems.
1290382	Jan. 7, 1919	Slaughter, N. H	Electrical Condenser.
1290616	do	McQuarrie, J. L	Automatic Switching Apparatus for Telephone Exchange Systems.
1290808	do	Toomey, J. F	Composite Ringing Apparatus.
1291766	Jan. 21, 1919	Clausen, H. P	Telephone Exchange System.
1291825	do	Gargan, J. O	Signal Lantern.
1291831	do	Glunt, O. M	Electromagnet.
1291861	do	Harlow, J. B	Selective Signaling System.
1291894	do	Hovland, H	Registering System.
1291959	do	Lundell, A. E	Finder Starting System.
1291960	do	do	Number Indicating System.
1291978	do	McQuarrie, J. L	Automatic Switch.
1292003	do	Miller, D. D	Electromagnetic Device.
1292048	do	Rainey, P. M	Isochronizing and Synchronizing System.
1292049	do	do	Telegraph System.
1292206	do	Woodruff, J. C	Magnet Core.
1292207	do	Wotton, J. A	Buzzer.
1292208	do	Wray, A	Transmission System.
1292227	do	Atwood, G. F	Conveying Apparatus.
1292257	do	Clark, E. H	Multioffice Telephone Exchange System.
1292659	Jan. 28, 1919	Speed, J. B	Conductor.
1292828	do	Lundell, A. E	Semi-Automatic Telephone System.
1292839	do	McQuarrie, J. L	Telephone Exchange System.
1292892	do	Hosford, W. F	Process of and Machine for Forming Electrical Contacts.
1293060	Feb. 4, 1919	Edwards, G. D	Telephone System.
1293195	do	Quass, R. L	Switch Control System.
1293390	do	Everett, S. H	Telephone Signaling System.
1293441	do	Housekeeper, W. G	Combined Metal and Glass Structure and Method of Forming Same.
1293458	do	Johnson, K. S	Telephone Circuit.
1293494	do	McQuarrie, J. L	Machine Switching Telephone System.
1293545	do	Rasmussen, O. E	Calling Device.
1293630	do	Deakin, G	Telephone Exchange System.
1293825	Feb. 11, 1919	Lundius, E. R	Testing System.
1293940	do	Sager, J. W	Tube Rolling Machine.
1294095	do	Guthe, O. D. M	Impulse Transmitter.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1294111	Feb. 11, 1919	Keckler, C. W	Telephone Exchange System.
1294202	do	Turner, M. C	Telephone Booth.
1294285	do	Lorimer, G. W., and J. H	Automatic Telephone Exchange.
Des. 53000	do	Wotton, J. A	Telephone Receiver Support.
1294466	Feb. 18, 1919	Housekeeper, W. G	Combined Metal and Glass Structure and Method of Making Same.
1294498	do	Lundell, A. E., and Stearn, F. A.	Telephone Exchange System.
1294555	do	Spamer, R. F	Indicating System.
1294557	do	Sperry, A. B	Machine Switching Telephone Exchange System.
1294587	do	Williams, S. B., Jr	Automatic Telephone System.
1294722	do	Smith, R. H	Telephone System.
1295178	Feb. 25, 1919	Lamplough, L. F	Braiding Machine.
1295405	do	Williams, S. B., Jr	Telephone Exchange System.
1295435	do	Clausen, H. P	Telephone System.
1295454	do	Egerton, H. C	Transmission Circuit.
1295502	do	Hitchcock, A. W	Combined Fire Alarm and Watchman's Service Signal System.
1295553	do	Mathes, R. C	Signal Correcting System.
1295709	do	DeVignier, R. M., and Freile, B.	Circuit Controlling Switch.
1295816	do	Toomey, J. F	Testing Apparatus for Four-Wire Repeater Circuits.
1295909	Mar. 4, 1919	Lundius, E. R	Telephone Exchange System.
1295998	do	Merritt, B. F	Telegraph Printer.
1296023	do	Ulrich, H. W	Telephone Exchange System.
1296097	do	Lundell, A. E	Electric Signaling System.
1296154	do	Atchison, I. W., and Steimer, F. M.	Mechanism for Removing Burs.
1296164	do	Corson, F. W	Generator Testing Apparatus.
1296269	do	Crawford, G. C., and Stevenson, G. H.	Generating System.
1296604	Mar. 11, 1919	Adams, A. H	Switch Operating Mechanism.
1296613	do	Bell, J. H	Telegraph System.
1296617	do	Britten, W. G	Do.
1296653	do	Griswold, G. L	Container for Electrical Apparatus.
1296677	do	Lundius, E. R	Telephone Exchange System.
1296679	do	McQuarrie, J. L., and Clausen, H. P.	Telephone System.
1296680	do	McQuarrie, J. L	Telephone Exchange.
1296683	do	Maxfield, J. P	Telephone Transmitter.
1296687	do	Nichols, H. W	Means for Signaling from Captive Balloons.
1296740	do	Bell, J. H	Telegraph System.
1296813	do	Kelsall, G. A	Core Loss Tester.
1296850	do	Rainey, P. M	Speed Changing Device.
1297100	do	Clausen, H. P	Telephone Exchange System.
1297126	do	Elmen, G. W	Magnet Core.
1297127	do	do	Do.
Des. 53093	do	Thompson, G. K	Telephone Receiver Holder.
1297309	Mar. 18, 1919	Arnold, H. D	Manufacture of Vacuum Tube Devices.
1297358	do	Keckler, C. W	Telephone Exchange System.
1297858	do	Johnson, K. S	Electromagnetic Coil.
1297905	do	Pinkler, A. P	Telephone Transmitter.
1297983	Mar. 25, 1919	Anderson, O	Multiple Spindle Turret Machine.
1298217	do	Jenkins, G. M. O	Intercommunicating Set.
1298237	do	McQuarrie, J. L., and Goodrum, C. L.	Telephone System.
1298293	do	Clausen, H. P	Do.
1298321	do	Forsberg, O. F	Terminal Bank.
1298330	do	Goodrum, C. L	Contact Bank.
1298365	do	McQuarrie, J. L	Telephone Exchange System.
1298396	do	Pruessman, A	Condenser.
1298718	Apr. 1, 1919	Hosford, W. F	Machine for Metal Working.
1298771	do	Nash, G. H., and Grace, B. B	Telephone Hand Set.
1298868	do	Bell, J. H	Telegraph System.
1299356	do	De Forest, L	Apparatus for Use in Radio Communication.
1299558	Apr. 8, 1919	Deakin, G., and Polinkowsky, L.	Call Distributing System.
1299606	do	Polinkowsky, L	Do.
1299608	do	Potts, L. M	Selective Signaling Apparatus.
1300326	Apr. 15, 1919	Bell, J. H	Telegraph System.
1301412	Apr. 22, 1919	Elmen, G. W	Electromagnetic Device.
1301525	do	Van der Bijl, H. J	Radio Transmission.
1301644	do	Buckley, O. E	Directive Sending System.
1301827	Apr. 29, 1919	Flye, W. L	Test Connector.
1302767	May 6, 1919	Clausen, H. P., and Goodrum, C. L.	Telephone Exchange System.
1302808	do	Keckler, C. W	Do.
1302809	do	do	Do.
1302946	do	Malcolmson, W. J., and Ward, H. L.	Roasting Apparatus.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1303001	May 6, 1919	Wilbur, R. S.	Telephone Exchange System.
1303036	do	Cummings, G. C.	Telegraph System.
1303056	do	Hague, A. E.	Machine Switching Telephone System.
1303070	do	Kochendorfer, F. S., and Blount, H.	Machine for Coating Wire.
1303084	do	Lundquist, F. A.	Cross Bar Line Switch.
1303183	do	Egerton, H. C.	Phonograph Transmitter.
1303184	do	Ehret, C. D.	Method of and Apparatus for Controlling Electrical Energy.
1303452	May 13, 1919	Bellamy, H. T., and Smith, J. C.	Process and Apparatus for Drawing Glass.
1303496	do	Rainey, P. M.	Selecting System.
1303511	do	Shackelton, W. J.	Insulation for Electrical Apparatus.
1303528	do	Wright, J. L.	Telephone Exchange System.
1303579	do	Nicolson, A. M.	System for Successive Amplification of Energies.
1303960	May 20, 1919	Quass, R. L.	Connecting Circuit for Telephone Systems.
1304335	do	Lundell, A. E.	Automatic Telephone Exchange System.
1304641	May 27, 1919	Williams, S. B., Jr.	Call Distributing System.
1305225	do	Krum, H. L., and C. L.	Printing Telegraph.
1305981	June 3, 1919	Hinrichsen, E. E.	Telephone System.
1306054	June 10, 1919	Field, J. C.	Impulse Transmitter.
1306063	do	Johnson, L. H.	Telephone System.
1306072	do	Merritt, B. F.	Speed Control Governor.
1306074	do	Moran, J. F.	Signaling System.
1306124	do	Reynolds, J. N.	Line Switch.
Re. 15644	do	do	Do.
1306299	do	Bell, J. H.	Telegraph System.
1307057	June 17, 1919	Lundell, A. E.	Telephone Exchange System.
1307489	June 24, 1919	Dyson, A. H.	Do.
1307507	do	May, D. T.	High Potential Condenser.
1307510	do	Nicolson, A. M.	Thermionic Translating Device.
1307511	do	do	Electric Wave Repeating Apparatus.
1307517	do	Rainey, P. M.	Rectifier.
1307536	do	Clausen, H. P., and Goodrum, C. L.	Machine Switching Telephone System.
1307586	do	Kochendorfer, F. S.	Hydraulic Press.
1307688	do	Lundquist, F. A.	Telephone System.
1307753	do	Rhoads, C. S., Jr.	Signaling System.
1307999	do	Buckley, O. E.	Method of and Apparatus for Exhausting to Low Pressure.
1308391	July 1, 1919	Bell, J. H.	Distributing System.
1308539	do	Clausen, H. P.	Number Indicating Means.
1308554	do	Quass, R. L.	Call Distributing System.
1308664	do	Demarest, C. S.	Relay Selecting Circuit for Artificial Lines
1308725	do	Toomey, J. F., and Demarest, C. S.	Selecting Circuit for Artificial Lines.
1308726	do	do	Means for Controlling Artificial Lines.
1308841	July 8, 1919	Clausen, H. P.	Automatic Telephone System.
1308867	do	Reynolds, J. N.	Telephone Exchange System.
1309176	do	Bell, J. H.	Selecting System.
1309231	do	Adams, E. W.	Switching Apparatus.
1309233	do	Akin, A.	Protective Device for Electrical Apparatus.
1309248	do	Goodrum, C. L.	Automatic Telephone System.
1309253	do	Lowe, C. W.	Connector.
1309304	do	Reynolds, J. N., and Hearn, J. F.	Automatic Switch.
1309400	do	Espenschied, L.	Radio Frequency Interference Balance.
1309459	do	Carson, J. R.	Wireless Signaling System.
1309523	do	Hosford, W. F.	Process of Forming Electrical Contacts.
1309538	do	Mills, J., and Carson, J. R.	Wireless System.
1309745	July 15, 1919	Potts, L. M.	Machine Telegraph.
1309753	do	De Forest, L.	Means for Transforming Mechanical Vibrations into Electrical Vibrations.
Re. 15540	Feb. 13, 1923	do	Do.
1310226	July 15, 1919	Williams, S. B., Jr.	Call Distributing System.
1310395	July 22, 1919	Bell, J. H.	Telegraph System.
1310719	do	Vernam, G. S.	Secret Signaling System.
1310730	do	Blauvelt, W. G.	Semi-Mechanical Telephone System.
1311264	July 29, 1919	De Forest, L.	Oscillation Generator.
1311283	do	Mathes, R. C.	Amplifying and Correcting System.
1311868	do	Gherardi, B.	Method and Means for Avoiding Interference.
1311915	Aug. 5, 1919	Rainey, P. M.	Distributing Apparatus.
1312126	do	Lundell, A. E.	Telephone Exchange System.
1312433	do	Carson, J. R.	Translating Circuits.
1312572	Aug. 12, 1919	Parker, R. D.	Secret Signaling System.
1312574	do	Pierce, R. E.	Do.
1312768	do	Taggart, D. M.	Telephone Exchange System.
1312773	do	Wilbur, R. S.	Do.
1312778	do	Clausen, H. P.	Do.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1312791	Aug. 12, 1919	Lundell, A. E., and Clark, E. H.	Signaling System.
1312795	do	MacDougall, H. W	Telephone Exchange System.
1312808	do	Quass, R. L	Signaling System for Telephone Exchanges.
1312809	do	Scribner, C. E., and McQuarrie, J. L.	Signaling System.
1312884	do	Williams, S. B., Jr	Automatic Switch Control Circuit.
1313406	Aug. 19, 1919	Mathes, R. C	Vacuum Tube Repeater.
1313413	do	Osborne, H. S	Composite Ringing Apparatus.
1313483	do	Heising, R. A	High Frequency Carrier Telephony.
1314214	Aug. 26, 1919	Reynolds, J. N., and Hearn, J. F.	Telephone Switching Apparatus.
1314250	do	De Forest, L	Method of and Means for Reproducing and Amplifying Weak Pulsating Currents.
1314251	do	do	Radio Telephony.
1314252	do	do	Oscillation Generator.
1314253	do	do	Apparatus for Use in Wire or Radio Communications.
1314695	Sept. 2, 1919	Osborne, H. S	Composite Signaling Circuits.
1314827	do	do	Do.
1314828	do	do	Do.
1315539	Sept. 9, 1919	Carson, J. R	Distortion Correcting Circuit.
1317074	Sept. 23, 1919	Clausen, H. P	Telephone System.
1317155	Sept. 30, 1919	Demarest, C. S	Ringing Arrangement for Four-Wire Circuits.
1317400	do	Stoller, H. M	Modulating System.
1318088	Oct. 7, 1919	Klein, C. H	Combination Tool.
1318459	Oct. 14, 1919	Pfannenstiehl, H	Telegraph System.
1318855	do	Ehret, C. D	Method of and Apparatus for Controlling Electrical Energy.
1318937	do	Toomey, J. F., and Demarest, C. S.	Transmission Controlling Means for Four-Wire Repeaters.
1318941	do	Williams, S. B., Jr	Telephone Exchange System.
1318971	do	Cole, I. E	Electrical Protective Apparatus.
1319031	do	Aldendorff, F	Electromechanical Switching System for Interconnecting Telephone Lines.
1319651	Oct. 21, 1919	Kirkwood, M	Electrical Measuring Apparatus.
1319714	Oct. 28, 1919	Laurenz, O	Milling Cutter.
1319719	do	May, D. T	Protective Device.
1319720	do	do	Do.
1319725	do	Reynolds, J. N., and Hearn, J. F.	Automatic Telephone Switch.
1319740	do	Wickstrom, C. A	Automatic Screw Assembling Machine.
1319999	do	Goodrum, C. L	Telephone Exchange System.
1320366	do	Houskeeper, W. G	Optiphone.
1320489	Nov. 4, 1919	Osborne, H. S	Method of Constructing Telephone Circuits.
1320908	do	Parker, R. D	Ciphering and Deciphering Mechanism.
1320980	do	Bowman, H. N	Transformer.
1321723	Nov. 11, 1919	Demarest, C. S	Through Ringing Repeater Circuits.
1321795	do	Aldendorff, F	Interconnecting Lines by Electromechanically Controlled Switches.
1322010	Nov. 18, 1919	Guthe, O. D. M	Telegraph System.
1322170	do	Hill, M. F	Telephone Exchange System.
1322482	do	Demarest, C. S	Amplifier for Ringing Currents.
1322557	Nov. 25, 1919	Ford, W. H. D	Message Register.
1322590	do	Lewis, H. C	Braiding Machine.
1322634	do	Shaw, T	Method and Means for Correcting Irregularities in Loaded Lines.
1322759	do	Carpenter, W. W	Registering and Controlling Equipment.
1323318	Dec. 2, 1919	Reynolds, J. N	Telephone Switching Apparatus.
1323430	do	Wilbur, R. S., and Ulrich, H. W.	Telephone System.
1324130	Dec. 9, 1919	Mortimer, L. A., and Cummings, G. C.	Telegraph System.
1324334	do	Boving, H	Electrical Protective Device.
1324344	do	Field, J. C	Signaling System.
1324355	do	Keckler, C. W	Telephone Exchange System.
1324356	do	Kropp, J. A	Calling Device.
1324357	do	Larlee, H. A	Telephone Transmitter.
1324364	do	Wilbur, R. S	Telephone Exchange System.
1324365	do	Williams, S. B., Jr., and Quass, R. L.	Telephone System.
1324401	do	Magrath, A. C	Electric Controlling Switch.
1324496	do	Cummings, G. C	Telegraph System.
1324792	Dec. 16, 1919	Booth, W. E	Apparatus Unit.
1324796	do	Carroll, L. W	Telephone Exchange System.
1324798	do	Conway, R. D	Signaling System.
1324818	do	Hazard, A. B	Apparatus for Measuring Electrical Resistance.
1324838	do	McMurry, F. R	Telegraph System.
1324847	do	Rasmussen, O. E	Automatic Switch.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1324959	Dec. 16, 1919	Finley, C. A.	Vibration Detector.
1325184	do	Young, F. V.	Telephone Exchange System.
1325192	do	Field, J. C.	Telephone System.
1325347	do	Booth, W. T.	Do.
1325574	Dec. 23, 1919	Nichols, H. W.	Secret Signaling System.
1325865	do	Shreeve, H. E.	Vacuum Tube Socket.
1325871	do	Keckler, C. W.	Telephone System.
1325879	do	Nichols, H. W.	Vacuum Tube Circuit.
1325889	do	Curtis, A. M.	Protector for Electric Circuits.
1326199	Dec. 30, 1919	Johnson, E. D.	Telephone Repeater Circuits.
1326456	do	Krum, C. L., and H. L.	Telegraph Transmitter.
1326475	do	Brough, W. R., and Dodge, W. L.	Telephone Exchange System.
1326546	do	Taggart, D. M.	Do.
1326719	do	Freund, O. A.	System of Generating Electrical Currents.
1327185	Jan. 6, 1920	Whiting, D. F.	Telephone System.
1327805	Jan. 13, 1920	Bullard, A. M.	Automatic Telephone Exchange.
1328986	Jan. 27, 1920	Dixon, A. F.	Selecting System.
1328996	do	Housekeeper, W. G.	Transmitter.
1329001	do	Lundius, E. R.	Telephone System.
1329004	do	MacDougall, H. W.	Telephone Exchange System.
1329031	do	Waldron, F. D.	Transmitter Support.
1329283	do	Arnold, H. D.	Thermionic Amplifier.
1329758	Feb. 3, 1920	De Forest, L.	Oscillating Current Generator.
1329842	do	Martin, W. H.	Means for Neutralizing Interference.
1329949	do	Blackwell, O. B., Shaw, T., and Koukol, C. J.	Electrical Measuring Apparatus.
1330200	Feb. 10, 1920	Lundell, A. E.	Telephone Exchange System.
1330201	do	Lundius, E. R.	Do.
1330202	do	McAuliffe, J. C.	Do.
1330214	do	Nordenswan, R., and Winckel, R. C.	Telephone Receiver.
1330220	do	Smythe, E. H.	Telephone Call Distributing System.
1330221	do	Taggart, D. M.	Telephone Exchange System.
1330226	do	Wright, J. L.	Do.
1330234	do	Booth, W. T.	Telephone Set.
1330252	do	Fowler, C. B.	Telephone Exchange System.
1330258	do	Gilson, A. F. F.	Telephone Switchboard.
1330391	do	Pinkler, A. P.	Telephone Transmitter.
1330417	do	Williams, S. B., Jr., and Quass, R. L.	Telephone Exchange System.
1330464	do	Goodrum, C. L.	Finder Starting System.
1330467	do	Harrison, W. H.	Telephone Exchange System.
1330471	do	Kendall, B. W.	High Frequency Signaling.
1330472	do	Kerr, M. B.	Printing Telegraph Receiver.
1330474	do	Kiesel, W. C.	Telephone Exchange System.
1330483	do	Lundell, A. E., and Stearn, F. A.	Do.
1330491	do	Nordenswan, R.	Vibration Responsive Device.
1330507	do	Willenbruch, W.	Electromagnetic Switching Device.
1332222	Mar. 2, 1920	Lundell, A. E., and Thompson, G.	Automatic Telephone System.
1332927	Mar. 9, 1920	Smith, T. C.	Reeling Device.
1332961	do	Tanner, DeW. C.	Signaling System.
1332976	do	Dowd, A. D.	Do.
1332996	do	Perry, G. E.	Pneumatic Brush or Sprayer.
1333000	do	Spencer, C. G.	Synchronizing System.
1333003	do	Titus, W. A.	Outlet Box.
1333013	do	De Vignier, R. M.	Button.
1333014	do	Field, J. C.	Signaling System.
1333015	do	Freile, B.	Button.
1333026	do	Lundell, A. E.	Telephone System.
1333027	do	do	Telephone Switch Controlling System.
1333111	do	Hoyt, R. S.	Impedance Equalizer for Use with Transformers.
1333596	Mar. 16, 1920	Andrick, W. P.	Telephone System.
1333744	do	Wente, E. C.	Telephone Transmitter.
1333758	do	Keckler, C. W.	Telephone System.
1334077	do	Bullard, A. M.	Semi-Mechanical Telephone System.
1334080	do	Clausen, H. P.	Impulse Sending Device.
1334093	do	Harris, J. W.	Telephone Transmitter Mouthpiece.
1334105	do	Lundell, A. E.	Switch Controlling System.
1334122	do	Swoboda, A. R.	Telegraph System.
1334125	do	Williams, S. B., Jr.	Telephone Exchange System.
1334276	Mar. 23, 1920	Adams, A. H.	Contact Terminal Bank.
1334294	do	Dyson, A. H.	Telephone Exchange System.
1334300	do	Goodrum, C. L.	Do.
1334307	do	Lundell, A. E.	Telephone System.
1334308	do	Lundell, A. E., and Sperry, A. B.	Telephone Exchange System.
1334311	do	Matthies, W. H.	Telephone System.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1334321	Mar. 23, 1920	Shackelton, W. J.	Loading Coil and Method of Constructing Same.
1334447	do	Goodrum, C. L.	Telephone Exchange System.
1334674	do	Pannitti, A., Jr.	Ratchet Screw Driver.
1334735	do	Clark, E. H.	Controlling Device.
1334750	do	Goodrum, C. L., and Kropp, J. A.	Selecting Switch.
1334766	do	Lundell, A. E.	Telephone Exchange System.
1334767	do	Lundell, A. E., and Hancock, E. W.	Sender Testing System.
1335739	Apr. 6, 1920	Keckler, C. W.	Telephone System.
1336414	Apr. 13, 1920	Bell, J. H.	Telegraphy.
1336543	do	Stull, J. S.	Testing Machine.
1336558	do	Gherardi, B.	Anti-Abrasion Cable Support.
1337197	Apr. 20, 1920	Clausen, H. P.	Telephone Exchange System.
1337198	do	do	Calling Device.
1337276	do	Scheuch, W. A.	Electric Resistance Alloy.
1337285	do	Sperry, A. B.	Automatic Selecting Switch.
1337297	do	Ulrich, H. W.	Telephone Exchange System.
1337301	do	Wilbur, R. S.	Do.
1337304	do	Atwood, G. F.	Speech Reproducing Device.
1337309	do	Goodrum, C. L.	Telephone System.
1337310	do	do	Do.
1337314	do	Hall, J. A.	Calling Device.
1337324	do	Powell, W. T.	Automatic Telephone System.
1337325	do	Reynolds, J. N.	Telephone Exchange Apparatus.
1337471	do	Harrison, W. H.	Telephone Exchange System.
1337482	do	Reeves, F. N.	Electric Signaling System.
1337671	do	Sperry, A. B.	Telephone Exchange System.
1337676	do	Wilbur, R. S., and Harrison, W. H.	Telephone System.
1337680	do	Williams, S. B., Jr., and Albert, W. P.	Time Measuring System.
1337681	do	Williams, S. B., Jr.	Telephone Exchange System.
1337692	do	Crawford, W. G.	Telephone Set.
1337694	do	Egerton, H. C.	Telephone Amplifier.
1337699	do	Goodrum, C. L.	Telephone System.
1337710	do	Lundell, A. E.	Machine Switching Telephone Exchange System.
1337711	do	do	Telephone Exchange System.
1337712	do	do	Telephone System.
1337713	do	McQuarrie, J. L.	Do.
1337714	do	do	Automatic Telephone Exchange System.
1337715	do	do	Telephone System.
1337718	do	Mason, S. R.	Cleansing of Ferrous and Non-Ferrous Metals.
1337732	do	Stoller, H. M.	Magnetic Gearing.
1337736	do	Van Amstel, T.	Telephone Exchange System.
1337737	do	Van der Bijl, H. J.	Producing Currents of Desired Wave Form.
1337740	do	Williams, S. B., Jr., and Baldwin, C. F.	Telephone Exchange System.
1337741	do	Wotton, J. A.	Telephone Receiver.
1337748	do	Bell, J. H.	Telegraph System.
1337752	do	Carroll, L. W.	Do.
1337753	do	Clausen, H. P.	Supervisory System.
1337754	do	do	Telephone Exchange System.
1337755	do	do	Do.
1337761	do	Dodge, W. L.	Do.
1337782	do	Lundell, A. E.	Do.
1337783	do	McMurry, F. R.	Signaling Mechanism.
1337784	do	McQuarrie, J. L.	Automatic Switch.
1337794	do	Reynolds, J. N., and Hearn, J. F.	Do.
1338086	Apr. 27, 1920	Kendall, J. B.	Reversing Mechanism.
1339001	May 4, 1920	Reynolds, J. N., and Hearn, J. F.	Cross Bar Switch.
1339010	do	Wright, J. L.	Telephone Exchange System.
1339175	do	Dunham, B. G.	Two-Wire Multiple Automatic Telephone System.
1339202	do	Kochendorfer, F. S.	Grinding, Polishing, and Buffing Machine Equipment.
1339312	do	Albright, H. F.	Grinding, Polishing, and Buffing Machine and the Like.
1339575	May 11, 1920	Polinkowsky, L.	Machine Switching Telephone Exchange System.
1339778	do	Miller, D. D.	Electromagnetic Device.
1339793	do	Smith V. L.	Telephone Transformer.
1339814	do	Egerton, H. C.	Telephone Set.
1339824	do	Heising, R. A.	Telegraph System.
1340260	May 18, 1920	Thompson, G. K.	Registering Circuits for Coin Boxes.
1340933	May 25, 1920	Clausen, H. P.	Electrical Testing System.
1340934	do	do	Automatic Telephone System.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1340935	May 25, 1920	Clausen, H. P., and Goodrum, C. L.	Telephone Exchange System.
1340936	do	Conway, R. D	Testing System.
1340940	do	Dixon, A. F., and Reeves, F. N.	Telephone Exchange System.
1340942	do	Edwards, G. D	Signaling System.
1340955	do	Hermann, R. R	Telephone Set.
1340979	do	Polinkowsky, L	Call Distributing System.
1340982	do	Reynolds, J. N., and Stearn, F. A.	Telephone System.
1340989	do	Smith, T. C	Aerial Cable Guide.
1340997	do	Williams, S. B., Jr	Machine Switching Telephone System.
1341006	do	Babcock, C. D	Ionized Chamber Device.
1341007	do	Booth, W. T	Telephone Set.
1341211	do	Heising, R. A	Modulation of High Frequency Currents.
1341447	do	Timm, W. A	Liquid Distributing System.
1341463	do	Hazard, A. B	Testing System, Process and Machine.
1341473	do	Lundell, A. E	Machine Switching Telephone System.
1341998	June 1, 1920	Rainey, P. M	Telegraph System.
1342823	June 8, 1920	Lundell, A. E., and Clark, E. H.	Telephone Exchange System.
1342902	do	Goodrum, C. L	Telephone System.
1343196	June 15, 1920	Conway, R. D	Signaling System.
1343256	do	Field, J. C	Selectively Operated Circuit Controlling Device.
1343306	do	Carson, J. R	Duplex Translating Circuits.
1343307	do	do	Do.
1343308	do	do	Do.
1343562	do	Heising, R. A	Control Means for Vacuum Tube Circuits.
1343880	do	Beck, W. O	Casing and Support for Electrical Apparatus.
1343903	June 22, 1920	Clausen, H. P., and Goodrum, C. L.	Telpehone System.
1345016	June 29, 1920	Lundell, A. E., and Stearn, F. A.	Do.
1345057	do	Bassett, G. O	Insulating and Sealing Composition.
1345176	do	Harlow, J. B	Railway Signaling System.
1345348	July 6, 1920	Clausen, H. P	Telephone Exchange System.
1345349	do	do	Do.
1345717	do	Thomas, G. B	Acoustic Device.
1345743	do	Blount, H	Means for Grinding and Slotting Carbon Disks and the Like.
1345798	do	Mortimer, L. A	Electrical Relay.
1345879	do	Polinkowsky, L	Machine Switching Telephone Exchange System.
1346314	July 13, 1920	Hazard, A. B	Conveying Mechanism.
1346825	July 20, 1920	Hosford, W. F	Wire Tinning Machine.
1346874	do	Bellamy, H. T., and Sweely, B. T.	Resistance Material.
1347049	do	Martin, W. H	Correcting Circuits for High Distortion Lines.
1347900	July 27, 1920	Englund, C. R	Resistance Unit.
1348157	Aug. 3, 1920	De Forest, L	Apparatus for Amplifying Pulsating Electric Currents.
1348213	do	do	Radio Telephone System.
1348835	do	Alldendorff, F	Switching Apparatus.
1348909	Aug. 10, 1920	Toomey, J. F	Telephone Toll Circuits.
1349252	do	Arnold, H. D	Method of and Means for Utilizing Thermionic Currents.
1349729	Aug. 17, 1920	Nelson, E. L	Modulating and Transmitting System.
1350752	Aug. 24, 1920	Van der Bijl, H. J	High Frequency Signaling.
1351186	Aug. 31, 1920	Nelson, C. A	Process of and Machine for Removing Combustible Coverings.
1351674	do	Mitchiner, J. I	Relay Armature.
1351776	Sept. 7, 1920	Logwood, C. V	Oscillation Generator System.
1351845	do	Fish, L. B	Anchoring Device.
1351863	do	Mils, J	Telephone Repeater.
1351989	do	Bell, J. H	Telegraph System.
1352081	do	Moran, J. F	Signaling System.
1352116	do	Cummings, G. C	Telegraphy.
1352459	Sept. 14, 1920	Kochendorfer, F. S., and Balduf, B. E.	Annealing Furnace.
1352549	do	Sinclair, C. G., Jr	Cable Hanger.
1352568	do	White C	Telephone System.
1352597	do	Harrison, H. C	Receiver.
1352660	do	Dyson, A. H	Telephone Exchange System.
1352786	do	Campbell, G. A	Four-Wire Transmission System.
1352828	do	Mills, J	Four-Wire Circuit.
1352939	do	Booth, W. T	Telephone Transmitter.
1352970	do	Keckler, C. W	Telephone Exchange System.
1353031	do	Demarest, C. S	Vacuum Bulb for Signaling Apparatus.
1353145	Sept. 21, 1920	Clement, L. M	Device for Varying Electrical Coupling.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1353464	Sept. 21, 1920	Eaves, A. J	Telegraph Repeater System.
1353517	do	Clausen, H. P	Impulse Controlling System.
1353601	do	McQuarrie, J. L	Telephone System.
1353612	do	Reeves, F. N	Telephone Exchange System.
1353637	do	Crisson, G	Repeater Circuit.
1353698	do	Affel, H. A	Combined Carrier and Radio System.
1353735	do	Espenschied, L	Antenna Structure.
1353872	Sept. 28, 1920	Weaver, W. C	Telephone Exchange System.
1353910	do	Johnson, L. H	Telephone System.
1353976	do	Stoekle, E. R	Vacuum Tube Device.
1354051	do	Lundell, A. E	Call Registering System.
1354229	do	Thompson, G. K	Telephone Transmitter.
1354814	Oct. 5, 1920	Field, J. C	Impulse Transmitting Device.
1354908	do	Jenkins, G. M. O	Portable Telephone Set.
1354932	do	Wilson, W	Secret Signaling System.
1354939	do	Arnold, H. D	Vacuum Tube Device.
1355147	Oct. 12, 1920	Jacobs, O. B	Network Selecting Device.
1355594	do	Dunham, B. G	Telephone Exchange System.
1355616	do	Mohn, F	Feeding Head.
1355634	do	Williams, S. B., Jr., and Dunham, B. G.	Telephone Exchange System.
1355635	do	Williams, S. B., Jr	Do.
1355897	Oct. 19, 1920	Demarest, C. S	Testing Circuits for Repeaters Equipped with Automatic Network Selectors.
1355898	do	do	Testing and Monitoring Equipment for Repeater Circuits.
1355926	do	Taggart, D. M	Telephone Exchange System.
1355927	do	do	Do.
1355957	do	Gardanier, P. M	Telephone Transmission System.
1355971	do	Heydt, G. H	Substation Sender.
1355983	do	Lattig, J. W., and Goodrum, C. L.	Automatic Telephone Exchange System.
1356164	do	Lundell, A. E	Telephone Exchange System.
1356176	do	Stearn, F. A	Listening Key.
1356181	do	Wilbur, R. S	Telephone Exchange System.
1356256	do	Britten, W. G	Telephone System.
1356546	Oct. 26, 1920	Morehouse, L. F	Ciphering System.
1356557	do	Potts, L. M	Roller Clutch.
1356592	do	Bell, J. H	Telegraph System.
1356607	do	Dixon, A. F	Counting Apparatus.
1356617	do	Goddard, F. M	Electrical Resistance Element.
1356639	do	Lundell, A. E	Telephone Exchange System.
1356643	do	McQuarrie, J. L	Telephone System.
1356650	do	Mohn, F	Clutch Mechanism.
1356686	do	Arnold, H. D	Means and Method for Secret Signaling.
1356687	do	do	Method and Apparatus for Measuring Gas Pressures.
1356701	do	Eaves, A. J	Secret Telegraphic System.
1356704	do	Fowler, C. B	Telephone Exchange System.
1356763	do	Hartley, R. V. L	Oscillation Generator.
1356834	do	Smith, W. F	Twisting Machine.
1357216	Nov. 2, 1920	Boving, H	Leading-In Wire.
1357264	do	Van Dyke, K. S	Magnetic Modulator.
1357296	do	Martin, W. H	Substation Circuits.
1357498	do	Housekeeper, W. G	Leading-In Wire.
1357657	do	Scriven, E. O	Method of and Means for Generating Low Frequency Electrical Oscillations.
1357979	Nov. 9, 1920	Harper, A. U	Transmission Equalization Arrangement.
1358053	do	Bascom, H. M	Telephone System for Auditoriums.
1358758	Nov. 16, 1920	Kuhn, G. W	Telephone Trunk Circuits.
1358777	do	Osborne, H. S	Signaling Circuits for Electric Railways.
1359019	do	Bell, J. H	Telegraph System.
1359482	Nov. 23, 1920	Blauvelt, W. G	Semi-Mechanical Telephone System.
1359516	do	Loynes, O. H	Holding Circuits for Toll Switching Trunks.
1359565	do	Bell, J. H	Telegraph System.
1359594	do	Harris, J. W	Process for Joining Materials.
1359952	do	Bell, J. H	Telegraph System.
1360231	do	Krum, C. L. and H. L	Printing Telegraph.
1360288	Nov. 30, 1920	Griffin, J. T	Welding Mechanism.
1360331	do	Toomey, J. F	Testing and Adjusting Apparatus for Cord Circuits.
1360332	do	do	Testing Circuit.
1360701	do	Wotton, J. A	Signaling Device.
1360712	do	Bell, J. H	Telegraph System.
1360713	do	do	Do.
1360722	do	Clausen, H. P	Telephone System.
1360738	do	Hall, J. A	Do.
1360740	do	Hartley, R. V. L	Reduction of Distortion of Signaling Currents.
1360757	do	Kelsall, G. A	Loaded Telephone Circuits.
1360948	do	Hendry, W. F	Welding Machine.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1361024	Dec. 7, 1920	Davidson, J., Jr	Signaling Circuits for Toll Lines.
1361026	do	Demarest, C. S., and Shoffstall, H. F.	Testing Apparatus.
1361486	do	Osborne, H. S., and Parker, R. D.	Composite Signaling System.
1361487	do	Osborne, H. S	Plural Demodulation Circuits.
1361488	do	do	Plural Modulation System.
1361510	do	Wilbur, R. S	Telephone Transmission System.
1361522	do	Espenschied, L	Plural Modulation System.
1361813	Dec. 14, 1920	Booth, W. E	Radio Cabinet.
1361928	do	Toomey, J. F	Testing and Adjusting Apparatus for Cord Circuits.
1361929	do	do	Monitoring Circuits for Telephone Repeaters.
1361960	do	Goodrum, C. L	Telephone System.
1362020	do	Lundell, A. E., and Clark, E. H.	Do.
1362096	do	Goodrum, C. L	Do.
1362126	do	Matthies, W. H	Do.
1362138	do	Pratt, E. J	Induction Coil.
1362337	do	May, D. T	Protective Device.
1362587	Dec. 21, 1920	Adams, E. W	Printing Telegraph Receiver.
1362592	do	Bell, J. H	Telegraph System.
1362596	do	Blauvelt, W. G	Semi-Mechanical Telephone System.
1362597	do	Booth, W. T	Transmitter Support.
1362605	do	Dixon, A. F	Selecting System.
1362607	do	Dowd, A. D	Telegraph System.
1362612	do	Espenschied, L	Wireless Receiving System.
1362613	do	do	Means for Neutralizing Interfering Disturbances.
1362639	do	Rainey, P. M	Printing Mechanism.
1362643	do	Smith, W. F	Winding Machine.
1362648	do	Swoboda, A. R	Telegraph System.
1363219	Dec. 28, 1920	Bascom, H. M	Trunking System.
1363220	do	do	Signaling Device.
1363268	do	Powell, W. T	Telephone System.
1363334	do	Lundell, A. E	Do.
1363933	do	Trimble, R. F	Assembly Tool.
1364013	do	Wilbur, R. S., and Lovelee, R. F.	Telephone Transmission System.
1364080	Jan. 4, 1921	Davisson, C. J	Ballasting Device.
1364086	do	Dowd, A. D	Telegraph System.
1364106	do	Goodrum, C. L	Automatic Telephone System.
1364158	do	Toomey, J. F	Method of and Apparatus for Testing Repeater Circuits.
1364159	do	do	Through Ringing Repeater Circuits.
1364162	do	Ulrich, H. W	Telephone Exchange System.
1364170	do	Adams, E. W	Indicator for Telephone Exchange Systems.
1364643	do	Powell, W. T	Telephone Exchange System.
1364685	do	Beck, W. O	Electromagnetic Device.
1364725	do	Correia, J. N	Telegraph System.
1364860	Jan. 11, 1921	Betts, W. L	Vibration-Proof Vacuum Tube Mounting.
1364874	do	Ford, W. H. D	Electromagnetic Device.
1364909	do	Wilbur, R. S., and Spencer, C. G.	Telephone System.
1364964	do	Toomey, J. F	Means for Controlling Repeaters.
1364965	do	do	Telephone Call Transfer System.
1364969	do	Wilbur, R. S	Signaling System.
1365157	do	De Forest, L	Apparatus for Use in Telegraphy or Telephony.
1365231	do	Dixon, A. F	Printing Telegraph System.
1365269	do	Polinkowsky, L	Machine Switching Telephone Exchange System.
1365270	do	do	Telephone Exchange System.
1365413	do	Kochendorfer, F. S., and Blount, H.	Reeling Machine.
1365414	do	Kochendorfer, F. S	Impregnating Machine.
1365425	do	Shewhart, W. A	Sound Proof Shield.
1365470	do	Egerton, H. C	Wave Distribution.
1365710	Jan. 18, 1921	McIlwain, H. A., Walton, C. J., and Wright, J. W.	Collapsible Wire Reel.
1365734	do	Shackleton, S. P	Electron Tube Testing Circuits.
1365898	do	Egerton, H. C	Telephone Apparatus.
1366411	Jan. 25, 1921	Nicolson, A. M	Thermionic Translating Device.
1366414	do	Osborne, H. S., and Martin, W. H.	Means for and Method of Measuring Weak Currents.
1366416	do	Pfannenstiehl, H	Signaling Systems.
1366423	do	Shanck, R. B	Composite Ringer.
1366617	do	Wier, H. B., and Capen, W. H.	Telegraphone.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1366650	Jan. 25, 1921	Hamilton, B. P.	Signaling System.
1366812	do	Krum, C. L, and H. L.	Selective or Printing Telegraph.
1367113	Feb. 1, 1921	Atwood, G. F.	Signaling System.
1367147	do	Keckler, C. W.	Do.
1367224	do	Arnold, H. D.	Radio Receiving System.
1367305	do	Cummings, G. C.	Telegraphy.
1367571	Feb. 8, 1921	Thompson, G. K.	Transmission Equalization Arrangement.
1367590	do	Demarest, C. S.	Transmission Circuits.
1367705	do	Keckler, C. W.	Automatic Telephone System.
1367717	do	Rainey, P. M.	Printing Telegraph System.
1367727	do	Wotton, J. A.	Electromagnetic Device.
1367729	do	Bell, J. H.	Telegraph System.
1367733	do	Cummings, G. C.	Do.
1367734	do	Curtis, A. M.	Construction of Reactance Coils.
1367735	do	Dixon, A. F.	Printing Telegraph System.
1367774	do	Field, J. C.	Signaling System.
1367833	do	Reynolds, J. N.	Terminal Bank for Selectors.
1367967	do	Heydt, G. H.	Telephone Exchange System.
1367999	do	Thronsen, S.	Semi-Automatic Winding Machine.
1368020	do	Campbell, M. H.	Tinning Mechanism.
1368241	Feb. 15, 1921	Crawford, W. G.	Telephone Set.
1368261	do	Jenkins, G. M. O.	Transmitter Mounting.
1368288	do	Pierce, R. E.	Electromagnetic Device.
1368296	do	Sked, N. S.	Anchoring Device.
1368307	do	Waldron, F. D.	Earpiece.
1368916	do	Field, J. C.	Vibrator.
1369003	Feb. 22, 1921	Blauvelt, W. G.	Semi-Mechanical Switchboard.
1369019	do	Field, J. C.	Signaling System.
1369022	do	Goodrum, C. L.	Calling Device.
1369288	do	Lundquist, F. A.	Automatic Telephone Exchange.
1369403	do	Demarest, C. S., and Shoffstall, H. F.	Testing Apparatus.
1369764	do	Van der Bijl, H. J.	Photoelectric Translating Device.
1369805	Mar. 1, 1921	Hamilton, B. P.	Secret Communication System.
1369828	do	Matthews, E. M.	Cable Hanger.
1370558	Mar. 8, 1921	Rhodes, W. A.	Machine Ringing System.
1370562	do	Shackleton, S. P.	Trunk Circuits.
1370669	do	Potts, L. M.	Machine Telegraph.
1371228	Mar. 15, 1921	Curtis, A. M.	Reduction of Static Interference in Radio Receiving Stations.
1371298	do	Clark, A. B.	Telephone and Call Signal System.
1371698	do	Linder, O.	Process of and Apparatus for Electrolysis.
1371699	do	do	Process for the Purification of Porous or Gelatinous Material.
1371717	do	Wilbur, R. S., and Bendernagle, W. H.	Telephone System.
1371734	do	Buckley, O. E.	Apparatus for Exhausting to Low Pressures.
1371737	do	Clausen, H. P., and Goodrum, C. L.	Telephone Exchange System.
1371748	do	Field, J. C.	High Capacity Selective Signaling System.
1371749	do	Fowler, C. B.	Telephone Exchange System.
1372042	Mar. 22, 1921	Rhodes, W. A.	Desk Operator's Circuits.
1372050	do	Toomey, J. F.	Busy Signal Testing Apparatus.
1372448	do	Polinkowsky, L.	Machine Switching Telephone Exchange System.
1372798	Mar. 29, 1921	Buckley, O. E.	Method and Apparatus for Measuring Gas Pressure.
1372838	do	Smith, T. C.	Pole Derrick.
1373019	do	Rainey, P. M.	Acoustic Device.
1373447	Apr. 5, 1921	Polinkowsky, L.	Telephone Exchange System.
1373503	do	Harlow, J. D.	Railway Signaling System.
1373504	do	Hitchcock, H. W.	Electrical Measuring Apparatus.
1374152	do	Krum, C. L. and H. L.	Telegraph Transmitter.
1374184	Apr. 12, 1921	Britton, E. C.	Telephone System.
1374188	do	Clausen, H. P., and Goodrum, C. L.	Do.
1374192	do	Dixon, A. F.	Selective System.
1374193	do	Ford, W. H. D.	Electromagnetic Relay.
1374200	do	Grondahl, H. H. C.	Mechanism for Cutting Cords or Strands.
1374201	do	Hall, J. A.	Selector.
1374219	do	Osborne, H. S.	Composite Transmission System.
1374220	do	do	Composite Signaling System.
1374221	do	do	Composite Phantom Circuits.
1374266	do	White, C.	Generating System.
1374606	do	Pfannenstiehl, H.	Printing Telegraphy.
1374630	do	Bancroft, E. P.	Selective Mechanism.
1375230	Apr. 19, 1921	Reynolds, J. N.	Telephone Exchange System.
1375276	do	Clausen, H. P., and Goodrum, C. L.	Telephone System.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1375277	Apr. 19, 1921	Clausen, H. P., and Goodrun, C. L.	Telephone System.
1375281	do	Cummings, G. C.	Do.
1375405	do	Martin, W. H.	Apparatus for Testing Capacity of Electric Conductors.
1375414	do	Osborne, H. S.	Apparatus for Testing Capacity Deviations and Unbalance of Electric Conductors.
1375447	do	De Forest, L.	Means for Amplifying Currents.
1375465	do	Moore, C. R.	Device for Converting Sound or Other Vibrations into Variations in an Electrical Circuit.
1375481	do	Arnold, H. D.	Power Modulator for Radio Transmission.
1375675	do	Colpitts, E. H.	Signaling Method and System.
1375691	do	Goodrum, C. L.	Selective Switch.
1375692	do	do	Machine Switching Device.
1375712	do	Lundell, A. E.	Telephone Exchange System.
1375728	do	Rainey, P. M.	Distributing Apparatus.
1375739	do	Scriven, E. O.	Vacuum Tube Apparatus.
1375762	do	Thompson, G.	Distributing Switch.
Des. 57700	do	McLarn, E. S.	Desk Stand for Hand Telephones.
Des. 57701	do	do	Do.
1376391	May 3, 1921	Arnold, O. M., and Toomey, J. F.	Telephone Toll Circuits.
1376657	do	Thronsen, S.	Resistance Welding Machine.
1376663	do	Wickstrom, C. A.	Polishing Machine.
1376679	do	Curtis, A. M.	Radio Receiving System.
1376893	do	McQuarrie, J. L.	Telephone Switching Apparatus.
1376914	do	Ashbaugh, R. P., and Cawthon, S. C.	Winding Mechanism.
1377242	May 10, 1921	Demarest, C. S.	Network Selective Circuits.
1377405	do	De Forest, L.	Audion Circuit.
1377555	do	Bradbury, C. C.	Telephone System.
1378170	May 17, 1921	Espenschied, L.	Repeater Circuits.
1378392	do	Whiting, D. F.	Signaling System.
1378836	May 24, 1921	Clark, A. B., and Demarest, C. S.	Balancing Equipment for Four-Wire Circuits.
1378919	do	Toomey, J. F., and Spencer, C. G.	Portable Repeater Apparatus.
1378938	do	Clausen, H. P.	Telephone Exchange System.
1378943	do	Field, J. C.	Selective Signaling System.
1378945	do	Gilson, A. F. F., and Shann, O. A.	Step-by-Step Circuit Closing Device.
1378946	do	Gilson, A. F. F.	Fastening Device.
1378947	do	Goodrum, C. L.	Machine Switching Telephone System.
1378950	do	Hargan, A. D.	Recording Key.
1378960	do	Horton, J. W.	Method of and Apparatus for Detecting Under Water Vibrations.
1378961	do	Janicki, J.	Apparatus for Covering Cores.
1378989	do	Milton, I. L.	Method of Manufacturing Inductance Coils.
1378978	do	Rainey, P. M., and Dowd, A. D.	Telegraph System.
1378982	do	Shreeve, H. E.	Signaling System.
Re. 16835	Dec. 27, 1927	do	Do.
1378990	May 24, 1921	Wotton, J. A.	Do.
1379242	do	Beck, W. O.	Electromagnetic Device.
1379243	do	Bell, J. H.	Telegraph System.
1379650	May 31, 1921	Rhodes, W. A.	Testing Apparatus for Message Registers.
1379684	do	Griffin, J. T., Nelson, C. A., and Campbell, M. H.	Soldering Machine.
1380357	June 7, 1921	Clausen, H. P., and Goodrum, C. L.	Telephone System.
1380374	do	Gardner, F. G.	Signaling System.
1380451	do	Wilbur, R. S.	Telephone Exchange System.
1380679	do	Rainey, P. M.	Printing Telegraph System.
1380686	do	Stull, J. S.	Cutter Head.
1380751	do	Toomey, J. F., and Demarest, C. S.	Repeater Network Selecting Apparatus.
1380752	do	Toomey, J. F.	Electrical Relay.
1380857	do	Williams, S. B., Jr.	Telephone Exchange System.
1381368	June 14, 1921	Toomey, J. F.	Busy Back Circuits.
1381431	do	Polinkowsky, L.	Machine Switching Telephone System.
1381450	do	Butterfield, J. T.	Apparatus for Measuring Gas Pressures.
1381451	do	Coon, L. E.	Switching System.
1381456	do	Deakin, G.	Automatic Telephone Exchange System.
1381460	do	Harris, J. W.	Magnet Core.
1381480	do	Lundell, A. E.	Telephone System.
1381483	do	MacDougall, H. W.	Telephone Exchange System.
1381514	do	Hall, J. A., and Soper, C. P.	Electromagnetic Step-by-Step Mechanism.
1381530	do	Williams, S. B., Jr.	Telephone Exchange System.
1381545	do	Demarest, C. S.	Repeater Controlling System for Four-Wire Telephone Circuits.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1381640	June 14, 1921	Horton, J. W	Detecting Under Water Vibrations.
1381899	June 21, 1921	Atwood, G. F	Winding Machine.
1381933	do	Riecken, W. E	Do.
1382206	do	McCaa, D. G	Transmitting Apparatus.
1382262	do	Allen, R. M	Switching System and Indicating Device Therefor
1382631	June 28, 1921	Demarest, C. S., and Shackleton, S. P.	Repeater Circuits.
1383038	do	Toomey, J. F	Telephone Call Wire Circuits.
1383584	July 5, 1921	Wilbur, R. S	Telephone System.
1383588	do	Wright J. L	Semi-Automatic Telephone Exchange System.
1383677	do	Thompson, G	Telephone Exchange System.
1383690	do	Arnold, H. D	Method of Detecting Under Water Vibrations.
1383700	do	Egerton, H. C	Acoustic Device.
1383703	do	Elmen, G. W	Method of Insulating Metal Particles.
1383713	do	Ford, W. H. D	Spring Tension Gage.
1383737	do	McQuarrie, J. L	Method of and Apparatus for Recording and Reproducing Sound.
1383743	do	Mortimer, L. A	Telephone Exchange System.
1383750	do	Parker, R. D., and Hamilton, B. P.	Alternating Current Signaling System.
1383756	do	Reynolds, J. N	Automatic Switching Apparatus for Telephone Exchange Systems.
1383789	do	Conway, R. D	Telephone Exchange System.
1383799	do	Gent, E. W	Electrical Regulating Device.
1383802	do	Goodrum, C. L	Signaling Device.
1383804	do	Hall, J. A	Telephone Exchange System.
1383805	do	do	Party Line Metering System for Telephone Exchanges.
1383807	do	Heising, R. A	Power Modulation for Radio Transmission.
1384396	July 12, 1921	Merritt, B. F	Telegraph System.
1384398	do	Mortimer, L. A	Signaling System.
1384437	do	Edelmann, O	Bracket for Suspending Cables and the Like.
1384579	do	Toomey, J. F., and Demarest, C. S.	Automatic Transmission Controlling Means.
1384587	do	Bellamy, H. T	Manufacture of Composition Cores.
1384734	July 19, 1921	Anderson, C. A	Electrical Testing System and Apparatus.
1384994	do	Demarest, C. S., Clark, A. B., and Crisson, G.	Telephone Repeater Equipment.
1385090	do	Mills, J	Radio Receiving System.
1385091	do	do	Signaling.
1385777	July 26, 1921	Clark, A. B	Grid Circuits for Electron Tubes.
1386321	Aug. 2, 1921	Demarest, C. S	Telephone Repeater Equipment.
1386677	Aug. 9, 1921	Balduf, B. E	Capstan.
1386679	do	Bell, J. H	Telegraph System.
1386683	do	Booth, W. T	Do.
1386686	do	Bullard, A. M., and Reynolds, J. N.	Controlling System for Automatic Switching Systems.
1386688	do	Clausen, H. P., and Goodrum, C. L.	Telephone Exchange System.
1386689	do	Conway, R. D	Telephone System.
1386690	do	Crawford, G. C	Do.
1386697	do	Fletcher, H., and Strassner, F. J.	Testing Apparatus.
1386701	do	Goodrum, C. L	Coin Collect System.
1386705	do	Griffin, J. T., and Timm, W. A.	Electrically Heated Container
1386714	do	Leveridge, W. J	Vacuum Tube Holder.
1386719	do	MacPherson, H. D	Telephone System.
1386722	do	Mather, G. E	Diaphragm.
1386725	do	Palmer, J. C. R	Signaling System.
1386728	do	Polinkowsky, L	Machine Switching Telephone System.
1386730	do	Raynsford, A	Telephone Exchange System.
1386731	do	Read, H. S	Vacuum Tube Repeater Circuits.
1386747	do	White, C	Telephone Exchange System.
1386748	do	Wilbur, R. S	Signaling System.
1386749	do	Williams, S. B., Jr	Call Distributing System.
1386912	do	Timm, W. A	Container for Insulating or Impregnating Compounds.
1386977	do	Watson, E. F	Indicating Mechanism.
1386993	do	Dixon, A. F	Telegraph System.
1387171	do	Polinkowsky, L	Telephone Exchange System.
1387174	do	Powell, W. T	Machine Switching Telephone System.
1387177	do	Reddig, C. E	Flexible Shaft Coupling.
1387180	do	Reynolds, J. N	Telephone System.
1387181	do	Rhodes, W. A., and Anderson, F. E.	Telephone Exchange System.
1387188	do	Shann, O. A	Bell.
1387210	do	Sultzer, M	Method and Means for Correcting Irregularities in Transmission Lines.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1387228	Aug. 9, 1921	Bell, J. H	Selective System.
1387229	do	do	Telegraph System.
1387240	do	Collis, R. E	Stroboscopic System.
1387250	do	Fowler, C. B	Telephone Exchange System.
1387251	do	do	Telephone System.
1387252	do	Fredricks, J	Test Connector.
1387255	do	Goodrum, C. L	Telephone Exchange System.
1387262	do	Hartley, R. V. L	Receiving Apparatus for Wave Signaling.
1387270	do	Keckler, C. W	Signaling and Telephone System.
1387271	do	do	Telephone System.
1387280	do	Lundell, A. E	Do.
1387282	do	McQuarrie, J. L	Do.
1387284	do	MacDougall, H. W., and MacPherson, H. D.	Do.
1387288	do	Menefee, H. R	Support.
1387353	do	Clausen, H. P	Machine Switching Telephone System.
1387354	do	do	Telephone Exchange System.
1387367	do	Dodge, W. L., and MacPherson, H. D.	Telephone System.
1387386	do	Goodrum, C. L., and Clausen, H. P.	Do.
1387945	Aug. 16, 1921	Pugh, H. W., and Wotton, J. A.	Adapter for Telephone Calling Devices.
1387972	do	Gauthier, E	Clutch Mechanism for Power Driven Punch Presses.
1388450	Aug. 23, 1921	Colpitts, E. H., and Arnold, H. D.	Transmission of Intelligence.
1388507	do	Bell, J. H	Synchronizing System.
1388887	Aug. 30, 1921	Polinkowsky, L	Indicating System.
1389596	Sept. 6, 1921	Rhodes, W. A	Desk Operator's Circuits.
1390545	Sept. 13, 1921	do	Do.
1390580	do	Osborne, H. S	Means for Reducing Interference.
1390679	do	Dobbin, H. F., and Gent, E. W.	Impulse Transmitter.
1391006	Sept. 20, 1921	Parker, R. D	Half-Duplex Alternating Current Telegraph System.
1391552	do	Loynes, O. H., and Rose, A. F.	Repeater Cord Circuits.
1391947	Sept. 27, 1921	Gent, E. W	Electrically Operated Timing Apparatus.
1392152	do	Harden, W. H	Multiple Station Transmission Circuits.
1392179	do	Kuhn, G. W	Operator's Trunk Circuit.
1392815	Oct. 4, 1921	Crisson, G	Method of and Means for Detecting Irregularities in Transmission Lines.
1393286	Oct. 11, 1921	Hosford, W. F	Reeling Machine.
1393326	do	Sperry, A. B	Telephone System.
1393352	do	Dodge, W. L	Do.
1393429	do	Clausen, H. P	Do.
1393430	do	do	Do.
1393465	do	Taggart, D. M	Telephone Exchange System.
1393471	do	Wegel, R. L	Submarine Signaling.
1393502	do	Clausen, H. P	Machine Switching Telephone System.
1393503	do	do	Electrical System.
1393515	do	Egerton, H. C	Diaphragm and Method of Making Such Diaphragms.
1393521	do	Goodrum, C. L	Machine Switching Telephone System.
1393522	do	do	Telephone Exchange System.
1393557	do	McQuarrie, J. L	Sound Modifying Device.
1393558	do	McQuarrie, J. L., and Goodrum, C. L.	Telephone Exchange System.
1393559	do	do	Do.
1393727	do	Williams, S. B., Jr	Call Distributing System.
1393728	do	do	Telephone Exchange System.
1393946	Oct. 18, 1921	Clausen H. P	Do.
1394062	do	Blackwell, O. B	Means for and Method of Reducing Crosstalk in Four-Wire Circuits.
1394189	do	Demarest, C. S	Repeater Controlling System for Four-Wire Circuits.
1394190	do	do	Testing System for Four-Wire Circuits.
1394642	Oct. 25, 1921	Quass, R. L	Electric Signaling System.
1395007	do	Post, A. M	Telegraph System.
1395378	Nov. 1, 1921	Wilson, R. H., and Schafer, J. P.	Secret Signaling.
1395390	do	Clement, L. M	Oscillation Generating System.
1395595	do	Polinkowsky, L	Telephone System.
1395854	do	Martin, W. H	Balancing Signaling Systems.
1395977	do	Stearn, F. A. and Scudder, F. J.	Telephone Exchange System.
1396721	do	Atwood, G. F	Cable Reeling Apparatus.
1396730	do	Clausen, H. P. and Goodrum, C. L.	Telephone System.
1396739	do	Fowler, C. B	Telephone Exchange System.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1396741	Nov. 1, 1921	Goodrum, C. L.	Machine Switching Telephone System.
1396745	do	Haddock, A.	Vacuum Tube Circuits.
1396746	do	Halter, C.	Telegraph System.
1396747	do	Harrison, H. C.	Telephone Receiver.
1396750	do	Hill, O. E.	Signaling Generator.
1396759	do	Jillard, A. G. and Bracken, S.	Manufacture of Insulating Supporting Blocks.
1396760	do	Johnson, K. S.	Signaling Circuit.
1396769	do	Mather, G. E.	Folding Door Structure.
1396771	do	Minton, J. P.	Receiver Shield.
1396780	do	Pugh, H. W.	Folding Door Structure.
1396786	do	Scriven, E. O.	System for Transmission of Intelligence.
1396800	do	Wilbur, R. S.	Testing System.
1396930	do	Gherardi, B.	System for the Equalization of Transmission Lines.
1397034	do	Clausen, H. P.	Telephone Exchange System.
1397093	do	Espenschied, L.	Radio Repeating System.
1397228	do	Nyquist, H.	Electrical Measuring Apparatus.
1397575	Nov. 22, 1921	De Forest, L.	Selective Audion Amplifier.
1397862	do	Fitch, A. L.	Transmission System.
1397975	do	Kuhn, G. W.	Electrical Testing System.
1397991	do	Thompson, G. K.	Message Registering System.
1398266	Nov. 29, 1921	Hitchcock, H. W.	Electrical Indicating and Measuring Device.
1398287	do	Thompson, G. K.	Selective Signaling System.
1398589	do	Fowler, C. B.	Telephone Exchange System.
1398665	do	Arnold, H. D.	Thermionic Amplifier.
1399066	Dec. 6, 1921	Lubberger, F., and Pinell, W.	Telephone Exchange System.
1399226	do	Rhodes, W. A.	Electrothermal Relay.
1399695	do	Demarest, C. S.	Electrical Testing Circuits.
1399728	Dec. 13, 1921	Adams, A. H.	Automatic Switch for Telephone Exchange Systems.
1399775	do	Johnson, K. S.	Common Battery Substation.
1399993	do	Pfannenstiehl, H., and Watson, E. F.	Printing Telegraph.
1399997	do	Rainey, P. M.	Telegraph System.
1399998	do	Raynsford, A.	Do.
1400014	do	Baber, C. C.	Key for Fastening Gear Wheels, Race Ways for Ball Bearings, and the Like to Rotatable Shafts.
1400035	do	Dixon, A. F.	Telegraph System.
1400038	do	Egerton, H. C.	Coil Terminal.
1400039	do	do	Signaling System.
Re. 16147	do	do	Do.
1400050	do	Grace, B. B.	Do.
1400075	do	Keckler, C. W.	Telephone Exchange System.
1400076	do	do	Telephone Signaling System.
1400103	do	Taggart, D. M.	Artificial Busy Circuits.
1400120	do	Williams, S. B., Jr.	Telephone Exchange System.
1400126	do	Wotton, J. A.	Contact Device.
1400156	do	Griffin, J. T., and Timm, W. A.	Electrically Heated Soldering Iron.
1400181	do	Polinkowsky, L.	Semi-Automatic Telephone Exchange System.
1400189	do	Toomey, J. F.	Means for Controlling Repeater Circuits.
1400493	do	Rainey, P. M.	Telegraph System.
1400583	Dec. 20, 1921	Toomey, J. F.	Do.
1400732	do	Demarest, C. S., and Davidson, J., Jr.	Signaling System.
1400776	do	Smith, T. C.	Deflection Dynamometer.
1401121	Dec. 27, 1921	Allen, R. M.	Mounting for Vacuum Tubes.
1401544	do	Lundell, A. E.	Telephone Exchange System.
1401564	do	Speed, J. B.	Tetrahedronal Magnetic Unit.
1401950	Jan. 3, 1922	Adams, A. H.	Printing Telegraph.
1402202	do	Affel, H. A., and Davidson, J., Jr.	Ringing Arrangement for Multiplex Circuits.
1402322	do	Thompson, G. K.	Anti-Side-Tone Hand Set.
Des. 60180	do	Thompson, G. K., and Harper, A. U.	Hand Telephone.
1402991	Jan. 10, 1222	Affel, H. A.	Carrier Telegraph Circuit.
1403305	do	Elmen, G. W.	Magnet Core and Method of Making the Same.
1403475	Jan. 17, 1922	Arnold, H. D.	Vacuum Tube Circuit.
1403544	do	Darrow, W. E.	Transmission Equalization Arrangement.
1403566	do	Read, H. S.	Vacuum Tube Repeater Circuits.
1403626	do	Potts, L. M.	Automatic Switch for Controlling Motor Driven Automatic Machines.
1403726	do	Wilson, W.	Electric Discharge Device and Operating Circuits Therefor.
1403767	do	Goff, H. W.	Electromagnetic Step-by-Step Mechanism
1403800	do	Malcolmson, W. J., and Blount, H.	Assembling Device for Vacuum Tubes.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1403803	Jan. 17, 1922	Maxfield, J. P., and Smith, G. O.	Resistance Material and Method of Manufacturing Same.
1403811	do	Pauly, H. C	Telephonic Apparatus.
1403833	do	Bell, J. H	Telegraph System.
1403835	do	Blackwell, O. B	Frequency Control System.
1403841	do	Carson, J. R	Do
1403844	do	Clausen, H. P	Automatic Telephone System.
1403845	do	Clausen, H. P., and Goodrum, C. L.	Telephone Exchange System.
1403858	do	Gauthier, E	Reciprocating Tool Operating Machine.
1403861	do	Lundell, A. E	Telephone Exchange System.
1403862	do	do	Do.
1403866	do	Raynsford, A	Do.
1403932	do	Wilson, R. H	Electron Discharge Device.
1403985	do	Spencer, F. C	Drill Press.
1404288	Jan. 24, 1922	Harden, W. H	Repeater Testing Arrangement.
1404311	do	O'Neill, H. W	Electrical Testing System.
1404799	Jan. 31, 1922	Shackleton, S. P	Current Supply Circuit for Vacuum Bulbs.
1405064	do	Neal, E. W	Heater.
1405428	Feb. 7, 1922	Osborne, H. S	Signal Transmitting System.
1405501	do	Demarest, C. S	Repeater Network Selecting Apparatus.
1405710	do	Boe, H. J	Mechanism for Covering Cores.
1405849	do	Kohlhaas, H. T	Vibration Detector.
1406195	Feb. 14, 1922	Kuhn, G. W	Testing Apparatus for Telephone Switchboard Cords.
1406221	do	Polinkowsky, L	Telephone Exchange System.
1406223	do	Pugh, H. W	Telephone Substation Apparatus.
1406236	do	Sperry, A. B	Telephone System.
1406246	do	Toomey, J. F	Testing and Adjusting Apparatus for Cord Circuits.
1406668	do	McQuarrie, J. L	Telephone Exchange System.
1406672	do	Maxfield, J. P	Vibration Detector.
1406678	do	Mortimer, L. A	Telephone System.
1406681	do	Ottman, R. E	Protective Device.
1406833	do	Finley, C. A	Device for Translating the Effects of Sound Vibrations into Variations in an Electrical Circuit.
1406857	do	Heising, R. A	Wireless Signaling.
1406918	do	Blauvelt, W. G	Testing System.
1406996	Feb. 21, 1922	Morrill, J. B	Electric Wave Ranging System.
1406998	do	Osborne, H. S	Signaling System.
1407028	do	Harper, A. U	Transmission Equalization Arrangement.
1407042	do	Rainey, P. M	Telegraph System.
1407046	do	Toomey, J. F	Telephone Apparatus.
1407604	do	do	Repeater Circuit.
1407983	Feb. 28, 1922	Clark, A. B., and Crisson, G	Method of and Means for Determining Unbalance.
1407985	do	Clausen, H. P., and Goodrum, C. L.	Telephone System.
1408046	do	Ulrich, H. W	Do.
1408567	Mar. 7, 1922	Darrow, L. H	Transmission Equalization Arrangement.
1408784	do	Toomey, J. F	Ringing Regulator.
1409339	Mar. 14, 1922	Fischer, F. C	Vacuum Tube Manufacture.
1409341	do	Harrison, H. C	Submarine Signaling.
1409352	do	Adair, S. E	Electrical Coil.
1409362	do	Cummings, G. C	Telegraph System.
1409386	do	McQuarrie, J. L	Do.
1409388	do	Mathes, R. C	Phonograph Reproducer.
1409913	Mar. 21, 1922	Avery, F	Message Register System.
1410003	do	Demarest, C. S., and Loynes, O. H.	Repeater Apparatus.
1410088	do	White, R. H	Screw Driver.
1410545	Mar. 28, 1922	Barrows, L. D	Intercommunicating System.
1410766	do	Lundell, A. E	Telephone Exchange System.
1410890	do	Carson, J. R	Method and Means for Modulating Carrier Oscillations.
1411385	Apr. 4, 1922	Shackleton, S. P	Signaling Apparatus.
1411478	do	Budd, I. D., Cromburg, C. I., and Hurd, F. S.	Electromechanical Switching System.
1411814	do	Stoller, H. M	Power System for Radio Apparatus.
1412103	Apr. 11, 1922	Crisson, G	Service Observing Set.
1412371	do	Reddig, C. E	Belt Adapter.
1412372	do	Sharpe, W. H	Electric Switching Device.
1412376	do	Stoller, H. M	Fault Locator for Electric Cables.
1412405	do	Herrmann, R. R	Method for Testing Transmitters.
1412458	do	Darrow, L. H	Message Registering System.
1412490	do	Rhodes, W. A	Signaling System.
1412567	do	Mills, J	Means for and Method of Wave Transmission.
1412572	do	Polinkowsky, L	Machine Switching Telephone System.
1412574	do	Richard, C. D	Electrically Operated Timing Apparatus.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1412734	Apr. 11, 1922	Goodrum, C. L.	Telephone System.
1412853	Apr. 18, 1922	Espenschied, L.	Synchronizing System.
1412908	do	Van Dyke, H. S.	Do.
1412974	do	Selvig, J. N., and Jongedyk, R.	Safety Attachment and Locking Device for Machines.
1413357	do	Raibourn, P. A.	Electrical Transmission System.
1413368	do	Williams, S. B., Jr.	Machine Switching Telephone System.
1413501	do	Stearn, F. A.	Switch Controlling System.
1413639	Apr. 25, 1922	Waller, L. R.	Switching Device.
1413708	do	Davidson, J., Jr.	Signaling Circuit for Toll Lines.
1413732	do	Heising, R. A.	Electric Discharge Apparatus.
1413753	do	Martin, W. H.	Receiving Device for Signaling Systems.
1414370	May 2, 1922	Nicolson, A. M.	Method of Making Piezo-Electrical Crystals.
1414373	do	Pugh, H. W.	Adapter for Calling Devices.
1414391	do	Affel, H. A.	Means for and Method of Testing Unbalance.
1414397	do	Best, F. H.	Testing Apparatus.
1415076	May 9, 1922	Williams, R. R.	Insulating Composition.
1415098	do	Klein, C. H.	Heater for Soldering Coppers.
1415106	do	Morehouse, L. F.	Ciphering Device.
1415853	May 16, 1922	Andrick, W. P., and Dahl, J. F.	Telephone Exchange System.
1415868	do	Darrow, L. H.	Transmission and Equalization Arrangement.
1415907	do	Thompson, G. K.	Means for Equalizing Transmission Over Lines of Different Electrical Characteristics.
1415972	do	Allen, R. M.	Electrical Switching Device.
1415973	do	Allen, R. M., and Neill, P.	Compensator.
1415980	do	Bellamy, H. T., and Sweely B.	Glass Composition.
1415992	do	Clement, L. M.	Receiving Station.
1415999	do	Curtis, A. M.	Static Reducer for Wireless Signals.
1416000	do	DeCosta, C. J.	Attachment for Reeling Machines.
1416063	do	Reddig, C. E.	Pulley.
1416077	do	Tanner, DeW. C.	System for Electric Signaling.
1416226	do	Meade, H. L.	Telephone Exchange System.
1416724	May 23, 1922	Kuhn, G. W.	Telephone Circuits.
1416765	do	Vernam, G. S.	Ciphering Device.
1417662	May 30, 1922	De Forest, L.	Radio Signaling System.
1418285	June 6, 1922	Carson, J. R.	Translating Circuit.
1418706	do	Hampton, L. N.	Reeling Device.
1418725	do	May, D. T.	Recording Instrument.
1418729	do	Oswald, A. A.	Portable Radiating System.
1418730	do	Ottman, R. E.	Insulating Material and Method of Making Same.
1418739	do	Scriven, E. O.	Oscillation Generator.
1418764	do	Williams, H. L. S.	Attachment for Telephone Hook Switches.
1419090	do	Williams, R. R.	Covering Machine.
1419409	June 13, 1922	Potts, L. M.	System of Telegraph Distribution.
1419528	do	Weinhart, H. W.	Electron Discharge Device.
1419530	do	Wilson, W.	Thermionically Active Substance.
1419550	do	Fischer, F. C.	Bending Jig.
1419559	do	Goff, H. W.	Electromagnetic Device.
1419561	do	Harlow, J. B.	Switching System.
1419562	do	Hartley, R. V. L.	Modulator or Detector.
1419569	do	Keckler, C. W.	Telephone Exchange System.
1419673	do	Hitchcock, H. W.	Electrical Measuring Apparatus.
1419674	do	do	Do.
1419677	do	Krum, C. L. and H. L.	Transmitter for Electrical Printing Telegraph.
1420050	June 20, 1922	Merritt, B. F.	Transfer Tool for Paper Files.
1420055	do	Nichols, H. W.	Selective Receiving System.
1420487	do	Kent, R. J.	Hook.
1420989	June 27, 1922	Fondiller, W.	Transformer.
1421702	July 4, 1922	McCurdy, R. G.	Testing Apparatus.
1422447	July 11, 1922	Kelsay, L. W.	Switching Key.
1422470	do	Osborne, H. S.	Inductive Interference Suppression Device.
1422483	do	Schumacher, E. E.	Plastic Composition.
1422549	do	Eaves, A. J.	Multiple Switch.
1422837	July 18, 1922	Crandall, I. B.	Vacuum Tube Amplifier.
1422861	do	Hocker, C. D.	Liquid Coating Composition.
Re. 16240	Jan. 5, 1926	do	Coating Composition.
1422877	July 18, 1922	Maxfield, J. P.	Acoustical Aid for Deaf Persons.
1422882	do	Nichols, H. W.	Radio Transmission.
1422910	do	Young, C. R., and Van Deusen, H. N.	Terminal Box for Electrical Cables.
1423518	July 25, 1922	Espenschied, L.	Frequency Regulation.
1423911	do	Cardwell, A. D.	Portable Electric Lantern.
1423930	do	Freile, B.	Telephone Switchboard Apparatus.
1424726	Aug. 1, 1922	Johnson, K. S.	Electrical Coil.
1424805	Aug. 8, 1922	De Forest, L.	Subterranean Signaling System.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1424866	Aug. 8, 1929	Wold, P. I.	Method and Means for Relaying Modulated Carrier Waves.
1425912	Aug. 15, 1922	Staples, R. T.	Condenser and the Method of Making Same.
1425977	do	Kiesel, W. C.	Telephone Hand Set.
1426669	Aug. 22, 1922	Pierce, R. E.	Ciphering Device.
1426733	do	Heising, R. A.	Method and Means for Preventing Amplifiers from Oscillating.
1426734	do	Hendry, W. F.	Method of Manufacturing Audions.
1426735	do	Hendry, W. F., and Reddig, C. E.	Method and Apparatus for Recording Pressure.
1426751	do	McGall, P. K., and Menefee, H. R.	Thermionic Regulator.
1426754	do	Mathes, R. C.	Circuits for Electron Discharge Devices.
1426755	do	Mathes, R. C., and Read, H. S	Vacuum Tube Circuits and Method of Operating Same.
1426757	do	Moore, C. R.	Acoustic Device.
1426768	do	Pfannenstiehl, H., and Bancroft, E. P.	Printing Telegraph Receiver.
1426771	do	Radu, J. W.	Leading-In Conductor.
1426776	do	Riecken, W. E.	Moisture-Proof Receptacle.
1426786	do	Speed, J. B., and Hutchinson, F., Jr.	Storage Battery.
1426790	do	Stenson, O.	Wire Bending Machine.
1426791	do	Stoller, H. M.	Electric Control System.
1426801	do	Wilson, W.	Repeater for Undulatory Currents.
1426803	do	Adams, A. H.	Printing Telegraph.
1426804	do	do	Typewriter.
1426807	do	Arnold, H. D., and Minton, J. P.	Method of and System for Testing Transmitters or Receivers.
1426810	do	Beatty, W. E.	Repeater System.
1426817	do	Clark, E. H.	Telephone Exchange System.
1426818	do	Clausen, H. P.	Do.
1426821	do	Cummings, G. C.	Telegraph System.
1426825	do	Dobson, G. G.	Numerical Calculating Device.
1426826	do	Egerton, H. C.	Electron Discharge Device Circuits.
1426861	do	Haddock, A.	Measuring Device.
1427695	Aug. 29, 1922	Morris, R. W.	Switchboard Call Signal Apparatus and Circuits.
1427725	do	Cooper, L. W.	Do.
1427923	Sept. 5, 1922	Toomey, J. F.	Telephone Call Circuit.
1428155	do	Espenschied, L., and Affel, H. A.	Means for Signaling Over Multiplex Transmission Channels.
1428156	do	Espenschied, L.	Low Frequency Amplifier.
1428209	do	Blount, H.	Mechanism for Lapping Diamond Dies.
1428227	do	Griffin, J. T., Timm, W. A., and Santschi, A. E.	Electric Soldering Iron.
1428631	Sept. 12, 1922	Harrison, W. H.	Testing and Adjusting Apparatus for Cord Circuits.
1428667	do	Toomey, J. F.	Do.
1429248	Sept. 19, 1922	Osborne, H. S.	Multiplex Signaling System.
1429264	do	Wright, J. W.	Calculating Guy Rule.
1429493	do	De Costa, C. J.	Winding Mechanism for Strands.
1429634	do	Robinson, C., and Chamney, R. M.	Telephonic Repeater.
1429931	Sept. 26, 1922	Davidson, J., Jr.	Signaling Circuit for Toll Lines.
1329972	do	Rhodes, W. A.	Desk Operator's Circuits.
1430531	Oct. 3, 1922	Berryman, D.	Apparatus for Molding.
1430603	do	Timm, W. A.	Soldering Iron.
1430610	do	Whiteside, V.	Vacuum Gauge.
1430634	do	Fischer, F. C.	Means for Manufacturing an Article of a Plurality of Parts.
1430808	do	Hoyt, R. S.	Two-Way Impedence Equalizer for Transformers.
1430869	do	Wickstrom, C. A.	Semi-Automatic Coil Winding Mechanism.
1431091	Oct. 3, 1922	Bendernagle, W. H.	Signaling System.
1431195	Oct. 10, 1922	Toomey, J. F.	Telephone Exchange System.
1431219	do	Crisson, G.	Electron Tube Repeater.
1431921	Oct. 17, 1922	Barnes, H. F.	Brake for Rolling Ladders.
1431995	do	Toomey, J. F.	Signaling Apparatus and Circuits.
1432022	do	Heising, R. A.	Circuit Connection of Electron Discharge Apparatus.
1432781	Oct. 24, 1922	Osborne, H. S.	Means for and Method of Avoiding Interference.
1432829	do	Best, F. H.	Electrical Testing System.
1432852	do	Hargan, A. D.	Telephone Switching Key.
1432863	do	Johnson, K. S.	Transmission System.
1432864	do	Johnston, J.	Heating Device.
1432867	do	Kelly, M. J.	Electron Discharge Device and Method of Making the Same.
1432883	do	Lysons, N. H.	Electrical Switching Device.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1432885	Oct. 24, 1922	Minton, J. P., and Finley, C. A.	Telephone Transmitter.
1432898	.....do.....	Price, C. S.	Electric Snap Switch.
1432903	.....do.....	Reddig, C. E.	Engine Driven Electric Generator Unit.
1432907	.....do.....	Rhoads, C. S., Jr.	Portable Electric Lantern.
1432925	.....do.....	Thompson, G. F.	Impulse Sender.
1432926	.....do.....	Thronsen, S.	Leading-In Wire Assembly for Vacuum Tubes.
1432931	.....do.....	Weinhart, H. W.	Electric Discharge Device.
1432945	.....do.....	Atwood, G. F.	Submarine Signaling.
1432965	.....do.....	Casher, W. L.	Electric Circuit.
1432978	.....do.....	Dowd, A. D.	Printing Telegraph System.
1432992	.....do.....	Gargan, J. O.	Vacuum Tube.
1433258	.....do.....	Buckley, O. E.	Method of and Means for Exhausting to Low Pressure.
1433298	.....do.....	Polinkowsky, L.	Telephone Switching Apparatus.
1433305	.....do.....	Shaw, T., and Fondiller, W.	Loaded Telephone Line System.
1433594	Oct. 31, 1922	Bailey, R. S.	Telephone Exchange System.
1433599	.....do.....	Bown, R.	Radio Circuit.
1434290	.....do.....	Krum, H. L.	Telegraph System and Apparatus.
1434374	Nov. 7, 1922	DeLemon, M., and Malec, A.	Electric Resistance Welding Mechanism.
1434518	.....do.....	Bailey, R. S.	Telephone Exchange System.
1434555	.....do.....	Martin, W. H.	Wave Filter.
1434767	.....do.....	Bell, J. H.	Telegraph System.
1434773	.....do.....	Correia, J. N.	Telegraph.
1434776	.....do.....	Field, J. C.	Railway Signaling System.
1434788	.....do.....	Maxfield, J. P.	Vibrating System.
1434790	.....do.....	Mills, J.	Two-Way Transmission With Repeaters.
1434705	.....do.....	Ryder, H. W.	Signaling Device.
1434836	.....do.....	Neal, E. W.	Grid Lining Method and Machine.
1434851	.....do.....	Snook, H. C., and Buckley, O. E.	Vacuum Pump.
1434856	.....do.....	Stenson, O.	Wire Working Appliance.
1434862	.....do.....	Wheeler, C. H.	Illumintaing Apparatus.
1434869	.....do.....	Wold, P. I., and Buckley, O. E.	Electric Regulator.
1435240	Nov. 14, 1922	Johnson, K. S.	Signaling System.
1435243	.....do.....	Kelsay, LeR. W.	Automatic Hand Telephone.
1435301	.....do.....	Housekeeper, W. G.	Method and Means for Forming and Winding Filamentary Material.
1435328	.....do.....	Nyquist, H.	Distortion Mesauring Apparatus.
1435333	.....do.....	Polinkowsky, L.	Telephone Exchange System.
1435348	.....do.....	Toomey, J. F.	Automatic Ringing Circuits.
1435447	.....do.....	Bendernagel, W. H.	Telephone Transmission System.
1435470	.....do.....	Hosford, W. F.	Apparatus for Brazing Thin Metal Parts.
1435950	Nov. 21, 1922	Williams, S. B., Jr.	Telephone Exchange System.
1435968	.....do.....	Kuhn, G. W., and Lundius, E. R.	Telephone Trunk Cicuits.
1435980	.....do.....	Renshaw, R. A.	Means for and Method of Reducing Crosstalk in Four-Wire Curciits.
1436165	.....do.....	Goodrum, C. L.	Electrical Registering System.
1436206	.....do.....	Speed, J. B.	Transmitter.
1436212	.....do.....	Swoboda, A. R.	Rheostat.
1436244	.....do.....	Fondiller, W.	Loading Unit.
1436252	.....do.....	Heising, R. A.	System for Producing Modulated Waves.
Re. 15722	Nov. 13, 1923	.....do.....	Do.
1436312	Nov. 21, 1922	Grondahl, H. H. C.	Strand Twisting Mechanism.
1436323	.....do.....	Schnable, G. L., and Abbott, F. F.	Method of and Apparatus for Testing Fibrous Materials.
1436683	Nov. 28, 1922	Rose, A. F.	Battery Supply Circuit for Repeaters.
1436733	.....do.....	Smith, T C.	Carriage for Conveying Drums for Electric Cables.
1437021	.....do.....	Schelleng J. C.	Electron Discharge Device Circuits.
1437422	Dec. 5, 1922	Hoyt, R. S.	Artificial Line.
1437457	.....do.....	Toomey, J. F.	Signaling Apparatus and Circuits.
1437498	.....do.....	De Forest, L.	Oscillion.
1438217	Dec. 12, 1922	Clark, A. B.	Means for and Method of Regulating the Transmission over Electric Circuits.
1438218	.....do.....	.....do.....	Do.
1438219	.....do.....	.....do.....	Do.
1438220	.....do.....	.....do.....	Do.
1438270	.....do.....	Shackleton, S. P.	Do.
1438722	.....do.....	Price, R. A.	Electrolytic Anode.
1438732	.....do.....	Weaver, W. C.	Telephone Exchange System.
1438735	.....do.....	Williams, R. R.	Rubber Composition.
1438736	.....do.....	Williams, S. B, Jr.	Telephone System.
1438743	.....do.....	Clark, E. H.	Telephone Exchange System.
1438744	.....do.....	.....do.....	Do.
1438758	.....do.....	Goodrum, C. L.	Machine Switching Device.
1438841	.....do.....	Lundell, A. E., and Clark, E. H.	Telephone Exchange System.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1438938	Dec. 19, 1922	Baldwin, J. F., Jr.	Transmission System.
1438940	do	Blount, H.	Wire Drawing Die.
1438941	do	Boardman, A.	Machine for Vacuum Tube Manufacture.
1438944	do	Conway, R. D.	Electric Regulator.
1438945	do	do	Do.
1438946	do	do	Do.
1438947	do	do	Do.
1438959	do	Lattig, J. W., and Goodrum, C. L.	Automatic Telephone Exhcange System.
1438960	do	do	Do.
1438961	do	Lundell, A. E.	Printing Telegraph System.
1438965	do	Nicolson, A. M.	Piezo-Electric Device and Method of Producing the Same.
1438969	do	Spengeman, L. R.	Vacuum Tube.
1438974	do	Wente, E. C.	Piezo-Electric Voltage Indicator.
1438976	do	Wold, P. I.	Electric Regulator.
1438987	do	Espenschied, L., and Affel, H. A.	High Frequency Translating Circuits.
1438988	do	do	Do.
1438989	do	do	Do.
1439134	do	Sivian, L. J.	Modulating Method and System.
1439213	do	Williams, S. B., Jr.	Telephone Exchange System.
1439723	Dec. 26, 1922	Blauvelt, W. G.	Numbering System for Automatic Telephone System.
1439729	do	Deakin, G.	Telephone Hand Set.
1439735	do	Hancock, E. W.	Telephone Exchange System.
1439771	do	Sprague, C. A.	Signal Controlling System.
1439772	do	Toomey, J. F.	Signaling Apparatus and Circuits.
1440407	Jan. 2, 1923	Osborne, H. S.	Detecting Circuits.
1441270	Jan. 9, 1923	Espenschied, L.	Transmission System.
1441827	do	Blackwell, O. B.	Signaling System.
1442146	Jan. 16, 1923	Heising, R. A.	Modulating and Transmitting System.
1442147	do	do	Production of Modulated High Frequency Oscillations.
1442425	do	Conway, R. D.	Telephone Repeater System.
1442426	do	De Forest, L.	Sound Controlling Means for Producing Light Variations.
1442427	do	Edwards, G. D.	Anti-Side-Tone Substation Circuit.
1442428	do	Fischer, F. C.	Bending Jig.
1442429	do	Harlow, J. B.	Impulse Transmitting Mechanism.
1442430	do	Hartley, R. V. L.	Electron Discharge Device.
1442439	do	Mathes, R. C.	Vacuum Tube Repeater.
1442441	do	Pugh, H. W.	Toll Ticket Distributing System.
1442443	do	Radford, J. B.	Switching Device.
1442444	do	Reeve, H. T.	Casting High Melting Point Metal and Alloy.
1442453	do	Van Inwagen, C. L.	Ticket Hoist.
1442455	do	Whiting, D. F.	Transmission Measuring Circuits and Method.
1442456	do	do	Mounting and Protecting Electrical Apparatus.
1442460	do	Anderegg, G. A.	Current Controlling Means for Electric Circuits.
1442781	do	Nichols, H. W.	Reamplifying System.
1442819	Jan. 23, 1923	Parker, R. D.	Ciphering Machine.
1443007	do	Clement, L. M., and Kishpaugh, A. W.	Control of Electric Circuits.
1443984	Feb. 6, 1923	Espenschied, L.	Repeater Apparatus for Carrier Systems.
1443985	do	do	Signaling System.
1444605	do	Heising, R. A.	Carrier Wave Signaling System.
1444781	Feb. 13, 1923	Deakin, G.	Telephone Exchange System.
1444830	do	Demarest, C. S.	Transmission Controlling Apparatus.
1445141	do	Kendall, B. W.	Signaling System.
1445231	do	Muller, O., Jr.	Welding Jig.
1445233	do	O'Neill, H. W.	Telegraph System.
1445235	do	Plotner, L. D.	Impulse Transmitting Device.
1445239	do	Reddig, C. E.	Brace and Tension Device.
1445242	do	Shackelton, W. J.	Variable Inductance Element.
1445253	do	White, J. H.	Resistance Alloy.
1445258	do	Williams, S. B., Jr., and Bostater, H. L.	Testing System.
1445260	do	Adams, A. H.	Method of and Apparatus for Testing Electrical Coils.
1445271	do	Gent, E. W.	Ratchet Mechanism.
1445278	do	Heising, R. A.	Thermionic Vacuum Tube.
1445432	do	Dunham, B. G.	Telephone Exchange System.
1445731	Feb. 20, 1923	Van der Bijl, H. J.	Transmission System.
1445759	do	Davidson, J., Jr.	Means for and Method of Testing Multiplex Carrier Circuits.
1445992	do	Cameron, J. S.	Cutting Machine.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1446246	Feb. 20, 1923	De Forest, L.	Means for Recording and Reproducing Sound.
1446247	do	do	Light Controlling Means.
1446526	Feb. 27, 1923	Toomey, J. F.	Ringing Regulator.
1446582	do	Polinkowsky, L.	Call Distributing System.
1446752	do	Kendall, B. W.	Generator and the Generation of Multiple Frequencies.
1446980	do	Espenschied, L.	Radio Receiving Apparatus.
1447204	Mar. 6, 1923	do	Plural Modulation and Demodulation Circuit.
1447773	do	Espenschied, L., and Bown, R.	Radio Transmission Control System.
1447913	do	Trowbridge, A., and Duryea, W. C.	Recording Indicator.
1448116	Mar. 13, 1923	Matthews, E. M., and Haislip, R. A.	Connector for Electrical Conductors.
1448216	do	Heising, R. A.	Signaling System.
1448408	do	Jammer, J. S.	Duplex Carrier Wave System.
1448420	do	Smith, P. C.	Telephone Exchange System.
1448523	do	Conway, R. D.	Do.
1448540	do	Houskeeper, W. G.	Apparatus for Measuring Gas Pressure.
1448542	do	Jackson, B. H.	Process of Manufacturing Loading Coils.
1448550	do	Arnold, H. D.	Thermionic Amplifier Circuits.
1448553	do	Lucas, F. F.	Telephone Plug Shelf.
1448559	do	May, D. T.	Electrical Protective Device.
1448566	do	Muller, O., Jr., and Burchett, G. W.	Wire Fabric Manufacture.
1448567	do	Muller, O. Jr., and Fischer, F. C.	Machine for Bending Wire.
1448572	do	Polinkowsky, L.	Telephone System.
1448575	do	Stevenson, G. H.	Wave Meter and Similar Electrical Device.
1448576	do	Strickler, W. B.	Telephone Exchange System.
1448577	do	Stull, J. S.	Metal Spinning Machine.
1448578	do	Swoboda, A. R.	Resistance Element.
1448583	do	Van der Bijl, H. J.	Direct Current Transformer.
1448702	do	Carson, J. R.	Translating Circuit.
1449372	Mar. 27, 1923	Arnold, H. D.	System of Telephony.
1449382	do	Carson, J. R.	Method and Means for Signaling with High Frequency Waves.
1449512	do	Ives, H. E.	High Temperature Measurement.
1449573	do	Albert, W. P.	Controlling System.
1449644	do	White, C.	Telephone System.
1449945	do	Jacobsen, M.	Wire Grip.
1450254	Apr. 3, 1923	Espenschied, L.	Balancing Arrangement for Multiplex Carrier Circuits.
1450305	do	Rhodes, W. A.	Telephone Signaling System.
1450321	do	Lundell, A. E., and Thompson, G.	Party Line Revertive Ringing System.
1450966	Apr. 10, 1923	Affel, H. A.	Synchronizing System.
1450969	do	Carson, J. R.	Receiving Circuits for Weak Signal Currents.
1451746	Apr. 17, 1923	Sultzer, M.	Multiplex Selective Circuit.
1451767	do	Espenschied, L.	Composite Ringer for Multiplex Transmission System.
1452032	do	Farrington, J. F.	Oscillation Generator for Signaling Systems.
1452266	do	Dobbin, H. F.	Centrifugal Governor.
1452269	do	Goodrum, C. L.	Telephone Exchange System.
1452274	do	Houskeeper, W. G.	Pressure Gauge.
1452275	do	do	Method of Making Leading-In Conductors.
1452277	do	Johnson, K. S.	Telephone Substation Set.
1452308	do	Miller, E. B.	Material Blanking Operation.
1452323	do	Stokley, R. L.	Toll Trunking Circuit for Machine Switching Telephone Systems.
1452339	do	Heising, R. A.	Electrical Discharge Device.
1452361	do	Clausen, H. P.	Phonographic Apparatus.
1452527	Apr. 24, 1923	Potts, L. M.	Transmitting Apparatus for Electric Telegraphs.
1452548	do	Conlee, C. M.	Manhole Platform Support.
1452827	do	De Forest, L.	Telephone Device.
1452931	do	Price, C. S.	Electric Switch.
1452957	do	Colpitts, E. H.	High Frequency Signaling.
1453387	May 1, 1923	Espenschied, L.	System for Communicating with Moving Vehicles.
1453430	do	Blackwell, O. B.	Voice Operated Relay.
1453452	do	Dobbin, H. F.	Centrifugal Governor.
1453980	do	Hoyt, R. S.	Attenuation Equalizer.
1453982	do	Kendall, B. W.	Electrical Receiving or Repeating Apparatus and Method of Operating the Same.
1454011	do	Blackwell, O. B.	System for Attaining Uniform Attenuation.
1454157	May 8, 1923	Egerton, H. C.	Phonographic Recording and Reproducing System.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1454158	May 8, 1923	Espenschied, L.	Means for Ringing Over Multiplex Transmission Channels.
1454159	do	do	Do.
1454214	do	Dean, R. S.	Fused Salt Bath for Heating Steel in Hardening.
1454495	do	Vennes, H. J.	System of Current Wave Transmission.
1454496	do	Vischer, A., Jr.	Calling Device.
1454532	do	Beatty, W. E.	Method of and Means for Secret Signaling.
1454840	May 15, 1923	Affel, H. A.	Means for Ringing Over Multiplex Transmission Channels.
1454895	do	Jones, G. G.	Electrolysis Mitigation.
1455827	May 22, 1923	Affel, H. A.	Selective Circuit for Multiplex Transmission.
1455843	do	Kirkwood, M.	System for Measuring Distortion.
1455957	do	Johnson, E. D.	Repeater System.
1495958	do	do	Signaling System.
1456059	do	do	Do.
1456076	do	Robbins, C. W.	Measuring and Testing of Inductances.
1456500	May 29, 1923	Forsberg, O. F.	Adjustable Mounting for Terminal Bank Panels.
1456501	do	Glunt, O. M.	Desk Stand for Hand Telephones.
1456503	do	Heising, R. A.	Translating Apparatus.
1456504	do	Housekeeper, W. G.	Electrode Supporting Device.
1456505	do	Knoop, W. A., and Cioffi, P. P.	Electric Discharge Device.
1456506	do	Leveridge, W. J.	Vacuum Tube Electrode Assembling Jig.
1456507	do	Lundell, A. E.	Tandem Allotting System.
1456508	do	Lundell, A. E., and Van Amstel, T.	Number Indicating System.
1456510	do	Mathes, R. C.	Transmission Circuits.
1456511	do	Minton, J. P.	Transmitter.
1456516	do	Riecken, W. E.	Connecting Plug.
1456520	do	Shreeve, H. E.	Energization and Control of Vacuum Tubes.
1456523	do	Trimble, R. F.	Method of Treating Metals.
1456524	do	Waldron, F. D.	Helmet.
1456528	do	Arnold, H. D.	Electric Discharge Device.
1456534	do	Burgess, H. A.	Printing Telegraphy.
1456536	do	Clark, E. H.	Telephone System.
1456537	do	do	Telephone Exchange System.
1456538	do	Crandall, I. B.	Acoustic Apparatus.
1456549	do	Hamilton, B. P.	Composite Signaling Circuits.
1456556	do	Hudson, E. A.	Duplex Telegraph System.
1456938	do	Schoof, A. W.	Instrument for Testing and Comparing the Lead of a Screw Thread.
1457336	June 5, 1923	Affel, H. A.	Balancing Circuits.
1457338	do	Barrows, L. D., and Darrow, L. H.	Selective Connections of Trunk Lines.
1457438	do	Kelsall, G. A.	Permeameter Furnace.
1457447	do	Mills, J.	Radio Receiving Circuits.
1457898	do	Dodge, W. L.	Telephone System.
1457912	do	MacPherson, H. D.	Do.
1458193	June 12, 1923	Osborne, H. S.	Multiple Balancing Arrangement for Multiplex Transmission.
1458225	do	Espenschied, L.	Do.
1458949	June 19, 1923	Nichols, H. W.	Carrier Radio Telephone System.
1458988	do	Morehouse, L. F.	Means for Equalizing Transmission Over Lines of Different Electrical Characteristics.
1459003	do	Thompson, G. K.	Do.
1459004	do	do	Do.
1459005	do	do	Do.
1459175	do	Aldendorff, F.	Telephone Exchange System.
1459186	do	Polinkowsky, L.	Do.
1459391	do	Clausen, H. P.	Humidity Indicating and Regulating Device.
1459394	do	Gent, E. W.	Centrifugal Governor.
1459397	do	Herrmann, R. R.	Self-Induction Coil.
1459400	do	Hocker, C. D.	Electron Emitting Cathode and Process of Making the Same.
1459403	do	Keckler, C. W., and Strickler, W. B.	Signaling System.
1459412	do	Nicolson, A. M.	Thermionic Translating Device.
1459413	do	Otto, H. M.	Conveyor for Ticket Distributing Systems.
1459417	do	Schwerin, P.	Electron Discharge Device.
1459419	do	Scriven, E. O.	Multi-Stage Amplifier Circuits.
1459422	do	Stoller, H. M.	Electrical System.
1459425	do	Wheeler, C. H.	Armature Backstop.
1459427	do	Wold, P. I.	Thermionic Regulator.
1459428	do	do	Do.
1459431	do	Allen, L. M.	Controling System.
1459434	do	Blattner, D. G.	Transmission System.
1459435	do	Boe, H. J. and Egert, B. J.	Stop Mechanism.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1459709	June 19, 1923	Kendall, B. W.	Multiplex Signaling.
1459769	June 26, 1923	Jacobs, O. B.	Repeater Circuits.
1459770	do	Jones, A. L.	System for Testing Line Balance.
1459824	do	Ford, W. H. D.	Electromagnetic Device.
1460032	do	Moore, C. R.	Vibration Detector.
1460368	July 3, 1923	Darrow, L. H.	Electric Signaling System.
1460438	do	Parker, R. D.	Secret Communication System.
1461064	July 10, 1923	Martin, De L. K.	Multiplex Transmission Circuits.
1461183	do	Fletcher, H.	Substation Circuit.
1461190	do	Housekeeper, W. G.	Vacuum Pump.
1461204	do	Bell, J. H.	Signaling System.
1461212	do	Dobbin, H. F.	Telephone Exchange Line Switch.
1461220	do	Moore, C. R.	Submarine Signaling.
1461221	do	Mortimer, L. A.	Telephone Exchange System.
1461227	do	Schwerin, P.	Vacuum Tube Manufacture.
1461228	do	do	Method and Apparatus for Coating Material.
1461232	do	Thronsen, S.	Filament Support.
1461492	do	Moody, J. F.	Electrical Testing Instrument.
1461528	do	Irvine, F. S.	Automatic Switch.
1461758	July 17, 1923	Hosford, W. F.	Cable Measuring Device.
1461783	do	Parker, R. D., and Hamilton, B. P.	Secret Communication System.
1461790	do	Sultzer, M.	Maximum Voltage Indicator.
1462026	do	Booth, W. T.	Protective Device.
1462032	do	Egerton, H. C.	Electrical Coils and Machines for Winding Same.
1462035	do	Fondiller, W.	Method of Balancing Magnetic Materials.
1462038	do	Hartley, R. V. L.	Modulating System.
1462046	do	Reddig, C. E.	Clutch Mechanism.
1462047	do	Reynolds, J. N.	Cross Bar Line Switch.
1462050	do	Scriven, E. O.	Switching Device.
1462053	do	Stoller, H. M.	Electrical Testing System.
1462055	do	Wescoat, L. C.	Interlocking Knife Switch.
1462057	do	Wold, P. I.	Switching Mechanisms for Vacuum Tubes and the Like.
1462087	do	Hendrickson, C. J.	Centrifugal Governor.
Des. 62672	do	Lum, G. R.	Loud Speaking Telephone Receiver.
1462525	July 24, 1923	Thompson, G. K.	Arrangement for Producing Complementary Visual and Audible Exhibitions.
1462526	do	Toomey, J. F., and Harrison, W. H.	Composite Ringer Set.
1463199	July 31, 1923	Davidson, J., Jr.	Ringing Arrangement for Multiplex Circuits.
1463200	do	do	Do.
1463432	do	Nichols, H. W.	Vacuum Tube Apparatus.
1463433	do	do	Signaling.
1463475	do	Loewe, S.	Thermionic Translating Device.
1463795	Aug. 7, 1923	Carson, J. R.	Translating Circuits.
1463796	do	do	Do.
1463807	do	Fondiller, W.	Treatment of Magnetic Material.
1463810	do	Gilson, A. F. F.	Head Set.
1463813	do	Harris, J. W.	Electron Emitting Cathode and Process of Manufacturing the Same.
1463815	do	Hinrichsen, E. E.	Telephone System.
1463830	do	Maxfield, J. P.	Vibration Detector.
1463831	do	Miller, D. D.	Electromagnetic Device.
1463860	do	Wilson, W.	Electron Discharge Device.
1463982	do	Ulrich, H. W.	Telephone Exchange System.
1464072	do	Hancock, E. W.	Do.
1464078	do	Kopp, O. H.	Selective Switch.
1464083	do	Loewe, S.	Receiving Apparatus for High Frequency Signaling.
1464084	do	Lundell, A. E., and Clark, E. H.	Telephone Exchange System.
1464086	do	Beatty, W. E.	Method and Means for Secret Signaling.
1464087	do	Carpenter, W. W.	Machine Switching Telephone Exchange System.
1464088	do	Cummings, G. C.	Vibrating Telegraph Relay.
1464090	do	Field, J. C., and McCarty, C. J.	Signaling System.
1464091	do	Ford, W. H. D.	Electromagnetic Device.
1464096	do	Hartley, R. V. L.	Secret Signaling.
1464097	do	Heising, R. A.	Two-Way Signaling System.
1464103	do	Nash, G. H.	Sound Detector.
1464104	do	Nicolson, A. M.	Selective Apparatus for Signaling Circuits.
1464109	do	Polinkowsky, L.	Telephone Exchange System.
1464111	do	Read, H. S.	Electric Circuits.
1464112	do	Reddig, C. E.	Electrical Ignition System.
1464118	do	Stokely, R. L.	Machine Switching Telephone Exchange System.
1464119	do	Stoller, H. M., and Mathews, E. M.	Fault Locator for Electric Cables.
1464120	do	Stoller, H. M.	Electric Ignition System.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1464124	Aug. 7, 1923	Wilson, W.	Method of making Thermionically Active Substances.
1464168	do	Booth, W. T., and Boyd, W. A.	Antenna System.
1464519	Aug. 14, 1923	Vennes, H. J.	Signaling System.
1464563	do	Demarest, C. S., and Loynes, O. H.	Repeater Control Arrangement.
1464565	do	Espenschied, L., and Bown, R.	Call System for Radio Telephony.
1464719	do	Lundell, A. E.	Telephone Exchange System.
1464726	do	Polinkowsky, L.	Do.
1465298	Aug. 21, 1923	Crisson, G., and Rose, A. F.	Cord Circuit Repeater for Use Between Four-Wire and Two-Wire Circuits.
1465299	do	Espenschied, L., and Toomey, J. F.	Low Frequency Alternating Current Signaling System.
1465332	do	Arnold, H. D.	Vacuum Tube Amplifier.
1465352	do	Dobson, G. G.	Electrical Testing System.
1465357	do	Heising, R. A.	Radio Communication.
1465358	do	do	Signaling.
1465360	do	Lundell, A. E.	Telephone Exchange System.
1465361	do	Magrath, A. C.	Operating Mechanism for Cross Bar Line Switches.
1465368	do	Shackelton, W. J.	Secret Signaling System.
1465381	do	Trimble, R. F.	Electrode and Its Construction.
1465384	do	Wescoat, L. C.	Interlocking Switch.
1465393	do	Goodrum, C. L.	Telephone Exchange System.
1465394	do	Housekeeper, W. G.	Control Apparatus for Evacuated Vessels.
1465395	do	Jammer, J. S.	Testing Circuits for Carrier Wave Signals.
1465732	do	Heising, R. A.	System of Communication.
1465757	do	Curtis, A. M.	Electric Wave Filter.
1465758	do	do	Do.
1465932	Aug. 28, 1923	Colpitts, E. H.	Multiplex Radio Telegraph System.
1465972	do	Crisson, G.	Transmission Regulating Circuit.
1466007	do	Walton, C. J.	Wire Grip.
1466155	do	Williams, S. B., Jr.	Telephone Exchange System.
1466233	do	Keckler, C. W.	Telephone System.
1466234	do	Kerr, M. B.	Telegraph System.
1466284	do	Harlow, J. B.	Detecting System.
1466286	do	Hearn, J. F.	Luminous Indicator.
1466701	Sept. 4, 1923	De Forest, L.	Method of and Means for Controlling Electric Currents by and in Accordance with Light Variation.
1466707	do	Espenschied, L.	Method and Apparatus for Limiting the Transmission of Electric Energy.
1466708	do	do	Transmission System.
1467174	do	Kern, P. E.	Protection of Iron and Steel.
Des. 62986	do	Heck, C. W.	Loud Speaking Receiver.
Des. 62997	do	Lum, G. R.	Loud Speaking Telephone Receiver.
1467360	Sept. 11, 1923	Elsasser, H. W.	Wave Filter.
1467398	do	Schumacher, E. E.	Process of Coating.
1467458	do	Toomey, J. F.	Signaling Circuit.
1467596	do	Wold, P. I.	High Frequency Modulation Device.
1468096	Sept. 18, 1923	Young, R. L.	Storage Battery Circuits.
1468101	do	Clark, A. B., and Crisson, G.	Testing Circuits.
1468687	Sept. 25, 1923	Affel, H. A.	Transmission Regulation.
1468704	do	Hamilton, H. S.	Apparatus and Method for Measuring Transmission.
1469253	Oct. 2, 1923	Deardorff, R. W.	Carrier Telegraph Circuits.
1469254	do	do	Carrier Telephone Circuits.
1469259	do	Hamilton, B. P.	Carrier Telegraph Circuits.
1469260	do	do	Do.
1469271	do	Fletcher, H.	Testing System.
1469832	Oct. 9, 1923	Hamilton, B. P.	Selective Circuits for Multiplex Signaling.
1469869	do	Affel, H. A.	Carrier Transmission Routing Arrangement.
1470035	do	Scudder, F. J.	Telephone Exchange System.
1470238	do	Mathes, R. C.	Repeater System.
1470594	Oct. 16, 1923	Branson, D. E.	Secret Signaling System.
1470611	do	Bailey, R. S.	Telephone Exchange System.
1470632	do	Martin, W. H.	Equalizing Transmission.
1470664	do	McBerty, F. R.	Automatic Telephone Exchange System.
1470696	do	Nicolson, A. M.	Television.
1470725	do	Goddard, F. M.	Selectively Operated Circuit Controlling Device.
1470747	do	Juley, J. P.	Coin Collector.
1470954	do	Beatty, W. E.	Repeater Method and System.
1470955	do	Booth, W. E.	Electric Wave Transmission System.
1470965	do	Elmen, G. W.	Transmission System.
1470982	do	Jammer, J. S.	Repeater Circuits.
1470984	do	Johnson, E. D.	Signaling Circuits.
1470985	do	Johnson, K. S.	Signaling System.
1470986	do	do	Means and Method for Signaling.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1470990	Oct. 16, 1923	Lucas, F. F	Process of Manufacturing Insulating Material.
1470991	do	Lundell, A. E	Telephone Exchange System.
1470992	do	do	Do.
1471010	do	Selvig, J. N	Spinning Tool and Machine.
1471012	do	Snook, H. C	Vacuum Pump.
1471013	do	Speed, J. B	Transmitting Device.
1471017	do	Williams, S. B. Jr	Telephone Exchange System.
1471018	do	do	Do.
1471335	Oct. 23, 1923	Johnson, E. D	Signaling System and Method of Operating the Same.
1471383	do	Clark, A. B	Method and Means for Measuring Unbalance
1471388	do	Dietze, E	Signaling Circuit.
1471404	do	Martin, W. H	Do.
1471617	do	Lundell, A. E	Telephone Exchange System.
1471634	do	Thronsen, S. and Sager J. W	Semi-Automatic Winding Machine.
1471636	do	Vennes, H. J	Artificial Line.
1471638	do	Whiting, D. F	Telephone System.
1471639	do	do	Do.
1471657	do	Hampton, L. N	Brake for Rolling Ladders.
1471661	do	Housekeeper, W. G	Vacuum Pump.
1471662	do	do	Do.
1472035	Oct. 30, 1923	Affel, H. A	Means for Signaling Over Multiplex Transmission Channels.
1472087	do	Pike, V. B	Gas Heated Soldering Iron.
1472237	do	Bendernagel, W. H	Telephone Transmission System.
1472289	do	Bown, R. and Nelson, E. L	Radio Wire Connecting Circuits.
Re 16385	July 20, 1926	do	Do.
1472351	Oct. 30, 1923	Aldendorff, F	Automatic Switch for Interconnecting Lines.
1472451	do	Akers, M. K	Phantomed Signaling Circuits.
1472453	do	Bell, J. H	Printing Telegraphy.
1742455	do	Blattner, D. G	Testing Circuit.
1472456	do	Boardman, A	Apparatus for Treating Brass.
1472458	do	Clark, E. H	Number Indicating System.
1472460	do	Clausen, H. P. and Goodrum, C. L.	Telephone System.
1472463	do	Eaves, A. J	Telegraph Repeating System.
1472465	do	Forsberg, O. F	Automatic Switch.
1472469	do	Goodrum, C. L	Telephone Exchange System.
1472470	do	Hartley, R. V. L	Method and Means for Producting Alternating Currents.
1472477	do	King, R. W	Electron Discharge Device.
1472483	do	Mathes, R. C	Telegraph System.
1472485	do	Morrill, J. B	Do.
1472501	do	Stokely, R. L	Machine Switching Telephone Exchange System.
1472503	do	Taylor, H. B	Switching Device.
1472505	do	Trimble, R. F	Method of Making Electrodes.
1472506	do	Van der Vort, C. O	Telegraph System.
1472507	do	Vennes, H. J	Artificial Line.
1472585	do	Colpitts, E. H	Multiplex Signaling System.
1472595	do	Hillhouse, J. T. E	Calling Device.
1472610	do	Mathes, R. C	Transmission Circuit.
1472631	do	Bowman, H. N	Magnetic Coil.
1472818	Nov. 6, 1923	Waller, L. R	Brush Tripping Device.
1472821	do	Affel, H. A	Ringing Channel for Multiplex Telephone System.
1472822	do	do	Calling Arrangement for Radio Systems.
1472849	do	Martin, W. H	Forwarding System for Ocean Cables and the Like.
1472987	do	Murphy, P. B	Signaling System.
1473417	do	Beetem, F. G	Radio Receiving Apparatus.
1473433	do	Kishpaugh, A. W	Carrier Wave Transmission System.
1473671	Nov. 13, 1923	Davidson, J., Jr	Telephone Exchange System.
1473674	do	Espenschied, L	Means for and Method of Modulation.
1473682	do	Osborne, H. S	Repeater Apparatus for Carrier Systems.
1474008	do	Stokely, R	Machine Switching Telephone Exchange System.
1474038	do	Johnson, E. D	Telephone Repeater Circuits.
1474408	Nov. 20, 1923	Deardorff, R. W	Detecting Circuit.
1474426	do	Affel, H. A	Secret Communication System.
1474430	do	Blackwell, O. B	Telephone Repeater.
1475201	Nov. 27, 1923	Toomey, J. F	Telephone Exchange System.
1475219	do	Brown, R	Radio Signaling System.
1475240	do	Osborne, H. S	Low Frequency Measuring Device.
1475667	do	Webster, W. S	Rheostat.
1475987	Dec. 4, 1923	Cushing, W. A	Single Transmission Telegraph System.
1475997	do	Hoyt, R. S	Network for Neutralizing the Susceptance of a Loaded Line.
1476003	do	Martin, DeL. K	Radio Signaling Call System.
1476678	Dec. 11, 1923	Affel, H. A	Demodulating Apparatus.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1476689	Dec. 11, 1923	Chapman, A. G.	Electrical Testing System.
1476721	do	Martin, DeL. K.	Frequency Control System.
1477017	do	Sprague, C. A.	Current Controlling and Static Reducing System.
1477528	Dec. 18, 1923	Affel, H. A.	Signaling.
1477596	do	Rhodes, F. L.	Means for Supporting Aerial Cables.
1477609	do	Thompson, G. K.	Telephone Receiver Attachment.
1477674	do	Trowbridge, A., and Duryea, W. C.	Camera.
1477874	do	Harrison, W. H.	Telephone System.
1478005	do	Field, J. C.	Signaling System.
1478008	do	Harlow, J. B.	Do.
1478014	do	Bellamy, H. T.	Switchboard Incandescent Lamp.
1478022	do	Carpenter, W. W., and Hovland, H.	Telephone System.
1478024	do	Clausen, H. P.	Combined Telephone and Telegraph System.
1478029	do	De Forest, L.	Radio Receiving System.
1478037	do	Keckler, C. W.	Telephone Exchange System.
1478042	do	Martin, H. T.	Multiple Unit Switch.
1478045	do	Mead, E. D.	Relay.
1478047	do	Mills, J.	Radio Receiving System.
1478050	do	Nelson, E. L.	Modulation Circuits and Measurement.
1478051	do	Nichols, H. W.	Relay.
1478062	do	Scheuch, W. A.	Degasifying Agent.
1478068	do	Selvig, J. N.	Apparatus for Drilling and Cutting.
1478071	do	Trimble, R. F.	Jig Employed in Construction of Electrodes.
1478072	do	Van der Bijl, H. J.	Vacuum Tube.
1478074	do	Van Rutten, L.	Telephone Transmitter Mouthpiece.
1478076	do	Weinhart, H. W.	Electron Discharge Device.
1478078	do	Wente, E. C.	Equalizing Network.
1478079	do	Wescoat, L. C.	Electrical Distribution System.
1478086	do	Williams, S. B., Jr.	Telephone Exchange System.
1478087	do	Wilson, W.	Vacuum Tube.
1478412	Dec. 25, 1923	Walton, C. E.	Telegraph Apparatus.
1478419	do	Bailey, R. S.	Machine Switching Telephone Exchange System.
1478458	do	Smith, D.	Network Controlling Circuits.
1478607	do	Goodrum, C. L.	Machine Switching Telephone Exchange System.
1479051	Jan. 1, 1924	Best, F. H.	Artificial Line.
1479430	do	Fell, J. M.	Telegraph Repeater System.
1479442	do	Aldendorff, F.	Metering Telephone System.
1479505	do	Johnson, K. S.	Transmission Circuit.
1479516	do	Scriven, E. O.	Signaling by High Frequency Waves.
1479554	do	Polinkowsky, L., and Matthies, W. H.	Machine Switching Telephone Exchange System.
1479613	do	Kendall, B. W.	Multiplex Signaling.
1479617	do	McQuarrie, J. L., and Goodrum, C. L.	Telephone Exchange System.
1479778	do	Van der Bijl, H. J.	Vacuum Tube Device.
1479779	do	do	Electron Discharge Device.
1479845	Jan. 8, 1924	Vernam, G. S.	Printing Telegraph System.
1479846	do	do	Ciphering Device.
1479984	do	Deakin, G.	Telephone Exchange System.
1479991	do	King, R. W.	Electron Discharge Device.
1480202	do	Goodrum, C. L.	Telephone System.
1480206	do	Hoffmann, H. L.	Machine Switching Telephone Exchange System.
1480207	do	Holmberg, C. G., Jr.	Strand Twisting Machine.
1480208	do	Housekeeper, W. G.	Vacuum Tube.
1480209	do	Jammer, J. S.	Carrier Wave Call Signaling System.
1480210	do	Johnson, K. S.	Telephone Circuits and Method of Operating the Same.
1480214	do	Lundell, A. E.	Telephone Exchange System.
1480215	do	Matthies, W. H.	Machine Switching Telephone Exchange System.
1480216	do	Mills, J.	Transmission System.
1480217	do	do	Method and Means for Signaling.
1480218	do	Moore, C. R.	Submarine Signaling.
1480219	do	Nicholson, A. M.	Vacuum Tube.
1480225	do	Snook, H. C.	Electrical Cutout.
1480227	do	Stevenson, G. H.	Impedance Element.
1480229	do	Strickler, W. B.	Telephone Exchange System.
1480235	do	White, C.	Carrier Wave Signaling System.
1480239	do	Chaplin, M. P.	Friction Clutch.
1480240	do	Clark, E. H.	Telephone Exchange System.
1480241	do	Clausen, H. P., and Goodrum, C. L.	Machine Switching Telephone Exchange System.
1480242	do	do	Telephone Exchange System.
1480243	do	Clokey, A. A.	Signaling System.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1480403	Jan. 8, 1924	Lattig, J. W., and Goodrum, C. L.	Telephone Exchange System.
1480612	Jan. 15, 1924	Hitchcock, H. W.	Multiplex Signaling System.
1480614	do	Jacobs, O. B.	Telephone Repeater.
1481284	Jan. 22, 1924	Deardorff, R. W.	Means for and Method of Amplitude Selection.
1481289	do	Jones, G. G.	Electrolysis Mitigation.
1481324	do	Lack, F. R., and Murphy, P. B.	Signaling System.
1481817	Jan. 29, 1924	Affel, H. A.	Repeater for Multiplex Systems.
1481831	do	Demarest, C. S.	Repeater Arrangement for Multiplex Signaling.
1481923	do	Nash, G. H.	Method and Apparatus for Locating the Direction of a Source of Vibration.
1481969	do	Reeves, F. N.	Telephone Exchange System.
1482119	do	De Forest, L.	Means for Recording and Reproducing Sound.
1482557	Feb. 5, 1924	Hamilton, B. P.	Composite Signaling System.
1482558	do	do	Alternating Current Signaling Apparatus.
1482618	do	Polinkowsky, L., and Matthies, W. H.	Telephone Exchange System.
1482625	do	Thompson, G.	Distributing Switch.
1482712	do	Stearn, F. A.	Testing System for Automatic Exchanges.
1483133	Feb. 12, 1924	Toomey, J. F., and Crisson, G.	Electrical Testing System.
1483172	do	Gannett, D. K.	Signaling System.
1483179	do	Jammer, J. S.	Means for Controlling Electrical Transmission.
1483273	do	Blattner, D. G.	Circuit for Heating the Filament of Audions.
1483400	do	Wilbur, R. S.	Telephone System.
1483790	do	Edwards, G. D.	Method and System for Detecting Sources of Vibration.
1483876	Feb. 19, 1924	Goff, H. W.	Electromagnetic Step-by-Step Switch with Magnetic Brake.
1483900	do	Lundell, A. E.	Telephone Exchange System.
1483930	do	Darrow, L. H.	Transmission Equalization Arrangement.
1483956	do	Toomey, J. F.	Telephone System.
1484087	do	Ryan, F. M.	Radio Broadcasting Equipment.
1484134	do	Keckler, C. W.	Telephone System.
1484348	do	Aldendorff, F.	Machine Switching Telephone System.
1484386	do	Cummings, G. C.	Telegraph System.
1484396	do	Johnson, K. S.	Telephone System.
1484397	do	do	Substation Circuit.
1484402	do	Martin, H. T.	Fastening for Telephone Key Bases.
1484405	do	Oswald, A. A.	Signaling System.
1484411	do	Read, H. S.	Radio Receiving System.
1484412	do	Reddig, C. E.	Prime Mover Dynamo Plant.
1484614	Feb. 26, 1924	Albert, W. P.	Telephone System.
1484707	do	Gannett, D. K.	Relays and Circuits Therefor.
1484731	do	Malm, F. S.	Manufacture of Sponge Rubber Articles.
1484732	do	Mather, G. E.	Switching Device.
1484751	do	Andrick, W. P.	Telephone Exchange System.
1484762	do	Cummings, G. C.	Telegraph System.
1484765	do	Edwards, G. D.	Do.
1484771	do	Goodrum, C. L.	Do.
1484933	do	Conway, R. D.	Do.
1484941	do	Goodrum, C. L.	Telephone Exchange System.
1484950	do	Lundell, A. E.	Do.
1484963	do	Raynsford, A.	Do.
1484967	do	Schelleng, J. C.	Amplifying System.
1484973	do	Stevenson, G. H.	Airplane Interphone Set.
1484988	do	Hamilton, H. S.	Public Address Circuits.
1485005	do	Wright, J. L.	Telephone Exchange System.
1485156	do	Arnold, H. D.	System of Distribution.
1485650	Mar. 4, 1924	Vennes, H. J.	Generating Harmonic Currents.
1485662	do	Arnhorst, C. F.	Serving or Insulating Machine.
1485675	do	Hartley, R. V. L.	Multiplex Telegraphy.
1485710	do	Reddig, C. E.	Vaporizer.
1485713	do	Rhoads, C. S.	Tension Tester or Indicator.
1485773	do	Espenschied, L.	Radio Calling or Signaling.
1486132	Mar. 11, 1924	Egerton, H. C.	Telephone Transmitter Button.
1486863	Mar. 18, 1924	Buckley, O. E.	Continuously Loaded Signaling Conductor.
1486866	do	De Forrest, L.	Sound Producer.
1486868	do	Egerton, H. C.	Intercommunicating Telephone System.
1486892	do	Herrmann, R. R.	Transmitting Device.
1487108	do	Knoop, W. A.	Regulating System.
1487112	do	Lundell, A. E.	Telephone Exchange System.
1487113	do	do	Machine Switching Telephone System.
1487115	do	McQuarrie, J. L.	Intelligence System.
1487138	do	Atwood, G. F.	Method of Detecting the Direction of Under Water Vibrations.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1487267	Mar. 18, 1924	Retallack, J. B.	Testing System.
1487288	do	Thronsen, S.	Device for Treating Glass.
1487298	do	Vennes, H. J.	Method of and Apparatus for Vibration.
1487309	do	Booth, W. T.	Airplane Signaling Apparatus.
1487314	do	Chaplin, M. P.	Speed Regulator.
1487351	do	Polinkowsky, L.	Machine Switching Telephone Exchange System.
1487373	do	Deakin, G.	Power Transmitting Mechanism.
1487451	do	Farrington, J. F.	Circuits for Electrical Discharge Devices.
1487996	Mar. 25, 1924	Williams, S. B., Jr.	Telephone Exchange System.
1488006	do	Heising, R. A.	Radio Transmission System.
1488187	do	Ramsdell, R. G.	Signaling System.
1488207	do	Kuhn, G. W., and Ramsdell, R. G.	Do.
1488489	Apr. 1, 1924	Gabriel, J. C.	Wave Modulating.
1488586	do	Deakin, G.	Senderless Automatic Telephone Satellite System.
1488598	do	Goodrum, C. L.	Telephone Exchange System.
1488774	do	Atwood, G. F.	Electromagnetic Step-by-Step Mechanism.
1488784	do	Goodrum, C. L.	Measured Service Telephone System.
1488785	do	do	Coin Collecting and Metering System for Telephone Systems.
1488788	do	Hearn, J. F.	Electric Current Controlling Device.
1488797	do	Polinkowsky, L.	Machine Switching Telephone Exchange System.
1488800	do	Stoller, H. M., and Pattison, H. A.	Electric Control System.
1488847	do	Toomey, J. F.	Telephone System.
1489782	Apr. 8, 1924	Newell, E. L.	Calculating and Plotting Device.
1490165	Apr. 15, 1924	Expenschied, L.	Balanced Antenna System.
1490166	do	do	Carrier Telegraph Circuits.
1490679	do	Pratt, E. J.	Repeater Circuits.
1490958	Apr. 22, 1924	Bown, R.	Frequency Control System.
1490993	do	Toomey, J. F.	Apparatus and Circuits for Preventing Side Tone.
1491177	do	Stokely, R. L.	Telephone Exchange System.
1491321	do	Swoboda, A. R.	Electromagnet.
1491323	do	Temple, D. L.	Telephone Exchange System.
1491327	do	Van Amstel, T.	Register Control Telephone Exchange System.
1491331	do	Baker, C. I.	Card Holder.
1491334	do	Casper, W. L.	Telephone System.
1491337	do	Conway, R. D.	Coin Collecting System for Automatic Telephone Exchange.
1491338	do	do	Pay Station Automatic Telephone System.
1491339	do	do	Do.
1491340	do	Curtis, A. M.	System for Signaling.
1491341	do	Eaves, A. J.	Condenser.
1491343	do	Fondiller, W.	Loading Coil.
1491344	do	Fry, J. R.	Relay Controlling System.
1491345	do	Gargan, J. O.	Electrical Regulating Device.
1491346	do	Gent, E. W.	Relay.
1491348	do	Keller, L., and Goodrum, C. L.	Telephone Exchange System.
1491349	do	Kendall, B. W.	Electrical Receiving or Repeating Apparatus.
1491350	do	McMurry, F. R.	Enciphering and Deciphering Mechanism.
1491351	do	McQuarrie, J. L.	Automatic Telephone Switch.
1491355	do	May, D. T.	Electromagnet.
1491357	do	Nichols, H. W.	Secret Signaling.
1491358	do	Pfannenstiehl, H.	Enciphering and Deciphering Mechanism.
1491359	do	Pleijel, H. B. M., and Olsson, A. H.	Means and Method for Reducing Crosstalk in Loading Coils.
1491362	do	Shreeve, H. E.	Vacuum Tube.
1491769	do	Arntzenius, C. R. H.	Telephone System.
1491848	do	Crisson, G.	Artificial Line.
1491867	Apr. 29, 1924	Kuhn, G. W.	Electrical Switching Device.
1492092	do	Wilbur, R. S.	Telephone System.
1492213	do	Mortimer, L. A.	Do.
1492219	do	Quass, R. L.	Party Line Telephone Exchange System.
1492602	May 6, 1924	Leveridge, W. J., and Schwerin, P.	Machine for Working on Glass.
1492868	do	Toomey, J. F.	Telephone System.
1493109	do	Davidson, J., Jr.	Do.
1493216	do	Mathes, R. C.	Vacuum Tube Filament and Plate Compensation.
1493217	do	do	Vacuum Tube Circuits.
1493586	May 13, 1924	Wood, E. B.	Measuring and Recording Device.
1493595	do	Blattner, D. G.	Amplifying with Vacuum Tubes.
1493600	do	Campbell, G. A.	Wave Filter.
1493619	do	Espenschied, L.	Carrier Transmission System.
1493631	do	Holland, N. H.	Diaphragm and Method of Making the Same.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1494347	May 20, 1924	Espenschied, L.	High Speed Radio System.
1494349	do	Fletcher, H.	Testing System.
1494392	do	Shanck, R. B.	Means for Preventing Electrical Interference.
1494548	do	Ives, H. E.	Photometer.
1494551	do	Johnston, J.	Humidity Regulator.
1494629	do	Reddig, C. E.	Automatic Power and Light System.
1494878	do	Andrick, W. P.	Telephone System.
1494905	do	Hartley, R. V. L.	Modulator Control.
1494908	do	Heising, R. A.	Amplification of Modulated Waves.
1494924	do	Lundell, A. E.	Telephone Exchange System.
1494927	do	Merrill, F. W.	Regulator.
1494935	do	Scriven, E. O.	Alternating Current Source.
1494964	do	Stoller, H. M.	Propeller.
1495221	May 27, 1924	Clark, A. B.	Means and Method for Controlling Transmission.
1495228	do	Hamilton, B. P.	Detecting Circuits.
1495279	do	Van der Bijl, H. J.	Pressure Control for Gaseous Discharge Device.
1495295	do	Fletcher, H.	Telephone Circuits.
1495422	do	Mathes, R. C.	Transmission Circuits.
1495429	do	Nicolson, A. M.	Piezophony.
1495466	do	Wente, E. C.	Electrical Testing System.
1495470	do	Farrington, J. F.	High Frequency Transmission.
1495497	do	Johnson, J. B.	Method of Coating.
1495585	do	Fowler, C. B.	Operator Instruction Circuits.
1495597	do	Johnson, K. S.	Testing System.
1495932	June 3, 1924	Espenschied, L.	Means for and Method of Reducing Singing in Repeaters.
1496014	do	Osborne, H. S.	Multi-Channel Circuits.
1496763	June 10, 1924	Booth, W. T., and Boyd, W. A.	Vibration-Reducing Mounting Device for Signaling Systems.
1496767	do	Bowne, L. J.	Telephone System.
1496772	do	Conway, R. D.	Pay Station Automatic Telephone System.
1496783	do	Mills, E. H.	Electrical Relay.
1496785	do	Shackelton, W. J.	Portable Impedance Bridge.
1496817	do	Mather, G. E.	Electrical Connector.
1496813	do	May, D. T.	Electrical Switching Circuit.
1496847	do	Hoffmann, H. L.	Telephone Exchange System.
1496849	do	Holden, W. H. T.	Selective Signaling System.
1496875	do	Fiehl, J. C.	Impulse Transmitting Mechanism.
1497032	do	Williams, S. B., Jr.	Telephone Exchange System.
1497231	do	Polinkowsky, L.	Do.
1497235	do	Raynsford, A.	Do.
1497237	do	Bell, J. H.	Telegraph System.
1497299	do	Mills, J.	System of Wave Transmission.
1497300	do	Stoller, H. M.	Electric Regulator.
1497379	June 17, 1924	Grondahl, H. H. C.	Wire or Thread Whipping Mechanism.
1497714	do	Espenschied, L.	Secret Communication System.
1497715	do	do	Multiplex Signaling Circuits.
1497733	do	Hoge, J. F. D.	Battery Holder.
1497832	do	Balduf, B. E.	Wire or Thread Whipping Mechanism.
1498539	June 24, 1924	Albert, W. P.	Controlling System.
1498544	do	Fowler, C. B.	Electrical Selective System.
1498560	do	Lundius, E. R.	Testing Device for Telephone Exchange Systems.
1498598	do	Osborne, H. S.	Equalization of Carrier Transmissions.
1498592	do	Toomey, J. F., and Loynes, O. H.	Telephone System.
1498932	do	Bendernagel, W. H.	Telephone Transmission System.
1498957	do	Casper, W. L.	Artificial Line.
1498915	do	Hoyt, R. S.	Do.
1498941	do	Wilbur, R. S.	Signaling Circuits.
1498945	do	Bendernagel, W. H.	Telephone Transmission System.
1499091	do	Smythe, E. H., and Williams, S. B., Jr.	High Frequency Signaling and Communicating System.
1499439	July 1, 1924	Affel, H. A.	System of Radio Communication with Moving Vehicles.
1499454	do	Loynes, O. H.	Transmission Regulating Circuits.
1499766	do	Field, J. C.	Switching System.
1500552	July 8, 1924	Espenschied, L.	Multiplex Transmission System.
1500553	do	do	Harmonic Suppressor.
1500593	do	Richard, C. D.	Cross Bar Line Switch.
1500937	do	Taylor, H. B.	Power Transmitting Mechanism.
1501033	July 15, 1924	Albert, W. P.	Telephone Exchange System.
1501046	do	Goodrum, C. L.	Automatic Control for Charging Secondary Batteries.
1501070	do	Snook, H. C.	Vacuum Pump.
1501071	do	do	Do.
1501074	do	Stokely, R. L.	Machine Switching Telephone Exchange System.
1501077	do	Van Inwagen, C. L., Jr.	Conveyer.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1501103	July 15, 1924	Espenschied, L.	Conjugate Signaling Circuits.
1501104	do	do	Multiplex Radio System.
1501109	do	Harlow, J. B.	Switching System.
1501120	do	Lysons, N. H.	Polarized Relay.
1501132	do	Murphy, P. B.	Signaling System.
1501174	do	Mortimer, L. A.	Switching System.
1501576	do	Whiting, D. F.	Electrical Testing System.
1501647	do	Campbell, T. C.	Shaft Coupling.
1501648	do	Conway, R. D.	Telephone System.
1501649	do	Cummings, G. C.	Transformer.
1501667	do	Johnson, K. S.	Electrical Network.
1501668	do	Keller, L.	Telephone System.
1501669	do	Kelsall, G. A.	Inductance Device and Method for Operating the Same.
1501674	do	Long, M. B.	Selective Circuits.
1501675	do	Lundell, A. E., and Clark, E. H.	Telephone Exchange System.
1501676	do	Lundell, A. E., and Wynne, J. J.	Do.
1501683	do	Oswald, A. A.	Remote Control System.
1501684	do	do	Do.
1501691	do	Vennes, H. J.	Selective Transmission of Electric Waves.
1501692	do	Ward, H. L.	Electrode.
1501693	do	Wilbur, R. S.	Telephone Transmission System.
1501711	do	Heising, R. A.	Distant Control System.
1501729	do	Scriven, E. O.	Oscillation Generator.
1501871	do	Stearn, F. A.	Telephone Exchange System.
Des65194	do	Lum, G. R.	Casing for a Telephone Transmitter.
Des65204	do	Thompson, G. K.	Desk Stand for Hand Telephones.
1501926	July 22, 1924	Shaw, T.	Loaded Transmission Circuit.
1501959	do	Martin, W. H., and Shaw, T.	Loaded Transmission Circuits.
1502243	do	Fry, T. C.	System for Determining the Direction of Propagation of Wave Energy.
1502811	July 29, 1924	Epsenschied, L.	High Frequency Multiplex Signaling System
1502812	do	do	Do.
1502813	do	do	Do.
1502814	do	do	Do.
1502815	do	do	Do.
1502816	do	do	Do.
1502817	do	do	Do.
1502889	do	Van der Bijl, H. J.	Method and System for Radio Signaling.
1503709	Aug. 5, 1924	Pruden, H. M.	Vacuum Tube Circuits.
1503824	do	Fry, T. C.	Harmonic Analyzer.
1504124	do	Kuhn, G. W.	Electrical Testing System.
1504135	do	Nyquist, H.	Telephone Repeater Circuits.
1504204	Aug. 12, 1924	Andrick, W. P.	Switching Circuit for Radio and Similar Systems.
1504215	do	Clausen, H. P.	Telephone Exchange System.
1504227	do	Gent, E. W.	Automatic Telephone Switch.
1504228	do	Gooderham, J. W.	Telephone Exchange System.
1504229	do	do	Do.
1504230	do	do	Do.
1504231	do	do	Do.
1504232	do	Hinrichsen, E. E., and Goodrum, C. L.	Metering System for Party Telephone Lines.
1504254	do	McQuarrie, J. L., and Bullard, A. M.	Semi-Mechanical Telephone Exchange System.
1504258	do	Matthies, W. H.	Telephone Exchange System.
1504260	do	Mills, E. H.	Do.
1504261	do	do	Do.
1504267	do	Polinkowsky, L.	Machine Switching Telephone System.
1504268	do	do	Machine Switching Telephone Exchange System.
1504275	do	Scudder, F. J.	Automatic Telephone Exchange System.
1504276	do	Shackelton, W. J.	Transmission Circuits.
1504283	do	Taylor, H. B.	Sequence Switch.
1504293	do	Williams, S. B. Jr.	Telephone Exchange System.
1504294	do	do	Telephone System.
1504295	do	do	Telephone Exchange System.
1504296	do	do	Telephone System.
1504297	do	do	Telephone Exchange System.
1504301	do	Adams, A. H.	Method of Producing a Balanced Telephone Exchange.
1504303	do	Affel, H. A.	Method and Means for reducing Static Disturbances.
1504304	do	Albert, W. P., and Carpenter, W. W.	Telephone Exchange System.
1504319	do	Best, F. H.	Testing Apparatus.
1504406	do	White, C.	Signaling System.
1504535	do	Affel, H. A.	Multiplex Transmission Channel.
1504537	do	Arnold, H. D.	Power Limiting Amplifying Device.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1504882	Aug. 12, 1924	Elmen, G. W	Method and Apparatus for Transmitting Signals.
1505158	Aug. 19, 1924	Martin, DeL. K	Frequency Control System.
1505171	do	Stearn, F. A	Telephone Exchange System.
1505231	do	Toomey, J. F	Signaling System.
1505234	do	Akers, M. K	Vacuum Tube Frequency Converter.
1505275	do	Mills, J	Operating Alternating Current Relays.
1505276	do	do	System for Locating the Source of Sound.
1505481	do	Moore, C. R	Acoustical Device.
1505710	do	Irvine, F. S	Telephone System.
1506271	Aug. 26, 1924	Reynolds, J. N., and Hearn, J. F.	Line Switch.
1506275	do	Stevenson, G. H	Protective Means for Electric Circuits.
1506735	Sept. 2, 1924	Conway, R. D., and Quass, R. L.	Coin Collect System for Automatic Telephone Exchanges.
1506743	do	Gooderham, J. W	Telephone Exchange System.
1506747	do	Hall, J. A	Do.
1506759	do	Lundell, A. E	Telephone System.
1506760	do	Lysons, N. H	Calling Device.
1506764	do	May, D. T	Apparatus for and Method of Recording the Temperature and Humidity of the Atmosphere.
1506765	do	Merrill, F. W	System for Controlling the Speed of Dynamo-Electric Machinery.
1506864	do	Polinkowsky, L	Telephone Exchange System.
1506884	do	Carpenter, W. W	Do.
1506895	do	Field, F. E	Electrical Measuring Methods and Means.
1506896	do	do	Testing Methods and Systems.
1506899	do	Goodrum, C. L	Telephone System.
1506901	do	Hall, J. A	Telephone Exchange System.
1506912	do	MacPherson, H. D	Do.
1560913	do	do	Do.
1507000	do	Roberts, J. G	Automatic Telephone Exchange.
1507016	do	De Forest, L	Radio Signaling System.
1507017	do	do	Wireless Telegraph and Telephone System.
1507113	do	Gooderham, J. W	Telephone Exchange System.
1507116	do	Hinrichsen, E. E	Telephone System.
1507136	do	Nicoll, R. I. D	Transmission System.
1507140	do	Reynolds, J. N	Automatic Telephone Switch.
1507144	do	Vallette, F. C	Telephone System.
1507160	do	Crisson, G	Pilot Wire Regulator System.
1507178	do	Hitchcock, H. W	Method and Means for Reducing Interference in Transmission Systems.
1507763	Sept. 9, 1924	Whiting, D. F	Telephone Transmission System.
1507887	do	Mills, J	Wave Frequency Circuits for Communication Systems.
1507889	do	Nicolson, A. M	Method and Means for Repeating.
1507894	do	Robinson, C. A	Signaling System.
1507905	do	Beatty, W. E	Do.
1507913	do	Fitch, A. L	Modulation of Electrical Waves.
1507919	do	Johnson, J. B	Apparatus and Method for Admitting Gas Into a Vacuum.
1507930	do	McDonough, J	Gauging Device.
1507946	do	Wynne, J. J	Switch Control Circuits.
1507962	do	Hibbard, F. H	Jig for Assembling Coordinate Switches.
1507966	do	Irvine, F. S	Telephone System.
1507994	do	Field, F. E	Electric Circuits.
1508135	do	Blount, H., and Hallsworth, H. M.	Treatment of Bright Surfaced Materials.
1508354	do	Scriven, E. O	Electric Wave Filter.
1508404	do	Lundell, A. E	Telephone Exchange System.
1508424	Sept. 16, 1924	Thompson, G. K	Telephone Desk Set.
1508425	do	Toomey, J. F., and Phelps, H. E.	Telephone Private Branch Exchange Circuits.
1508432	do	Wier, H. B	Sound Recording and Reproducing Apparatus.
1508565	do	Mills, J	Loading System.
1508744	do	Carr, J. O., and Krum, H. L. H. L.	Supporting Base for Relays or Other Electric Units.
1509139	Sept. 23, 1924	Grimes, D	Radio Receiving Apparatus.
1509184	do	Zobel, O. J	Multiplex Band Wave Filter.
1509434	do	Kopp, O. H	Telephone Exchange System.
1509851	Sept. 30, 1924	Trapp, E. F	Signaling System.
1509886	do	Vernam, G. S	Printing Telegraph System.
1509901	do	Nyquist, H	Electrical Measuring System.
1510676	Oct. 7, 1924	Johnson, E. D	Repeater Circuits.
1510698	do	Nicolson, A. M	Repeating Method and System.
1510985	do	Espenschied, L	Transmission Regulation.
1511013	do	Affel, H. A	Equalization of Carrier Transmissions.
1511014	do	do	Transmission Regulation.
1511015	do	do	Do.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1511326	Oct. 14, 1924	Fell, J. M	Duplex Telegraphy.
1511360	do	Osborne, H. S	Anti-Inductive System.
1511423	do	Quarles, D. A., and Mohr, F.	Electric Current Transmission.
1511629	do	Nyquist, H	Electrical Testing System.
1511755	do	Cory, S. I	Do.
1511756	do	do	Do.
1512024	Oct. 21, 1924	Hocker, C. D	Plastic Composition.
1512039	do	Radford, J. B	Street Lighting Accessory.
1512070	do	Vernam, G. S	Printing Telegraphy.
1512087	do	Fish, L. B	Buckle for Safety Straps.
1512584	do	Dunham, B. G	Telephone Exchange System.
1512907	Oct. 28, 1924	Conway, R. D	Telephone System.
1512930	do	Hitchcock, H. W	Do.
1512933	do	Husta, P	Do.
1512941	do	Loewe, S	Frequency Changing Device.
1512953	do	Shanck, R. B	Arrangement for Protecting Electrical Contacts.
1513351	do	Taggart, D. M., and Scudder, F. J.	Measured Service Telephone System.
1513362	do	Allen, L. M	Telephone Exchange System.
1513441	do	Affel, H. A	Half-Duplex Morse Carrier System.
1513450	do	Espenschied, L	Do.
1513451	do	do	Do.
1513452	do	do	Do.
1513453	do	do	Do.
1513760	Nov. 4, 1924	Martin, W. H	Foreign Potential Dectecting Device.
1513761	do	Osborne, H. S	High Frequency Composite Set.
1514645	Nov. 11, 1924	Bailey, R. S	Private Branch Exchange Circuits.
1514648	do	Bown, R	Directive Radio System.
1514701	do	Horton, J. W	Transmission Circuits.
1514705	do	Kendall, B. W	Vacuum Tube Repeater Circuits.
1514708	do	Lucas, F. F	Method of Making Insulated Tubes.
1514718	do	O'Neill, H. W	Telephone System.
1514728	do	Reddig, C. E	Reversing Mechanism.
1514733	do	Sass, A. H	Condenser.
1514735	do	Scriven, E. O	Method and Means for Producing Harmonics of Alternating Currents.
1514736	do	Siegmund, H. O	Asymmetric Cell Anode.
1514751	do	Wold, P. I	Vacuum Tube Oscillator Chronometer.
1514752	do	do	Means of and Method for Receiving Radio Signals.
1514753	do	do	Signal Receiving System.
1514837	do	Deakin, G	Machine Switching Telephone System.
1514844	do	Field, J. C	Switching System.
1514847	do	Fowler, C. B	Telephone Exchange System.
1514850	do	Goff, H. W	Coordinate Switch.
1514852	do	Grondahl, H. H. C	Wire or Thread Whipping Mechanism.
1514853	do	Haase, C. O	Do.
1514854	do	Harlow, J. B	Switching System.
1514861	do	Raynsford, A	Telephone Exchange System.
1515109	do	Hartley, R. V. L	Current Modifying Relay System.
1515152	do	De Forest, L	Communication System for Railway Trains.
1515631	Nov. 18, 1924	Taylor, H. B	Switching Device.
1515632	do	do	Automatic Telephone Switch.
1515643	do	Wright, S. B	Transmission Circuits.
1515660	do	Crisson, G	Measuring Instrument for Vacuum Tubes.
1515669	do	Forsberg, O. F	Switching Device.
1515674	do	Goodrum, C. L	Telephone System.
1515686	do	Kuntz, F. A	Mounting for Calling Dials.
1515735	do	Goodrum, C. L. and Reynolds, J. N.	Machine Switching Telephone System.
1516518	Nov. 25, 1924	Carson, J. R	Signaling System.
1516519	do	Crisson, G	Electrical Transformer.
1517257	Dec. 2, 1924	Scudder, F. J	Telephone Exchange System.
1517260	do	Stearn, F. A	Do.
1517265	do	Taylor, H. B	Automatic Telephone Switch.
1517315	do	Rhodes, W. A	Telephone Exchange System.
1517331	do	Williams, S. B., Jr	Do.
1517381	do	Potts, L. M	System of Telegraph Distribution.
1517425	do	Hendrickson, C. J., and Miller, V. F.	Automatic Telephone Switch.
1517857	do	Norton, P., and May, D. T	Selective System.
1517869	do	Stokely, R. L	Semi-Automatic Telephone Exchange System.
1518495	Dec. 9, 1924	Espenschied, L	Selective Circuits.
1518543	do	Nyquist, H	Electrical Measuring Apparatus.
1518736	do	Goodrum, C. L	Telephone System.
1518815	do	Polinkowsky, L	Machine Switching Telephone Exchange System.
1519202	Dec. 16, 1924	Herman, J	Telegraph System.
1519211	do	Martin, W. H	Loud Speaker Circuits.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1935—Continued

Patent no.	Date of issue	Inventor	Title
1519477	Dec. 16, 1924	Beach, W. C.	Signaling System.
1519497	do	MacPherson, H. D.	Telephone System.
1519499	do	Menefee, H. R.	Test Device.
1519568	do	Van Amstel, T.	Slow Acting Relay.
1519573	do	Clark, A. B., Nyquist, H., and Gannett, D. K.	Voice Frequency Signaling.
1519574	do	Clark, A. B., and Martin, W. H.	Method of Testing Transmission Lines.
1519612	do	Hartley, R. V. L.	Loading System.
1519613	do	Hazard, A. B.	Distributing Mechanism.
1519615	do	Heising, R. A.	Signaling System.
1519619	do	Horton, J. W.	Harmonic Generator System.
1519626	do	Nichols, H. W.	Two-Way High Frequency Signaling.
1519635	do	Scriven, E. O.	Electric Circuits.
1520097	Dec. 23, 1924	Thompson, G. K.	Selective Signaling System.
1520098	do	Toomey, J. F.	Signaling System.
1520718	do	Kochendorfer, F. S.	Strand or Cord Working Mechanism.
1520793	do	Young, R. L.	Current Regulating Device.
1520813	do	Espenschied, L.	Selective Circuits for Multiplex Transmission.
1520910	do	Richard, C. D.	Calling Device.
1520994	do	Arnold, H. D.	Electron Discharge Amplifier.
1521019	do	Goodrum, C. L.	Telephone System.
1521159	do	MacPherson, H. D.	Do.
1521160	do	do	Toll Switching.
1521586	do	Merrill, F. W.	Means for Regulating the Voltage of Distribution Systems.
1521591	Jan. 6, 1925	Beck, W. O.	Electromagnetic Device.
1521664	do	Wright, S. B.	Testing Circuits for Echo Suppressors.
1521671	do	Deardorff, R. W.	Carrier Telegraph Circuits.
1521674	do	Espenschied, L.	Do.
1521685	do	Hamilton, B. P.	Do.
1521728	do	Strickler, W. B., and Wright, P. L.	Trunk Circuit.
1521755	do	Conway, R. D.	Transmission System.
1521771	do	Hoffman, H. L.	Telephone Exchange System.
1521824	do	Merrill, F. W.	Regulator.
1521852	do	Arnold, H. D.	Amplifier Circuits.
1521870	do	Clokey, A. A.	Telegraph System.
1521871	do	Deakin, G.	Rotary Selector Switch.
1522006	do	Fletcher, H.	Testing System.
1522044	do	Bown, R.	Secret Communication System.
1522268	do	Potts, L. M.	Automatic Telegraph Repeater.
1522286	do	Clausen, H. P.	Method and Apparatus for Mounting Filaments.
1522291	do	Elmen, G. W.	Loaded Signaling Conductor.
1522294	do	Fletcher, H.	Electrical Testing System.
1522299	do	Hampton, L. N.	Brake for Rolling Ladders.
1522580	Jan. 13, 1925	Espenschied, L.	Composited Multiplex Transmission System.
1522581	do	do	Radio Broadcasting System.
1522713	do	Coyne, H. L.	Circuit Controlling Switch.
1522855	do	Bertels, A. S.	Electrical Testing System.
1522856	do	do	Testing Device for Telephone Exchange Systems.
1522862	do	Bowne, L. J.	Telephone System.
1522865	do	Clokey, A. A.	Signaling System.
1522875	do	Fowler, C. B.	Telephone Exchange System.
1522893	do	Lundell, A. E.	Telephone System.
1522905	do	Polinkowsky, L.	Telephone Exchange System.
1522930	do	Williams, S. B., Jr., and Gibson, E. S.	Do.
1523037	do	Quarles, D. A.	Signaling Circuit.
1523102	do	Betts, W. L.	Receiving Circuit.
1523109	do	Elmen, G. W.	Magnetic Material.
1523111	do	Fisher, H. J.	Signaling System.
1523127	do	Kendall, B. W.	Multiplex Signaling System.
1523139	do	Peterson, E.	High Frequency Signaling.
1523149	do	Wheeler, E. B.	Means for Control of Electric Impulses.
1523383	Jan. 20, 1925	Adams, A. H.	Selector.
1523385	do	Atwood, G. F.	Switching Device.
1523398	do	Ceccarini, O. O.	Method of and Apparatus for Locating Faults.
1523402	do	Clark, E. H.	Telephone System.
1523407	do	Dobbin, H. F.	Switching Mechanism.
1523408	do	Dodge, W. L.	Testing System for Testing Senders of Automatic Exchanges.
1523411	do	Forsberg, O. F.	Switching Device.
1523412	do	Fowler, C. B.	Telephone Exchange System.
1523413	do	Gent, D. W.	Magnetic Clutch.
1523422	do	Hoge, J. F. D.	Shaft Coupling.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1523423	Jan. 20, 1935	Hoge, J. F. D	Alternating Current Relay.
1523428	do	Keckler, C. W	Telephone Exchange System.
1523429	do	Keckler, C. W., and Dahl, J. F.	Telephone System.
1523430	do	Knoop, W. A	Mounting for Vacuum Tubes.
1523439	do	McQuarrie, J. L., and Goodrum, C. L.	Selector Switch.
1523446	do	Polinkowsky, L	Telephone Exchange System.
1523447	do	Retallack, J. B	Do.
1523468	do	Woodruff, H. S., and Motley, J. G.	Calling Dial.
1523473	do	Clark, A. B	Repeater Circuits.
1523488	do	Moore, R. P	Telegraph Signal Circuits.
1523589	do	Goodrum, C. L	Automatic Telephone System.
1523741	do	Yonkman, W	Method of Rust Removal and Prevention.
1523827	do	Nelson, E. L	Transmission Circuits.
1523874	do	Horton, J. W	Automatic Transmission Control System.
1523998	do	Dodge, W. L	Telephone System.
1524278	Jan. 27, 1925	Alder, F. H	Telephone Instrument.
1524312	do	Rasmussen, O. E	Automatic Telephone Switch.
1524344	do	Dobbin, H. F	Coordinate Switch.
1524357	do	Hudson, G. E	Telegraphy.
1524379	do	Bailey, R. S	Telephone Exchange System.
1524402	do	McKown, F. W	Anti-Side-Tone Substation Circuit.
1524697	Feb. 3, 1925	Egerton, H. C	Phonographic Apparatus.
1524930	do	Hartley, R. V. L	Automatic System of Control.
1525053	do	Toomey, J. F	Program Transmission over Wires.
1525054	do	do	Power and Amplifying Equipment for Distribution of Intelligence over Wires.
1525522	Feb. 10, 1925	Vernam, G. S	Printing Telegraph System.
1525523	do	do	Printing Telegraphy.
1525780	do	Polinkowsky, L	Machine Switching Telephone System.
1525787	do	Williams, S. B., Jr	Telephone System.
1525823	do	Nicolson, A. M	Piezo-Electrical Transmitter.
1526063	do	Griffin, J. T., and Timm, W. A.	Method of and Apparatus for Removing the Insulation from Electrical Conductors.
1526071	do	Kochendorfer, F. S., and Boe, H. J.	Cable or Strand Handling and Working Mechanism.
1526335	Feb. 17, 1925	Griggs, E. V	Secrecy Transmission System.
1526337	do	Hartley, R. V. L	Method of and Apparatus for Measuring Time Intervals.
1526348	do	Labaugh, J. M., Jr	Two-Party Signaling System.
1526371	do	Potts, L. M	Regulating Device.
1526402	do	Watson, E. F	Loop Circuits for Telegraph Repeaters.
1526408	do	Young, F. W	Carrier Wave Receiving System.
1526550	do	Johnson, E. D	Two-Way Transmission with Repeaters.
1526572	do	Ten Eyck, W. B	Method of and Apparatus for Wrapping a Stranded Material About a Core.
1526778	do	De Forest, L	Thermophone.
1527177	Feb. 24, 1925	Elmen, G. W	Loaded Signaling Conductor.
1527228	do	Schelleng, J. C	Method of Harmonic or Subharmonic Frequency Production.
1527318	do	Lewis, E	Insulator.
1527345	do	Birchall, B. H	Electrical Testing Device.
1527651	do	Jammer, J. S	Current-Wave Repeater.
1528010	Mar. 3, 1925	Demarest, C. S., and Almquist, M. L.	Radio Signaling System.
1528011	do	do	Do.
1528424	do	Holland, N. H	Recording and Reproduction of Talking Motion Pictures.
1528746	Mar. 10, 1925	Albert, W. P	Telephone Exchange System.
1528761	do	Goff, H. W	Automatic Telephone Switch.
1528763	do	Goodrum, C. L., and Hendrickson, C. J.	Switching Device.
1528767	do	Hendrickson, C. J	Do.
1528777	do	Marting, H. E	Nut and Bolt Locking Device.
1528791	do	Richard, C. D	Automatic Switching Apparatus.
1528806	do	Wilbur, R. S., and White, C	Telephone Exchange System.
1528907	do	Bsacom, H. M	Trunking System.
1528920	do	Foster, R. M	Do.
1528982	do	Molina, E. C	Do.
1529151	do	Albert, W. P	Controlling System.
1529171	do	Dahl, J. F	Telephone Exchange System.
1529786	Mar. 17, 1925	Harper, A. U	Secret Communication System.
1529801	do	Martin, W. H	Multiplex Submarine Cable.
1529978	do	Wilbur, R. S	Telephone Exchange System.
1530335	do	Ward, H. L	Operation of Electrolytic Cells.
1530482	Mar. 24, 1925	Cummings, G. C	Signaling System and Method.
1530498	do	Kendall, B. W	Synthesis of Compound Tones by Vacuum Tube Oscillators.
1530514	do	Rainey, P. M	Telegraph System.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1530537	Mar. 24, 1925	Affel, H. A	Electrical Transposition System.
1530548	do	Espenschied, L	Signaling.
1530567	do	Lundell, A. E., and Sperry, A. B.	Printing Telegraphy.
1530613	do	Pierce, P. H	Electrical Circuits.
1530620	do	Read, H. S	Vacuum Tube Circuits.
1530633	do	Whiting, D. F	Electrical Circuits, Apparatus and Method.
1530648	do	Casper, W. L	Electric Circuits.
1530649	do	do	Do.
1530685	do	Morrill, J. B	Repeater Circuits.
1530968	do	Williams, S. B. Jr	Recording Device.
1530981	do	Ceccarini, O. O	System of Space Discharge Devices.
1530986	do	Dobbin, H. F	Automatic Telephone Switch.
1530988	do	Everitt, H. W	Testing Vacuum Tubes.
1530996	do	Gent, E. W	Telephone Switch.
1530998	do	Goff, H. W	Automatic Telephone Switch.
1530999	do	Goodrum, C. L	Telephone Switch.
1531002	do	Grondahl, H. H. C	Locking Device.
1531006	do	Hinrichsen, E. E	Telephone System.
1531016	do	Martin, H. T., and Neill, P.	Electrical Switching Device.
1531025	do	Polinkowsky, L	Telephone Exchange System.
1531029	do	Ryan, F. M	Radio Transmission System.
1531046	do	Temple, D. L	Telephone Exchange System.
1531048	do	Thompson, G	Do.
1531080	do	Dodge, W. L	Do.
1531134	do	Richard, C. D	Automatic Telephone Switch.
1531135	do	do	Do.
1531347	Mar. 31, 1925	Rhodes, W. A	Relay.
1531360	do	Toomey, J. F	Telephone System.
1531598	do	Cummings, G. C	Telegraph System.
1531633	do	Vennes, H. J	Oscillation Generator.
1531805	do	Mathes, R. C	Do.
1532130	Apr. 7, 1925	From, O. C	Controlling Mechanism.
1532169	do	Best, F. H	Method of and Means for Measuring Transmission.
1532172	do	Carson, J. R	Means for Receiving Weak Signal Currents.
1532207	do	Stacy, L. J	Signaling System.
1532533	do	Harris, J. E	Colloidal Suspension.
Des 66991	do	Thompson, G. K	Hand Telephone.
1533091	Apr. 14, 1925	Blackwell, O. B	Duplex Signaling System.
1533105	do	Eggers, H. C. T	Electric Signaling.
1533153	do	Williams, S. B., Jr	Telephone Exchange System.
1533154	do	do	Circuit Controlling Apparatus.
1533157	do	Beatty, W. E	Modulating Method and Apparatus.
1533163	do	Clausen, H. P., and Goodrum, C. L.	Telephone Exchange System.
1533171	do	Dowd, A. D	Telegraph System.
1533178	do	Gilbert, J. J	Artificial Electric Line.
1533179	do	Goff, H. W	Wire Switch.
1533181	do	Goodrum, C. L	Telephone System.
1533182	do	do	Telephone Exchange System.
1533188	do	Hargan, A. D	Automatic Switching Device.
1533192	do	Keckler, C. W	Telephone Exchange System.
1533193	do	Kelsay, L. W	Telephone Hand Set.
1533195	do	Lundius, E. R	Testing System.
1533197	do	Malm, F. S	Manufacture of Sponge Rubber Articles.
1533203	do	Murphy, P. B	Telephone Exchange System.
1533206	do	Pfannenstiehl, H	Printing Telegraphy.
1533207	do	do	Do.
1533209	do	Radu, J. W	Vacuum Tube Holder.
1533210	do	do	Vacuum Tube Mounting.
1533211	do	Rainey, P. M., and Locke, G. A.	Starting Device.
1533311	do	Fletcher, H	Secret Signaling.
1533376	do	Brownell, F. J	Automatic Telephone Switch.
1533477	do	Stearn, F. A., and McAuliffe, J. C.	Routine Test Circuits for Central Office Senders.
1533645	do	Gilbert, J. J	Submarine Signaling System.
1534073	Apr. 21, 1925	Nyquist, H	Means for Neutralizing Foreign Interference.
1534074	do	Parker, R. D	Telegraphy.
1534086	do	Scriven, E. O	Transformer Circuits.
1534109	do	Goff, H. W	Automatic Telephone Switch.
1534118	do	Hitchcock, H. W	Method of Adjusting Balance Between Electric Conductors or Networks.
1534172	do	Field, F. E	Amplifier Circuits.
1534287	do	Schelleng, J. C	Method of and Means for Electric Energy Translation.
1534660	do	Potts, L. M	System of Telegraphic Distribution.
1534661	do	do	Do.
1535104	Apr. 28, 1925	Cory, S. I	Means for Preventing Electrical Interference.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1535130	Apr. 28, 1925	Oswald, A. A.	High Power Radio Telephony.
1535244	do	Percival, H. S.	Telegraphy.
1535269	do	Toomey, J. F.	Selective Signaling Apparatus and Circuits.
1535490	do	Ong, M. L.	Guide Chart for Automatic Telephone Instruments.
1535527	do	Harrison, H. C.	Vibratory System.
1535538	do	Maxfield, J. P. and Harrison, H. C.	Do.
1536116	May 5, 1925	Martin, W. H.	Sound Reproducer.
1536118	do	McCutchen, B. S.	Do.
1536130	do	Perry, D. B.	Operation of Printing Apparatus by Radio.
1536464	do	Williams, S. B., Jr.	Telephone System.
1536753	do	Bell, J. H.	Telegraph System.
1536763	do	Brown, J. T. L.	Testing System.
1536764	do	Buckley, O. E.	Signaling System.
1536784	do	Fry, J. R.	Electromagnetic Device.
1536805	do	Melhuish, L. E.	Vacuum Tube Socket.
1536809	do	Potts, L. M.	Signaling System.
1536810	do	Reddig, C. E.	Primer and Choke.
1536855	do	Housekeeper, W. G.	Electron Discharge Device.
1536907	do	Mills, J.	Carrier Current System.
1537074	May 12, 1925	Ford, B. K.	Apparatus for Whipping Cores with Strand Material.
1537081	do	Graham, F. H.	Multiple Plug.
1537099	do	Vennes, H. J.	Carrier Current System.
1537101	do	Whiting, D. F.	Means for Connecting Devices of Different Impedance.
1537106	do	Affel, H. A.	Means for and Method of Equalizing Attenuation.
1537109	do	Davidson, J. Jr.	Telephone System.
1537126	do	Martin, W. H.	Loud Speaker Circuit.
1537137	do	Quass, R. L.	Measured Service Telephone System.
1537154	do	Wolfe, W. V.	Multiplex Signaling System.
1537228	do	Gargan, J. O.	Means for Cooling Carrier Wave Apparatus.
1537255	do	Mills, J.	Carrier Current System.
1537283	do	Affel, H. A.	Repeater for Multiplex Systems.
1537535	do	Kranz, F. W.	Signaling by High Frequency Waves.
1537575	do	Bandur, A. F.	Method of and Apparatus for Applying a Serving to a Core.
1537653	do	Murphy, P. B.	Signaling System.
1537911	do	Heising, R. A.	Wave Transmission.
1537936	May 19, 1925	Crisson, G. and Shackleton, S. P.	Telephone Repeater Equipment.
1537990	do	Espenschied, L.	Method of Improving Boradcast Reception.
1538001	do	Pierce, R. E.	Current Measuring Arrangement.
1538048	do	Long, M. B.	Multiplex Signaling System.
1538216	do	Kingsbury, E. F.	Metallic Composition.
1538429	do	Forsberg, O. F.	Switching Mechanism.
1538918	May 26, 1925	Nyquist, H.	Transformer.
1538930	do	Thompson, E. O.	Alternating Current Relay.
1538934	do	Zobel, O. J.	Wave Filter.
1539380	do	Williams, S. B. Jr.	Telephone Exchange System.
1539402	do	Nichols, H. W.	Means for Producing Electrical Oscillations.
1539602	June 2, 1925	Honaman, R. K.	Carrier Transmission over Power Circuits.
1539903	do	Ilgenfritz, L. M.	Elimination of Interference in Carrier Systems.
1539920	do	Taggart, D. M.	Signaling System.
1540033	do	Polinkowsky, L.	Machine Switching Telephone Exchange System.
1540034	do	Richard, C. D.	Telephone Exchange Line Switch.
1540049	do	Williams, R. R.	Plastic Composition.
1540053	do	Burton, P. H.	Impulse Receiving Circuit.
1540054	do	Carpenter, W. W.	Telephone Exchange System.
1540059	do	Conway, R. D.	Selective Switch.
1540060	do	Deakin, G.	Telephone Call Distribution System.
1540063	do	Forsberg, O. F.	Switching Mechanism.
1540064	do	Fowler, C. B.	Telephone Exchange System.
1540066	do	Goodrum, C. L.	Do.
1540080	do	Magrath, A. C.	Line Bar for Cross Bar Line Switches.
1540272	do	Merrill, F. W.	Centrifugal Speed Regulator.
1540310	do	Browne, L. J.	Testing System.
1540313	do	Chaplin, M. P.	Printing Telegraphy.
1540317	do	Craft, E. B. and Colpitts, E. H.	Method of and Apparatus for Recording Sound.
1540322	do	Folsom, R. A.	Humidity Control Apparatus.
1540328	do	Haddock, A.	Contact Terminal.
1540355	do	Mathes, R. C.	Vacuum Tube Testing Device.
1540401	do	Kelly, M. J. and Griffith, T. R.	Vacuum Oven.
1540710	do	Pfannenstiehl, H.	Printing Telegraphy.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1540750	June 9, 1925	Beck, W. O	Electromagnetic Device.
1540797	do	Murphy, P. B	Signaling System.
1540799	do	Nunn, D	System for Measuring the Capacity of Electrical Circuits.
1540835	do	Hamilton, B. P	Telegraph Repeater.
1540849	do	Loynes, O. H	Signal Storing Arrangement.
1540858	do	Pitcher, J. L	Brush.
1541164	do	Miller, V. F	Automatic Telephone Switch.
1541193	do	Smith, P. C	Electrical Switching Apparatus.
1541194	do	do	Electrical Switching Device.
1541196	do	Sperry, A. B	Telephone System.
1541229	do	Locke, G. A	Automatic Telegraph System.
1541291	do	Temple, D. L	Telephone Exchange System.
1541301	do	White, J. H	Soldering Device and Material.
1541308	do	Albert, W. P	Telephone System.
1541311	do	Anderson, S. E	Vacuum Tube Circuits.
1541316	do	Bancroft, E. P. and Kerr, M. B.	Automatic Telegraph System.
1541341	do	Forsberg, O. F	Contact Bank for Coordinate Switches.
1541343	do	Goff, H. W	Switching Device.
1541344	do	do	Switching Mechanism.
1541347	do	Goodrum, C. L	Telephone Exchange System.
1541356	do	Irvine, F. S	Message Register System.
1541359	do	Kane, A. F	Telephone System.
1541367	do	McQuarrie, J. L	Telephone Exchange System.
1541368	do	Martin, G. R	Do.
1541386	do	Polinkowsky, L., and Deakin, G.	Machine Switching Telephone Exchange System.
1541387	do	Polinkowsky, L	Telephone System.
1541388	do	do	Automatic Telephone Exchange System.
1541408	do	Stearn, F. A	Telephone Exchange System.
1541513	do	Knoop, W. A	Electric Resistance Welding.
1541779	June 16, 1925	Aldendorff, F	Electromechanical Telephone System.
1541878	do	Watson, E. F	Single Polar Telegraph Circuits.
1541879	do	do	Do.
1541880	do	do	Do.
1541881	do	do	Do.
1542105	do	Smith, P. C	Measured Service Automatic Telephone System.
1542121	do	Williams, S. B., Jr	Carrier Wave Communicating System.
1542365	do	Branigan, J	Glass Working Machine.
1542366	do	Brough, W. R	Vacuum Tube Base.
1542372	do	Casper, W. L	Transformer.
1542377	do	Dobbin, H. F	Telephone Instrument.
1542381	do	Gabriel, J. C., and Landeen, A. G.	Discharge Device System.
1542383	do	Hague, A. E	Automatic Telephone System.
1542385	do	Harris, J. E	Thermionic Cathode and Method of Making the Same.
1542386	do	Hartley, R. V. L	Vacuum Tube Design.
1542389	do	Houskeeper, W. G., and Brough, W. R.	Vacuum Insulated Terminal.
1542390	do	Houskeeper, W. G	Vacuum Pump.
1542398	do	McGall, P. K	Electromagnetic Device.
1542411	do	Reddig, C. E	Prime Mover Dynamo Plant.
1542413	do	Retallack, J. B	Telephone Exchange Testing System.
1542414	do	Richard, C. D	Automatic Telephone Switch.
1542425	do	Van Inwagen, C. L	Wrench.
1542565	do	Mathes, R. C	Secret Signaling.
1542566	do	do	Do.
1542567	do	do	Do.
Des 67608	do	Lum, G. R	Loud Speaking Telephone Receiver.
1542847	June 23, 1925	Bailey, R. S	Signaling System.
1542849	do	Bascom, H. M	Do.
1542850	do	Curtis, A. S., and Beaver, D. J.	Thermostat.
1542922	do	Thompson, G. K	Telephone Receiver.
1542977	do	Williams, S. B., Jr., and Hinrichsen, E. E.	Telephone Exchange System.
1543001	do	Gaynor, E. G	Magnetic Core.
1543117	do	Maxfield, J. P	Acoustical Aid for Deaf Persons.
1543119	do	Pfannenstiehl, H	Distributing Apparatus.
1543124	do	Ricker, N. H	Frequency Standard.
1543125	do	Robinson, H. R	Control of Relays.
1543662	June 30, 1925	Booth, W. T	Calling Device.
1543665	do	Conway, R. D	Alarm System for Automatic Telephone Exchanges.
1543666	do	Dobbin, H. F	Automatic Telephone Switch.
1543667	do	Forsberg, O. F	Do
1543669	do	Goodrum, C. L., and Forsberg, O. F	Do.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1935—Continued

Patent no.	Date of issue	Inventor	Title
1543670	June 30, 1935	Graham, F. H.	Coordinate Switch.
1543671	do	Hinrichsen, E. E.	Telephone System.
1543685	do	Stokely, R. L.	Semi-Automatic Telephone System.
1543688	do	Wilbur, R. S., and Johnson, E. D.	Switching Apparatus.
1543772	do	Hunter, R. N.	Apparatus for Neutralizing Radio Interference on Wire Lines.
1543775	do	Ilgenfritz, L. M.	Do.
1543789	do	Parker, R. D., and Vernam, G. S.	Printing Telegraph Exchange System.
1543813	do	Atwood, G. F.	Impulse Generating Device.
1543824	do	Craft, E. B.	Switching device.
1543825	do	Dobbin, H. F.	Do.
1543836	do	Field, J. C.	Signaling System.
1543854	do	Johnson, L. H.	Telephone Exchange System.
1543863	do	Merrill, F. W.	Method and Apparatus for Electrical Regulation.
1543869	do	Polinkowsky, L.	Telephone Exchange System.
1543890	do	Williams, R. R.	Method of and Apparatus for Vulcanizing Rubber.
1543893	do	Williams, S. B., Jr.	Telephone System.
1543900	do	Bertels, A. S.	Testing System for Automatic Telephone Switches.
1543914	do	Goff, H. W.	Telephone Switch.
1543926	do	Kemp, A. R.	Method of Vulcanizing Rubber and Similar Materials.
1543933	do	Lundius, E. R.	Testing Device for Telephone Exchange Systems.
1543937	do	McQuarrie, J. L.	Automatic Telephone Exchange System.
1543967	do	Williams, S. B., Jr., and Gibson, E. S.	Telephone Exchange System.
1543990	do	De Forest, L.	Electrical Means for Producing Musical Notes.
1543994	do	Ferguson, J. G.	Inductometer.
1544381	do	Elmen, G. W., and Ort, C. F.	Method and System for Amplifying Variable Currents.
1544622	July 7, 1925	Affel, H. A.	Elimination of Interference in Carrier Systems.
1544638	do	Fell, J. M.	Telegraph Signaling System.
1544737	do	Green, E. I.	Elimination of Interference in Carrier Systems.
1544910	do	Kendall, B. W.	Repeater for Multiplex Systems.
1544921	do	Mathes, R. C.	Amplifier Circuits.
1544926	do	Nichols, H. W.	Signaling System.
1544939	do	Schelleng, J. C.	Do.
1544943	do	Scriven, E. O.	Electric Wave Repeater for Multiplex Transmissions.
1544958	do	Trapp, E. F.	Telephone Exchange System.
1545247	do	Gargan, J. O.	Support for Vacuum Tubes.
1545251	do	Gent, E. W.	Tuning Fork.
1545256	do	Hocker, C. D.	Process of Manufacturing Electron Emitting Cathodes.
1545270	do	Nichols, H. W.	Secret Carrier Wave Signaling System.
1545276	do	Pfannenstiehl, H.	Selecting Mechanism.
1545541	July 14, 1925	Wright, S. B.	Tandem Operated Echo Suppressor.
1545549	do	Child, B. L.	Do.
1545558	do	Hamilton, H. S., and Wright, S. B.	Do.
1545576	do	Allen, R. M., and Atwood, G. F.	Acoustical Device.
1545581	do	Chaplin, M. P.	Printing Telegraphy.
1545591	do	Madine, J. J.	Manufacture of Electron Discharge Devices.
1545601	do	Potts, L. M.	Telegraph System.
1545602	do	do	Do.
1545606	do	Ryder, H. W.	Signal.
1545607	do	Schelleng, J. C.	System of Wave Transmission.
1545654	do	Hoppock, A. H.	Water Cooled Anode for Vacuum Tubes.
1545659	do	Ives, H. E.	Sheet Mounting Device.
1545662	do	Juley, J. P.	Coin Actuated Device.
1545708	do	Terry, D. M.	Transmission of Pictures by Electricity.
1545828	do	Herrmann, R. R.	Transmitter.
1545855	do	Scriven, E. O.	Amplifier Circuits.
1545897	do	Haynes, C. H.	Sheet Mounting Device.
1545906	do	Kochendorfer, F. S.	Material Carrier for Strand Wrapping Machine.
1546113	do	Albert, W. P.	Telephone System.
Des. 67818	do	Vroom, E.	Loop Antenna.
1546392	July 21, 1925	McCurdy, R. G.	Testing Apparatus.
1546395	do	Martin, W. H.	Duplex Signaling System.
1546427	do	Affel, H. A.	Auxiliary Signaling Circuits.
1546432	do	Branson, D. E.	Relay and Circuits Therefor.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1546439	July 21, 1925	Espenschied, L.	Secret Telephone System.
1546749	do	Roberts, J. G.	Telephone Transmitter.
1547217	July 28, 1925	Herman, J.	Phase Regulator for Multifequency Generators.
1547226	do	Martin, W. H.	Signaling.
1547227	do	Mitchiner, J. I.	Telegraph Signaling System.
1547232	do	Parker, R. D.	Multiplex Signaling System.
1547242	do	Strieby, M. E.	Carrier Transmission over Power Circuits.
1547277	do	Wheeler, C. H.	Coin Actuated Device.
1547351	do	Schwerin, P.	Electric Heater.
1547363	do	Catlin, A. A., and Massingham, H. R.	Method of Treating Conductors.
1547577	do	Fowler, C. B.	Connecting Circuits.
1547635	do	Akers, M. K.	Gas Engine Ignition Coil.
1547670	do	Radu, J. W.	Vacuum Tube.
1547729	do	Booth, W. T.	Vacuum Tube Socket.
1547753	do	Houskeeper, W. G.	Process of Treating Metal.
1547754	do	do	Grid Making Machine.
1547760	do	King, R. W.	Electron Discharge Device.
1547771	do	Mathes, R. C.	Signaling System.
1547772	do	Moore, C. R.	Telephone Receiver.
1547812	do	Hendry, W. F.	Vacuum Tube and Method of Manufacturing the Same.
1548022	Aug. 4, 1925	Casper, W. L., and Schwartz, E. L.	Inductance Device.
1548028	do	Egerton, H. C.	Tranmission System.
1548039	do	Jammer, J. S.	Two-Way Repeater.
1548059	do	Nyquist, H.	Electrical Testing System.
1548060	do	Pfannenstiehl, H.	Printing Telegraph System.
1548062	do	Pierce, P. H.	Coupling Arrangement for Multiplex Transmission.
1548088	do	Herman, J.	Telegraph Circuits.
1548095	do	Osborne, H. S.	Vacuum Tube Translating Device.
1548106	do	Speed, J. B., and Falk, A. H.	Telephone Receiver Diaphragm.
1548110	do	Toomey, J. F.	Telephone Toll Circuits.
1548119	do	Dietze, E.	Busy Test Circuit for Telephone Cord Circuits.
1548168	do	Pfannenstiehl, H.	Printing Telegraphy.
1548260	do	Espenschied, L.	Multiplex System.
1548267	do	Helsing, R. A.	High Frequency Carrier Signaling.
1548388	do	Shackelton, W. J.	Transformer.
1548592	do	Fletcher, H.	Testing Circuit.
1548597	do	Gilbert, J. J.	Signaling System.
1548862	Aug. 11, 1925	Blackwell, O. B.	Interference Neutralizing Arrangement.
1548873	do	Fell, J. M.	Telegraph Signaling System.
1548874	do	Fell, J. M., and Pierce, R. E.	Do.
1548878	do	Gannett, D. K., and Kirkwood, M.	Electrical Signaling System.
1548895	do	Mertz, P.	Electrical Transmission of Pictures.
1548947	do	Helsing, R. A.	Telegraph System.
1548952	do	Mills, J.	Electric Control Circuits.
1548959	do	Stoller, H. M., and Morton, E. R.	Control Regulator.
1549253	do	Houskeeper, W. G.	Electrode for Electron Discharge Devices.
1549816	Aug. 18, 1925	Toomey, J. F.	Program Transmission Over Wires.
1549817	do	do	Trouble Indicating Arrangement.
1549820	do	Vernam, G. S.	Printing Telegraph.
1549821	do	do	Printing Telegraph System.
1549849	do	Affel, H. A.	Voice Frequency Carrier Telegraph.
1549907	do	Clokey, A. A.	Telegraphy.
1549948	do	Zelenka, J. J.	Submarine Cable.
1550270	do	Long, M. B.	Transmission of Pictures by Electricity.
1550377	do	Lundell, A. E.	Telephone Exchange System.
1550657	Aug. 25, 1925	Affel, H. A.	Ringing Circuits for Multiplex Signaling.
1550658	do	do	Do.
1550659	do	do	Supervisory Circuits for Multiplex Signaling.
1550660	do	do	Prevention of Overloading in Speech Circuits.
1550684	do	Espenschied, L.	Do.
1550724	do	Hubbard, F. A.	Public Address System.
1550752	do	Smith, P. C.	Measured Service Automatic Telephone Exchange System.
1550768	do	Weinhart, H. W.	Electric Discharge Device.
1550769	do	Williams, S. B., Jr.	Telephone Exchange System.
1550783	do	Clark, E. H.	Do.
1550801	do	Goodrum, C. L.	Automatic Telephone Systems.
1550814	do	Johnson, L. H.	Telephone Exchange System.
1550815	do	do	Toll Charging System.
1550819	do	Kerr, M. B.	Automatic Switching Device.
1550830	do	MacPherson, H. D.	Telephone System.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1550997	Aug. 25, 1925	Williams, S. B., Jr.	Telephone Exchange System.
1551023	do	Gooderham, J. W.	Do.
1551024	do	Goodrum, C. L.	Do.
1551030	do	Hearn, J. F.	Telephone Switch.
1551031	do	elwig, E. C.	Telephone Exchange System.
1551033	do	Kerr, M. B.	Automatic Switch.
1551136	do	Curtis, A. M.	Measuring Instrument.
1551143	do	Frederick, H. A.	Telephone Receiver.
1551150	do	Haddock, A.	Electrical Inductance Apparatus.
1551190	do	Craft, E. B.	Cross Bar Line Switch.
1551199	do	Lundquist, F. A.	Telephone Exchange.
1551539	Sept. 1, 1925	Clark, A. B.	Transmission Equalization.
1551559	do	Hamilton, B. P.	Carrier Telegraph Circuits.
1551578	do	Loye, D. P.	Radio Receiving Circuits.
1551595	do	Watson, E. F.	Alternating Current Printing Telegraph System.
1551603	do	Melosi, H. E., and Gray, J. H.	Adjustable Mold for Making Plastic Forms.
1551624	do	Schelleng, J. C.	Circuits for Wave Transmission.
1551707	do	Sprague, C. A.	Electric Wave Secrecy Transmission.
1551797	do	Buckley, O. E.	Artificial Line.
1552465	Sept. 8, 1925	Campbell, G. A.	Means and Method for Measuring Direct Capacities.
1552466	do	do	Means and Method for Measuring Balanced Terminal Capacities.
1552467	do	do	Means and Method for Measuring Direct Capacities.
1552470	do	Cory, S. I.	Means for Measuring Telegraph Distortion.
1552499	do	Nyquist, H.	Do.
1552590	do	Allen, R. M.	Acoustical Aid for Deaf Persons.
1552646	do	Pratt, E. J.	Do.
1552914	do	De Forest, L.	Telephone Device.
1553304	Sept. 15, 1925	Bancroft, E. P.	Printing Telegraphy.
1553305	do	Broadwell, H.	Lubricating Device.
1553308	do	Dodge, W. T., and Retallack, J. B.	Testing System for Testing Senders of Automatic Telephone Exchanges.
1553311	do	Ford, U. S.	Telephone Exchange System.
1553312	do	Garrecht, A. C.	Universal Joint.
1553313	do	Goff, H. W.	Switching Mechanism.
1553314	do	do	Switch Contact Bank.
1553316	do	Harper, R. W.	Telephone Exchange System.
1553317	do	Hinrichsen, E. E.	Telephone System.
1553322	do	Miller, O. R.	Testing System.
1553327	do	Reeves, F. N.	Telephone Exchange System.
1553329	do	Ryan, F. M.	Radio Telephone System.
1553335	do	Smythe, E. H.	Automatic Telephone System.
1553337	do	Stokely, R.	Telephone Exchange System.
1553346	do	Williams, S. B., Jr.	Recording Mechanism.
1553347	do	do	Telephone Exchange System.
1553369	do	Dahl, J. F.	Do.
1553417	do	Vernam, G. S.	Printing Telegraph System.
1553435	do	Chapman, A. G., and McCurdy, R. G.	Means to Control Crosstalk.
1553452	do	McQuarrie, J. L., and Bullard, A. M.	Semi-Automatic Telephone Exchange System.
1553454	do	Martin, DeL. K.	Radio Repeating System.
1553465	do	Osborne, H. S.	Testing Apparatus.
1553489	do	Toomey, J. F., and Phelps, H. E.	Telephone System.
1553625	do	Mills, J.	Duplex Radio System.
1553983	do	Casper, W. L.	Electrical Coil.
1554007	do	Johnson, K. S.	Anti-Side-Tone Circuits.
1554188	Sept. 22, 1925	Affel, H. A.	High Frequency Multiplex Signaling System.
1554189	do	do	Equalization of Carrier Transmission.
1554190	do	do	Detecting Circuits.
1554286	do	Espenschied, L.	Do.
1554290	do	Parker, R. D., and Hamilton, B. P.	Carrier Telegraph System.
1554340	do	Gent, E. W.	Time Measuring D vice.
1554561	do	De Forest, L.	Sound Reproducing Mechanism.
1554794	do	do	Loud Speaking Device.
1554795	do	do	Radio Signaling System.
1555001	Sept. 29, 1925	Gray, E. A.	Telephone Signaling System.
1555002	do	do	Telephone Exchange System.
1555037	do	Stone, J. S.	Resistance Amplifier.
1555041	do	Vernam, G. S., Perry, D. B., and Cory, S. I.	Distortion Measuring System.
1555042	do	Vernam, G. S.	Transmitting Handwriting and Pictures.
1555870	Oct. 6, 1925	Nyquist, H.	Telegraph Repeater.
1555875	do	Pierce, R. E.	Telegraph Measuring System.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1555893	Oct. 6, 1925 do	Thompson, E. O	Alternating Current Relay.
1555916	do	Espenschied, L	Frequency Translating System.
1555917	do	Fell, J. M	Telegraphy.
1556311	do	Davidson, J., Jr	Signaling System.
1556318	do	Espenschied, L., and Affel, H. A.	High Frequency Multiplex Signaling System.
1556319	do	Espenschied, L	Do.
1556320	do	do	Do.
1556321	do	do	Do.
1557036	Oct. 13, 1925	Elsasser, H. W	Terminal Network for High Pass Wave Filter.
1557037	do	Espenschied, L	Reduction of Crosstalk.
1557079	do	Morehouse, L. F	Telephone Signaling Equipment.
1557229	do	Zobel, O. J	Terminating Network for Filters.
155 230	do	do	Complementary Filter.
1557386	do	Thuras, A. L	Electromagnetic Device.
1557420	do	Clokey, A. A	Signaling System.
1557544	Oct. 20, 1925	Affel, H. A	Carrier Frequency Arrangement.
1557562	do	Crisson, G	Frequency S lective Device.
1557596	do	Lamb, W. E., and Mason, R. W.	Machine Switching Telephone Exchange System.
1557609	do	Perry, D. B	Printing Telegraph Exchange System.
1557633	do	Vernam, G. S	Translating Device.
1557860	do	Mathes, R. C	Electric Circuits.
1558231	do	Bruce, W. M., Jr	Multiplex Telegraphy.
1558280	do	Potts, L. M	Secret System of Telegraphy.
1558521	Oct. 27, 1925	Von Nostitz, E	Telephone Exchange System.
1558534	do	Davidson, J., Jr	Telephone Circuits.
1558541	do	Herman, J	Monitoring Set for Telegraph Repeaters.
1558564	do	Nyquist, H	Electrical Testing System.
1558822	do	Baker, C. I	Selector Switch.
1558826	do	Beebe, M. C	Electrical Testing System.
1558830	do	Brough, W. R	Electron Discharge Device.
1558834	do	Carpenter, W. W	Telephone System.
1558855	do	Field, J. C	Apparatus Rack.
1558862	do	Gibson, E. S	Controlling Mechanism.
1558872	do	Helwig, E. C	Telephone System.
1558880	do	Hocker, C. D	Solvent and Vehicle for Resinous and Gelatinized Material.
1558883	do	Housekeeper, W. G	Vacuum Tube.
1558909	do	Nichols, H. W	Selective Circuits.
1558944	do	Taylor, H. B	Telephone Switch.
1558952	do	Van Inwagen, C. L	Carrier System.
1559116	do	Marrison, W. A	Wave Generating and Modulating System.
1559159	do	Carson, J. R	Telegraph Signaling System.
1559244	do	Gibson, E. S	Telephone Exchange System.
1559246	do	Gilson, A. F. F	Signaling Apparatus.
1559250	do	Hampton, L. N	Electrical Plug Switch.
1559251	do	Harper, R. W	Private Branch Exchange Sender Circuit.
1559260	do	Kochendorfer, F. S	Mounting for Sheet-Like Articles.
1559269	do	Matthies, W. H., and Albert, W. P.	Telephone Exchange System.
1559271	do	Mills, P. E	Rheostat.
1559280	do	Ronci, V. L	Electron Discharge Device.
1559295	do	Stoller, H. M	Frequency Converter.
1559297	do	Albert, W. P	Telephone System.
1559305	do	Beck, W. O	Relay.
1559325	do	Jewett, F. B	Means for Analyzing or Synthesizing Electric Waves.
1559372	do	Powell, W. T	Telephone Exchange System.
1559381	do	Swoboda, A. R	Vacuum Bulb Device.
1559396	do	Young, C. R	Loading Coil Case and the Like.
1559638	Nov. 3, 1925	Martin, W. H	Wave Filter.
1559641	do	Nyquist, H	Signaling with Phase Reversals.
1559642	do	do	Do.
1559656	do	Thorp, I. J	Method of and Means for Increasing Voltages.
1559659	do	Walters, J. N	Service Observing Equipment for Automatic Telephone Systems.
1559679	do	Craft, E. B	Signaling Apparatus.
1559753	do	Horton, J. W	Signaling System.
1559776	do	Read, H. S	Thermionic Repeater or Oscillator Circuits
1559802	do	Stevenson, G. H	Electrical Switching Circuits.
1559850	do	Casper, W. L	Transmission System.
1559858	do	Field, F. E	Inductance Device.
1559864	do	Fry, T. C	Filtering Circuit.
1559865	do	Gowing, M. R	Selective Signaling Circuits.
1559867	do	Griggs, E. V	Wave Transmission System.
1559869	do	Hartley, R. V. L	Selective Current Production and Amplification.
1559870	do	Heising, R. A	Generating and Modulating System.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1560054	Nov. 3, 1925	Heising, R. A.	Modulated Wave Transmission.
1560056	do	Horton, J. W.	Source of Waves of Constant Frequency.
1560502	do	De Forest, L.	Sound Reproducing Device.
1560531	Nov. 10, 1925	Blauvelt, W. G.	Automatic Switch.
1560540	do	Cory, S. I.	Means for Preventing Electrical Interference.
1560543	do	Crisson, G.	Testing Circuits for Echo Suppressors.
1560544	do	do	Do.
1560610	do	Shoffstall, H. F.	Supervisory Circuits.
1560690	do	Houskeeper, W. G.	Electron Discharge Device.
1560691	do	do	Do.
1560692	do	do	Do.
1560704	do	Locke, G. A.	Printing Telegraphy.
1560724	do	Potts, L. M.	Regulating System.
1560727	do	Pruden, H. M.	Testing System.
1560728	do	Radu, J. W.	Vacuum Tube Socket.
1560737	do	Schwerin, P.	Electron Discharge Device.
1560740	do	Stelling, J. L.	Do.
1560760	do	Chaplin, M. P.	Engine Control Means.
1560768	do	Curtis, A. S.	Telephone Set.
1530774	do	Garvin, J. S.	Relay.
1530778	do	Goddard, F. M.	Anti-Induction Device.
1560803	do	Miller, D. D.	Relay.
1561204	do	Beers, R. F.	Transformer.
1561225	do	Fry, J. R.	Method and Means for Measuring Time.
1561227	do	Griggs, E. V.	Carrier Current Signaling System.
1561247	do	Kingsbury, E. F.	Metallic Composition.
1561273	do	Nichols, H. W.	Radio System.
1561289	do	Vennes, H. J.	Signaling by High Frequency Waves.
1561292	do	Aldendorff, F.	Automatic Telephone System.
1561468	Nov. 17, 1925	Jordan, J. D.	Coiling or Winding Apparatus.
1561486	do	Whitlock, L. E.	Tool for Cleaning Electric Contact Surfaces.
1561524	do	Sandalls, G., Jr.	Telephone Testing System.
1561526	do	Vernam, G. S.	Printing Telegraphy.
1561530	do	Conover, E. J.	Telegraph Repeater Circuit.
1561531	do	Cory, S. I.	Telegraph Circuit.
1561532	do	do	Telegraph System.
1561782	do	Given, F. J.	Inductance Coil.
1561892	do	Whiting, D. F.	Regulating Repeater Systems.
1561912	do	Clark, E. H.	Registering System.
1561921	do	Gooderham, J. N.	Do.
1561933	do	Kendall, B. W.	Source of Alternating Current.
1561936	do	Kiesel, W. C.	Telephone Exchange System.
1561951	do	Stacy, L. J.	Testing Device.
1562164	do	Harris, J. E.	Process of Coating Electrodes.
1562165	do	Harrison, H. C.	Acoustic Device.
1562171	do	Hoornbeek, H. G.	Strand Working Machine.
1562172	do	Houskeeper, W. G.	Electron Discharge Device.
1562187	do	Radu, J. W.	Vacuum Tube Socket.
1562188	do	Rainey, P. M.	Selecting System.
1562189	do	do	Printing Telegraph System.
1562200	do	Beck, W. O.	Electromagnetic Device.
1562202	do	Boving, H.	Method of Forming Metallic Compositions.
1562209	do	Egert, B. J., and De Coster, C. J.	Vacuum Tube Evacuating Oven.
1562210	do	Field, J. C.	Signaling System.
1562211	do	do	Supervisory System.
1562228	do	Grange, J. D.	Stencil Sheet.
1562396	do	Ward, F. E.	Electron Discharge Device.
1562403	do	Wilson, J. R.	Do.
1562436	Nov. 24, 1925	Chaplin, M. P.	Translating Device.
1562485	do	Affel, H. A.	Movement and Position Indicator.
1562500	do	Espenschied, L.	Receiving Circuits for Low Frequency Impulses.
1562526	do	Toomey, J. F., and Phelps, H. E.	Telephone Exchange Circuit.
1562527	do	do	Do.
1562528	do	do	Telephone System.
1562578	do	Nicolson, A. M.	Piezo-Electric Device and Method of Producing the Same.
1562844	do	O'Neill, H. W.	Transmission Circuits.
1562943	do	Cummings, G. C.	Telegraph System.
1562947	do	Eaves, A. J.	Electromagnetic Device.
1562955	do	Granich, A. M.	Power Line Signaling.
1562961	do	Heising, R. A.	Directive Radio Transmission System.
1562964	do	Horton, J. W.	Multiplex Carrier Wave Transmission.
1562989	do	Quarles, D. A.	Signaling Circuits.
1563007	do	Bell, J. H.	Selecting System.
1563326	Dec. 1, 1925	Bown, R.	Secret Communication System.
1563370	do	Jacobsen, E.	Testing Set for Telephone Systems.
1563377	do	Klein, C. H.	Pulling and Transposing Mechanism for Line Wires.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1563432	Dec. 1, 1925	Nyquist, H	Composite Ringer for Transmission Systems.
1563488	do	Hoge, J. F. D	Circuit Interrupter.
1563517	do	Murphy, P. B	Signaling System.
1563555	do	Clark, E. H	Electrical Switching Mechanism.
1563556	do	do	Telephone System.
1563599	do	Walters, J. N	Telephone Exchange System.
1563618	do	Gibson, E. S	Do.
1563620	do	Gorton, W. S	Oscillation Generator.
1563630	do	Hinrichsen, E. E	Telephone System.
1563631	do	do	Do.
1563643	do	Newsom, J. B	Do.
1563644	do	Nichols, H. W	Wave Receiving System.
1563658	do	Richard, C. D	Line Switch.
1563727	do	Curtis, A. M	Isochronizing and Synchronizing System.
1563738	do	From, O. C	Registering Device.
1563740	do	Goff, H. W	Automatic Telephone Switch.
1564201	Dec. 8, 1925	Carson, J. R., Clark, A. B., and Mills, J.	Loading System.
1564203	do	Clark, A. B., and Crisson, G	Receiver Shunt.
1564209	do	Crandall, I. B	Electrical Circuits for Production of Musical Tones.
1564224	do	Espenschied, L	Modulating Apparatus for Telegraph Signals
1564228	do	Fletcher, H	Testing Circuits.
1564231	do	Goff, H. W	Telephone Switch.
1564259	do	McCurdy, R. G	Electrical Testing System.
1564266	do	Nyquist, H	Electrical Teansformer.
1564274	do	Rand, C. C	Method of and Means for Casting Articles.
1564303	do	Wold, P. I	System for Location of a Source of Wave Energy.
1564357	do	Kendall, B. W	Monitoring System.
1564391	do	Wilbur, R. S	Telephone Repeater Monitoring System.
1565044	do	Barber, C. C	Oil Pump.
1565088	do	Gargan, J. O	Condenser.
1565089	do	Gauthier, E	Reciprocating Mechanism.
1565091	do	Griggs, E. V	Wave Transmission System.
1565092	do	Harrison, H. C	Attachment for Oscillation Generators.
1565115	do	Speed, J. B., and Falk, A. H	Solder.
1565131	do	Wilbur, R. S	Signaling System.
1565135	do	Wright, J. C	Measuring and Recording Device.
1565150	do	Horton, J. W	Oscillation Generator.
1565151	do	Houskeeper, W. G	Electric Discharge Device.
1565152	do	do	Vacuum Insulator and Its Assembly.
1565155	do	Jammer, J. S	Carrier Signaling System.
1565157	do	Johnson, J. B	Circuit Arrangement for Discharge Devices.
1565177	do	MacKenzie, D	Method and Apparatus for Comparing Sound.
1565200	do	Reeve, H. T	Method of Making Cores for Cathodes of Vacuum Tubes.
1565302	Dec. 15, 1925	Arnold, H. D	Two-Way Repeater Circuits.
1565325	do	Herman, J	Means for Regulating Motors.
1565343	do	Vernam, G. S., and Perry, D. B.	Printing Telegraph Exchange System.
1565358	do	Gardiner, L. A	Alloy for Electrical Contacts.
1565441	do	Hamilton, H. S	Automatic Volume Regulation of Transmission Systems.
1565491	do	Nyquist, H	Volume Control of Transmission.
1565505	do	Ryan, F. M	Radio Transmitter.
1565521	do	Stone, J. S., and Rose, C. C	Secret Communication System.
1565522	do	Stone, J. S	Carrier Current Multiplex Signaling System.
1565540	do	Wright, S. B	Automatic Volume Regulation.
1565544	do	Bown, R	Radio Transmission System.
1565548	do	Clark, A. B	Arrangement for Controlling Volume Range.
1565555	do	Fetter, C. H	Arrangement for Automatically Controlling Volume Output.
1565562	do	Griffith, T. R	Electron Discharge Device.
1565566	do	Hartley, R. V. L	Translating Device.
Re18274	Dec. 8, 1931	do	Do.
1565569	Dec. 15, 1925	Houskeeper, W. G	Electron Discharge Device.
1565570	do	do	Do.
1565577	do	McDonough, J	Testing Device.
1565578	do	do	Testing Fixtur ..
1565581	do	Moore, C. R	Telephone Transmitter.
1565596	do	Snook, H. C	Signal System.
1565600	do	Stoekle, E. R	Electron Discharge Device.
1565603	do	Trumble, R. F	Do.
1565613	do	Anderegg, G. A	Electrical Measuring Apparatus.
1565625	do	Clausen, H. P	Signaling System.
1565628	do	Edwards, G. D., and Capen, W. H.	Telephone Intercommunicating System for Aeroplanes.
1565637	do	Goff, H. W	Telephone Switch.
1565652	do	Kochendorfer, F. S., and Robinson, M. E.	Taping Machine.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1565847	Dec. 15, 1925	Coram, R. E	Circuits for the Production of Pure Modulated Carrier Waves.
1565855	do	Johnson, J. B	Vacuum Tube.
1565857	do	Kelly, M. J	Vacuum Tube Manufacture.
1565862	do	Massingham, H. R	Strand Twisting Mechanism.
1565868	do	Stoll, C. G	Strand Cord Working Machine.
1565869	do	Straw, W. A	Etching.
1565873	do	Van der Bijl, H J	Vacuum Tube and Method of Operating the Same.
1565904	do	Burkholder, J. C	Signalling System.
1565925	do	Green, C. W	Transmission Regulation.
1565012	do	Horton, J. W	Carrier Wave Signaling System.
1566034	do	Mills, J	Thermionic Meter.
1566279	Dec. 22, 1925	King, R. W	Gas Pressure Control.
1566293	do	Van der Bijl, H. J	Thermionic Device.
1566295	do	Watson, E. F	Printing Telegraph System.
1566311	do	Clark, A. B., and Hoyt, R. S	Telephone Repeater Circuit.
1566337	do	Martin, W. H	Sound Radiator.
1566342	do	Nyquist, H	Means for Increasing Power Capacity of 22-Type Repeaters.
1566345	do	Peterson, G. H	Trunk Circuits.
1566489	do	Farrington, J. F	Two-Way Communication System.
1566777	do	Shackelton, W. J	Inductance Device.
1566792	do	Field, F. E	Do.
1566802	do	Milton, I. L	Loading Coil and Method of Construction.
1567029	Dec. 29, 1925	Borgman, C	Telephone Switchboard.
1567040	do	Clark, E. H	Telephone Exchange System.
1567041	do	Covell, R. O	Do.
1567042	do	Deakin, G., and Polinkowsky, L.	Do.
1567053	do	Hibbard, F. H	Stepping Mechanism.
1567054	do	Hinrichsen, E. E	Automatic Telephone System.
1567060	do	Keller, L., and Williams, S. B., Jr.	Telephone Exchange System.
1567069	do	Lundell, A. E	Allotter Controlling System.
1567072	do	Matthies, W. H	Telephone Exchange System.
1567087	do	Smith, P. C	Do.
1567094	do	Williams, S. B., Jr	Do.
1567122	do	Dunham, B. G	Automatic Telephone Exchange System.
1567128	do	Fetter, C. H	Wire Program Transmission System.
1567167	do	Nyquist, H	Four-Wire Repeater Circuits.
1567204	do	Stone, J. S	Radio Transmitting System.
1567208	do	Toomey, J. F., and Phelps, H. E.	Program Transmission Over Wires.
1567209	do	Toomey, J. E	Subscriber's Equipment for Program Transmission.
1567223	do	Albert, W. P	Controlling System.
1567231	do	Bowne, L. J	Telephone Exchange System.
1567236	do	Butz, E. D	Telephone System.
1567240	do	Carpenter, W. W	Restricted Service Automatic Telephone System.
1567242	do	Clark, E. H	Telephone Exchange System.
1567249	do	Devaux, L	Do.
1567250	do	Dunham, B. G	Automatic Telephone Exchange System.
1567253	do	Forsberg, O. F	Switching Device.
1567254	do	do	Means for Adjusting Coordinate Switch Parts.
1567256	do	Fowler, C. B	Telephone System.
1567257	do	do	Do.
1567261	do	Gibson, E. S	Telephone Exchange System.
1567265	do	Hinrichsen, E. E	Do.
1567266	do	do	Message Register System.
1567271	do	Johnson, L. H	Telephone Exchange System.
1567280	do	Lundell, A. E	Do.
1567282	do	MacDougall, H. W	Telephone System.
1567283	do	Matthies, H. W	Telephone Exchange System.
1567295	do	Polinkowsky, L	Do.
1567297	do	Reeves, F. N., and Clark, E. H.	Selective Switch.
1567305	do	Smythe, E. H	Telephone System.
1567309	do	Waller, L. R	Automatic Telephone System.
1567316	do	Buckley, O. E	Means for Reducing Interference.
1567734	do	Heising, R. A	Radio Transmission System.
1568038	do	Williams, S. B., Jr., and Gibson, E. S.	Automatic Telephone System.
1568039	do	Williams, S. B., Jr., and Hinrichsen, E. E.	Telephone Exchange Systems.
1568141	Jan. 5, 1926	Elsasser, H. W	Frequency Selective Circuit.
1568142	do	do	Do.
1568143	do	do	Do.
1568144	do	do	Do.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1568145	Jan. 5, 1926	Elsasser, H. W.	Frequency Filter for Electric Currents.
1568194	do	Smythe, E. H.	Carrier Wave Transmission and Communicating System.
1568306	do	Williams, S. B., Jr., and Gibson, E. S.	Telephone Exchange System.
1568861	do	Affel, H. A.	Repeater Circuit.
1568891	do	Espenschied, L.	Repeater Circuits.
1568963	Jan. 12, 1926	Coram, R. E.	Translating Apparatus.
1568979	do	Knudsen, V. O.	Oscillation Generator.
1568991	do	Morehouse, L. F.	Ciphering and Deciphering Device.
1568996	do	Best, F. H.	Electrical Measuring Apparatus.
1569001	do	Clark, A. B., and Crisson, G.	Do.
1569003	do	Curtis, A. M.	Signaling System.
1569006	do	Deakin, G.	Telephone System.
1569034	do	Rhodes, W. A.	Machine Switching Telephone Exchange System.
1569055	do	Weaver, A.	Telegraph Circuit.
1569615	do	Clarke, H. R.	Telephone Apparatus.
1569616	do	Conway, R. D.	Electric Signaling System.
1569623	do	Dunham, B. G.	Pay Station Telephone System.
1569630	do	Griffith, T. R.	Electron Discharge Device.
1569639	do	Stevenson, G. H.	Vacuum Tube Socket.
1569654	do	Helwig, E. C.	Telephone Exchange System.
1569844	do	Schwerin, P.	Electron Discharge Device.
1569874	Jan. 19, 1926	Newby, N. D.	Indicating Means for Calling Dials.
1569898	do	Toomey, J. F.	Signaling System.
1569899	do	Vernam, G. S., and Watson, E. F.	Telegraph Repeater.
1569905	do	Affel, H. A., and Ilgenfritz, L. M.	Neutralizing Radio Interference on Wire Lines.
1569936	do	Land, E.	Machine Switching System.
1570120	do	Bennett, A. F.	Telephone Device.
1570129	do	Clarke, H. R.	Support for Head Telephone Receivers.
1570215	do	Fry, T. C.	Electrical Network.
1570460	do	Clokey, A. A.	Telegraph System.
1570490	do	Horton, J. W.	Sound Reproducing Method and Apparatus.
1570633	Jan. 26, 1926	Krum, H. L.	Printing Telegraph Receiver.
1570741	do	Harden, W. H., and Graefenecker, M. A.	Testing System for Machine Switching Circuits.
1570755	do	Loynes, O. H.	Radio Ringing System.
1570770	do	Nyquist, H.	Means for and Method of Reducing Interference.
1570771	do	do	Do.
1570772	do	do	Reduction of Distortion in Multiplex Repeaters.
1570901	do	Loewe, S.	Amplifying System.
1570923	do	Potts, L. M.	Printing Telegraphy.
1570948	do	Crouch, J. L.	Test Fixture.
1570950	do	Gargan, J. O.	Tube Mounting.
1571005	do	Hartley, R. V. L.	Secret Signaling.
1571006	do	do	Signaling System.
1571010	do	Kendall, B. W.	Secret Signaling.
1571011	do	do	Do.
Des. 69313	do	Englund, C. P. and Haddock, A.	Loop Antenna.
Des. 69314	do	do	Do.
1571357	Feb. 2, 1926	Whiting, D. F., and Taylor, H. D.	Communication System.
1571513	do	Edwards, W. H.	Telephone Substation Circuit.
1571948	Feb. 9, 1926	Houskeeper, W. G.	Electron Discharge Device.
1571991	do	Bailey, R. S.	Telephone Ringing System.
1572010	do	Herman, J.	Detector Circuit.
1572083	do	Read, H. S.	Amplifier Circuit.
1572380	do	Clark, E. H.	Telephone Switch.
1572387	do	Harrison, H. C.	Sound Box.
1572530	do	Hendry, W. F.	Vacuum Tube.
1572587	do	Williams, S. B., Jr.	Telephone System.
1572673	do	Newman, P. A.	Interrupter.
1572679	do	Powell, A. C.	Telephone Exchange System.
1572721	do	Houskeeper, W. G.	Vacuum Tube.
1572726	do	Kelly, M. J.	Electron Discharge Device.
1572756	do	Smythe, E. H., and Williams, S. B., Jr.	High Frequency Wave Signaling and Communicating System.
1572757	do	Affel, H. A.	Multiplex Signaling System.
1572782	do	Fay, F. H.	Telegraph Circuits.
1572785	do	do	Do.
1572869	Feb. 16, 1926	Adams, A. H.	Electromagnet.
1572977	do	Von Nostitz, E.	Telephone System.
1572992	do	Crisson, G., and Glezen, L. L.	Adjustable Electrical Network.
1573068	do	Honaman, R. K.	Voltage Limiting Device.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1573282	Feb. 16, 1926	Stone, J. S.	Thermionic Modulator.
1573303	do	Colpitts, E. H.	Carrier Wave Transmission.
1573309	do	Dowey, T. L.	Recording and Reproducing Machine.
1573315	do	Griffin, J. T.	Method of Cementing Two Parts Together.
1573317	do	Houskeeper, W. G.	Manufacture of Vacuum Tubes.
1573323	do	Nichols, H. W.	Highly Selective Circuit.
1573333	do	Stoller, H. M.	Dynamo-Electric Machine.
1573337	do	Vennes, H. J.	Electrical Bridge.
1573367	do	Arnold, H. D., and Minton, J. P.	Alternating Current of Variable Frequency.
1573395	do	Johnson, E. D., and Green, C. W.	Signaling Circuits.
1573396	do	Green, C. W.	Signaling System.
1573412	do	MacDougall, H. W., and Bertels, A. S.	Automatic Testing System to Test Automatic Switches.
1573413	do	MacDougall, H. W.	Do.
1573529	do	Terry, D. M.	Picture Transmission System.
1573794	Feb. 23, 1926	Bailey, R. S.	Telephone Exchange System.
1573801	do	Bown, R.	Trouble Alarm System for Radio Receiving Sets.
1573865	do	Robbins, C. W.	Method of and Apparatus for Testing the Elastic Properties of Metals.
1573891	do	Wright, S. B., and Schott, J. T.	Gain Controlling Circuits.
1573907	do	Blauvelt, W. G.	Telephone Exchange System.
1573913	do	Casper, W. L.	Transmission Circuit.
1573924	do	Fletcher, H.	Secret Signaling.
1573936	do	Hartley, R. V. L.	System of Carrier Wave Signaling.
1573948	do	Terry, D. M.	Means for Producing Oscillations.
1573954	do	Vennes, H. J.	Current Wave Transmission.
1573959	do	Williams, S. B., Jr.	Carrier Wave Communicating System.
1573983	do	Mathes, R. C.	Secret Signaling.
1573984	do	Maxfield, J. P.	Radio Broadcasting Equipment.
1573991	do	Murphy, P. B.	Signaling System.
1574205	do	Polinkowsky, L.	Telephone System.
1574302	do	Nicolson, A. M.	Piezo-Electric Loud Speaker.
1574350	do	Johnson, J. B.	Electrical Testing.
1574484	do	Horton, J. W.	Multiplex Signaling System.
1574779	Mar. 2, 1926	Affel, H. A.	Translating Circuits.
1574780	do	do	Means for and Method of Modulation.
1574781	do	Barton, H. A.	Voice Operated Repeater System.
1574807	do	Gannett, D. K.	Means for Regulating Voltage.
1574808	do	do	Regulation of Transmission.
1574873	do	Deakin, G.	Telephone Exchange System.
1574954	do	Wright, J. L.	Do.
1575128	do	Reeves, F. N.	Testing System for Testing Senders of Automatic Exchanges.
1575140	do	Williams, S. B.	Telephone Exchange System.
1575271	do	O'Neill, H. W.	Telephone System.
1575272	do	do	Do.
1575299	do	Weaver, W. C.	Telephone Exchange System.
1575312	do	Bertels, A. S., and Trapp, E. F.	Automatic Testing System for Automatic Telephone Switches.
1575326	do	From, O. C.	Registering Mechanism.
1575334	do	Harper, R. W.	Telephone System.
1575336	do	Henry, I. H.	Telephone Exchange System.
1575353	do	Magrath, A. C.	Card Holder for Calling Dials.
1575628	Mar. 9, 1926	Herman, J.	Telegraph Signaling System.
1575650	do	Shanck, R. B.	Telegraph Key.
1575658	do	Strieby, M. E.	Volume Control for Program Distribution Systems.
1575659	do	do	Filter Arrangement for Wire Program Distribution Circuits.
1575672	do	Blackwell, O. B.	Wire Carrier Program Distribution System.
1575951	do	Thuras, A. L.	Acoustical Instrument.
1576561	Mar. 16, 1926	Toomey, J. F.	Arrangement for Exercising Remote Control over Repeaters.
1576566	do	Affel, H. A.	Duplex Balancing Arrangement.
1576579	do	Cory, S. I.	Ground Potential Neutralizing System.
1576657	do	Jacobsen, E.	Telephone Exchange System.
1576658	do	do	Do.
1576747	do	Hoffman, H. L.	Telephone System.
1577033	do	Kerr, M. B.	Automatic Telephone Exchange.
1577046	do	Miller, O. R.	Testing System.
1577051	do	Albert, W. P.	Telephone System.
1577059	do	Clark, E. H.	Telephone Exchange System.
1577076	do	Powell, A. C.	Do.
1577083	do	Sperry, A. B.	Do.
1577333	do	Lundius, E. R.	Testing System.
1577513	Mar. 23, 1926	Blauvelt, W. G.	Telephone Exchange System.
1577514	do	Bonell, R. K.	Selector Circuits.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1577515	Mar. 23, 1926	Bonell, R. K	Selective Signaling Circuits for Carrier Systems.
1577719	do	Holden, W. H. T	Electrical Protective Device.
1577720	do	do	Acoustic Shock Absorber for Telephone Lines.
1577722	do	Horton, J. W	Generation and Control of Electric Waves.
1577778	do	White, C	Carrier Signaling System.
1577846	do	Nicolson, A. M	Electric Space Discharge Device and Method of Operating the Same.
1578269	Mar. 30, 1926	Demarest, C. S	Signaling Arrangement for Four-Wire Circuit.
1578299	do	Vernam, G. S	Printing Telegraph System.
1578307	do	Zinn, M. K	Inductance Coil.
1578488	do	Walker, H. G	Apparatus for Handling Strands.
1578634	do	Porgmann, C	Clamping and Supporting Device.
1578642	do	Clarke, H. R	Head Band for Telephone Receivers.
1578645	do	Craft, E. B	Sound Reproduction.
1578646	do	do	Telephone Device for Aiding the Deaf.
1578651	do	Fetzer, K. M	Telephone Exchange System.
1578559	do	Harrison, H. C	Electromagnetic Device.
1578662	do	Hunter, F. L	Electric Oven.
1578667	do	Kelsay, L. W	Binding Post.
1578671	do	Martin, F. J	Testing Device.
1578672	do	Martin, H. T	Designation Device.
1578677	do	Nicolson, A. M	Method of Growing Crystals.
1578679	do	Peterson, E	Modulating System.
1578685	do	Richard, C. D	Electrical Switching Device.
1573707	do	Beck, W. O	Electromagnetic Device.
1578845	do	Nelson, E. L	Modulation Indicating System.
1578846	do	Nichols, H. W	Carrier Wave Transmission.
1578857	do	Siegmund, H. O., and Brown, C. E.	Electrode for Electrolytic Cells.
1579199	Apr. 6, 1926	Adams, W. J	Current Control Device.
1579203	do	Boe, H. J	Safety Device for Clutch Mechanisms.
1579209	do	Clausen, H. P	Variable Condenser.
1579211	do	Cummings, G. C	Telegraph System.
1579216	do	Knoop, W. A	Voltage Limiting Device.
1579217	do	Kochendorfer, F. S., and Selvig, J. N.	Strand or Cord Working Mechanism.
1579229	do	Mathes, R. C	Electric Current Transmission.
1579236	do	O'Neill, H. W	Telephone Exchange System.
1579237	do	do	Switching Device.
1579253	do	Singer, E	Reception of Signals.
1579256	do	Smythe, E. H	Carrier Wave Communicating and Switching System.
1579263	do	Watson, E. F	Electrical Transmission of Pictures.
1579274	do	Yale, W. S	Apparatus for and Method of Whipping Strand About a Core.
1579283	do	Crisson, G	Multiple Way Connection for a Plurality of Lines.
1579286	do	Dupy, O. L	Dynamo-Electric Machine.
1579291	do	Emery, C. B	Gauging Means for Measuring and Adjusting Apparatus.
1579299	do	Gabriel, J. C	Two-Way Communication System.
1579301	do	Garvin, J. S	Relay.
1579304	do	Goddard, F. M	Switching Device.
1579307	do	Gordon, C. S	Tool Handle.
1579313	do	Haase, C. O	Strand Whipping Mechanism.
1579320	do	Hysko, J. L	Frequency Indicating System.
1579626	do	Banta, H. W	Sealing Leading-in Conductors.
1579695	do	Ford, B. K	Method of Whipping Cores with Strand Material.
1579696	do	do	Apparatus for and Method of Whipping Cores With Strand Material.
1579708	do	Jammer, J. S., and Anderson, C. T.	Indicating Electrical Effects.
1579709	do	Janicki, J	Method of and Apparatus for Serving Material Upon a Core.
1579731	do	O'Neill, H. W	Telephone System.
1579769	do	Jones, H. F	Material Handling Apparatus.
1579887	do	Pratt, E. J	Relay.
1579894	do	Snook, H. C	Oscillation Generator.
1579895	do	do	Do.
1579930	do	Haddock, A	Radio Transmitter.
1579931	do	Hartley, R. V. L., and Mathes, R. C.	Transmission Circuits.
1579935	do	Heising, R. A	Resonance Indicator.
1580191	Apr. 13, 1926	Fell, J. M	Means for Reducing Cross Fire in Telegraph Circuits.
1580192	do	do	Duplex Telegraph System.
1580225	do	Watson, E. F	Telegraph Circuit.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1580427	Apr. 13, 1926	Farrington, J. F.	Circuit for Audions.
1580624	do	Nyquist, H., Bouton, L. L., and Shoffstall, H. F.	Gain Control Circuits for Repeaters.
1580630	do	Albert, W. P.	Telephone Exchange System.
1580848	do	Newman, P. A.	Electric Motor and Control System Therefor.
1580850	do	Otis, R. M., and Funk, W. F.	Electron Discharge Device.
1580879	do	Evans, W. A.	Electrical Connector.
1580882	do	Gent, E. W.	Interrupter.
1580884	do	Goff, H. W.	Swaging Tool.
1580896	do	Ives, H. E.	Picture Analysis.
1580897	do	do	Photo-Engraving.
1580899	do	Johnson, J. B.	Apparatus for Modifying the Wave Form of Alternating Current.
1580901	do	Jones, W. C.	Switching Device.
1580923	do	Selvig, J. N.	Clutch Controlling Mechanism.
1580929	do	Stokely, R. L.	Machine Switching Telephone Exchange System.
1580940	do	Albert, W. P.	Testing Device for Telephone Exchange Systems.
1580943	do	Baker, C. I.	Calling Dial.
1580951	do	Bowne, J. L., and Ulrich, H. W.	Telephone System.
1581160	Apr. 20, 1926	Berteis, A. S.	Battery Control System.
1581296	do	Schmied, J. W.	Modulating Carrier Waves.
1581305	do	Watson, E. F., and Hunt, A. E.	Electrical Controlling System.
1581314	do	Herbert, C. M.	Device for Coiling Cables.
1581326	do	Shanck, R. B.	Means for Preventing Bias in Telegraph Systems.
1581334	do	Crandall, I. B.	Vibration Detecting Device.
1581509	do	Bungerz, K.	Telephone Receiver.
1581520	do	Schwerin, P.	Vacuum Tube.
1581576	do	Horton, J. W.	Carrier Wave Signaling System.
1582023	Apr. 27, 1926	Adams, A. H.	Strand Working Mechanism.
1582026	do	Duclos, A. J. N.	Method of and Apparatus for Producing Plastic Articles.
1582043	do	Hilberry, N.	Method of and Apparatus for Electric Welding.
1582044	do	Horton, J. W.	Wave Modulation System.
1582045	do	Don Howe, A. H.	Vehicle.
1582057	do	Larsen, E. W.	Mechanism for Supporting and Moving Circular Objects.
1582073	do	O'Leary, J. T.	Phantom Carrier Circuits.
1582107	do	Whiteside, V.	Conveyor.
1582112	do	Affel, H. A.	Phantom Carrier Circuits.
1582113	do	do	Do.
1582270	do	Snook, H. C., and Johnson, J. B.	Method of and Means for Generating Electric Oscillations.
1582948	May 4, 1926	Walters, J. N., and Ewing, C.	Testing System.
1582984	do	Hamilton, H. S.	Automatic Regulation of Echo Suppressor Sensitivity.
1583004	do	Osborne, H. S.	Signal Detecting System.
1583067	do	Moore, C. R.	Vibration Responsive Device.
1583365	do	Pfannenstiehl, H.	Printing Telegraphy.
1583416	do	Moore, C. R.	Vibration Responsive Apparatus.
1583417	do	Nicolson, A. M.	Piezo-Electric Device and Method of Producing it.
1583463	do	Houskeeper, W. G.	Electron Discharge Device.
1583464	do	do	Method of Forming Glassware.
1583809	May 11, 1926	Stoller, H. M.	Dynamo-Electric Machine.
1583814	do	Till, H. R.	Pressure Controlling Device.
1583815	do	Trebes, B. M. A.	Apparatus for Applying Insulating Coverings on Electrical Conductors.
1583826	do	Deardorff, R. W.	Method and Apparatus for Balancing Out Radio Interference on Wire Lines.
1583827	do	Green, E. I.	Loading Transmission Lines.
1583844	do	Kochendorfer, F. S., and Boe, H. J.	Mechanism for Treating Cables and Strands.
1583854	do	Perry, D. B.	Volume Control Apparatus.
1584327	do	Schelleng, J. C.	Electric Wave Transmission System.
1584748	May 18, 1926	Toomey, J. F.	Circuit Controller.
1584749	do	Vernam, G. S., and Perry, D. B.	Ciphering Device.
1584819	do	Smith, T. C., Freeman, A. E., and Simonds, G. D.	Winch.
1585010	do	Bellamy, H. T.	Casting Slip.
1585018	do	Casper, W. L., and Whittle, H.	Transformer Circuits.
1585024	do	Goodrum, C. L.	Controlling Mechanism for Progressively Movable Electric Switches and Other Devices.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1585701	May 25, 1926	Clark, A. B	Method and Means for Telephone Transmission Measurements.
1585702	do	do	Echo Suppressor for Two-Wire Systems.
1585729	do	Matte, A. L	Emergency Switching Mechanism.
1585770	do	Conway, R. D	Method and Means for Selecting Balancing Networks.
1585842	do	Fearing, J. L	Electric Current Transmission.
1585866	do	Kendall, B. W	Repeater Circuits.
1586162	do	Palmer, J. C. R	Electron Discharge Device.
1586518	June 1, 1926	Clark, E. H	Telephone System.
1586520	do	Davis, R. C	Do.
1586524	do	Heising, R. A	Constant Frequency System.
1586527	do	Hinrichsen, E. E	Telephone System.
1586533	do	Peterson, E	Thermionic Meter.
1586537	do	Stokely, R. L	Machine Switching Telephone System.
1586538	do	Thompson, G	Telephone Exchange System.
1586549	do	Fry, J. R	Alternating Current Relay.
1586554	do	Goodrum, C. L	Telephone System.
1586558	do	Harris, J. E	Manufacture of Electron Discharge Devices.
1586564	do	Lundius, E. R	Testing System.
1586569	do	Newman, P. A	Regulator.
1586570	do	Nichols, H. W	Signaling System.
1586580	do	Schelleng, J. C	Oscillating System.
1586584	do	Soper, C. P	Repeating Circuits and Method.
1586587	do	Taplin, C. V	Testing System for Testing Subscribers' Station Apparatus.
1586633	do	McCurdy, R. G	Drainage Method for Four-Wire Cable Systems.
1586811	do	Kemp, A. R	Method of Covering Cores.
1586821	do	Mathes, R. C	Receiving System for Telegraphic Signals.
1586822	do	do	Correction for Line Distortion.
1586862	do	Ten Eyck, W. B	Method of Applying Magnetic Material to Electrical Conductors.
1586871	do	White, J. H	Casting Metals.
1586874	do	Buckley, O. E	Long Submarine Telegraph Cable for Operation at High Speed.
1586875	do	do	Continuously Loaded Submarine Cable.
1586876	do	do	Power Limiting Method and Apparatus.
1586877	do	do	Electromagnetic Device.
1586878	do	Clokey, A. A	Telegraph System.
1586879	do	Curtis, A. M	Submarine Cable Telegraph System.
1586883	do	Elmen, G. W	Loading of Signaling Conductors.
1586884	do	do	Magnetic Material.
1586885	do	do	Electromagnetic Device.
1586886	do	do	Do.
1586887	do	do	Inductively Loading Signaling Conductors.
1586888	do	do	Method of Applying Metallic Sheathing to Metallic Cores.
1586889	do	do	Magnetic Structure and Method of Manufacture.
1586894	do	Gilbert, J. J., and Clokey, A. A.	Submarine Cable System.
1586895	do	Gilbert, J. J	Submarine Cable Signaling.
1586897	do	Harris, J. W	Heat Treatment of Metals.
1586961	do	Buckley, O. E	Submarine Cable Telegraphy.
1586962	do	do	Induction Apparatus.
1586965	do	Clokey, A. A	Telegraph System.
1586966	do	do	Synchronizing System.
1586970	do	Curtis, A. M	Signaling System.
1586971	do	do	Do.
1586972	do	do	Submarine Signaling.
1586985	do	Friis, H. T	Duplex Carrier Wave Transmitting and Receiving System.
1587098	do	Whittle, H	Transformer Circuits.
1587107	do	Edwards, G. D	Public Address System.
1587120	do	Haddock, A	Mounting for Vacuum Tubes.
1587121	do	Harlow, J. B	Remote Control and Supervisory System.
1587122	do	do	Electrical Switching and Indicating System.
1587139	do	Betts, W. L	Electric Switch.
1587140	do	Blount, N	Telephone Head Set.
1587155	do	Honan, E. M	Electrical Apparatus.
1587156	do	Housekeeper, W. G	Vacuum Insulator.
1587363	do	Blackwell, O. B	Attenuation Controlling Device.
1587520	June 8, 1926	Hartley, R. V. L	Non-Resonant System.
1587574	do	Zobel, O. J	Doubly Periodic Wave Filter.
1587610	do	Smith, R. H	Telephone Exchange System.
1587620	do	Toomey, J. F	Do.
1587744	do	Bandur, A. F	Loading Coil Case.
1587813	do	Young, C. R	Do.
1587888	do	Wickstrom, C. A., and Patey, J. S.	Sand Blast Apparatus.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1587947	June 8, 1926	Griffin, J. T., and Nelson, C. A.	Abrading Machine.
1587998	do	Adams, A. H	Material Winding Mechanism.
1588017	do	Feely, F. J	Reel.
1588020	do	Grange, J. D	Stencil Material.
1588021	do	Grange, J. D., and Strawn, M. L.	Method of and Apparatus for Forming Composite Articles.
1588022	do	do	Composite Article.
1588122	do	Massingham, H. R	Heating Device.
1588186	do	Hartley, R. V. L	Transmitting Electrical Energy.
1588415	June 15, 1926	do	Production and Transmission of Modulate Waves.
1588416	do	do	Multiplex Telegraphy.
1588437	do	Bailey, R. S	Telephone System.
1588450	do	Cory, S. I	Telegraph System.
1588492	do	O'Neill, H. W	Signaling System.
1588527	do	Clokey, A. A	Do.
1588566	do	Wismer, E	Step for Poles.
1588725	do	Heinicke, H. M. E	Sealing Material.
1589344	June 22, 1926	Akers, M. K	Radio Signaling System.
1589395	do	Jacobs, O. B	Telephone Repeater.
1589398	do	Kelley, W. F	System for Guiding Vessels.
1589402	do	Kopp, O. H	Telephone Exchange System.
1589405	do	Loynes, O. H., and Ohl, R. S.	Ringing Arrangement for Carrier Circuits.
1589406	do	do	Do.
1589407	do	Martin, F. J	Testing System for Testing Multiple Wiring Between Switches.
1589408	do	Maxfield, J. P	Protector for Acoustic Apparatus.
1589409	do	Miller, O. R	Automatic Telephone Exchange System.
1589444	do	Thurston, E. W., and Chase, P. M.	Telephone Exchange System.
1589489	do	Snook H. C	Electric Ignition System.
1590252	June 29, 1926	Osborne, H. S	Artificial Line.
1590263	do	Stone, J. S	Amplifier.
1590270	do	Watson, E. F	Method and Apparatus for Synchronizing in Picture Transmission Systems.
1590311	do	Nicolson, A. M	Piezo-Electric Device and Method of Producing the Same.
1590346	do	Clement, L. M	Radio Direction Finding.
1590352	do	Eglin, J. M	Electron Discharge Device.
1590362	do	Gibson, R. D	Transmission Regulation.
1591073	July 6, 1926	Zobel, O. J	Electrical Network.
1591107	do	Toomey, J. F. and Phelps, H. E.	Program Transmission Over Wires.
1591108	do	Toomey, J. F	Do.
1591961	July 13, 1926	Clark, A. B	Grid Circuit for Electron Tubes.
1591994	do	Nyquist, H	Electrical Measuring Apparatus.
1591998	do	Popper, J. S	Dial Operating Device.
1592232	do	Stuart, W. M	Switching System.
1592243	do	Wente, E. C	Telephone Apparatus.
1592272	do	Kelly, M. J	Electron Discharge Device.
1592274	do	Kipping, N	Employment of Cathode Ray Oscillographs.
1592277	do	Lane, C. E	Telephonic Apparatus.
1592323	do	Aldendorff, F	Electromechanical Devices and Telephone Systems.
1592364	do	Housekeeper, W. G	Ionization Manometer.
1592365	do	do	Apparatus for Vacuum Tube Manufacture.
1592883	July 20, 1926	Barton, H. A. and Nyquist, H.	Repeater for Transmission Lines.
1592885	do	Fetter, C. H	Broadcast Transmission System.
1592891	do	Lysons, N. H	Calling Dial.
1592901	do	Ohl, R. S	Oscillator.
1592903	do	Reeves, F. N	Interlocking Control of a Plurality of Testing Units.
1592934	do	Hartley, R. V. L	Means for Modulating High Frequency Oscillations.
1592937	do	Jammer, J. S	Method of and Means for Producing Harmonics.
1592940	do	Kendall, B. W	Secret Signaling.
1592994	do	Townsend, J. R	Metallic Composition.
1593365	do	Scriven, E. O	Method and System of High Frequency Transmission.
1593373	do	Van der Bijl, H. J	Electron Discharge Device and Method of Operating the Same.
1593380	do	Bertels, A. S	Testing Device for Telephone Exchange Systems.
1593387	do	Clark, E. H	Telephone Exchange System.
1593401	do	Goodrum, C. L	Telephone Switch.
1593619	July 27, 1926	Carpe, A	Carrier Signaling System.
1593639	do	Reynolds, F. W	Optical System.
1593640	do	Trueblood, H. M	Neutralization of Inductive Interference.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1593963	July 27, 1926	Bruce, W. M., Jr.	Radio Receiver.
1593992	do	Smith, P. C.	Calling Device.
1593993	do	Sprague, C. A.	Selective System.
1594003	do	Carpenter, W. W.	Telephone Exchange System.
1594214	do	Reiber, A. H. and Nelson, C. E.	Motor Control for Selective Systems.
1594432	Aug. 3, 1926	Toomey, J. F.	Telephone System.
1594453	do	Clark, A. B. and Crisson, G.	Transmission Circuits.
1594454	do	do	Do.
Des. 70752	do	Green, I. W. and Inglis, A. H.	Universal Casing for Telephone Sets.
1595072	Aug. 10, 1926	Caverly, H. C.	Telephone Exchange System.
1595083	do	Gibson, E. S.	Do.
1595084	do	Goodrum, C. L. and Gibson, E. S.	Do.
1595100	do	Jammer, J. S.	Repeater.
1595107	do	Lyng, J. J., and Wood, L. E.	Composite Article and Method of Making the Same.
1595126	do	Smith, P. C.	Measured Service Automatic Telephone System.
1595132	do	Williams, S. B.	Telephone Exchange System.
1595135	do	Affel, H. A.	Carrier Current Signal System.
1595139	do	Blount, H.	Annealing Apparatus.
1595142	do	Cory, S. I.	Means for Preventing Bias in Telegraph Systems.
1595159	do	Jacobs, O. B.	Telephone Repeater System.
1595793	do	Levinger, D., and Balduf, B. E.	Insulation Stripping Mechanism.
1595799	do	Massingham, H. R.	Heated Element.
1596087	Aug. 17, 1926	Espenschied, L.	Selecting Circuits.
1596101	do	Holden, W. H. T., and Schramm, F. W.	High Frequency Signaling System.
1596102	do	Holden, W. H. T.	High Frequency Translating Circuits.
1596163	do	Eaves, A. J.	Impedance Changing Device.
1596198	do	Loewe, S.	System for Generating Oscillations.
1596916	Aug. 24, 1926	Wright, S. B., and Pfleger, K. W.	Measuring Transmission Delay.
1596941	do	Nyquist, H.	Do.
1596942	do	Nyquist, H., and Etheridge, H. A., Jr.	Measuring Transmission Phase Shift.
1597789	Aug. 31, 1926	Herman, J.	Telegraph Distortion Measuring Machine.
1597790	do	do	Multiplex Signaling System.
1597817	do	Nyquist, H.	Do.
1598663	Sept. 7, 1926	Stone, J. S.	Multiplex Radio Telegraphy and Telephony.
1598673	do	Blackwell, O. B., Martin, DeL. K., and Vernam, G. S.	Secrecy Communication System.
1598694	do	Shackleton, S. P.	Electrical Regulator.
1598815	do	Gauthier, E.	Bearing.
1598835	do	Walter, R. C.	Guiding Apparatus.
1598845	do	Blount, H., and Selvig, J. N.	Reel.
1598871	do	Otto, H. M.	Ruling Machine.
1598886	do	Schulz, A. E.	Material Handling Apparatus.
1598890	do	Stokely, R. L.	Testing System.
1598937	do	Selvig, J. N.	Cord or Strand Operating Mechanism.
1599393	do	Blount, H.	Wire Drawing Apparatus.
1599445	Sept. 14, 1926	Watson, E. F.	Alternating Current Printing Telegraph System.
1599453	do	Affel, H. A.	Antenna Structure.
1599499	do	St. John, E.	Battery Light.
1600274	Sept. 21, 1926	Crisson, G.	Telephone Transmission Circuits.
1600283	do	Hitchcock, H. W.	Artificial Line.
1600290	do	Martin, W. H.	Wave Filter.
1600398	do	Carpenter, W. W.	Telephone Exchange System.
1600399	do	do	Do.
1600421	do	Mills, J.	Oscillation Circuit.
1600443	do	Williams, S. B.	Telephone Exchange System.
1600444	do	Williams, S. B., and Gibson, E. S.	Do.
1600556	do	Matthies, W. H.	Straightforward Trunking System.
1601021	Sept. 28, 1926	Holden, W. H. T.	Superimposed Ringing System.
1601023	do	Hoyt, R. S.	Electrical Signaling System.
1601037	do	Nyquist, H.	Artificial Line.
1601050	do	Wheeler, C. H.	Coin Actuated Device.
1601052	do	Williams, S. B.	Telephone Exchange System.
1601053	do	do	Telephone System.
1601058	do	Berry, C. H.	Selector Switch.
1601060	do	Clarke, H. R.	Telephone Hand Set.
1601061	do	Dunham, B. G.	Automatic Telephone Exchange System.
1601063	do	Frederick, H. A.	Acoustic Device.
1601064	do	Gibson, E. S.	Telephone Exchange System.
1601065	do	Griffith, T. R.	Electron Discharge Device.
1601066	do	Harris, J. E.	Do.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1601069	Sept. 28, 1926	Hofstetter, R.	Method of and Apparatus for Assembling Members.
1601070	do	Horton, J. W.	Wave Meter.
1601071	do	do	Oscillation Generator.
1601074	do	Kendall, B. W.	Multi-Frequency Current Transmission.
1601075	do	Kishpaugh, A. W.	System of Space Discharge Devices.
1601078	do	MacKenzie, D.	Sound Recording.
1601795	Oct. 5, 1926	Gordon, G. B.	Nail Expansion Anchor.
1601799	do	Herman, J.	Telegraph Repeater.
1601808	do	Nyquist, H.	Multiplex Signaling System.
1601940	do	Clokey, A. A.	Telegraph System.
1601941	do	do	Submarine Telegraph System.
1601942	do	do	Telegraph System.
1601967	do	Hartley, R. V. L.	Carrier Wave Transmission.
1601969	do	Jammer, J. S.	Call Signaling System.
1602019	do	Weis, C. L., Jr.	Carrier Wave Signaling System.
1602469	Oct. 12, 1926	Watson, E. F., and Weaver, A.	Electrical Transmission of Pictures.
1602491	do	Hoyt, R. S.	Signaling System Utilizing as Signaling Channels the Minor Transmitting Bands of a Loaded Line.
1602501	do	Peterson, G. H.	Telephone System.
1602681	do	Kochendorfer, F. S., and Schulz, A. E.	Grinding Apparatus.
1602682	do	Kochendorfer, F. S.	Apparatus for Welding and Annealing Meta Parts.
1602809	do	Carpenter, W. W.	Telephone Exchange System.
1603233	Oct. 19, 1926	Allen, R. M.	Centering Device.
1603267	do	Brown, H. B.	Telephone System
1603273	do	Frederick, H. A.	Testing Device.
1603279	do	Gray, F.	Spark Arrester.
1603282	do	Heising, R. A.	Modulating.
1603283	do	Hubbard, F. A.	Electrical Compensator.
1603284	do	Johnson, J. B.	Electric Discharge Device.
1603287	do	Mills, J.	Secret Phonograph Record.
1603289	do	O'Neill, H. W.	Switching Device.
1603290	do	do	Telephone Signaling System.
1603298	do	Speed, J. B.	Method for and Means of Separating Electrolytes.
1603300	do	Winckel, R. C.	Telephone Transmitter.
1603305	do	Zobel, O. J.	Electrical Network and Method of transmitting Electric Currents.
1603319	do	Clark, A. B.	Telephone Repeater.
1603329	do	Dietze, E.	Tapered Filter for Alternating Currents of Varying Frequency.
1603416	do	Shackelton, W. J.	Magnetic Coil.
1603582	do	Clement, L. M.	Carrier Wave Transmission System.
1603500	do	Heising, R. A.	Signal Transmission System.
1603503	do	Kerr, M. B.	Telephone Exchange System.
1603555	do	Williams, S. B., and Gibson, E. S.	Measured Service Telephone System.
1603557	do	Wolfe, W. V.	Power Line Signaling.
1603762	do	Gorton, A. F., and Groves, W. H.	Fusion Furnace.
1603778	do	Kochendorfer, F. S., and Selvig, J. N.	Strand or Cord Working Mechansim.
1603801	do	Potter, W. H.	Coil Winding Machine.
1603802	do	do	Bobbin Winding Machine.
1604140	Oct. 26, 1926	Affel, H. A.	Multi-Frequency Oscillator.
1604163	do	Herman, J.	Means for Regulating Motors.
1604282	do	Haislip, R. A.	Submarine Cable.
1604550	do	Dakin, G.	Rotary Final Selector Switch.
1604597	do	O'Neill, H. W.	Composite Ringer Circuit.
1604610	do	Schelleng, J. C.	Modulation Indicator.
1604637	do	Fearing, J. L.	Phonic Diaphragm.
1604931	Nov. 2, 1926	Elsasser, H. W.	Selective Circuit.
1604937	do	Garvin, J. S.	Energizing Circuits for Vacuum Tubes.
1604939	do	Gorton, W. S.	Operating Relay.
1604995	do	Guilband, L. R.	Inductance Device.
1605001	do	Schroter, F.	Vacuum Valve with Glow Discharge.
1605010	do	Stone, J. S.	Signaling System.
1605023	do	Hartley, R. V. L.	Signaling Method and System.
1605048	do	Mathes, R. C.	Operating Relay.
1605071	do	Ronci, V. L.	Method of Arc Welding.
1605205	do	Bellamy, H. T.	Method of Securing a Union Between Elements.
1605230	do	Hendry, W. F.	Electron Discharge Device and Method of Manufacturing the Same.
1605244	do	Kochendorfer, F. S.	Cable or Strand Handling and Working Machine.
1605255	do	Massingham, H. R.	Strand Distributor.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1605469	Nov. 2, 1926	Sattelberg, O	Long Distance Cable.
1605854	do	Putt, H. O	Convolute Amplifying Horn.
1605921	Nov. 9, 1926	Carpenter, W. W	Telephone Exchange System.
1605930	do	Egerton, H. C	Television System.
1605933	do	Gannett, D. K	Duplex Telegraph System.
1605952	do	Hovland, H	Automatic Coin Service Telephone System.
Re 16616	May 3, 1927	do	Do.
1605972	Nov. 9, 1926	Nyquist, H	Arrangement for Increasing the Power of Repeater Circuits.
1605992	do	Shoffstall, H. F	Means for Controlling Volume Range.
1606006	do	Weaver, W. C	Trunking System.
1606131	do	Pruden, H. M	Carrier Wave Signaling System.
1606133	do	Smythe, E. H	Telephone Apparatus.
1606138	do	Barber, C. C	Centrifugal Governor.
1606139	do	Baulch, E. L	Telephone System.
1606143	do	Butterfield, J. T	Protective Device.
1606161	do	Fowler, C. B	Telephone System.
1606164	do	Garvin, J. S	Circuit Controlling Device.
1606165	do	Glenn, H. H	Electrical Conductor.
1606184	do	Ronci, V. L	Electron Discharge Device.
1606199	do	Wilbur, R. S	Telephone Exchange System.
1606227	do	Horton, J. W., Ives, H. E., and Long, M. B.	Transmission of Pictures by Electricity.
1606316	do	Murphy, P. B	Signaling System.
1606388	do	Scharringhausen, W. H	Telephone Hand Set Mounting.
1606571	do	Heising, R. A	Relay.
1606755	Nov. 16, 1926	Field, F. E	Induction Coil.
1606760	do	Griffith, T. R	Method of and Apparatus for Bending Filaments.
1606761	do	Guilband, L. R	Inductance Device.
1606763	do	Hartley, R. V. L	Signaling Method and System.
1606764	do	do	Speed Regulation.
1606773	do	Nelson, E. L	Transmission System.
1606777	do	Payne, E. B	Inductance Device.
1606783	do	Heising, R. A	Production of Modulated Waves.
1606788	do	Honan, E. M., and Townsend, J. R.	Lubricant.
1606791	do	Horton, J. W	Oscillation Generator.
1606792	do	Isles, F. W	Oscillation Generator for Current of Continuously Varying Frequency.
1606794	do	Johnson, K. S	Telephone System.
1606795	do	Johnson, K. S., and Long, M. B.	Multiplex signaling.
1606816	do	Stevenson, G. H	Inductance Device.
1606817	do	do	Electrical Network.
1606822	do	Bailey, R. S	Telephone Switchboard.
1606851	do	Toomey, J. F., and Phelps, H. E.	Program Transmission Over Wires.
1606855	do	Watson, E. F	Distortion Measuring System.
1607073	do	Gros, G. A	Machine and Method of Supplying Work Thereto.
1607074	do	do	Forming Mechanism.
1607075	do	Hall, E. C	Electrolytic Rectifier.
1607668	Nov. 23, 1926	Fetter, C. H	Carrier Transmission Over Power Circuits.
1607673	do	Inglis, A. H	Telephone Substation Circuits.
1607682	do	Martin, DeL. K	Radio Repeater System.
1607683	do	do	Do.
1607687	do	Nyquist, H	Electrical Circuits.
1607837	do	Martin, DeL. K	Radio Repeater System.
1607893	do	Ives, H. E	Transmission of Pictures by Electricity.
1607902	do	Mathes, R. C	Multiplex Signaling System.
1607903	do	Matthies, W. H	Telephone Exchange System.
1607910	do	O'Neill, H. W	Switching Device.
1607978	do	Casper, W. L	Transmission Circuits.
1607980	do	Green, C. W	Telephone Repeater.
1608247		Selvig, J. N	Wire Drawing Machine.
1608248	do	do	Do.
1608249	do	do	Do.
1608487	Nov. 30, 1926	Blattner, D. G	Transmitting Circuits.
1608488	do	Bowne, L. J	Telephone System.
1608500	do	Goff, H. W	Switching Device.
1608509	do	Jammer, J. S	Carrier Wave Signaling System.
1608516	do	MacDougall, H. W	Testing System.
1608520	do	O'Neill, H. W	Signaling System.
1608521	do	do	Do.
1608522	do	do	Composite Ringer Circuits.
1608524	do	Porter, L. F	Telephone System.
1608527	do	Rainey, P. M	Facsimile Telegraph System.
1608535	do	Schwerin, P	Electric Discharge Device.
1608546	do	Clark, A. B., and Shanck, R. B.	Distortion Measuring System.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1608551	Nov. 30, 1926	Demarest, C. S., and Bonell, R. K.	Radio Signaling System.
1608566	....do	Potter, R. K	System for Binaural Transmission of Sound.
1608645	....do	Bruce, W. M., Jr	Acoustic Attachment for Loud Speakers.
1609339	Dec. 7, 1926	Williams, S. B	Telephone Exchange System.
1609383	....do	Shanck, R. B	Distortion Measuring System.
1609394	....do	Bailey, R. S	Telephone System.
1609395	....do	....do	Do.
1609422	....do	Olofson, K. R	Indenturing Apparatus.
1609438	....do	Stoll, C. G	Feeding Device for Strand Material.
1609455	....do	Boe, H. J	Strand Twisting Machine.
1609460	....do	Buttles, W. S	Apparatus for Holding Articles under High Pressure.
1609461	....do	Carpenter, C. C	Indenturing Machine.
1609490	....do	Mohn, F	Reel.
1610234	Dec. 14, 1926	Almquist, M. L	Carrier Signaling System.
1610336	....do	Stone, J. S	Circuits for Passing or Stopping a Frequency Band of Alternating Currents.
1610442	....do	Gorton, W. S	Stuffing Box.
1610910	....do	Williams, R. R	Composite Article and Method of Forming It
1610954	....do	Lamplough, L. F	Method of Making Composite Articles.
1611124	....do	Nyquist, H	System of Transmission Over Loaded Lines.
1611223	Dec. 21, 1926	....do	Apparatus for Controlling the Frequency of an Alternating Current.
1611224	....do	....do	Method and Apparatus for Measuring Frequency.
1611252	....do	Snavely, P. M	Switching System.
1611350	....do	Jammer, J. S	Carrier Wave Transmission.
1611445	....do	Hinrichsen, E. E	Trouble Indicating System.
1611692	....do	Stokely, R. L	Machine Switching Telephone Exchange System.
1611711	....do	Beaumont, W. M	Telephone System.
1611716	....do	Brown, J. T L	Measuring Electrical Quantities.
1611741	....do	Haliburton, W. M	Reverse Current Relay.
1611870	Dec. 28, 1926	Anderson, H. A	Acoustic Apparatus.
1611916	....do	Johnson, K. S	Electric Wave Transmission.
1611932	....do	Mathes, R. C	Frequency Selective Current Transmission.
1612005	....do	Ellsworth, J. D	Electrical Picture Transmission System.
1612011	....do	Green, I. W., and Bisbee, F. C.	Recording and Reproducing System.
1612014	....do	Hinrichsen, E. E	Recording Mechanism.
1612019	....do	Holden, W. H. T	Asymmetrical Wave Generating System.
1612090	....do	Beatty, W. E	Means and Method for Signaling.
1612147	....do	O'Neill, H. W	Signaling System.
1612202	....do	Mortimer, L. A	Telephone System.
1612848	Jan. 4, 1927	Affel, H. A	Multiplex Telegraphy.
1612849	....do	Anderson, G. T., and Taplin, C. V.	Testing Device.
1612880	....do	Peterson, G. H	Telephone Exchange System.
1612897	....do	Zethmayr, G. J	Thermocouple.
1612916	....do	Gorton, A. F	Ceramic Articles and Method of Producing Them.
1612952	....do	Stevenson, G H	Radio Receiving Apparatus.
1612965	....do	Dahl, J. F	Telephone Exchange System.
1612966	....do	Deakin, G	Selector Switch.
1612988	....do	Schulz, A. E	Strand Holder.
1613240	....do	Mills, J	Wave Transmission Control Circuits.
1613246	....do	O'Neill, H. W	Telephone Exchange System.
1613422	....do	Wegel, R. L	Transmission Control.
1613423	....do	....do	Do.
1613606	Jan. 11, 1927	Flammer, H. A	Electrical Regulating Device.
1613607	....do	Fletcher, H	Compensating Network for Carrier Transmission Circuits.
1613609	....do	Harrison, H. C	Acoustic Device.
1613612	....do	King, R. W	Electron Discharge Device.
1613613	....do	Kopp, O. H	Telephone Exchange System.
1613616	....do	Lum, G. R	Contact Spring Vibration Damper.
1613624	....do	Stokely, R. L	Machine Switching Telephone Exchange System.
1613625	....do	Stoller, H. M	Dynamo-Electric Machine.
1613626	....do	Van de Bijl, H. J	Space Discharge System.
1613630	....do	Watrous, P. M	Vacuum Tube.
1613685	....do	Vernam, G. S., and Perry, D. B.	Printing Telegraph Exchange System.
1613686	....do	Vernam, G. S	Method of and Apparatus for Secret Electrical Transmission of Pictures.
1613704	....do	Herman, J	Telegraph Distortion Measuring System.
1613927	....do	Buckley, O. E	Translating Device.
1613937	....do	Chaplin, M. P	Printing Telegraphy.
1613943	....do	Fetzer, K. M	Testing System.
1613944	....do	Field, J. C	Signaling System.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1613946	Jan. 11, 1927	Gent, E. W	Pneumatic Valve.
1613948	do	Hartley, R. V. L	Electron Tube.
1613949	do	Heising, R. A	Electric Wave Filter.
1613951	do	Jammer, J. S	Carrier Wave Signaling System.
1613952	do	Johnson, K. S	Electric Wave Filter.
1613954	do	Knoop, W. A	Sweep Circuits for Cathode Ray Oscillographs.
1613956	do	Locke, G. A	Signaling System.
1613958	do	Payne, E. B	Apparatus for Loading Transmission Circuits.
1613964	do	Shackelton, W. J	Testing System.
1613970	do	Tanner, DeW. C	Transmission of Pictures by Electricity.
1614254	do	Persons, G. A	Voltage Limiting Device.
1614285	do	Craft, E. B., and Keller, L	Trouble Indicating System.
1614291	do	Fetzer, K. M., and Newell, N. A.	Telephone Exchange System.
1614545	Jan. 18, 1927	Deardorff, R. W	Carrier Telegraph Circuits.
1614546	do	do	Multiplex Telegraphy with Magnitude Discrimination.
1614553	do	Hitchcock, C. H	Strand Gauge.
1614555	do	Hunter, H. V	Multiplex Telegraph System with Magnitude Discrimination.
1614557	do	Jongedyk, R	Machine Press.
1614565	do	McWaid, R. A	Method of and Apparatus for Testing the Viscosity of Matter.
1614569	do	Parcells, P. D	Material Working Mechanism.
1614575	do	Siebs, C. T	Hoisting Apparatus.
1614594	do	Boe, H. J	Serving Mechanism.
1614595	do	do	Reel Supporting Apparatus.
1614596	do	Bouvier, G. A	Means for and Method of Serving a Material.
1614597	do	do	Controlling Mechanism.
1614605	do	Egert, B. J	Measuring Device.
1614609	do	Grange, J. D., and Vosyke, E. F.	Process of and Apparatus for Making Stencil Sheets.
1614953	do	Goff, H. W	Stepping Switch.
1614959	do	Hovland, H	Automatic Telephone System.
Re 16615	May 3, 1927	do	Do.
1615044	Jan. 18, 1927	Soriven, E. O	Transformer Circuit.
1615089	do	Lang, F. H	Finish Remover.
1615094	do	McFarland, R. E	Cored Article and Method of Producing Such Articles.
1615115	do	Durhan, E., Jr	Motor Driven Traveling Crane Mechanism.
1615117	do	Emery, C. B	Device for Gauging and Adjusting Springs.
1615130	do	Milton, I. L	Means for Adjusting Electrical Inductances.
1615137	do	Ruby, F. J	Feeding Mechanism.
1615149	do	Trebes, B. M. A	Supporting Device.
1615161	do	Bouvier, G. A	Winding Mechanism.
1615219	Jan. 25, 1927	Franfield, J. C	Telephone Switchboard Cord Terminal Test Connector.
1615252	do	Zobel, O. J	Electrical Wave Filter.
1615259	do	Clark, A. B	Telephone Repeater System.
1615374	do	Gerhardt, A. P	Mechanism for Working Pulpous Material.
1615375	do	Gill, F	Method of Producing Coated Cores.
1615381	do	Hosford, W. F	Method and Apparatus for Coating Cores.
1615387	do	Jespersen, H. W	Method of and Apparatus for Coating Cores.
1615388	do	do	Moisture Extracting Apparatus.
1615390	do	Little, J. S	Method and Apparatus for Coating Cores.
1615391	do	do	Machine for Forming Sheets of Pulpous Material.
1615392	do	do	Method of and Apparatus for Making Fibrous Articles.
1615393	do	do	Method for Coating Cores.
1615394	do	do	Apparatus for Coating Cores.
1615395	do	do	Method of and Apparatus for Coating Cores.
1615416	do	Walker, H. G., and March, A. T.	Method of Coating Cores.
1615417	do	do	Machine for Coating Cores.
1615418	do	do	Method of and Apparatus for Coating Cores.
1615419	do	do	Do.
1615420	do	do	Machine for Coating Cores.
1615421	do	do	Method and Means for Coating Cores.
1615422	do	do	Method and Apparatus for Coating Cores.
1615423	do	Walker, H. G	Do.
1615424	do	Walker, H. G. and March, A. T.	Method and Apparatus for Producing Fibrous Articles.
1615425	do	do	Coated Core.
1615426	do	do	Mechanism for Working Pulpous Material.
1615428	do	Willard, F. W	Coated Core and Method of and Apparatus for Coating Same.
1615431	do	Albright, H. F	Method and Apparatus for Coating Cores.
1615896	Feb. 1, 1927	Affel, H. A	High Frequency Signaling System.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1615911	Feb. 1, 1927	Nyquist, H.	Apparatus and Method for Regulating Attenuation and Phase on Transmission Lines.
1615913	do	Osborne, H. S.	Radio Direction Finding System.
1615935	do	Davis, R. C. and Conway, R. D.	Manual Telephone System.
1615941	do	Fowler, C. B.	Telephone System.
1615956	do	Rogers, J. E.	Telephone Exchange System.
1615957	do	Schumacher, E. E.	Sintering Refractory Metals.
1615958	do	Schwerin, P.	Electron Discharge Device.
1615957	do	Vroom, E.	Transmission System.
1615971	do	Williams, S. B. and Gibson, E. S.	Telephone Exchange System.
1615983	do	Jones, C. G.	Mounting Vacuum Bulbs.
1615988	do	Long, M. B.	Carrier Transmission System.
1616102	do	Anderson, S. E.	Electromagnetic Coupling Device.
1616114	do	Curran, S. T. and Mueller, E. C., Jr.	Telephone Jack.
1616127	do	Johnson, L. H. and Roberts, T. H.	Telephone Exchange System.
1616139	do	Ronci, V. L.	Electron Discharge Device.
1616156	do	Vroom, E.	System for Energizing and Testing Repeaters.
1616162	do	Adams, W. J., Jr.	Electric Current Transmission.
1616180	do	Field, F. E.	Electromagnetic Device.
1616182	do	From, O. C.	Telephone Exchange System.
1616184	do	Griffith, T. R.	Electron Discharge Device.
1616186	do	Harlow, J. B.	Control and Supervisory System.
1616193	do	Mills, R. H.	Selective Signaling Circuits.
1616200	do	Shackelton, W. J.	Transformer.;
1616491	Feb. 8, 1927	Green, I. W.	Head Band for Telephone Receivers.
1616499	do	King, M., Jr.	Linear Measuring Device.
1616507	do	Pierce, R. E.	Means for Measuring the Margin of Operation of Telegraph Circuits.
1616589	do	Locke, G. A.	Signaling System.
1616607	do	Clokey, A. A.	Do.
1616622	do	Horton, J. W.	Oscillation Generator with Automatic Frequency Control.
1616638	do	Ryan, F. M.	Supervisory System for Carrier Telephone Systems.
1616639	do	Sprague, C. A.	High Frequency Sound Transmission System
1616643	do	Vadersen, H.	Variable Coupler.
1616823	do	Quarles, D. A.	Supervisory System.
1616892	do	Espenschied, L. and Martin, DeL. K.	Duplex Radio System.
1617336	Feb. 15, 1927	Lawson, W. L. and Canfield, M. E.	Testing System.
1617372	do	Casper, W. L.	Repeating Coil.
1617391	do	Jammer, J. S.	Carrier Transmission System.
1617392	do	do	Carrier Wave Transmission System.
1617393	do	do	Carrier Transmission System.
1617405	do	MacDougall, H. W.	Testing System for Automatic Telephone Switches.
1617413	do	Mortimer, L. A.	Telephone System.
1617414	do	O'Neill, H. W.	Signaling System.
1617421	do	Schleppy, S. L. and Bureau, A. A.	Spool.
1617427	do	Wegman, E. C. and Southwick, W. A.	Apparatus for Working Strand Material.
1617428	do	Wier, H. B.	Reproduction of Music and Speech.
1617447	do	Johnston, J.	Preservation of Wood.
1617467	do	Uphoff, L. S.	Radio Signaling System.
1617482	do	Herman, J.	Intermediate Telegraph Set for Duplex Lines.
1617934	do	Affel, H. A.	Carrier Telegraph System.
1617935	do	Affel, H. A., and Deardorff, R. W.	Multiplex Telegraphy by Phase Discrimination.
1617938	do	Bouvier, G. A.	Method of and Apparatus for Determining the Pliability of Strands.
1617971	do	Dowey, T. L.	Synchronizing System.
1618011	do	Gauthier, E.	Press.
1618028	do	Vroom, E.	Means for Energizing Electron Tubes.
1618193	Feb. 22, 1927	Herman, J.	Telegraph System.
1618201	do	Inglis, A. H.	Substation Circuits.
1618242	do	Thompson, G. K.	Time Announcing System.
1618251	do	Wentz, J. F.	Electric Fuse.
1618388	do	Rinker, J. C., and Kraisinger, A. J.	Switching Device.
1618402	do	Adams, A. H.	Strand Working Machine.
1618423	do	Gibson, E. S.	Telephone Exchange System.
1618456	do	Locke, G. A.	Signaling System.
1618468	do	Palmer, J. C. R.	Radio Receiving Equipment.
1618641	do	De Forest, L.	Recording Sound.
1619058	Mar. 1, 1927	Crisson, G.	Telephone Repeater Station.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1619060	Mar. 1, 1927	Deardorff, R. W	System of Multi-Frequency Circuits.
1619085	do	Nyquist, H	Carrier Current Signaling System.
1619228	do	Williams, S. B., and Clement, L. M.	Automatic Telephone High Frequency Trunk.
1619250	do	Dunham, B. G	Telephone Exchange System.
Des72103	do	Lum, G. R	Loud Speaking Sound Reproducer.
1619882	Mar. 8, 1927	Ohl, R. S	Means for Transferring High Frequency Energy.
1619891	do	Silent, H. C	Echo Suppressor Relay.
1619897	do	Vernam, G. S	Printing Telegraph Exchange System.
1620012	do	Dunham, B. G., and Haines, W. T.	Telephone Exchange System.
1620204	do	Heising, R. A	Frequency Indication and Control.
1620286	do	Potts, L. M	Trouble Indicating System.
1620629	Mar. 15, 1927	Black, H. S	Carrier Wave Signaling System.
1620655	do	Heising, R. A	Directive Radio Receiving System.
1620656	do	do	Carrier Wave Signaling System.
1620733	do	Nelson, S. F	Telephone System.
1620735	do	Nyquist, H	Multiplex Signaling System.
1620878	do	Elmen, G. W	Electromagnetic Device.
1620884	do	Gallopin, G	Method of Repairing Torn Fabric.
1621309	do	Blount, H., and Hernlund, J. W.	Wire Drawing Apparatus.
1621480	do	Ewing, C	Testing System.
1621530	Mar. 22, 1927	Fitzpatrick, P. G	Dead Ending Clamp.
1621533	do	Grimes, D	Alternating Current Relay.
1621557	do	Nyquist, H	Combined Resonant Shunt Device for Telegraph Circuits.
1622297	Mar. 29, 1927	Vernam, G. S	Radio Printing Telegraph System.
1622357	do	Staples, E. M	Electrical Transmitting System.
1622370	do	Espenschied, L	Multiple Antenna System for Radio Communication.
1623095	Apr. 5, 1927	Crisson, G., and Silent, H. C	Multi-Way Connection.
1623118	do	Jacobsen, E	Telephone Exchange System.
1623139	do	Toomey, J. F	Do.
1623480	do	Kuhn, J. J	Transmission System.
1623555	do	Roberts, J. G	Loaded Signaling Conductor.
1623600	do	Jammer, J. S	Transmission Regulation.
1623712	do	Wood, E. B	Regulating and Recording Device.
1623734	do	King, R. E., and Beaumont, W. M.	Telephone System.
1623748	do	Pfannenstiehl, H	Printing Telegraphs.
1623756	do	Sacia, C. F	Recording and Reproducing of Sounds.
1623769	do	Williams, S. B., and Gibson, E. S.	Telephone Exchange System.
1623777	do	Carpenter, W. W	Do.
1623809	do	Pfannenstiehl, H	Printing Telegraphs.
1623810	do	do	Printing Telegraphy.
1624023	Apr. 12, 1927	Strieby, M. E., and Fetter, C. H.	Equalization of Transmission.
1624056	do	McKown, F. W., and Dietze, E.	Telephone Substation Circuits.
1624057	do	do	Do.
1624202	do	Aldendorff, F	Electrical Switch.
1624341	do	Hinrichsen, E. E	Semi-Automatic Telephone System.
1624351	do	Moore, C. R	Telephone Transmitter.
1624352	do	do	Do.
1624353	do	Moore, C. R., and Hayward, J. M.	Double Diaphragm Transmitter.
1624357	do	Nicolson, A. M	Phonic Diaphragm.
1624363	do	Richard, C. D., and Morris, G. T.	Coil with Multiple Adjustments.
1624374	do	Swoboda, A. R	Switching Device.
1624391	do	Clausen, H. P	Electric Switch.
1624393	do	Clokey, A. A	Telegraph System.
1624395	do	Curtis, A. M	Signaling System.
1624396	do	do	Submarine Signaling System.
1624412	do	Horton, J. W	Submarine Signaling.
1624422	do	Miller, R. B	Dial Testing Circuit.
1624451	do	Weinhart, H. W	Vacuum Tube.
1624459	do	Adams, W. J., and Haddock, A.	Shielding and Balancing Means.
1624470	do	Buckley, O. E	Signaling Conductor System and Method of Operation.
1624473	do	Clement, L. M	High Frequency Signaling System.
1624476	do	Cummings, G. C	Contact Device.
1624486	do	Fletcher, H., and Sivian, L. J	Binaural Telephone System.
1624495	do	Mathes, R. C	Carrier Wave Signaling.
1624498	do	Mohr, F	Modulating System.
1624506	do	Pruden, H. M	Carrier Wave Signaling System.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1624536	Apr. 12, 1927	Christopher, A. J	Inductance Device.
1624537	do	Colpitts, E. H	Oscillation Generator.
1624540	do	Clark, E. H	Testing Device for Testing Register Senders.
1624551	do	Jammer, J. S	Multiplex Transmissio .
1624560	do	Payne, E. B	Inductance Coil and Method of Manufacturing the Same.
1624562	do	Ronci, V. L	Electron Discharge Device.
1624566	do	Stoller, H. M	Control Regulator.
1624579	do	Burkholder, J. C	Signaling System.
1624595	do	Haddock, A	Attachment to Electric Insulation.
1624596	do	Hartley, R. V. L	Signaling Method and System.
1624601	do	Horton, J. W	Secret Communication.
1624630	do	Shackelton, W. J	Inductance Device and Method for Manufacturing the Same.
1624646	do	Wolfe, W. V	Transmission System.
1624665	do	Johnson, K. S., and Shea, T. E.	Wave Filter.
1624668	do	Kochendorfer, F. S	Apparatus for Heat Treating Metals.
1624672	do	O'Neill, H. W	Communication System.
1624682	do	Shea, T. E	Electrical Network.
1624918	Apr. 19, 1927	Blackwell, O. B., and Herman, J.	Method and Apparatus for Television.
1624936	do	Faries, C. L	Telegraph System.
1624953	do	Jordan, W. C	Telephone Exchange System.
1624966	do	Morris, R. W	Ambulatory Repeating System.
1625332	do	Potter, W. H	Means for Trimming Articles.
1625432	do	Sager, J. W	Winding Mechanism.
1625449	do	Bohn, H. E., and Fauquier, R. H.	Method of Molding Phenol Plastic or Like Compounds.
1625450	do	Bollinger, C	Furnace.
1625451	do	Brown, A. B	Method of and Apparatus for Drying and Storing Material.
1625463	do	Gauthier, E	Diamond Lap.
1625468	do	Hosford, W. F	Method of and Apparatus for Drying and Storing Dried Material Preparatory to Processing.
1625469	do	do	Tape or Ribbon Working Machine.
1625483	do	Marwin, A. C	Casein Glue.
1625484	do	Mason, S. R	Process of and Apparatus for Cleaning Metal.
1625485	do	Maurer, O. H	Terminal for Electric Conductors.
1625495	do	O'Neill, H. W	Telegraph System.
1625779	Apr. 26, 1927	Aldendorff, F	Electromechanically Controlled Telephone System.
1625822	do	Potter, R. K	Radio Receiver and Trouble Alarm.
1625823	do	do	Do.
1625840	do	Whittle, H	Transmission System.
1625897	do	Klein, C. H	Cable Clamp and Bridle Ring.
1625983	do	Carter, H. F	Method of and Apparatus for Wrapping Strand Material Around a Core.
1626724	May 3, 1927	Demarest, C, S., and Almquist, M. L.	Frequency Controlling System.
1626731	do	Martin, J	Method of and Apparatus for Synchronization in Picture Transmission.
1626734	do	Martin, W. H	Cone Loud Speaker Diaphragm.
1627111	do	Nyquist, H	Picture Transmitting System.
1627633	May 10, 1927	Cory, S. I	Telegraph Distortion Measuring System.
1627701	do	Hall, M. C	System for Transmitting and Reproducing Pictures.
1627739	do	Hosford, W. F	Method of Coating Strands.
1627740	do	do	Coated Strands.
1628392	do	Cory, S. I	Telegraph Distortion Measuring System.
1628398	do	Casper, W. L., and Field, F. E.	Magnetic Coil.
1628666	May 17, 1927	Harrison, H. C	Electromagnetic Device.
1628695	do	Toomey, J. F	Subscriber's Equipment for Program Transmission.
1628696	do	do	Program Selecting Circuits.
1628697	do	do	Program Transmission Over Wires.
1628883	do	Holden, W. H. T	Carrier Amplitude Control System.
1628898	do	Moore, C. R	Telephone Transmitter.
1628978	do	Hersey, R. E	Automatic Regulator for Energy Transformers.
1628982	do	Hulsizer, R. I	Electron Discharge Device.
1628983	do	Johnson, K. S	Electrical Network.
1628986	do	Kemp, A. R	Insulating Material.
1628987	do	King, R. W	Thermionic Device and Method of Evacuating the Same.
1628990	do	Lucas, F. F	Alloy.
1628991	do	Miller, D. D	Switching Device.
1628992	do	Mills, J	System for Location of a Source of Sound Vibrations.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1628997	May 17, 1927	Retallack, J. B.	Testing Device for Testing Register Senders.
1628999	do	Ronci, V. L.	Electron Discharge Device.
1629001	do	Schelleng, J. C.	Oscillation Generator.
1629007	do	Smith, E. R.	Telephone Exchange System.
1629008	do	do	Telephone System.
1629009	do	Snook, H. C.	Low Impedance Electric Discharge Device.
1629016	do	Beaumont, W. M., and Bonomi, F. A.	Telephone System.
1629020	do	Craft, E. B.	Condenser.
1629093	do	Curtis, A. M.	Signaling System.
1629099	do	Fowler, C. B.	Telephone System.
1629100	do	Hartley, R. V. L.	Transmission System.
1629168	do	Massingham, H. R.	Method of and Apparatus for Serving Material Upon a Core.
1629169	do	do	Do.
1629491	May 24, 1927	Fetter, C. H.	Program Selecting Circuits.
1629552	do	Strieby, M. E.	Do.
1629559	do	Watson, E. F.	Signaling System.
1629646	do	Aldendorff, F.	Automatic Switch.
1629694	do	Ford, B. K.	Apparatus for and Method of Applying Tips to Cores.
1629705	do	Holmberg, C. G., Jr., and Stull, J. S.	Material Working Mechanism.
1629709	do	Jones, H. F.	Guard for Pulleys.
1630293	May 31, 1927	Fish, L. B.	Step for Poles.
1630312	do	Rhodes, W. A.	Thermal Translating Device.
1630340	do	Hall, M. C.	Telegraph System.
1630431	do	Houskeeper, W. G.	Electron Discharge Device.
1630451	do	Ray, J. L.	Method of Producing Coated Cores.
1630775	do	Arkema, H. P.	Apparatus for Treating Dies.
1630827	do	Bruce, W. M., Jr.	Alternating Current Telegraph System.
1631143	June 7, 1927	Matthews, E. M., and Carr, J. A.	Deflection Dynamometer.
1631153	do	Peterson, G. H.	Trunk Circuits.
1631174	do	Wilburn, S. D.	Telegraph Signaling System.
1631958	June 14, 1927	Gent, E. W.	Pneumatic Relay.
1631963	do	Ives, H. E.	Transmission of Pictures by Electricity.
1631976	do	Mathes, R. C.	Signaling.
1631977	do	Merrill, F. W.	Electric Motor.
1631978	do	Nordenswan, R.	Telephone Receiver.
1631981	do	Porter, L. F.	Telephone System.
1631982	do	Potts, L. M.	Control Mechanism.
1632004	do	Hampton, L. N.	Cutting Device.
1632012	do	Toomey, J. F.	Program Selecting Circuits.
1632025	do	Dustin, G. E.	Automatic Telephone System.
1632030	do	Martin, W. H.	Method and Means for the Identification of Electrical Cables.
1632035	do	Morton, C. A.	Automatic Telephone System.
1632039	do	Oswald, A. A., and Nelson, E. L.	Antenna Structure.
1632048	do	Van de Water, J. W., and Blair, B. R.	Testing System.
1632050	do	Wennemer, G. P.	Protective Device.
1632051	do	Whitney, W.	Telephone System.
1632053	do	Bertals, A. S.	Testing Device.
1632054	do	Brown, J. T. L.	Oscillation Generator.
1632056	do	Carpenter, W. W.	Telephone Exchange System.
1632057	do	Coon, L. E.	Signaling System.
1632058	do	Coram, R. E.	Secret Signaling.
1632059	do	Curtis, A. M.	Alarm System.
1632062	do	Ferguson, J. G.	Regulator.
1632063	do	Fowler, C. B.	Telephone System.
1632066	do	Hague, A. E.	Do.
1632067	do	Hampton, L. N.	Clearance Gauge.
1632068	do	Harrison, H. C.	Phonic Diaphragm.
1632069	do	Hartley, R. V. L.	Wave Transmission System.
1632074	do	Houskeeper, W. G.	Control Apparatus.
1632075	do	do	Winding Machine.
1632076	do	Hubbard, F. A.	Method of Determining Inequalities in Wall Thickness of Tubes.
1632078	do	Jammer, J. S.	Signaling System.
1632079	do	Jenkins, G. M. O.	Pneumtaic Valve.
1632080	do	Johnson, J. B.	Electric Discharge Device.
1632093	do	Mueller, E. C., Jr., and Curran, S. T.	Call Indicator.
1632095	do	Newton, E. E.	Grid Winding Machine.
1632099	do	Schelleng, J. C.	Secret Signaling.
1632104	do	Whiting, D. F.	Transmission Circuits.
1632105	do	Zickrick, L.	Magnetic Material and Method of Producing it.
1632106	do	Zogbaum, F.	Signaling System.
1632130	do	Haddock, A.	Condenser.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1632134	June 14, 1927	Harrison, H. C.	Electromagnetic Device.
1632135	do	Hendry, W. F.	Electrode Structure for Electron Discharge Devices.
1632275	do	Curtis, A. M.	Signaling System.
1632282	do	Farrington, J. F.	Two-Way Wave Transmission System.
1632389	do	Curtis, A. M.	Oscillation Generating and Supply System.
1632398	do	Franks, C. H.	Method of Producing Tubular Articles from Pulpous Material.
1632404	do	Griffin, J. T.	Cementing Material.
1632777	June 21, 1927	Affel, H. A.	Distribution of Intelligence.
1632814	do	Zinn, M. K.	Filter for Periodic Electric Currents.
1632817	do	Bascom, H. M.	Transmission System.
1632826	do	Eagon, L. L.	Trunk Signaling System.
1632852	do	Richter, J. W.	Feeding Device.
1632853	do	Rock, G. L.	Method of Insulating Cores.
1632874	do	Blount, H.	Means for Lubricating Bearing Surfaces.
1632875	do	Bouvier, G. A.	Strand Handling Apparatus.
1632876	do	do	Strand Tensioning Device.
1632884	do	Carter, H. F.	Serving Machine.
1632886	do	Cox, L. T.	Testing System.
1632895	do	Hazelthorn, T.	Cleaner.
1632900	do	Jammer, J. S.	Repeater Circuits for Multiplex Systems.
1632901	do	Johnson, H. B.	Trunking System.
1632902	do	Johnson, L. H.	Testing System.
1632908	do	Lundell, A. E.	Register Controlling System.
1632909	do	Mason, S. R.	Buffing and Cleaning of Metal Parts.
1633016	do	Hartley, R. V. L.	Electric Wave Modulating System.
1633082	do	Espenschied, L.	Distribution of Intelligence.
1633100	do	Heising, R. A.	Plural Channel Signaling.
1633181	do	Jespersen, H. W.	Mechanism for Working Pulpous Material.
1633576	June 28, 1927	Franks, C. H.	Protective Coating.
1633577	do	do	Electrical Coil.
1633590	do	Lamplough, L. F.	Method of and Apparatus for Vulcanizing Rubber.
1633591	do	do	Method of and Apparatus for Vulcanizing Material.
1633592	do	Hart, C. D.	Do.
1633611	do	Shanck, R. B.	Means for Preventing Electrical Interference.
1633615	do	Silent, H. C.	Delay Circuits for Voice Operated Devices.
1633625	do	Espenschied, L.	Secrecy System.
1633987	do	Heimann, G.	Semi-Automatic or Automatic Graded Service Telephone Systems.
1634007	do	Aldendorff, F.	Automatic Switching System.
1634271	July 5, 1927	Shackleton, S. P.	Composite Ringer.
1634286	do	Herman, J.	Telegraph Circuits.
1634299	do	Parker, R. D.	Do.
1634343	do	Smith, G. O.	Alloy.
1634359	do	Hocker, C. D.	Coating composition.
1634734	do	Blauvelt, W. G.	Telephone Exchange System.
1634800	do	Schelleng, J. C.	Rectifying and Modulating System.
1635129	do	Krum, C. L. and H. L.	Telegraph Transmitter.
1635130	do	Krum, H. L.	Telegraph System.
1635131	do	do	Selective Telegraph System.
1635207	July 12, 1927	Espenschied, L.	Carrier Current Telegraphy.
1635209	do	Fell, J. M.	Telegraph Distortion Measuring System.
1635227	do	Shackleton, S. P. and Glezen, L. L.	Cord Circuit Repeater.
1635486	do	Krum, C. L. & H. L.	Printing or Selecting Telegraphs.
1635990	July 19, 1927	Gargan, J. O.	Electrostatic Condenser.
1635992	do	Haddock, A.	Electron Discharge Device.
1635999	do	Housekeeper, W. G.	Do.
1636006	do	Lum, G. R.	Telephone Transmitter Mounting.
1636015	do	Ronci, V. L.	Electron Discharge Device.
1636031	do	Wright, S. B.	Voice Operated Relay Equipment.
1636053	do	Hamilton, B. P.	Carrier Telegraph Repeater Circuits.
1636054	do	Holden, W. H. T.	Electrical Discharge Device.
1636134	do	Horton, J. W.	Carrier Wave Signaling System.
1636146	do	Mohr, F.	Control of Electric Waves.
1636152	do	Shea, T. E.	Wave Filter.
1636170	do	Chaplin, M. P.	Stepping Mechanism.
1636171	do	Clark, E. H.	Telephone Exchange System.
1636175	do	Fay, J. W.	Soldering Unit.
1636178	do	Gargan, J. O.	Variable Inductive Device.
1636436	do	Rettenmeyer, F. X.	System for Wave Analysis.
1636713	do	Reier, G. C.	Electrical Wave Filter.
1636737	do	Dietze, E.	Do.
1636763	do	Boving, H.	Metallic Composition.
1636765	do	Curtis, A. S.	Wave Transmission System and Apparatus.
1636830	do	Nicolson, A. M.	Cement Composition and Method of Preparation.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1637082	July 19, 1927	Maxfield, J. P.	Sound Recording Method.
R. 18228	Oct. 20, 1931	do	Do.
1637161	July 26, 1927	Richard, C. D.	Synchronizing Mechanism.
1637171	do	Bell, J. H.	Duplex Telegraph System.
1637324	do	Perry, D. B.	Printing Telegraph Exchange System.
1637403	Aug. 2, 1927	Abbott, H. H.	Telephone System.
1637404	do	Bown, R.	Signaling System.
1637419	do	Klein, C. H.	Nail Expansion Anchor.
1638430	Aug. 9, 1927	Bailey, R. S. and Broe, E. P.	Straightforward Trunking System.
1638432	do	Connors, N. D.	Strand Tightener.
1638437	do	Gannett, D. K. and Kirkwood, M.	Electrical Network.
1638534	do	Kelsay, LeR. W.	Cartridge Fuse.
1638535	do	Kemp, A. R.	Plastic Material.
1638542	do	Mesa, J. O.	Clutch.
1638551	do	Ronci, V. L.	Electron Discharge Device.
1638555	do	Wente, E. C.	Translating Device.
1638556	do	Wheeler, E. B.	Process of Making Insulated Conductors.
1638557	do	Wilson, J. M.	Insulating Compound.
1638559	do	Zogbaum, F.	Signaling System.
1638578	do	Hill, M. F.	Automatic Telephone Exchange.
1638579	do	Hocker, C. D.	Coating Compositions.
1638580	do	Horton, J. W.	Method of and Means for Transmitting Signals.
1638925	Aug. 16, 1927	Espenschied, L.	High Frequency Signaling System.
1638930	do	Herman, J.	Voltage Regulator for Vacuum Tubes.
1638952	do	Nyquist, H.	Means for Regulating Transmission Circuits.
1638993	do	Hartley, R. V. L.	Modulation System.
1639000	do	Horton, J. W.	Wave Modulation.
1639045	do	Marrison, W. A.	Harmonic Frequency Producer.
1639135	do	Johnson, H. B. and Eagon, L. L.	Telephone System.
1639652	Aug. 23, 1927	Fay, J. W.	Method of and Means for Forming Composit Articles.
1639653	do	Fay, J. W. and Wales, C.	Method of and Apparatus for Welding Metal Strands.
1639673	do	Seeley, G. A.	Method of and Apparatus for Braiding.
1639676	do	Thronsen, S.	Method of and Mechanism for Winding Strand Material.
1639688	do	Duncan, G. W.	Welding Tool.
1639692	do	Gauthier, E.	Bearing.
1639700	do	Martin, W. I.	Machine for Assembling Parts or Elements of Fabricated Articles.
1639773	do	Hamilton, H. S.	Two-Way Telephone Transmission.
1639799	do	Friend, O. A. and Dustin, G. E.	Automatic Telephone System.
1639819	do	Thompson, G. K.	Cleaning Device for Dials of Telephone Instruments.
1639929	do	Curtis, A. M.	Signaling System.
1640425	Aug. 30, 1927	Percival, H. S.	Measuring Instrument.
1640435	do	Armstrong, F. C.	Sighting Instruments for Measuring Angles.
1640462	do	Mathes, R. C.	Electron Discharge Device.
1640469	do	Ronci, V. L.	Leading-In Conductor.
1640503	do	Houskeeper, W. G.	Electron Discharge Device.
1640524	do	Augustine, R. W.	Means for Detecting Metal Particles in Non-Metallic Material.
1641145	Sept. 6, 1927	Aldendorff, F.	Automatic Switching.
1641218	do	Bailey, R. S.	Straightforward Trunking System.
1641251	do	Curtis, A. M.	Vibrating Device.
1641257	do	Fay, J. W.	Apparatus for Handling and Severing Articles.
1641276	do	Huntington, V. C.	Method of and Apparatus for Advancing Articles.
1641285	do	Miller, D. D.	Relay.
1641286	do	Mueller, E. C., Jr.	Test Plug.
1641289	do	Ohl, R. S.	Radio Signaling System.
1641290	do	Perry, D. B.	Printing Telegraph Exchange System.
1641300	do	Spencer, F. C.	Material Distributing Device.
1641359	do	Stoller, H. M.	Dynamo-Electric Machine.
1641425	do	Graham, F. H.	Transmission Control.
1641431	do	Horton, J. W.	Communication System.
1641432	do	Hubbard, F. A.	System for Determining the Direction of Propagation of Wave Energy.
1641447	do	McGall, P. K.	Measuring Instrument.
1641449	do	O'Neill, H. W.	Telephone System.
1641450	do	do	Do.
1641473	do	Chylinski, S. Z.	Induction Coil.
1641664	do	De Forest, L.	Electrical Sound Reproducing Apparatus.
1641925	do	Gabriel, J. C.	Inductive Coupling Device.
1641973	Sept. 13, 1927	Horton, J. W.	Frequency Meter.
1642025	do	Hosford, R. F.	Crossarm.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1642040	Sept. 13, 1927	McCutchen, B. S.	Public Address System.
1642048	do	Vernam, G. S., and Perry, D. B.	Printing Telegraph System.
1642363	do	De Forest, L.	Telephone Device.
1642389	do	Shea, T. E.	Voltage Amplifier.
1642488	do	Clausen, H. P.	Electrical Coil.
1642498	do	Houskeeper, W. G.	Electron Discharge Device.
1642499	do	Jammer, J. S.	Transmission Regulation.
1642500	do	Kiesel, W. C., and Fowler, C. B.	Telephone System.
1642506	do	Norton, E. L.	Wave Transmission System.
1642507	do	Porter, L. F.	Telephone System.
1642517	do	Taylor, H. S.	Socket.
1642522	do	Vroom, E.	Loop Antenna.
1642525	do	Wheeler, E. B.	Recording Device.
1642702	Sept. 20, 1927	Strom, F. H.	Synchronizing Attachment for Phonographs.
1642708	do	Thorp, V. P.	Carrier Telegraph Receiver.
1642710	do	Affel, H. A.	Pilot Channel Indicating System.
1642749	do	Rose, A. F.	Telephone Repeater System.
1642755	do	Ward, H. L.	Forming Apparatus.
1642771	do	Fullarton, G. M.	Apparatus for Assembling Parts.
1642773	do	Gauthier, E.	Punch Press.
1642774	do	Grange, D.	Marked Article and Process of Making Articles.
1642776	do	Jones, W. C.	Telephone Receiver.
1642777	do	Jones, W. C.	Receiver.
1642778	do	Elmen, G. W.	Do.
1642785	do	McFarland, R. E.	Braiding Machine.
1643068	do	Ray, W. H.	Forming Apparatus.
1643089	do	Ray, W. H. & Strawn, M. L.	Skiving Apparatus.
1643323	Sept. 27, 1927	Stone, J. S.	Directive Antenna Array.
1643332	do	Campbell, G. A.	Electrical Network.
1643350	do	Shetzline, R. A.	Neutralization of Inductive Interference.
1643452	do	Hinrichsen, E. E.	Telephone System.
1644004	Oct. 4, 1927	Zobel, O. J.	Electrical Wave Filter.
1644014	do	Gordon, C. S., and Lowe, J. T.	Carbon Monoxide Detector.
1644024	do	McCurdy, R. G.	Lighting Circuit.
1644060	do	Hovland, H.	Telephone System.
1644727	Oct. 11, 1927	Jacobsen, E.	By-Pass Selector Circuit.
1644745	do	Potter, R. K.	Transmission Level Control System.
1644761	do	Toomey, J. F.	Signaling System.
1644788	do	Moore, C. R.	Acoustic Device.
1644789	do	Nordenswan, R., and Curtis, A. S.	Electromagnetic Device.
1645139	do	Harrison, H. C.	Mechanical Vibratory System.
1645147	do	Kuhn, J. J., and Betts, W. L.	Switching Device.
1645152	do	May, D. T.	Wire Splicing Machine.
1645165	do	Shackelton, W. J.	Transformer Circuits.
1645174	do	Wilson, I. G.	Electrical Disturbance Eliminating System.
1645573	Oct. 18, 1927	Bascom, H. M.	Telephone Exchange System.
1645607	do	Matte, A. L.	System of Synchronizing Signaling Apparatus.
1645618	do	Nyquist, H.	Method and Apparatus for Measuring Transmission Delay.
1645758	do	Kemp, A. R.	Submarine Cable Insulation.
1645778	do	Shiel, J. B.	Telephone System.
1645805	do	Dowd, A. D.	Printing Telegraphy.
1645810	do	Hubbard, F. A.	Direction Finding and Indicating System.
1645823	do	Shann, O. A., and Kuntz, F. A.	Sound Producing Device.
1645850	do	Bernhard, F. S.	Regulator.
1646389	Oct. 25, 1927	Bunting, E. N.	Granular Carbon and Process of Making the Same.
1646438	do	Affel, H. A.	Harmonic Generator.
1646439	do	do	Do.
1646444	do	Carpe, A., and Deardorff, R. W.	Protection Circuits.
1646811	do	Curtis, A. M.	Electric Current Transmission.
1646825	do	Kochendorfer, F. S.	Fibrous Article and Method for Producing Such Article.
1647192	Nov. 1, 1927	Nyquist, H.	Apparatus for Controlling the Frequency of an Alternating Current.
1647212	do	Crisson, G.	Vacuum Tube Echo Suppressor.
1647216	do	Espenschied, L.	Amplifying Circuit.
1647236	do	Long, M. B.	Electrical Testing System.
1647238	do	Manthorne, W. H.	Electron Discharge Device.
1647242	do	Mills, J.	Recording and Reproducing System.
1647244	do	Mitchell, C. E.	Telephone Transmitter.
1647256	do	Stokely, R. L.	Selector Switch Circuits for Step-by-Step Systems.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1647258	Nov. 1, 1927	Ulrich, H. W	Telephone System.
1647259	do	Vadersen, H	Adjustable Coil.
1647263	do	Blount, H	Carrier.
1647267	do	Buckley, O. E	Loaded Submarine Cable Telegraph System.
1647270	do	Burton, E. T	System for Indicating Frequency Changes.
1647284	do	Field, J. C	Signaling System.
1647286	do	Fisher, H. J	Telephone System.
1647287	do	Floyd, C. L	Tension Measuring Device.
1647290	do	Haddock, A	Antenna Switching Relay.
1647349	do	Friis, H. T	Radio Signaling Apparatus.
1647363	do	Jacobsen, E., and Sperry, A. B.	Telephone System.
1647373	do	Reeves, F. N	Selective Switch Controlling System.
1647383	do	Ulrich, H. W	Regulating Means and Circuits.
1647605	do	Chesnut, R. W	Circuit for Electric Discharge Devices.
1647615	do	Gargan, J. O	Electrical Coil.
1647617	do	Griffith, T. R	Electron Discharge Device.
1647631	do	Ives, H. E	Optical System.
1647634	do	Johnson, K. S	Electric Wave Filter.
1647645	do	Marrison, W. A	Electrical Generator.
1647737	do	Legg, V. E	Magnetic Core.
1647738	do	do	Insulation of Magnetic Material.
1647760	do	Von Zastrow, C. G	Signaling System.
1647765	do	Arnold, H. D	Transmission of Pictures By Electricity.
1647792	do	Gent, E. W	Switching Device.
1647796	do	Glezen, L. L., Shackleton, S. P., and Vroom, E.	Telephone System.
1647988	Nov. 8, 1927	Farrington, J. F	Wave Modulating.
1647990	do	Goodrum, C. L	Telephone Exchange System.
1647993	do	Hoffmann, H. L	Telephone System.
1647994	do	Houskeeper, W. G	Electron Discharge Device.
1647998	do	Landeen, A. G	Electrical Energy Translation System.
1647999	do	Laskey, W. G	Telephone Switchboard Lamp.
1648006	do	Schafer, J. P	Rectifier and Modulator.
1648009	do	Stearn, F. A	Machine Switching Selector Switch Circuit.
1648053	do	Martin, G. R	Telephone System.
1648058	do	Parker, R. D	Electro-Vision.
1648079	do	Toomey, J. F	Testing System for Telephone Cord Circuits.
1648120	do	Harrison, H. C	Vibration Responsive Device.
1648121	do	Hartley, R. V. L	Apparatus and System for Detecting Vibrations.
1648122	do	Hinrichsen, E. E	Telephone Exchange System.
1648127	do	Ives, H. E	Transmission of Pictures By Electricity.
1648145	do	Nyquist, H	Method and Apparatus for Compensating for Distortion on Long Loaded Lines.
1648149	do	Reeve, H. T	Method of Forming Refractory Crucibles.
1648179	do	Hull, S. M	Organic Molding Composition.
1648427	do	Seeley, G. A	Press.
1648443	do	Cawthon, S. C	Electric Cable.
1648922	Nov. 15, 1927	Vernam, G. S	Printing Telegraph System.
1648944	do	Hofstetter, R	Nut Tightening Apparatus.
1648974	do	Vernam, G. S	Printing Telegraph Exchange System.
1648975	do	do	Do.
1649016	do	Buckley, O. E	Control Apparatus for Electric Discharge Devices.
1649099	do	Carpenter, W. W	Telephone Exchange System.
1649309	do	Ives, H. E	Photomechanical Reproduction of Pictures.
1649819	Nov. 22, 1927	Fell, J. M	System of Television.
1649863	do	Shanck, R. B	Cross Fire Neutralizing System.
1649884	do	Wright, S. B	Protective Circuits.
1649912	do	Murphy, F	Wire Drawing Apparatus.
1649924	do	Roman, F. L., and Winsemius, H. T.	Insulated Electrical Conductor.
1650655	Nov. 29, 1927	Rose, A. F	System of Multi-Frequency Circuits.
1650671	do	Vernam, G. S	Stereopticon Control Device.
1650683	do	Bascom, H. M., and Fowler, C. B.	Straightforward Trunking System.
1650701	do	Farrington, J. F	Radio Signaling System.
1650706	do	Gent, E. W	Terminal Bank and Method of Constructing It.
1650708	do	Gooderham, J. W	Telephone Exchange System.
1650721	do	Peoples, R. E	Testing System.
1650731	do	Wilbur, R. S	Telephone System.
1650740	do	Roberts, J. G	Transmitter.
1650745	do	Stearn, F. A	Counting Relay Operation.
1650763	do	MacKenzie, D	Telephone Exchange System.
1650865	do	Edwards, W. H	Head Band for Telephone Receivers.
1651017	do	Deakin, G	Party Line Revertible Ringing System.
1651019	do	Emery, C. B	Electrical Circuit Connecting Device.
1651021	do	Field, F. E	Voltage Limiting Device.
1651024	do	Hart, C. D	Method of and Apparatus for Serving a Core.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1651440	Dec. 6, 1927	Campbell, G. A.	Electrical Testing Apparatus.
1651451	do	Fish, L. B.	Battery Light.
1651480	do	St. John, E.	Do.
1651957	do	Lowry, H. H.	Insulation of Finely Divided Magnetic Material.
1651958	do	do	Do.
1652239	Dec. 13, 1927	Edwards, W. H., and Tucker, R. S.	Coin Collector.
1652241	do	Hall, M. C.	Device for Electrical Measurement.
1652242	do	Herman, J.	Telegraph Repeater.
1652489	do	Mead, E. D.	Electromagnetic Device.
1552490	do	Miller, D. D.	Do.
1652491	do	do	Do.
1652549	do	Wold, P. I.	Carrier Wave Telegraphy.
1652995	do	Ryan, F. M.	Eelectric Wave Signaling System.
1653031	Dec. 20, 1927	Zogbaum, F.	Signaling System.
1653074	do	Weaver, A.	Transmission of Pictures by Electricity.
1653082	do	Bailey, A.	Volume Indicator.
1653089	do	Demarest, C. S.	Telegraph System.
1653215	do	Kochendorfer, F. S., and Shulz, A. E.	Apparatus for Heat Treating Metals.
Des. 74114	do	Lum, G. R.	Loud Speaking Sound Reproducer.
1653694	Dec. 27, 1927	Branson, D. E.	Apparatus and Method for Measuring Transmitted Light.
1653736	do	Shackleton, S. P., and Schott, J. T.	Impulse Registering Device.
1653738	do	Silent, H. C.	Suppression of Echoes and Singing in Four-Wire Circuits.
1653782	do	Riggs, G.	Testing System.
1653789	do	Stokely, R. L.	Telephone Exchange System.
1653790	do	Temple, D. L.	Automatic Telephone System.
1653794	do	Whitehorn, H. A.	Temperature Compensating Means for Maintaining Constant Frequency in Tuning Forks.
1653804	do	Hague, A. E.	Automatic Electric Cut-Out.
1653805	do	Housekeeper, W. G.	Method of Removing Enamel from Electrical Conductors.
1653837	do	Black, H. S.	Modulated Carrier Wave Signaling System.
1653840	do	Byl, G. N.	Clamping Device.
1653843	do	Dowey, T. L.	Synchronizing Mechanism.
1653878	do	Schelleng, J. C.	Electric Wave Signaling System.
1653879	do	Siegmund, H. O.	Electrolytic Cell.
1653881	do	Snook, H. C.	Apparatus for Varying the Wave Form of Alternating Current.
1653887	do	Black, H. S.	Frequency Translating Circuits.
1653888	do	Chaplin, M. P.	Stepping Mechanism.
1653890	do	Deakin, G.	Telephone System.
1653898	do	Gilson, A. F. F.	Signaling System and Apparatus.
1653899	do	Goff, H. W.	Coupling.
1654062	do	Willis, F. C.	Translating Apparatus.
1654068	do	Blattner, D. G.	Apparatus for Visual Interpretation of Speech and Music.
1654071	do	DeMonte, E. W., and Shea, T. E.	Electrical Wave Filter.
1654074	do	Fondiller, W.	Loading System.
1654075	do	Gorton, W. S.	Electric Wave Transmitting Means.
1654080	do	Heising, R. A.	Carrier Signaling System.
1654085	do	Lorance, G. T.	Voltage Limiting Device.
1654090	do	Oswald, A. A.	Modulation Indicator.
1654097	do	Shackelton, W. J.	Alternating Current Supply Means.
1654098	do	Shea, T. E.	Electrical Circuit.
1654123	do	Hartley, R. V. L.	Frequency Selective Transmission System.
1654297	do	Malm, F. S.	Adhesive Compound.
1654328	do	Gilbert, J. J.	Submarine Signaling.
1654374	do	Horton, J. W.	Transmission of Pictures by Electricity.
1654524	Jan. 3, 1928	Boe, H. J.	Housing.
1654526	do	Brown, A. B.	Method of Operating Extruding Process.
1654534	do	Dean, E. A.	Electrical Insulator.
1654546	do	Malm, F. S.	Electric Cable.
1654633	do	Bisbee, F. C.	Recording System.
1654645	do	Green, I. W.	Do.
1654657	do	Matthews, E. M.	Cable Terminal.
1654890	do	Mathes, R. C.	Loading System.
1654899	do	Schwerin, P.	Electron Discharge Device.
1654900	do	Sivian, L. J.	System for Secret Signaling.
1654902	do	Smythe, E. H.	Modulating System.
1654903	do	Sprague, C. A.	Oscillation Generator.
1654905	do	Voos, F. A.	Measuring Syringe.
1654912	do	Baulch, E. L.	Telephone System.
1654923	do	Dehn, J. W.	Do.
1654926	do	Engel, T. J.	Talking Motion Picture.
1654927	do	Farrington, J. F.	Transmission Circuits.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1654928	Jan. 3, 1928	Field, J. C., and Zogbaum, F.	Control and Indicating System for Electric Railways.
1654929	....do....	Foley, J. W.	Amplifier Circuits.
1654932	....do....	Heising, R. A.	Magnetic Amplifying System.
1655026	....do....	Siegmund, H. O., and Brown, B. E.	Electrolytic Cell.
1655048	....do....	DeMonte, R. W.	Electrical Coil System.
1655054	....do....	Gargan, J. O.	Adjusting and locking Device.
1655056	....do....	Goff, H. W.	Selector Switch.
1655059	....do....	Hess, G. K.	Do.
1655061	....do....	Jordan, W. C.	Telephone Exchange System.
1655373	....do....	Kellar, W. S.	Method of Rolling Thin Strips of Metal.
1655420	Jan. 10, 1928	Herman, J.	Intermediate Telegraph Station.
1655421	....do....	....do....	Differential Duplex Telegraph Repeater.
1655448	....do....	Watson, E. F.	Printing Telegraph System.
1655520	....do....	Smythe, E. H.	Carrier Wave Communicating and Switching System.
1655537	....do....	Foley, J. W.	Amplifier Circuits.
1655543	....do....	Heising, R. A.	Transmission System.
1655557	....do....	Mathes, R. C.	Amplifier Circuits.
1655625	....do....	Nicolson, A. M.	Piezo-Electric Device.
1655843	....do....	Reynolds, J. L.	Signal Controlling Apparatus.
1655847	....do....	Siebs, C. T.	Magnetic Temperature Regulator.
1655852	....do....	Adams, A. H.	Do.
1656158	Jan. 17, 1928	Affel, H. A.	Reducing Intersystem Crosstalk Between Channels.
1656174	....do....	Dahl, A. C.	Braking Mechanism.
1656226	....do....	Palm, S. M., and Putnam, H. P.	Wire Clamp.
1656243	....do....	Seeley, G. A.	Severing Apparatus.
1656250	....do....	Thompson, E. O., Grimes, D., and Fisher, H. C.	Alternating Current Relay.
1656251	....do....	Till, H. R.	Vulcanizing Apparatus.
1656255	....do....	Wente, E. C.	Talking Motion Picture Production.
1656258	....do....	Yale, W. S.	Method of Joining Sheaths for Cores.
1656632	....do....	Harrison, H. C.	Diaphragm Drive.
1656737	....do....	Kemp, A. R.	Insulating Material and Method of Producing the Same.
1656755	....do....	Palmer, R.	Method of, and Apparatus for, Removing Coverings from Cores.
1656915	Jan. 24, 1928	Ives, H. E.	Transmission of Pictures by Electricity.
1656916	....do....	King, D. H., Dowd, F. J., and Stevens, C. W.	Selector Switch.
1656956	....do....	Schroter, F.	Electric Vacuum Valve Tube.
1656957	....do....	....do....	Glow Discharge Valve.
1656987	....do....	Ohl, R. S.	Ultra High Frequency Generator.
1657030	....do....	Nielsen, J. F.	Transmission of Pictures.
1657078	....do....	Frederick, H. A., and Blattner, D. G.	Acoustic Stethoscopics.
1657235	....do....	Sundt, E. V.	Contact Device.
1657308	....do....	Jespersen, H. W.	Material Reeling Mechanism.
1657451	Jan. 31, 1928	Affel, H. A.	Non-Singing Reamplifying Circuits.
1657462	....do....	Espenschied, L.	Do.
1657498	....do....	Demarest, C. S., and Almquist, M. L.	Radio Signaling System.
1658094	Feb. 7, 1928	Paschen, H. F., and DePotter, E. F.	Paper Conveying System.
1658095	....do....	Paschen, H. F.	Feeding Device for Belt Conveyers.
1658096	....do....	....do....	Unloading Device for Belt Conveyers.
1658192	....do....	Hampton, L. N.	Brake for Rolling Ladders.
1658197	....do....	Hinrichsen, E. E.	Telephone Exchange System.
1658200	....do....	Housekeeper, W. G.	Electron Discharge Device.
1658210	....do....	Ryan, F. M.	Electric Wave Signaling System.
1658215	....do....	Vennes, H. J.	Current Wave Transmission.
1658222	....do....	Burns, R. M., and Warner, C. W.	Electro-Cleaning.
1658232	....do....	Eaves, A. J.	Train Announcing System.
1658315	....do....	Wheeler, E. B.	Battery.
1658327	....do....	Dodge, H. F.	Stethoscopic Apparatus.
1658337	....do....	Jammer, J. S.	Carrier Wave Signaling System.
1658338	....do....	Jammer, J. S., and Green, C. W.	Two-Way Repeater.
1658339	....do....	Jammer, J. S.	Carrier Wave Transmission.
1658346	....do....	Mathes, R. C.	Amplifier Circuits.
1658349	....do....	Moore, C. R.	Loud Speaking Receiver.
1658404	....do....	Bruce, W. M., Jr.	Telegraphy.
1658829	Feb. 14, 1928	Berry, C. H.	Telephone System.
1658843	....do....	Gray, F.	Modulating Syst m.
Re. 18,400	Mar. 29, 1932	....do....	Do.
1658846	Feb. 14, 1928	Hoffman, H. L.	Recording Device.
1658851	....do....	Martin, DeL. K.	Directive Radio Repeating System.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1658856	Feb. 14, 1928	Potter, R. K.	Tansmission Line Control System.
1658887	do	Dotzauer, J. F.	Duct Grapple.
1659083	do	Clark, E. H.	Telephone Exchange System.
1659570	Feb. 21, 1928	Ives, H. E.	Transmission of Pictures by Electricity.
1659716	do	Bancroft, E. P., Burkholder, J. C., and Phelps, W. A.	Picture Transmission System.
1659729	do	Gannett, D. K.	Constant Voltage Alternator.
1659731	do	Green, E. I.	Insulator.
1659745	do	Rapelje, J. A.	Wire Clamp.
1659895	do	Ray, W. H.	Material Applying Apparatus.
1659911	do	Fay, J. W.	Apparatus for Performing Soldering Operations.
1659919	do	Marchev, A.	Tension Measuring Device.
1659921	do	Nichols, J. C.	Clamping Device.
1659927	do	Stull, J. S.	Attaching Device and Molded Member Containing the Same.
1659933	do	Wegel, R. L.	Loud Speaker.
1659936	do	Albright, H. F.	Molding Composition.
1659945	do	Farrington, J. F.	Duplex Communication.
1659946	do	Fay, J. W.	Apparatus for Heat Treating Articles.
1659953	do	Jespersen, H. W.	Mechanism for Working Pulpous Material.
1660072	do	Farrington, J. F.	Duplex Transmission System.
1660084	do	Morton, E. R.	Electrical Control System.
1660388	Feb. 28, 1928	Matte, A. L.	System of Synchronizing Signaling Apparatus.
1660389	do	do	Do.
1660405	do	Affel, H. A.	High Frequency Measuring System.
1660975	do	Quass, R. L.	Telephone System.
1660979	do	Thayer, W. J.	Current Control Device.
1660990	do	Dodge, H. F.	Sound Responsive Device.
1660994	do	Garvin, J. S.	Electromagnetic Device.
1660996	do	Holland, N. H.	Combined Radio Loud Speaker and Phonograph.
1661004	do	Mills, J.	Signaling System.
1661006	do	Moore, C. R.	Telephone Transmitter.
1661012	do	Pfannenstiehl, H.	Automatic Impulse Transmitter.
1661167	Mar. 6, 1928	Clark, A. B., and Gannett, D. K.	System of Picture Transmission.
1661249	do	Deakin, G.	Timing Device.
1661261	do	Murphy, P. B.	Signal Receiving System.
1661263	do	Nyquist, H.	Method of and Means for Regulating the Transmission Over Electric Circuits.
1661264	do	do	Do.
1661535	do	Haddock, A.	Electric Shielding.
1661536	do	Jordan, W. C.	Telephone Exchange System.
1661539	do	Maxfield, J. P.	Phonograph System.
1661751	do	Fletcher, H.	Acoustical Apparatus.
1661793	do	Espenschied, L.	Sound Recording and Reproducing.
1662060	Mar. 13, 1928	Herman, J.	Relay and Circuits Therefor.
1662071	do	Manderfeld, E. C.	Regulating System.
1662081	do	Silent, H. C.	High Frequency Modulating System.
1662083	do	Stoller, H. M., and Morton, E. R.	Electric Regulator.
1662084	do	do	Do.
1662085	do	Stoller, H. M.	Regulating System.
1662126	do	Potter, R. K.	Duplex Radio Signaling Set.
1662168	do	Reynolds, J. L.	Switching Apparatus and System.
1662252	do	Morton, E. R.	Electric Regulator.
1662876	Mar. 20, 1928	Affel, H. A.	Repeater System.
1662877	do	Almquist, M. L.	Radio Signaling System Employing Machine Switching Dial.
1662888	do	Herman, J.	Automatic Volume Control for Telephone Lines.
1662956	do	Buckley, O. E.	Telegraph Conductor.
1662966	do	Foley, J. W.	Substation Circuit.
1663086	do	Long, M. B.	Means for Indicating Frequency Changes.
1663110	do	Bruce, W. M., Jr.	Radio Receiver.
1663230	do	Aldendorff, F.	Electromechanical Telephone System.
1663231	do	do	Automatic Telephone System.
1663747	Mar. 27, 1928	Bascom, H. M.	Telephone Exchange System.
1663748	do	Bender, H. D., and Kent, R. J.	Braid Stripper for Insulated Wires.
1663750	do	Best, F. H.	Automatic Transmission Measuring Set.
1663880	do	Gabriel, J. C., and Thurston, G. M.	Signaling Apparatus.
1663884	do	Harrison, H. C.	Device for the Transmission of Vibratory Energy.
1663885	do	Holland, N. H.	Electromagnetic Device.
1663890	do	Stoller, H. M.	Electrical Control System.
1663891	do	Stoller, H. M., and Morton, E. R.	Regulator System Employing Electron Discharge Device.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1664017	Mar. 27, 1928	Benjamin, J. C.	Loud Speaking Device.
1664453	Apr. 3, 1928	Herman, J.	Manual Morse Multiplex System.
1664455	do	King, R. W.	Electrical Translating Circuit.
1664468	do	Strieby, M. E.	Program Selecting Circuits.
1664495	do	Vadersen, H.	Variable Inductance Appartaus.
1664652	do	Watson, E. F., and Weaver, A.	Picture Transmitting System.
1664755	do	Norton, E. L.	Electrical Network.
1664852	do	Dodge, H. F.	Transmitter Mouthpiece.
1664860	do	Heising, R. A.	Signal System.
1665283	Apr. 10, 1928	Singer, F. J.	Signaling System.
1665296	do	Cory, S. I.	Grounded Duplex Telegraph System.
1665297	do	do	Do.
1665318	do	Mead, E. D.	Electromagnetic Device.
1665325	do	Peterson, E.	Electrical Network and Its Operation.
1665328	do	Schmitt, H. R.	Carrier Wave Transmission.
1665338	do	Whitney, W.	Telephone System.
1665499	do	Hoch, E. T.	System of Grouping Units.
1665501	do	Jammer, J. S.	Amplifying Repeater.
1665508	do	Schumacher, E. E.	Electron Discharge Device and Circuit Therefor.
1665673	do	Nottingham, W. B.	Arrangement of Carrier Channels in Multiplex Signlaing Systems.
1665674	do	Oswald, A. A.	System Including Space Discharge Device.
Re18501	June 21, 1932	do	Do.
1665698	Apr. 10, 1928	Gorton, W. S.	Electric Current Transmission.
1666153	Apr. 17, 1928	Toomey, J. F.	Program Selecting Circuits.
1666154	do	Toomey, J. F.	Distribution of Programs Over Wires.
1666158	do	Affel, H. A.	System for Binaural Transmission of Signals.
1666191	do	Bandur, A. F.	Method of Treating Magnetizable Materials.
1666195	do	Clokey, A. A.	Duplex Telegraph System.
1666206	do	Hartley, R. V. L.	Modulation System.
1666214	do	Little, J. S.	Method of Coating Cores.
1666651	do	Heising, R. A.	Plural Channel Secrecy System.
1666661	do	Morton, E. R.	Inductance Coil.
1666676	do	Bjornson, B. G.	Repeater Circuits.
1666680	do	Buckley, O. E.	Dynamometer.
1666681	do	Burgess, H. A.	Mechanical Wave Filter.
1666738	do	Hartley, R. V. L.	Transmission Circuit.
1666947	Apr. 24, 1928	Silent, H. C.	Method of and Means for Reducing Body Capacity Effects on Loop Antenna Systems.
1666965	do	Herman, J.	Differential Duplex Telegraph Repeater.
1666988	do	Blauvelt, W. G.	Trunking System.
1667006	do	Hofstetter, R.	Lapping Machine.
1667028	do	Boynton, S. E.	Material Working Apparatus.
1667753	May 1, 1928	Toomey, J. F.	Program Selecting Circuits.
1667792	do	Martin DeL. K.	Radio Signaling System.
1667804	do	Hoyt, F. A., and Shann, O. A.	Means for Reenforcing the Lock and Door of Telephone Coin Collectors.
1667805	do	Ives, H. E.	Transmission of Pictures by Electricity.
1667824	do	Richey, A. L.	Multiple Unit Cable.
1667830	do	Ulrich, H. W.	Telephone System.
1667845	do	Fowler, C. B., and Lucek, C. W.	Do.
1667846	do	do	Do.
1668240	do	Green, C. W.	Amplifying System.
1668270	do	Farrington, J. F.	Radio Signaling.
1668637	May 8, 1928	Espenschied, L., and Martin, DeL. K.	Directive Radio Repeating System.
1668638	do	do	Do.
1668654	do	Moore, C. R.	Direct Current Transforming Apparatus.
1668656	do	Phelps, W. A.	Relay Circuit.
1668674	do	Espenschied, L., and Martin, DeL. K.	Directive Radio Repeating System.
1668676	do	Fultz, M. E.	Electric Discharge Apparatus.
1668677	do	Harvey, W. H.	Telephone Exchange System.
1668687	do	Low, F. K.	Do.
1668724	do	Loewe, S.	Electron Discharge Tube.
1668725	do	McKown, F. W.	Telephone Transmission.
1668734	do	Schumacher, E. E.	Electron Emitting Cathode and Method of Making It.
1668742	do	Stoekle, E. R.	Apparatus for Making Electron Emitting Means.
1668748	do	Whiting, D. F., and Blanchard, J.	Means for Testing Electron Tubes.
1668757	do	Bown, R., and Hamilton, H. S.	Radio Transmission System.
1668856	do	MacKenzie, D.	Photographic Printing Machine.
1668888	do	Buckley, O. E.	Signaling System.
1668890	do	Curran, S. T., and Mueller, E. C., Jr.	Universal Adjustable Earpiece for Audiphones.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1668910	May 8, 1928	Jones, W. C	Adjustable Earpiece for Audiphones.
1669123	do	Espenschied, L., and Martin, DeL. K.	Directive Radio Repeating System.
1669368	do	Aldendorff, F	Electromechanically Controlled Telphone System.
1669448	May 15, 1928	Brand, S	Multiplex Signaling System.
1669449	do	do	Do.
1669450	do	do	Synchronization In Multiplex Signaling.
1669589	do	Buttner, H. H	Power Line Signaling System.
1669642	do	Andrews, J. W	Magnetic Material.
1669643	do	Andrews, J. W., and Gillis, R.	Do.
1669644	do	Andrews, J. W	Do.
1669645	do	Andrews, J. W., and Gillis, R.	Do.
1669646	do	Bandur, A. F	Do.
1669647	do	do	Do.
1669648	do	do	Do.
1669649	do	Beath, C. P., and Heinicke, H. M. E.	Do.
1669658	do	Elmen, G. W	Magnetic Core.
1669665	do	Karcher, J. C	Magnetic Material.
1670375	May 22, 1928	Nyquist, H	Picture Transmitting System.
1670376	do	do	High Speed Signaling System.
1670461	do	Locke, G. A	Signaling System.
1670777	do	Lum, G. R	Acoustic Device.
1671130	do	Shackleton, S. P	Grid Circuits of Electron Tubes.
1671143	do	Campbell, G. A	Wave Translator.
1671151	do	French, N. R., and Zinn, M. K.	Method of and Apparatus for Reducing Width of Transmission Bands.
1671172	do	Vernam, G. S	Volume Control Apparatus.
1671204	do	Oswald, A. A	High Voltage Vacuum Tube System.
1671205	do	do	Vacuum Tube Control.
1671302	do	Mathes, R. C	Electro-Optical Transmission.
1671976	June 5, 1928	Avery, G. R	Strand Tension Control Mechanism.
1672049	do	Almquist, M. L	Alternating Current Relay.
1672056	do	Carson, J. R	Translating Circuit.
1672057	do	Clark, A. B	Electrical Circuits.
1672215	do	Heising, R. A	Wave Varying and Transmitting.
1672784	do	Selvig, J. N	Strand Reeling Apparatus.
1672821	do	Martell, C	Submarine Cable Core and Insulator Therefor.
1672840	do	Terry, D. M	Amplifier.
1672866	June 12, 1928	Adams, A. H	Method of and Apparatus for Making Conductor Terminals.
1672933	do	Edwards, W. H., and Niles, E. W.	Lineman's Test Set.
1672940	do	Honaman, R. K	Carrier Transmission Over Power Circuits.
1672957	do	Shackleton, S. P	Signaling System.
1672963	do	Straw, W. A	Method of and Apparatus for Testing.
1672964	do	Stull, J. S	Clutch.
1672967	do	Watkins, S. S. A	Electrical Translating Device.
1672968	do	Whitehorn, H. A	Transmission Circuits.
1672969	do	Wickstrom, C. A	Reel.
1672970	do	Williams, S. B	Machine Switching Telephone System.
1672973	do	Albright, H. F	Method for Coating Cores.
1672975	do	Farrington, J. F	Wave Transmission System.
1672976	do	Field, J. C	Electromagnetic Device.
1672977	do	Field, F. E	Repeating Coil.
1672979	do	Fondiller, W	Loaded Conductor.
1672984	do	Marchev, A	Material Working Mechanism.
1672987	do	Mougey, W. E., and Collard, J.	Method of Balancing Cable Circuits.
1672991	do	Selvig, J. N	Serving Mechanism.
1672993	do	Snook, H. C	Protective Device.
1672994	do	Thompson, G	Telephone System.
1672995	do	Whiting, D. F	Electric Current Transmission.
1672998	do	Clement, L. M	Telegraph System.
1673002	do	Fearing, J. L	Control of Electric Waves.
1673005	do	Gargan, J. O	Condenser.
1673006	do	Heising, R. A	High Frequency Transmission and Reception.
1673008	do	Knoop, W. A	Electron Discharge Device.
1673014	do	Morrison, R. F	Apparatus for Assembling Articles.
1673015	do	Murphy, P. B	Switching System.
1673016	do	Oswald, A. A	System of Electrical Conductors.
1673020	do	Powell, R. E	Resistance Welding Electrode.
Re. 17604	Feb. 25, 1930	do	Do.
1673023	June 12, 1928	Rettenmeyer, F. X	Carrier Wave Repeater.
1673024	do	Royal, R	Electromagnetic Device.
1673026	do	Schelleng, J. C	Semi-Mechanical Rectifier.
1673031	do	Whiting, D. F	Wave Transmission System.
1673034	do	Adams, W. J., Jr	Connector.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1673036	June 12, 1928	Bertels, A. S	Monitoring Supervision on Party Lines in Automatically Operated Telephone Exchanges.
1673037	do	Blattner, D. G	Sound Measuring.
1673040	do	Bureau, A. A	Reel.
1673042	do	Curtis, A. M	Signaling System.
1673124	do	Raynsford, A	Do.
1673267	do	Price, R. A	Incandescent Electric Lamp.
1673270	do	Schulz, A. E., and Aeby, J. H.	Apparatus for Advancing Material to Material Working Apparatus.
1673271	do	Stewart, C. R. G	Method of Annealing.
1673281	do	Fay, J. W	Method of and Apparatus for Dispensing Matter.
1673284	do	Hodge, J. C	Material Handling Apparatus.
1673790	June 19, 1928	Bandur, A. F	Magnetic Material, Process of Producing It, and Electromagnetic Device Incorporating Such Material.
1673792	do	Affel, H. A	Level Control for Carrier Transmission Systems.
1673803	do	Daniels, E. A., and Snell, H. S.	Hardening Resinous Exudations with a Guanidine.
1673804	do	do	Hardening Resinous Exudations with an Aldehyde.
1673805	do	do	Hardening Resinous Exudations with Aminonaphthalene.
1673806	do	do	Hardening Resinous Exudations with an Aromatic Secondary Amine.
1673807	do	do	Hardening of Resinous Exudations by the Use of a Heterocyclic Compound.
1673808	do	do	Hardening Resinous Exudations with an Organic Compound.
1673813	do	Edelmann, O	Clamping Device.
1673828	do	Ives, H. E	Television.
1673829	do	Kirkwood, M	Testing of Telegraph Circuits.
1673830	do	do	Trouble Alarm for Telegraph Systems.
1673887	do	Selvig, J. N	Strand Reeling Apparatus.
1674677	June 26, 1928	Bascom, H. M	Connector Switch Circuit.
1674679	do	Blackwell, O. B	Voice Operated Echo Suppressor.
1674695	do	Nyquist, H., and Wright, S. B.	Radio Telephone System.
1674696	do	Ohl, R. S	Radio Receiving System.
1674705	do	Stone, J. S	Reactance Neutralizing Network.
1674709	do	Thomas, W. G	Reeling Device.
1674954	do	Dean, R. S., and Hudson, W. E.	Hardening Lead Alloy and Method of Producing Same.
1674955	do	do	Process for Preparing Lead Alloys on Which Work is to be Performed.
1674956	do	do	Extruding and Improving of Lead Alloys.
1674957	do	do	Process for Improving Lead Alloy Articles.
1674958	do	do	Alloy.
1674959	do	Dean, R. S	Hardenable Alloy.
1675096	do	Curtis, A. M	Signaling System.
1675102	do	Holland, N. H	Adjustable Reflector System for Recording.
1675412	July 3, 1928	Holden, W. H. T	Echo and Singing Suppressor System.
1675423	do	Ohl, R. S	Telephone Substation Circuits.
1675429	do	Schnee, H. E	Reeling Device.
1675441	do	Wright, S. B	Means for Measuring Balance of Electrica Networks.
1675460	do	Nyquist, H	Distortion Compensator.
1675643	do	Dean, R. S., and Hudson, W. E.	Storage Battery Grid.
1675644	do	do	Age Hardening Process.
1675823	do	Potts, L. M	Telegraph Transmitter.
1675828	do	Siegmund, H. O	Electrolyte.
1675848	do	Friis, H. T	Transmission Regulation.
1675849	do	Fultz, M. E	Alarm and Control Device.
1675853	do	Harrison, H. C	Wave Energy Translating Diaphragm and Method of Mounting Same.
1675866	do	Pierce, P. H	Selective Signaling Circuits.
1675872	do	White, J. H	Permanent Magnet and Method of Making the Same.
1675874	do	Baumann, H. C	Amplifying Electrical Variations.
1675876	do	Black, H. S	Translating Circuits.
1675879	do	Crandall, I. B	System for Producing and Transmitting High Frequency Sound Energy.
1675880	do	Curtis, A. M	Electric Current Transmission.
1675884	do	Elmen, G. W	Magnetic Material.
1675886	do	Hague, A. E	Telephone System.
1675888	do	Heising, R. A	Radio Transmission.
1675889	do	Kishpaugh, A. W	Electric Wave Signaling System.
1675890	do	Gabriel, J. C	High Frequency Transmission.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1675893	July 3, 1928	Jammer, J. S.	Carrier Wave Transmission.
1675894	do	Lindridge, C. D.	Method and Apparatus for Recording and Reproducing Sound.
1675956	do	Porter, L. F.	Telephone System.
1676240	July 10, 1928	Affel, H. A.	Radio Signaling System.
1676244	do	Blackwell, O. B., and Martin, DeL. K.	Multiple Channel Radio Receiver.
1676252	do	Coxhead, H. B.	Do.
1676301	do	Toomey, J. F.	Program Transmission System for Apartment Houses.
1676321	do	Carpe, A.	Secrecy Signaling System.
1676447	do	Krum, C. L., and H. L.	Electric Selecting Apparatus.
1676448	do	do	Selecting Apparatus for Electric Telegraphs.
1676605	do	Hart, C. D.	Feeding Mechanism.
1676606	do	Albright, H. F., Jr.	Do.
1676607	do	Lamplough, L. F.	Do.
1676614	do	Heising, R. A.	Frequency Grouping Arrangement for Communication Systems.
1676627	do	Black, H. S.	Method and Means for Reducing Crosstalk in Carrier Current Signaling Systems.
1677133	July 17, 1928	Ford, B. K.	Method of and Machine for Feeding and Working Articles.
1677135	do	Haase, C. O.	Strand Working Mechanism.
1677138	do	Hodge, J. C.	Tension Device.
1677139	do	Karcher, J. C.	Process for Increasing the Permeability of Silicon Steel.
1677157	do	Weaver, A.	System for Measuring Contact Rebounding.
1677159	do	Whited, B. L.	Material Working Machine.
1677161	do	Adams, A. H.	Method of and Device for Electric Welding.
1677167	do	Borgeson, S. E.	Material Unwinding Device.
1677168	do	Brown, A. B.	Machine Framework.
1677172	do	Calbeck, F. W., and Thornsen, S.	Method of and Apparatus for Working Materials.
1677178	do	Fay, J. W.	Method of and Apparatus for Assembling Members.
1677181	do	Grondahl, H. H. C.	Material Handling Apparatus.
1677186	do	Kochendorfer, F. S.	Strand Working Mechanism.
1677190	do	Loynes, O. H.	Modulating Atrangement.
1677191	do	do	Do.
1677193	do	McCurdy, R. G.	Short Circuiting Switch.
1677205	do	Pugh, E.	Device for Welding Parts.
1677206	do	do	Method of Electric Welding.
1677214	do	Santschi, A. E.	Electrically Heated Apparatus.
1677217	do	Selvig, J. N.	Material Unwinding Device.
1677224	do	Affel, H. A.	Carrier Receiving System.
1677240	do	Kochendorfer, F. S., and Gill, T. A.	Resistance Unit.
1677956	July 24, 1928	Dean, S. W.	Broadside Antenna Array.
1677957	do	Eagon, L. L.	Telephone System.
1677966	do	Green, E. I.	Carrier Signaling System.
1677967	do	Holden, W. H. T.	Radio Signaling System.
1677983	do	Parker, R. D., and Perry, D. B.	Printing Telegraph Exchange System.
1678101	do	Bower, J. H.	Air Conditioning System.
1678103	do	Caverly, H. C.	Telephone System.
1678116	do	Harrison, H. C.	Device for the Transmission of Mechanical Vibratory Energy.
1678128	do	Thorp, K. O.	Transmission Control System.
1678133	do	Wolfe, W. V.	Power Line Signaling.
1678145	do	Kelly, M. J.	Electron Discharge Device.
1678160	do	Oswald, A. A.	Electric Wave Translation System.
1678163	do	Peterson, E.	Modulation.
1678173	do	Tournier, E. P.	Tool.
1678182	do	Estes, M. S.	Transmitter for High Frequency Sound Signaling.
1678183	do	Friis, H. T.	Signal Reception.
1678184	do	Gilbert, J. J.	Submarine Signaling.
1678185	do	Harper, R. W.	Telephone System.
1678188	do	Mathes, R. C.	Electric Wave Transmission.
1678190	do	Mortimer, L. A.	Telephone System.
1678199	do	Rettenmeyer, F. X.	Oscillation Generator.
1678200	do	Rorty, M. C., and Potter, J. C.	Telephone Receiver.
1678203	do	Smythe, E. H.	Communicating and Switching System.
1678390	do	Hosford, W. F.	Method of Working Fibrous Material
1678395	do	Kellems, E. E.	Self Loading Trailer.
1678663	July 31, 1928	Wilson, L. T.	Insulator.
1678665	do	Affel, H. A.	High Frequency Measuring System.
1678672	do	Espenschied, L., Affel, H. A., and Anderson, C. N.	Two-Way Radio Telephone System.
1678674	do	Koenig, W., Jr.	Method and Apparatus for Computation.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1678685	July 31, 1928	Toomey, J. F	Telephone Signal System.
1678710	do	Selvig, J. N	Material Spooling Mechanism.
1678713	do	Snell, H. S	Molding Compound.
1678732	do	Knaus, P. J	Grinding and Polishing Apparatus.
1678833	do	Smythe, E. H	Acoustic Device.
1678872	do	Potter, R. K	Method and Apparatus for Producing Musical Sounds.
1679376	Aug. 7, 1928	Roscoe, R	Apparatus for Abrading.
1679378	do	Sanders, W. R	Abrading Apparatus.
1679396	do	Bascom, H. M	Measuring System.
1679411	do	De Potter, E. F	Loading Device for Conveying Systems.
1679412	do	do	Unloading Device for Conveying Systems.
1679427	do	Jewell, H. W	Underground Conduit.
1679434	do	McCurdy, R. G	Electric Wave Filter for Variable Load Circuits.
1679597	do	Berkland, T. H	Radio Receiving Circuit.
Re. 18055	Apr. 26, 1931	do	Do.
1680207	Aug. 7, 1928	De Forest, L., and Logwood, C.	Radio Signaling System.
1680273	Aug. 14, 1928	Akers, M. K	Generating and Transmitting System.
1680363	do	Bown, R	Directive Antenna.
1680367	do	Demarest, C. S	Repeater Circuits.
1680376	do	Herman, J., and Singer, F. J	Telegraph Circuits.
1680377	do	Holden, W. H. T	Alternating Potential Generator.
1680390	do	Nyquist, H	Picture Transmitting System.
1680550	do	Kerr, M. B	Signaling System.
Re. 18126	July 7, 1931	do	Do.
1680656	Aug. 14, 1928	Wheeler, E. B., and Wright, J. C.	Storage of Dry Cells and Batteries.
1680667	do	Curtis, A. M	Electromagnetic Device.
1681215	Aug. 21, 1928	Blauvelt, W. G	Telephone Exchange System.
1681216	do	Branson, D. E., and Shanck, R. B.	Composite Set.
1681221	do	Coggins, P. P	Telephone Exchange System.
1681245	do	May, D. T., and McCormick, C. G.	Cable Splicing Machine.
1681246	do	McCurdy, R. G	Telephone System with Auxiliary Signaling Circuit.
1681252	do	Nyquist, H	Distortion Correction for Transmission Lines.
1681376	do	Snook, H. C	Sound Recording and Reproduction.
1681489	do	Locke, G. A., and Haglund, H. H.	Signaling System.
1681510	do	Williams, S. B	Telephone System.
1681515	do	Buckley, O. E	Submarine Cable.
1681520	do	Dahl, J. F	Trunk Circuits.
1681532	do	Gardner, F. G	Transmission Control.
1681541	do	Johnston, J	Electrical Conductor.
1681543	do	Kuhn, J. J	Acoustical Device.
1681554	do	Norton, E. L	Wave Filter.
1681566	do	Anderegg, G. A	Manufacture of Cables.
1681573	do	Elmen, G. W	Transformer.
1681972	Aug. 28, 1928	Blackwell, O. B., and Affel, H. A.	Carrier Amplitude Control System.
1682911	Sept. 4, 1928	Jorgensen, E. N	Material Working Mechanism.
1683716	Sept. 11, 1928	Espenschied, L	Antenna for Radio Telegraphy.
1683725	do	Nyquist, H	Phase Regulating System.
1683739	do	Stone, J. S	Directive Antenna Array.
1683833	do	Maneschi, E	Method of and Apparatus for Determining the Energy Losses in Dielectric Materials.
1683894	do	Ives, H. E	Reproducing Pictures Transmitted Electrically.
1683796	do	do	Transmission of Pictures By Electricity.
1684397	Sept. 18, 1928	Hubbard, F. A	Electrical Testing.
1684403	do	Mason, W. P	Electrical Testing System and Method.
1684408	do	Nicolson, A. M	Acoustic System.
1684422	do	Toomey, J. F	Monitoring and Controlling Circuits for Program Distribution.
1684445	do	Honaman, R. K	Signaling System.
1684455	do	Nyquist, H	Multiplex Carrier Current Signaling.
1684511	do	O'Donnell, T. E	Strand Twisting Apparatus.
1684532	do	Bouvier, G. A	Method of and Apparatus for Forming Stranded Articles.
1684533	do	do	Strand Twisting Apparatus.
1684799	do	Kochendorfer, F. S	Thread Rolling Machine.
1685145	Sept. 25, 1928	Bartenbach, H., and Freeman, A. E.	Hook.
1685154	do	Edwards, W. H	Lock.
1685161	do	Honaman, R. K	Multi-Winding Discharge Balance Coil.
1685357	do	Griggs, E. V	Transmission System.
1685386	do	Williams, R. R	Insulated Conductor.
1685801	Oct. 2, 1928	Ballard, W. R	Current Controlling Device.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1685835	Oct. 2, 1928	Baseom, H. M., Arnold, O. M., and Pentland, R. L.	Program Selecting Arrangement.
1685847	do	Huntington, H	Test Clip.
1685913	do	Espenschied, L	Recording and Reproducing of Sound Waves.
1686355	do	Wente, E. C	Translating Device.
1686504	do	Dodge, H. F., and Frederick, H. A.	Stethoscopic Apparatus.
1686552	Oct. 9, 1928	Fairchild, F. E	Stabilization of Circuit Output.
1686570	do	Ohl, R. S	Equipotential Cathode Vacuum Tube.
1686585	do	Vernam, G. S	Telegraph Cipher System.
1686792	do	Black, H. S	Translating System.
1687211	do	Jones, W. C	Telephone Receiver.
1687220	do	Mackeown, S. S	Electric Wave Producer.
1687225	do	Peterson, E	Frequency Translating Circuits.
1687231	do	Speed, J. B	Translating Device.
1687233	do	Stoller, H. M	Dynamo-Electric Machine.
1687234	do	Terry, D. M	Thermionic Peak Voltmeter.
1687244	do	Heising, R. A	Signaling System.
1687245	do	do	Amplifying.
1687364	do	De Forest, L	Radio Transmitting System.
1687489	Oct. 16, 1928	Branson, D. E	Apparatus and Method for Electrical Transmission of Pictures.
1687495	do	Gordon, C. S., and Lowe, J. T.	Insulator.
1687524	do	Smith, A. B	Material Feeding Device.
1687525	do	Sturdevant, E. G	Flame-Proof Electric Insulation and Method of Producing the Same.
1687535	do	Affel, H. A., and Green, E. I.	Reduction of Losses in Insulators, Pins, and Crossarms.
1687556	do	Gordon, C. S., and Lowe, J. T.	Reduction of Attenuation Due to the Conductance Losses in Crossarms and Insulator Pins.
1687574	do	Liss, A. S	Article Forming Apparatus.
1687579	do	McMullan, S	Material Holder.
1687588	do	Pearson, A	Method of Drying Corrodible Materials.
1687669	do	Hinrichsen, E. E	Trunk Testing Circuits for Selector Switches.
1687882	do	Nichols, H. W	Oscillation Generator and Modulator.
1687883	do	O'Neill, H. W	Transmission System.
1687896	do	Ryan, F. M	Radio Transmitting System.
1687912	do	Wheeler, E. B	Insulated Conductor.
1687932	do	Farrington, J. F	Secret Signaling.
1687933	do	do	Electrical Signaling System.
1688036	do	Clement, L. M	Radiant Energy Transmission System.
1688038	do	Curtis, A. M	Protective Device.
1688081	do	Ives, H. E	Transmission of Pictures By Electricity.
1688292	do	Weaver, A	System of Modulating Carrier Currents.
Des. 76622	do	Lum, G. R	Transmitter Mounting.
1688451	Oct. 23, 1928	Demarest, C. S., and Loynes, O. H.	Telephone Signaling System.
1688452	do	do	Do.
1688453	do	do	Do.
1688454	do	do	Do.
1688455	do	do	Do.
1688976	do	Lum, G. R	Audiphone.
1688991	do	Schwerin, P	Electron Discharge Device.
1688993	do	Smith, E. B	Telephone System.
1688995	do	Smith, W. F., Jr	Telephone Muffler.
1688997	do	Sprague, C. A	Signaling System.
1689006	do	Akers, M. K	Variable Inductance Device.
1689020	do	Gilbert, J. J	Submarine Signaling.
1689026	do	Heising, R. A	Frequency Arrangement in Carrier Wave Systems.
1689030	do	Holland, N. H	Acoustic Diaphragm.
1689205	Oct. 30, 1928	Lamplough, L. F	Method of and Apparatus for Continuously Sheathing Cores.
1689206	do	do	Apparatus for Treating Vulcanizable Material.
1689230	do	Christopher, H. J	Locking Device for Switch Keys.
1689263	do	Vernam, G. S	Printing Telegraphy.
1689267	do	Weaver, A	Method and Apparatus for Picture Transmission.
1689292	do	O'Neill, H. W	Navigation Directing System.
1689293	do	Oswald, A. A	Signaling System.
1689294	do	Potts, L. M	Remote Control and Indicating System.
1689295	do	do	Printing Telegraph.
1689311	do	Wheeler, E. B	Insulated Wire.
1689312	do	Williams, R. R	Method of Insulating Conductors.
1689313	do	Wood, E. B	Direct Humidity Recorder.
1689318	do	Bjornson, B. J	Repeater Circuits.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1689324	Oct. 30, 1928	Buckley, O. E.	Manufacture of Continuously Loaded Electrical Conductors.
1689328	do	Curtis, A. M.	Submarine Telegraph System.
1689337	do	Haddock, A.	Antenna.
1689338	do	Harris, J. E.	Electron Discharge Device.
1689339	do	Harrison, H. C.	Energy Translation System.
1689340	do	Hearn, J. F.	Selector Switch.
1689341	do	Heising, R. A.	Highly Selective Signal Receiption.
1689343	do	Hinrichsen, E. E.	Telephone System.
Re. 17666	May 13, 1930	do	Do.
1689346	Oct. 30, 1928	Kendall, B. W.	Method and System of Carrier Wave Telegraphy.
1689347	do	Korn, F. A.	Telephone System.
1689348	do	Kuhn, J. J.	Combined Jack and Selecting Switch.
1689358	do	Miller, D. D.	Magnetic Shield.
1689406	do	Scruby, S. V. C., Turkhud, B. A., and DeFremery, F.	Recording Means for Busy Telephone Lines.
1690153	Nov. 6, 1928	Abraham, L. G.	Selective Echo Suppressor.
1690167	do	Holden, W. H. T.	Vacuum Tube and Associated Element.
1690182	do	Silent, H. C.	Suppression of Echoes and Singing in Four-Wire Circuits.
1690201	do	Mougey, W. E.	Signaling Conductor.
1690206	do	Raynsford, A.	Telephone System.
1690210	do	Stokely, R. L.	Do.
1690211	do	Toomey, J. F., and Duhnrock, G. H.	Do.
1690213	do	Wilson, I. G.	Automatic System for Testing Repeaters.
1690214	do	Carpenter, W. W.	Restricted Service Telephone Exchange System.
1690224	do	Gent, E. W.	Wave Transmission System.
1690226	do	Heising, R. A.	Plural Phase Generation or Other System.
1690227	do	do	Transmission by Modulated Waves.
1690228	do	do	High Frequency Transformer.
1690232	do	Kuhn, J. J.	Vacuum Tube Socket.
1690234	do	Lamberty, F. R.	Trunking Circuit to Centralized Operator's Position.
1690241	do	O'Neill, H. W.	Telephone System.
1690250	do	Saunders, A. W.	Radio Signaling System.
1690255	do	Snook, H. C.	System for Converting Sound Waves Into Electrical Waves.
1690269	do	Booth, W. T., and Magrath, A. C.	Testing Device.
1690271	do	Clement, L. M.	Method of and Means for Protecting Electrical Apparatus.
1690279	do	Craft, E. B.	Apparatus for Visual Interpretation of Speech and Music.
1690280	do	Curtis, A. M.	Electrical Testing.
1690297	do	Hoge, J. F. D.	Cable Support.
1690299	do	Horton, J. W.	Generation and Control of Electric Waves.
1690300	do	do	Transmission of Pictures by Electricity.
1690373	do	Marchev, A.	Method of and Apparatus for Twisting Strands.
1690377	do	Pugh, E.	Method of Welding Parts.
1690378	do	Rinck, F. B.	Treatment of Ferrous Metals to Produce a Protective Coating Thereon.
1690379	do	Siebs, C. T.	Heater.
1690398	do	Bollinger, C.	Apparatus for Performing Pressing Operations.
1690421	do	Moore, C. R.	Sound Radiator.
1690457	do	Pennock, G. A.	Apparatus for Performing Pressing Operations.
1690566	do	Ziegler, A. W.	Current Ballasting Device.
1691029	Nov. 13, 1928	Bandur, A. F.	Conductor for the Transmission of Electrical Energy and Method of Producing the Same.
1691043	do	Blount, H.	Wire Drawing Guard.
1691052	do	Fay, J. W.	Soldering and Welding Tool and the Like.
1691055	do	Gauthier, E.	Screw Forming Machine.
1691058	do	Grondahl, H. H. C.	Material Treating Apparatus.
1691071	do	Ives, H. E., and Long, M. B.	Transmission of Pictures By Electricity.
1691076	do	Mathes, R. C.	Two-way Radio Signaling System.
1691091	do	Thompson, E. O.	Alternating Current Relay.
1691098	do	Whiting, D. F.	Means for Coupling Circuits of Different Impedance Characteristics.
1691103	do	Yancey, T. McD.	Material Working Apparatus.
1691147	do	Clark, A. B., Nyquist, H., and Gannett, D. K.	Electrical Picture Transmitting System.
1691150	do	Crisson, G.	Electrical Power Limiting Device.
1691543	do	Crawford, C. A.	Combined Waterproof and Adhesive Composition.
1691588	do	Schuls, A. E.	Material Working Mechanism.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1691962	Nov. 20, 1928	Demarest, C. S.	Selective Signaling System.
1691986	do	Nyquist, H.	Apparatus and Method for Generating Pure Sine Waves of Electromotive Force.
1691990	do	Potter, R. K.	High Frequency Signaling System.
1692317	do	Stewart, G. W.	Acoustic Wave Filter.
1692437	do	Farrington, J. F.	Signaling System.
1692904	Nov. 27, 1928	Potter, R. K.	Amplification of Photelectric Call esponse.
1692907	do	Shackleton, S. P., and Hansen, A. A.	Relaying Arrangement.
1692961	do	Thompson, E. O.	Alternating Current Relay.
1693072	do	De Forest, L.	Means for Shielding Sound Detector and Amplifier Apparatus.
1693653	Dec. 4, 1928	McKown, F. W.	Battery Supply Circuit.
1693659	do	Nyquist, H., and Pfleger, K. W.	Echo Suppressor.
1693662	do	Ohl, R. S.	Radio Signaling System.
1693685	do	Weaver, A.	Method and Apparatus for Transmission of Pictures.
1693955	do	Mathes, R. C.	Electric Current Transmission.
1694406	Dec. 11, 1928	Bascom, H. M., and Jacobsen, E.	Telephone Exchange System.
1694415	do	Gordon, C. S.	Insulator.
1694425	do	McCurdy, R. G., and Blye, P. W.	Electrical Testing System.
1694429	do	Peak, W. L.	Auxiliary Dialing Tool.
1694473	do	Kendall, B. W.	High Frequency Signaling.
1695032	do	Shackelton, W. J.	Impedance Measuring Bridge.
1695035	do	Stoller, H. M.	Electric Regulator.
1695038	do	Buckley, O. E.	Magnetic Alloy.
1695039	do	Clement, L. M.	Electric Wave Signaling System.
1695040	do	Clokey, A. A.	Multiplex Telegraph System.
1695041	do	Elmen, G. W.	Production of Magnetic Dust Cores.
1695042	do	Fearing, J. L.	High Efficiency Discharge Device System.
1695043	do	Haines, W. T., and Harper, R. W.	Telephone xchange System.
1695046	do	Hippensteel, C. L.	Testing Apparatus.
1695047	do	Horton, J. W.	Art of Electrical Measurements.
1695048	do	Ives, H. E.	Picture Transmission.
1695049	do	Jacobsen, E., and Sperry, A. B.	Telephone Exchange System.
1695050	do	Lundius, E. R.	Pulsing System.
1695051	do	Marrison, W. A.	Translating Circuits.
1695057	do	Murphy, P. B.	Telephone System.
1695058	do	Peterson, E.	High Frequency Signaling.
Des. 77,165	do	Lum, G. R.	Diaphragm for a Loud Speaker.
1695267	Dec. 18, 1928	Aldendorff, F.	Automatic Telephone System.
1695268	do	do	Do.
1695312	do	Abbott, H. H.	Telephone System.
1695314	do	Bascom, H. M.. and Abbott, H. H.	Do.
1695328	do	Gordon, W. A., Murphy, J. J., and Perrone, P.	Adjustable Reference Book.
1695813	do	Mathes, R. C.	Electric Current Transmission.
1695828	do	Stokely, R. L.	Telephone Exchange System.
1695844	do	Gorton, W. S.	Signaling System.
1696012	do	Ray, W. H.	Method of and Apparatus for Interconnecting and Testing Electrical Apparatus.
1696212	Dec. 25, 1928	Schafer, J. P.	Selective Translation System.
1696223	do	Wotton, J. A.	Electromagnetic Device.
1696225	do	Blood, H. L.	Thread Forming Mechanism.
1696230	do	Gilbert, J. J.	Electrical Pilotage.
1696233	do	Heising, R. A.	Energizing Vacuum Discharge Device by Alternating Current.
1696234	do	do	Antenna.
1696241	do	Kendall, B. W.	Repeater.
1696242	do	Kochendorfer, F. S.	Method of and Apparatus for Forming Articles.
1696246	do	Mathes, R. C.	Telegraph System.
1696248	do	Morton, E. R.	Circuits for Synchronous Motors.
1696249	do	Nichols, H. W.	Antenna System.
1696256	do	Rock, G. L.	Spool and Method of Manufacturing Spools.
1696257	do	do	Apparatus for Assembling Elements of Articles.
1696258	do	Schmied, J. W.	Carrier Wave Communication.
1696260	do	Swasey, C. F.	Casing and Support for Electrical Apparatus.
1696261	do	Williams, S. B.	Transmission System.
1696262	do	Bandur, A. F.	Conductor for the Transmission of Electrical Energy and Method of Producing the Same.
1696265	do	Buckley, O. E.	Accoustic Device.
1696267	do	Dunham, B. G.	Telephone System.
1696268	do	Fay, J. W.	Apparatus for Producing Soldering Units Comprising Solder and Fluxing Materials.
1696271	do	Hague, A. E.	Call Charging Telephone Exchange System.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1696273	Dec. 25, 1928	Jespersen, H. W	Mechanism for Working Pulpous Material.
1696274	do	Johnson, K. S	Substation Circuits.
1696275	do	Johnson, L. H., and Hague, A. E.	Call Charging Telephone Exchange System.
1696315	do	Mathes, R. C	Wave Transmission System.
1696415	do	Roberts, L. C	Voltage Balance Regulator.
1696416	do	do	Voltage Regulator.
1696417	do	do	Do.
1697042	Jan. 1, 1929	Bown, R	Radio Receiving System.
1697057	do	Edwards, W. H	Ringer.
1697061	do	Gordon, G. B	Corner Bridle Ring Support.
1697845	Jan. 8, 1929	Adams, J. H	Soldering Material.
1697848	do	Boynton, S. E	Bearing and Method of Producing It.
1697860	do	Franks, C. H., and Rock, G. L.	Assembling Apparatus.
1697870	do	Hall, S. M	Insulating Composition and Method of Forming the Same.
1697872	do	Johnson, E. V	Resilient Member.
1697873	do	Lambert, H. E	Material Working Machine.
1697903	do	Clapp, R. H	Transmission Repeating System for Radio and Carrier Telegraph Systems.
1697905	do	Deardorff, R. W	Transmission Regulating System for Radio and Carrier Telegraph Systems.
1697933	do	Shackleton, S. P	Signaling Circuits for Repeaters.
1698558	do	Oswald, A. A., and Nelson, E. L.	System of Space Discharge Devices.
1698770	Jan. 15, 1929	Ohl, R. S	Signaling Circuits.
1698772	do	Schramm, F. W	Remote Control System.
1698777	do	Bown, R	Radio Repeater.
1699222	do	Clarke, C. A	Transmission of Pictures.
1699514	Jan. 22, 1929	Aldendorff, F	Electrical Switch.
1699553	do	Weaver, A., and McMurry, F. R.	Picture Transmitting System.
1699567	do	Ohl, R. S	Radio Signaling System.
1699570	do	Potter, R. K	Carrier Suppression Modulation.
1699711	do	Peterson, E	System of Space Discharge Devices.
1700166	Jan. 29, 1929	Johnson, B	Insulator for Bridle Wires.
1700168	do	Klien, C. H., and St. John, E.	Cable Clamp and Bridle Ring.
1700180	do	Roberts, L. C	Selective Telegraph System.
1700441	do	Lum, G. R	Acoustic Device.
1700444	do	Mougey, W. E	Method of and Apparatus for Measuring the Inductance of Cables and Conductors.
1700450	do	Reynolds, J. L	Sound Reproducing System.
1700451	do	Ronci, V. L	Electron Discharge Device.
1700452	do	do	Do.
1700454	do	Schumacher, E. E	Electron Emitter and Process of Making the Same.
1700456	do	Stearn, F. A	Telephone System.
1700457	do	Thuras, A. L	Acoustic Device.
1700458	do	Waller, L. R	Party Line Telephone System.
1700460	do	White, J. H	Metallurgical Process.
1700466	do	Carpenter, W. W	Machine Switching Telephone Exchange System.
1700467	do	Clark, E. H	Telephone Exchange System.
1700469	do	Conway, R. D	Telephone System.
1700470	do	Curtis, A. M	Electromagnetic Relay.
1700472	do	Deloraine, E. M	Electron Discharge Device.
1700473	do	Draper, J. B	Telephone Exchange System.
1700476	do	Gilbert, J. J	Submarine Signaling Cable.
1700478	do	Haddock, A	Electron Discharge Device.
1700528	do	Hartley, R. V. L	Direction Finding.
1700530	do	Holland, N. H	Acoustic Diaphragm.
1700531	do	Houskeeper, W. G	Electron Discharge Device.
1700536	do	Keith, C. R	Frequency Translating Circuits.
1700766	Feb. 5, 1929	Kemp, A. R	Continuously Loaded Submarine Cable.
1700799	do	Inglis, A. H., and Bostwick, L. G.	Locking Mechanism.
1700805	do	Morris, R. W	Cone Loud Speaker.
1700806	do	do	Do.
1700833	do	Engel, T. J	Sound Recording System.
1700100	do	Cummings, G. C	High Speed Telegraph Repeater Employing Vibrating Relays.
1701552	Feb. 12, 1929	Zobel, O. J	Distortion Compensator.
1701561	do	Gordon, C. S	Insulator.
1701562	do	do	Do.
1701633	do	Proffitt, A. A	Tool.
1701639	do	Schulz, A. E	Material Treating Apparatus.
1701641	do	Skriba, R. A	Article Sorting Apparatus.
1701644	do	Stull, J. S	Work Handling Device for Drilling Machines.
1701656	do	Arkema, H. P., and Thronsen, S.	Method of Mounting Dies.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1702033	Feb. 12, 1929	Bellamy, H. T., and Groves, W. H.	Furnace.
1702050	do	Grondahl, H. H. C	Molding Apparatus.
1702051	do	do	Do.
1702242	Feb. 19, 1929	Bureau, A. A	Reel.
1702305	do	Lewis, B. F	Impedance Modifying Device.
1702308	do	Niles, E. W., and Edwards, W. H.	Intercommunicating System.
1702309	do	Nyquist, H	Composite Set.
1702568	do	Marrison, W. A	Constant Frequency Wave Source.
1703142	Feb. 26, 1929	Green, E. I	Compensation for Phase Variations.
1703146	do	Holden, W. H. T	Rectifier Alarm System.
1703147	do	do	Do.
1703287	do	Andrews, J. W	Method of Producing Magnetic Materials.
1703300	do	Daniel, T. A	Extrusion Press.
1703870	Mar. 5, 1929	Demarest, C. S., and Ohl, R. S.	Radio Antenna.
1703880	do	Gordon, C. S	Thermoscope.
1703972	do	Watson, E. F	Printing Telegraph System.
1704354	do	Wegel, R. L	Acoustic Device.
1704780	Mar. 12, 1929	Affel, H. A., Hamilton, B. P., Thorp, V. P., and Clapp, R. H.	Method and Means for Simultaneously Signaling All Subscribers of Carrier Telegraph Systems.
1704786	do	Chapman, A. G	Crosstalk Meter.
1704806	do	Nyquist, H	Signaling System.
1704850	do	Wilson, I. G	Wave Transmission Control.
1705054	do	Aldendorff, F	Electromechanical Telephone Switching Systems.
1705551	Mar. 19, 1929	Abraham, L. G	Electro-Optical Transmission.
1705560	do	Edwards, P. G., and Herrington, H. W.	Electrical Instrument.
1705561	do	do	Electrical Testing System.
1705891	do	Arnold, H. B	Power Line Signaling.
1705903	do	Davee, L. W	Do.
1705906	do	Dehn, J. W	Telephone System.
1705913	do	Gilbert, J. J	High Frequency Submarine Cable.
1705917	do	Hamer, T. M	Toll Service Telephone Exchange System.
1705944	do	Siegmund, H. O	Electrolytic Device.
1705947	do	Thompson, G	Telephone Exchange System.
1705949	do	Williams, R. R	Insulated Cable.
1705993	do	Oswald, A. A	Voltage Limiting Device.
1706005	do	Thompson, W. V	Method of Making Cord Tips.
1706032	do	Long, M. B	Transmission of Pictures by Electricity.
1706311	do	Nichols, H. W	Wireless Signaling System.
1706393	Mar. 26, 1929	Fay, J. W	Apparatus for Forming Articles.
1706472	do	Wright, S. B	Echo Supressor.
1706490	do	Holden, W. H. T	Carrier Amplitude Control in Radio Systems.
1706538	do	Mertz, P	Testing Television and Like System.
1706702	do	McMullan, S	Strand Working Mechanism.
1706724	do	Anderson, D. G	Stripping Apparatus.
1706725	do	LeBoutillier, A	Method of Heat Treating Articles.
1706727	do	Bouvier, G. A., and Richter, J. W.	Strand Assembling Apparatus.
1706729	do	Gauthier, E	Machine for Working Metal Strands.
1706730	do	Gros, G. A	Method of and Means for Forming Composite Articles.
1706740	do	Powell, R. E	Heated Tool.
1706741	do	Pugh, E	Method of and Apparatus for Feeding Material.
1706754	do	Stastney, L	Wire Drawing Apparatus.
1707260	Apr. 2, 1929	Fetter, C. H	Recording and Reproducing of Sound Waves.
1707261	do	do	Recording and Reproduction of Sound Waves.
1707265	do	Hansen, A. A	Means for Testing Lever Keys.
1707486	do	Kishpaugh, A. W	Electro-Optical Transmission.
1707544	do	Thuras, A. L	Electrodynamic Device.
1707545	do	Wente, E. C	Acoustic Device.
1707997	Apr. 9, 1929	Shanck, R. B	Telegraph System.
1708027	do	Ohl, R. S	Control Device for Vacuum Tubes.
1708038	do	Wilson, L. T	Low Loss Insulator.
1708933	Apr. 16, 1929	Beach, W. C	Signaling System.
1708934	do	Burton, E. T	Electric Signaling.
1708935	do	Christopher, A. J	Coil and Transformer.
1708936	do	Cioffi, P. P	Magnetic Material.
1708938	do	Crandall, I. B., and Estes, M. S.	High Frequency Sound Signaling.
1708939	do	Crawford, A. I	Electron Discharge Device.
1708943	do	Goodrum, C. L	Acoustic Device.
1708944	do	Heising, R. A	System for Neutralizing Capacitive Reactance Between Two Circuits Placed Close to Each Other.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1708945	Apr. 16, 1929	Horton, J. W	Selective Transmission System.
1708946	do	Hovland, H	Telephone Exchange System.
1708949	do	Matthies, W. H	Telephone System.
1708950	do	Norton, E. L	Electric Wave Filter.
1708954	do	Potts, L. M	Transmission System
1708955	do	Pruden, H. M	Relay Commutator.
1708959	do	Stokley, R. L	Intercepting Cord and Trunk Circuit.
1708960	do	Ulrich, H. W	Telephone System.
1708974	do	Parker, R. D., and Overton, W. L.	Submarine Cable Telegraphy.
1708982	do	Vroom, E., and Krecek, J. A	Repeater Selection for Toll Lines.
1708983	do	Vroom, E., and Entz, F. S	Telephone System.
1709009	do	Espenschied, L., and Martin, DeL. K.	Multiple Channel Radio Receiver.
1709037	do	Pero, S. E	Distortion Compensator.
1709044	do	Smythe, E. H	Multiplex Carrier Wave Communication.
1709061	do	Clement, L. M	Radio Receiving Circuit.
1709067	do	Field, J. C	Indicating System.
1709073	do	Hartley, R. V. L	Sound Radiator.
1709076	do	Jammer, J. S	Multiplex Signaling System.
1709084	do	MacDougall, H. W	Number Indicating System.
1709089	do	Nash., G. H., and Grace, B. B.	Wireless Receiving Set.
1709090	do	Nichols, H. W	Electrical Energy Radiator.
1709361	do	McCormack, A. A	Sheet Folding Apparatus.
1709448	do	Walter, R. C	Rolling Mill.
1709554	do	Black, H. S	Voice Frequency Calling System.
1709571	do	Harrison, H. C	Electromechanical Translating Device.
1709900	Apr. 23, 1929	Dietze, E	Telephone System.
1709901	do	Espenschied, L., and Gillett, G. D.	Secret Signaling System.
1709926	do	Weaver, A	Apparatus and Method for Transmitting Pictures.
1710235	do	Nelson, E. L. and Oswald, A. A.	Radio Transmitting Circuit.
1710249	do	Wegel, R. L	Cone Loud Speaker.
1710254	do	Bruce, E	Electric Wave Translation System.
1710756	Apr. 30, 1929	Wilson, L. T	Reduction of Attenuation Due to the Conductance Losses in Crossarms and Insulator Pins.
1710786	do	Pike, V. B., and St. John, E.	Method and Means for Producing Insulating Sleeves.
1710787	do	Pike, V. B., and St. John, E.	Do.
1711025	do	Hull, S. M	Organic Molding Composition.
1711101	do	Shanck, R. B	Means for Indicating Frequency Changes.
1711168	do	Bouvier, G. A	Apparatus for Producing Reciprocating Mechanical Movement.
1711258	do	Bennett, A. F	Telephone Apparatus.
1711550	May 7, 1929	Sturdy, W. W	Alternating Current Relay.
1711560	do	Espenschied, L., Bown, R., and Martin, DeL. K.	Radio Broadcasting System.
1711562	do	Fetter, C. H	Echo Suppressor Circuits.
1711636	do	Eaves, A. J	Radio Receiving System.
1711640	do	Hartley, R. V. L	Electron Discharge Device.
1711646	do	McGall, P. K	Electromaguetic Device.
1711650	do	Pfannenstiehl, H	Phonograph Record Recording Machine.
1711651	do	Pruden, H. M	Signaling System.
1711653	do	Quarles, D. A	Loading System.
1711658	do	Sprague, C. A	Current Controlling and Static Reducing System.
1711661	do	Stoller, H. M	Regulating System.
1711663	do	Van der Bijl, H. J	System Utilizing Radiant Energy Sensitive Device.
1711664	do	Williams, S. B	Transmission System.
1711666	do	Adams, E. W	Sound Reproducing and Recording Device.
1711672	do	Coon, L. E	Remote Control System.
1711673	do	Crawford, A. I., and Sample, R. M.	Vacuum Tube Base.
1711679	do	Heising, R. A	Signal System.
1711680	do	Holland, N. H	Combined Recorder and Reproducer.
1711681	do	do	Sound Recording System.
1711682	do	Hovland, H	Telephone Exchange System.
1711684	do	Ives, H. E	Method of Making Half Tones.
1711687	do	Miller, V. F	Telephone Calling Dial.
1711689	do	Pierce, P. H., and Means, W. J.	Rotary Mercury Interrupter.
1711690	do	Richard, C. D	Phonograph Record Recording Machine.
1712243	do	Aldendorff, F	Automatic Electric Switching System.
1712528	May 14, 1929	Swezey, B. S	Printing Telegraph System.
1712541	do	Wright, J. W	Wire Splicing Machine.
1712542	do	Bailey, R. S	Toll Trunk Circuit.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1712993	May 14, 1929	Heising, R. A.	Signaling System.
1712994	do	do	Oscillation Production.
1713039	do	Espenschied, L.	Phonograph Recording and Reproducing.
1713603	May 21, 1929	Hoyt, R. S.	Electrical Network.
1713615	do	Ohl, R. S.	Thermionic Vacuum Tube.
1713618	do	Overton, W. L.	Electric Picture Transmitting Apparatus.
1713771	do	Melching, A. F.	Control Apparatus.
1713786	do	Stearns, H. C.	Method of and Apparatus for Assembling Articles.
1713788	do	do	Do.
1713833	do	Kochendorfer, F. S.	Indicating and Regulating Apparatus.
1713833	do	Tinom, W. A.	Apparatus for Heat Treating Metals.
1713875	do	Kay, C. J.	Filing Apparatus.
1713904	do	Jespersen, H. W.	Mechanism for Working Fibrous Material.
1713909	do	Marchev, A.	Clutch.
1713941	do	Adams, A. H., and Franks, C. H.	Method of Winding Coils.
1714149	do	Whittle, H., and Christopher, A. J.	Amplifying System.
1714525	do	Silent, H. C.	Suppression of Echoes and Singing in Four-Wire Circuits.
1714551	do	Edwards, P. G., and Herington, H. W.	Cable Testing Arrangement.
1714567	do	Nyquist, H.	Telegraph Circuit.
Des 78605	do	Bascom, H. M.	Telephone Desk Stand.
1714683	May 28, 1929	Lowry, H. H.	Electrical Insulation.
1714697	do	Stevenson, G. H.	Electric Wave Transmission System.
1714700	do	Stull, J. S.	Rotary Tool.
1715415	June 4, 1929	Hanson, O. B., Crisson, G., and McKown, F. W.	Volume Control System.
1715433	do	Stone, J. S.	Antenna Array.
1715475	do	Shetzline, R. A.	Electrical Protective System.
1715541	do	Elmen, G. W.	Magnetic Material.
1715542	do	do	Electrical Coils and Systems Employing Such Coils.
1715543	do	do	Magnetic Core.
1715561	do	Mohr, F.	Transmission System.
1715574	do	Skriba, R. A.	Abrading Apparatus.
1715645	do	Dickieson, A. C.	Electrical Signaling.
1715646	do	Elmen, G. W.	Magnetic Material and Appliance.
1715647	do	do	Magnetic Material.
1715648	do	do	Do.
1715713	do	Legg, V. E.	Treatment of Magnetic Materials.
1716437	June 11, 1929	Gannett, D. K.	Testing System.
1716438	do	do	Do.
1716447	do	Ladner, H.	Signaling and Transmission Circuits.
1717010	do	De Coutouly, G. C.	Receiving Circuit.
1717011	do	do	Reactance Device.
1717030	do	Heising, R. A., and De Coutouly, G. C.	Frequency Stabilizing System.
1717049	do	Locke, G. A.	Synchronous Telegraph System.
1717055	do	Melhuish, L. E.	Public Address System.
1717062	do	Phelps, W. A.	Electric Signaling.
1717064	do	Rettenmeyer, F. X.	Electric Wave Transmission System.
1717070	do	Siegmund, H. O.	Rectifying System.
1717074	do	Taplin, C. V., Allen, L. M., and Bertels, A. S.	Telephone Exchange Maintenance System.
1717079	do	Wheeler, C. H.	Coin Collection Apparatus.
1717083	do	Arnold, H. B.	Carrier Signal System.
1717094	do	Clokey, A. A.	Vibration Device.
1717095	do	do	Potential Limiting Device.
1717143	do	Cahill, H. D.	Telephone System.
1717146	do	Crouch, J. L.	Sound Reproducer.
1717158	do	Jones, W. C.	Do.
1717174	do	Slaughter, N. H.	Radio Receiving Circuit.
1717400	June 18, 1929	Nyquist, H.	Phase Shifting Network.
1717410	do	Roberts, L. C.	Attenuation Compensator.
1717475	do	Thompson, E. O.	Alternating Current Relay.
1717781	do	Ives, H. E.	Picture Transmission System.
1717782	do	Ives, H. E., and Horton, J. W.	Electro-Optical Transmission.
1717783	do	Jespersen, H. W.	Mechanism for Working Pulpous Material.
1717787	do	Knuuti, C. O., and Nelson, C. E.	Material Feeding Apparatus.
1717793	do	Marchev, A.	Material Handling Apparatus.
1717831	do	Borland, C. A., and Melching, A. F.	Voltage Regulator.
1717834	do	Bureau, A. A.	Method of and Apparatus for Applying the Lateral Surfaces of Containers.
1718280	June 25, 1929	Edwards, P. G.	Spring Jack Connection.
1718291	do	Guenther, R.	Buckle.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1718301	June 25, 1929	Nelson, S. F.	Operator's Telephone Circuit.
1718449	do	Aldendorff, F.	Automatic Telephone System.
1718946	July 2, 1929	Casper, W. L.	Transmission Circuits.
1718950	do	Field, F. E.	Transmission System.
1719041	do	Blackwell, O. B., and Strieby, M. E.	Carrier Amplitude Control System.
1719047	do	Clark, A. B., and Crisson, G.	Volume Range Control System.
1719052	do	Green, E. I.	Single Side Band Carrier System.
1719091	do	Stokely, R. L.	Telephone Exchange System.
1719128	do	Reeve, H. T.	Electron Emitter.
1719456	do	Sterba, E. J.	System of Space Discharge Devices.
1719462	do	Clausen, H. P.	Sound and Scene Reproducing Apparatus.
1719465	do	Curtis, A. M.	Measuring Instrument.
1719471	do	Hoffman, H. L.	Control and Supervisory System.
1719472	do	Holland, N. H.	Acoustic Diaphragm.
1719474	do	Jutson, R. P.	Current Controlling Device.
1719477	do	Knoop, W. A.	Telegraph System.
1719479	do	Legg, V. E.	Composite Conductor.
1719481	do	Maxfield, J. P.	Studio for Acoustic Purposes.
1719484	do	Norton, E. L.	Carrier Transmission System.
1719485	do	Pease, R. M.	Power Line Carrier Wave Signaling System.
1719489	do	Shangle, A. H.	Telegraph Printer.
1719491	do	Stoller, H. M., and Morton, E. R.	Electric Regulator.
1719492	do	Stoller, H. M.	Regulator System.
1719494	do	Ulrich, H. W., and Prince, W. B.	Telephone Exchange System.
1719495	do	Wiese, F. M.	Oscillation Generator.
1719499	do	Bowne, L. J.	Telephone System.
1719506	do	Field, J. C.	Supervisory System.
1719609	do	Houts, G. J.	Apparatus for Supporting Composite Strands.
1719645	do	Bennett, A. F., and Moore, C. R.	Intelligence Signaling Apparatus.
1719845	do	Martin, DeL. K.	Reduction of Fading of Radio Signals.
1719896	do	do	Do.
1719916	do	Watson, E. F.	Picture Transmitting System.
1720544	do	De Forest, L.	Radio Receiving Apparatus.
1720676	July 16, 1929	Hosford, W. F., and Levinger, D.	Strand Working Mechanism.
1720681	do	Kochendorfer, F. S.	Molded Article.
1720715	do	Bidwell, E. M.	Mechanism for Working Fibrous Material.
1720722	do	Dean, R. S.	Slug for Use in Extrusion Operations and Method of Extrusion.
1720732	do	Jongedyk, R.	Article Handling Device.
1720738	do	Le Boutillier, A.	Signaling System.
1720739	do	McMullan, S.	Material Spooling Apparatus.
1720746	do	Povlsen, P. K., and St. John, E.	Support for Wires.
1720747	do	Roman, F. L.	Waterproof and Flameproof Material.
1720749	do	Schnable, G. L.	Insulating Material.
1720750	do	Selvig, J. N.	Mechanism for Working Fibrous Material.
1720759	do	Boynton, J. E.	Method of and Means for Handling Matter.
1720763	do	Siebs, C. T.	Vulcanizer.
1720770	do	Stone, J. S.	Associated Resonant Circuits.
1720773	do	Tournier, E. P., and Wolff, J. F.	Tool.
1720777	do	Zobel, O. J.	Electrical Network.
1721567	July 23, 1929	Martin, DeL. K.	Multiplex Radio Transmitting System.
1721572	do	O'Leary, J. T.	Carrier Current System Superposed on Side Circuit of Phantom System.
1721574	do	Potter, R. K.	Transmission Level Regulation.
1722016	do	Ronci, V. L.	Electrical Conductor and Method of Making Same.
1722020	do	Smythe, E. H.	Sound Reproducer.
1722027	do	Wente, E. C.	Acoustic Device.
1722033	do	Bragg, H. E.	Telephone Exchange System.
1722036	do	Byl, G. N.	Deflection Dynamometer.
1722039	do	Dudley, H. W.	Signal Operated Repeater Circuits.
1722045	do	Fry, J. R.	Transmission System.
1722047	do	Heising, R. A.	System for Signaling.
1722060	do	Knoop, W. A.	Printing Telegraph System.
1722055	do	Lowry, H. H.	Preparation of Granular Carbon.
1722064	do	Stearn, F. A., and Clark, E. H.	Telephone Exchange System.
1722068	do	Whiting, D. F.	Radio Apparatus.
1722079	do	Elmen, G. W.	Heat Treating Metallic Conductors.
1722080	do	Farrington, J. F.	Signaling.
1722081	do	do	Two-Way Signaling System.
1722083	do	Gabriel, J. C., and Thurston, G. M.	Electrical Condenser.
1722084	do	Gabriel, J. C.	Frequency Indicating System.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1722089	July 23, 1929	Heising, R. A	Wave Repeating and Amplifying.
1722094	do	Jensen, A. G	Electric Wave Transmission System.
1722099	do	Landeen, A. G	Space Discharge Amplifier System.
1722121	do	Wilson, J. R	Electron Discharge Device.
1722262	July 30, 1929	Bascom, H. M	Telephone Exchange System.
1722274	do	Clark, A. B., and Mertz, P	Telautograph System.
1722283	do	Eyster, J. A	Telegraph System.
1722347	do	Wente, E. C	Acoustic Apparatus.
1722351	do	Quass, R. I	Telephone System.
1722353	do	Ray, W. H	Connecting Terminal for Electrical Conductors.
1722358	do	Seljesaeter, K. S	Alloy and Method of Making Alloys.
1722362	do	Wiley, S. C	Method of Winding Coils.
1722372	do	Hallam, C. A	Method of Reclaiming Metal Portions of Electrical Apparatus.
1722379	do	Kiviey, R. C	Apparatus for Coating Strand Material.
1722380	do	Kochendorfer, F. S., and Thode, W. N.	Mold Handling Mechanism.
1722421	do	Hosford, W. F	Wire Drawing Machine.
1722436	do	Martell, C	Signaling Conductor.
1722452	do	Bollinger, C	Electrical Switch.
1722739	do	Ford, B. K	Method of Manufacturing Connection Plugs
1722751	do	Jones, R. L	Optical Inspection System.
1722797	do	Jessup, R. D	Method of and Apparatus for Applying and Baking an Insulating Enamel Coating.
1722805	do	Lane, C. E	Sound Radiator.
1722987	do	Schelleng, J. C	Space Discharge System.
1723108	Aug. 6, 1929	Wilson, I. G	Echo Measuring Circuit.
1723123	do	Bascom, H. M	Telephone System.
1723153	do	Green, I. W	Do.
1723220	do	Thorp, V. P	Carrier Telegraph Alarm System.
1724019	Aug. 13, 1929	Harper, A. E	Radio Receiving System.
1724057	do	Weaver A., and Chase, F. H.	Radio Receiving Set.
1724082	do	Green, E. I	Means to Control Crosstalk.
1724898	do	Bailey, R. S., and Eagon, L. L.	Telephone System.
1724900	do	Beach, W. C	Control System for Producing Signals of Various Frequencies.
1724903	do	Bowne, L. J	Telephone System.
1724905	do	Caverly, H. C	Do.
1724915	do	Deering, L. E	Electrical Transmission System.
1724917	do	Farrington, J. F	Signaling.
1724922	do	Heising, R. A	Multiplex Radio System.
1724923	do	Gilbert, J. J	Submarine Telegraph System.
1724924	do	Graham, F. H	Telephone System.
1724925	do	Green, E. I	Carrier Signaling System.
1724938	do	Jammer, J. S	Carrier Wave Transmission.
1724962	do	Peoples, R. E	Electrical Testing System.
1724965	do	Rettenmeyer, F. X	Amplifying Circuits.
1724968	do	Schelleng, J. C	Regulator for Rectifiers.
1724971	do	Schwerin, P	Electron Discharge Device.
1724972	do	Schwerin, P., and Pfeiffer, J. G.	Glass Working Machine.
1724973	do	Shann, O. A	Testing Device.
1724987	do	Zobel, O. J	Selective Constant Resistance Network.
1724989	do	Barber, C. C	Contactor Drum for Telephone Central Office Equipment.
1724994	do	Curtis, A. M	Duplex Telegraph System for Loaded Cables.
1725022	do	Stacy, L. J., and Krom, M. E.	Alarm.
1725032	do	Weis, C. L., Jr	Secret Communicating System.
1725044	do	Alendorff, F	Electromechanical Switching System.
1725323	do	Vroom, E., and Entz, F. S	Telephone Exchange System.
1725377	do	Siegmund, H. O	Direct Current Supply System.
1725566	do	Chestnut, R. W	Secret Communication System.
1725610	do	Byl, G. N	Drop Wire Hanger.
1725691	do	Affel, H. A	System of Electrical Distribution.
1725753	Aug. 27, 1929	Davidson, J., Jr., and Phelps, H. E.	Office Selecting Means for Telephone Trunk Circuits.
1725756	do	Gannett, D. K	Determination of Delay by Impedance Measurements.
1725757	do	Haines, W. T	Call Charging Telephone Exchange System.
1725773	do	White, J. H	Electric Conductor.
1726105	do	Harrison, H. C	Acoustic Device.
1726340	do	Battles, W. S	Method of and Apparatus for Coating Finely Divided Particles.
1726359	do	Martell, C., and Hagen, B. A	Apparatus for Applying Material to Cords.
1726551	Sept. 3, 1929	Ford, L. S	Electrical Cable.
1726578	do	Nyquist, H., and Mertz, P	Secret Telephone System.
1726580	do	Ohl, R. S	Thermionic Vacuum Tube.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1726622	Sept. 3, 1929	Holden, W. H. T.	Radio Receiver.
1726658	do	Fay, O. J., Heimberger, H. T. and Pugh, E.	Heating Device.
1727010	do	Friis, H. T., and Jensen, A. G.	Radio Receiving Circuit.
1727328	Sept. 10, 1929	Affel, H. A.	High Frequency Measuring System.
1727388	do	do	Do.
1727408	do	Ohl, R. S.	Control of Regeneration in Signaling Systems
1727550	do	Legg, V. E.	Composite Conductor.
1727955	do	Biggar, J. H.	Electrical Cable.
1727971	do	Ford, L. S.	Do.
1727972	do	do	Do.
1728122	do	Horton, J. W.	Television System.
1728226	Sept. 17, 1929	Branson, D. E.	Telegraph Repeater.
1728239	do	Green, I. W.	Arrangement for Establishing Time Intervals
1728247	do	Mitchell, D.	Echo Suppressor.
1728304	do	Pfannenstiehl, H.	Film Drive Mechanism.
1728311	do	Taylor, A. T.	Electrical Converting and Measuring System
1728975	Sept. 24, 1929	Morris, R. W., and Nelson, S. F.	Premature Disconnect Signal for Telephone Circuits.
1728978	do	Parker, R. D.	Telegraphic Transmission of Pictures.
1728986	do	Stokes, H. G.	Picture Transmission System.
1729644	Oct. 1, 1929	Henneberger, T. C.	Electrical Testing System.
1729645	do	Mertz, P.	Signaling System.
1729649	do	Toomey, J. F., and Phelps, H. E.	Program Transmission Over Wires.
1729806	do	Thuras, A. L.	Electrodynamic Device.
1730049	do	Aldendorff, F.	Electromechanically Controlled Switch and Remote Control Signaling and Telephone System.
1730368	Oct. 8, 1929	Herman, J.	Method of and Means for Measuring Differences in Time of Propagation of Wave Fronts of Different Frequencies Over a Circuit.
1730402	do	Abbott, H. H., and Kuhn, G. W.	Testing Apparatus for Electrical Circuits.
1730416	do	Gannett, D. K.	Electro-Optical System.
1730424	do	Harrison, H. C.	Magnetic Ball or Roller Bearing.
1730425	do	do	Acoustic Device.
1730605	do	Farrington, J. F., and Smythe, E. H.	Signal Receiver.
1730611	do	Heller, H. S.	Art of Artificial Sound Reproduction.
1730614	do	Knoop, W. A.	Synchronous Vibratory Relay System.
1730969	do	Chanter, A. J.	Telephone Service Observing System.
1730971	do	Gilbert, J. J.	Treating Loaded Submarine Cables.
1730977	do	Johnson, L. H.	Electrical Testing System.
1730981	do	Murphy, P. B.	Telephone System.
1731055	do	Marchev, A.	Strand Treating Machine.
1731239	Oct. 15, 1929	Affel, H. A.	Thermo-Milliammeter.
1731243	do	Ehrlich, J.	Signaling System.
1731264	do	Potter, R. K.	Apparatus for Controlling the Output of Alternating Current Generators.
1731570	do	Harrison, H. C.	Sound Radiating System.
1731656	do	Flanders, P. B.	Repeater Circuits.
1732236	Oct. 22, 1929	Kochendorfer, F. S.	Casting Apparatus.
1732246	do	Thode, W. N.	Do.
1732255	do	Branson, D. E.	Telegraph Monitoring System.
1732286	do	Shanck, R. B.	Telegraph System.
1732311	do	Nyquist, H.	Method and Apparatus for Testing Networks.
1732312	do	Nyquist, H., and Pfleger, K. W.	Electrical Delay Network.
1732313	do	do	Electrical Delay.
1732398	do	Daniels, E. A., and Snell, H. S.	Cork Composition.
1733121	Oct. 29, 1929	Giddis, G. F.	Telephone or Other Booth.
1733127	do	Lewis, B. F.	Signaling Circuits.
1733130	do	Niles, E. W., and Edwards, W. H.	Telephone Signaling Circuits.
1733165	do	Perry, D. B.	Synchronizing Arrangement for Moving Picture Projectors.
1733172	do	Stover, H. F.	Collapsible Support.
1733553	do	Nebel, C. N.	Power Line Carrier Current System.
1733554	do	Norton, E. L.	Magnetic Device.
1733556	do	Peterson, E.	Carrier Wave Transmission.
1733557	do	Pfannenstiehl, H.	Film Retaining Roller.
1733560	do	Scruby, S. V. C.	Automatic Battery Charging System.
1733568	do	Wilbur, R. S.	Telephone System.
1733569	do	Williford, O. H.	Telephone Exchange System.
1733579	do	Coolbroth, F. H.	Ear Piece.
1733580	do	Collis, R. E.	Telephone System.
1733583	do	Curtis, A. M.	Submarine Carrier Telegraphy.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1733584	Oct. 29, 1929	Deakin, G	Telephone System.
1733585	do	Dehn, J. W	Method of Testing and Test Set.
1733591	do	Gilson, A. F. F	Electric Circuit Connector.
1733592	do	Given, F. J	Process of Manufacture of Magnetic Cores.
1733596	do	Harrison, H. C	Acoustic Device.
1733602	do	Johnson H. B	Telephone System.
1733603	do	do	Electron Discharge Device.
1733605	do	Jones, W. C	Tactual Interpretation of Vibrations.
1733667	do	Keller, A. C	Combined Recorder and Reproducer.
1733608	do	Knox, W. G., and Russell, A. G.	Phonograph Needle.
1723609	do	Kuhn, J. J	Transmission System.
1733614	do	Marrison, W. A	Subharmonic Frequency Producer.
1733617	do	Meissner, C. R	Signaling System.
1734038	Nov. 5, 1929	Levy, L	Electrical Transmission of Energy.
1734104	do	Wright, S. B	Two-Way Transmission with Repeaters.
1734112	do	Carson, J. R	Radio Receiving System.
1734113	do	Clark, A. B., and Crisson, G.	Telephone Repeater Circuits.
1734121	do	Fisher, H. J	Electrical Wave Transmission System.
1734124	do	Green, I. W., and Inglis, A. H.	Universal Telephone Set.
1734132	do	Kendall, B. W	High Frequency Signaling.
1734150	do	Shaw, T	Loaded Transmission System.
1734219	do	Lorance, G. T	Transmission Regulation.
1734624	do	Harrison, H. C	Piston Diaphragm Having Tangential Corrugations.
1734700	do	Walker, H. G	Coated Core.
1734703	do	Yancey, T. McD	Method of and Apparatus for Unwinding Strand Material.
1734704	do	do	Do.
1734705	do	do	Do.
1734716	do	Daniel, T. A	Apparatus for Welding.
1734732	do	Kranz, H. E	Controlling System.
1734737	do	Martindell, F	Method of and Apparatus for Coating Strand Material.
1734745	do	Ray, W. H	Apparatus for Removing Insulation.
1734747	do	Seeley, G. A	Mixing Apparatus.
1735037	Nov. 12, 1929	Carpe, A	Method of and Apparatus for Reducing Width of Transmission Band.
1735041	do	Gardner, F. G	Carrier Telegraph Alarm System.
1735044	do	Green, E. I	Frequency Equalization Carrier System.
1735052	do	Nyquist, H	Phase Compensating Networks.
1735053	do	Ohl, R. S	Radio Signaling System.
1735742	do	Fetter, C. H	Wave Filter.
1735846	Nov. 19, 1929	Blood, H. L	Wire Drawing Apparatus.
1735850	do	Boedeker, W. U	Do.
1735871	do	Olson, H. O	Do.
1735905	do	Martin, W. H., and Strieby, M. E.	Microphone Mounting.
1735933	do	Nyquist, H	Method of Testing Telegraph Transmission
1735939	do	St. John, E	Drive Ring.
1735940	do	Vernam, G. S	Telegraph System.
1735943	do	Watson, E. F., and Swezey, B. S.	Method of and Means for Testing Telegraph Transmission.
1736783	Nov. 26, 1929	Gary, L. A., and Tasker, H. G.	Measurement of Electrical Resistance.
1736785	do	Haines, W. T	Measuring System.
1736786	do	Herman, J	Telegraph Repeater Circuits.
1736814	do	Affel, H. A	Electrical Transposition System.
1736816	do	Almquist, M. L	Alternating Current Relay.
1736852	do	Evans, P. H	Power Line Signaling.
1737438	do	Stearns, H. C	Apparatus for Arranging Articles.
1737640	Dec. 3, 1929	Channel, J. W	Machine for Producing Insulating Sleeves.
1737652	do	Gannett, D. K	Ballast Lamp and Filament Activity Tests for Repeaters.
1737668	do	Morehouse, L. F., and Watson, E. F.	Signaling System.
1737671	do	Ohl, R. S	Multi-Channel Radio Printing Telegraph System.
1737672	do	do	Radio Printing Telegraph System.
1737830	do	Crisson, G	Means for and Method of Volume Control of Transmission.
1737843	do	Hartley, R. V. L	Wave Trasnferring System.
1737992	do	Bostwick, L. G	Volume Control System.
1738000	do	Green, E. I	Means for and Method of Volume Control of Transmission.
1738007	do	Ives, H. E	Television.
1738234	do	Curtis, A. M	Submarine Cable Construction.
1738235	do	Farrington, J. F	Signaling.
1738245	do	Hinrichsen, E. E	Telephone System.
1738247	do	Husta, P	Current Controlling System.
1738253	do	Locke, G. A	Frequency Changer.
1738266	do	Schelleng, J. C	Rectifier System.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1738269	Dec. 3, 1929	Van der Bijl, H. J	Electron Discharge Device and Method of Making the Same.
1738274	do	Anderson, S. E	Wave Transmission Means.
1738289	do	Fletcher, H	Tactile Reception of Sound.
1738290	do	Fowler, C. B	Telephone Exchange System.
1738292	do	Gilbert, J. J	Submarine Duplex Telegraph System.
1738293	do	Gooderham, J. W	Electrical Controlling Device.
1738294	do	do	Telephone System.
1738298	do	Johnson, L. H	Do.
1738299	do	Kille, L. A	Intermittently Operated Signaling Device.
1738302	do	Krecek, J. A	Telephone System.
1738307	do	McKeehan, L. W	Metallic Element.
1738322	do	Schlenker, V. A	Acoustic Device.
1738327	do	Smythe, E. H., and Lane, C. E.	Vibration Device.
1738519	Dec. 10, 1929	Abbott, H. H	Signaling System for Subscribers' Telephone Circuits.
1738522	do	Campbell, G. A	Electromagnetic Wave Signaling System.
1738524	do	Christopher, H. J	Device for Locking Evacuated Tubes.
1738536	do	Mitchell, D., and Silent, H. C	Echo Suppressor.
1738653	do	Inglis, A. H., and Guenther, R.	Telephone Receiver.
1739052	do	White, J. H	Production of Finely Divided Metallic Materials.
1739068	do	Harris, J. E	Method of Producing Materials in Finely Divided Form.
1739247	do	Marchev, A	Apparatus for Measuring Materials.
1739265	do	Stastney, L	Winding Apparatus.
1739277	do	Babbitt, B. J	Apparatus for Measuring the Permeability of Magnetic Materials.
1739282	do	Blount, H	Material Working Apparatus.
1739298	do	Ford, B. K	Method of and Apparatus for Testing Flexible Strands.
1739494	Dec. 17, 1929	Affel, H. A	Piezo-Electric Interference Eliminator.
1739520	do	Potter, R. K	Radio Receiving Circuits.
1739531	do	Taylor, E. R	Remote Control System.
1739532	do	do	Remote Control of Repeaters.
1739606	do	Nyquist, H. and Pfleger, K. W.	Echo Suppressor.
1739668	do	Green, C. W	Transmission System.
1739609	do	Whittle, H	Electrical Transmission Circuits.
1739752	do	Elmen, G. W	Magnetic Material and Appliance.
1740491	Dec. 24, 1929	Affel, H. A	Compensation for Phase Variations.
1740577	do	De Forest, L	Wireless Telegraph-Telephone System.
1740620	do	Nyquist, H	Controlling Phase Relations Between Stations.
1740621	do	do	Suppression of Echoes and Singing in Four-Wire Circuits.
1740856	do	Herman, J., and Wright, S. B.	Volume Regulation in Two-Way Telephone Circuits.
1740867	do	Nyquist, H	Controlling Phase Relations Between Stations.
1741272	Dec. 31, 1929	Bascom, H. M	Telephone System.
1741356	do	do	Protective Device for Electric Circuits.
1741363	do	Green, E. I	Piezo-Electric Interference Eliminator.
1471375	do	Niles, E. W., and Edwards, W. H.	Current Equalizing Device.
1741749	do	Whittle, H	Transmission Circuits.
1741767	do	Green, C. W	Carrier Current Signaling System.
1741812	do	Boynton, J. E	Method of and Means for Working Moldable Matter.
1741813	do	do	Apparatus for Producing Composite Articles.
1741814	do	do	Method of and Apparatus for Extruding Matter.
1741815	do	do	Method of and Apparatus for Treating Moving Matter.
1741816	do	do	Apparatus for Pumping Material.
1741926	do	French, N. R	Compound Loading System.
1742243	Jan. 7, 1930	Fish, L. B	Cable Clamp and Bridle Ring.
1742251	do	Holden, W. H. T	Amplifying System.
1742252	do	do	Piezo-Electric Frequency Eliminator.
1742291	do	Thompson, G. K	Selective Signaling System.
1742293	do	Watson, E. F., and Swezey, B. S.	Tape Cutting and Pasting Device.
1742543	do	Ives, H. E	Colored Picture Transmission.
1742899	do	Clockey, A. A	Synchronous Telegraphy.
1742902	do	Deloraine, E. M., and Sandeman, E. K.	Multi-Channel Radio Communication System.
1742906	do	Fultz, M. E., and Knettles, H. R.	Alarm Circuits for Space Discharge Systems.
1742909	do	Griggs, E. V	Wave Transmission System.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1742912	Jan. 7, 1930	Hartley, R. V. L.	Electro-Optical System.
1742916	do	Irvine, F. S.	Telephone Exchange System.
1742920	do	Matthies, W. H.	Do.
1742927	do	Nicoll, R. I. D., Davis, R. C., and Von Nostitz, E.	Do.
1742928	do	Nicoll, R. I. D.	Telephone Trunk Circuits.
1742930	do	Paine, R. C.	Telephone System.
1743089	Jan. 14, 1930	Bandur, A. F.	Magnetic Material.
1743132	do	Green, E. I.	Equalization of Carrier Systems.
1743141	do	Ilgenfritz, L. M.	Do.
1743180	do	Abraham, L. G.	Picture Transmitting System.
1743245	do	Smith, T. C.	Apparatus for Spraying Liquids.
1743260	do	Zinn, M. K.	Means and Method for Maintaining Constant Transmission Efficiency.
1743309	do	Beath, C. P., and Babbitt, B. J.	Alloy of Steel and Method of Treating the Alloy.
1743318	do	Carrington, F. R.	Method of and Apparatus for Testing Electrical Conductors.
1743341	do	Grondahl, H. H. C.	Founding Apparatus.
1743354	do	Johnson, L. E.	Indicating Device.
1743364	do	Liss, A. S.	Apparatus for Assembling Articles.
1743386	do	Paulson, C.	Electrical Testing Apparatus.
1743414	do	Wente, E. C.	Method and Apparatus for Determining the Properties of Acoustic Materials.
1743415	do	Wilbur, R. S.	Telephone Exchange System.
1743429	do	Clark, E. H.	Do.
1743443	do	Fearing, J. L.	Means for Electric Energy Translation.
1743450	do	Grondahl, H. H. C.	Apparatus for Handling Containers.
1743453	do	Hillhouse, J. T. E.	Electromagnetic Device.
1743456	do	Keith, C. R.	Sound Recording.
1743470	do	Mead, E. D.	Magnetic Device.
1743471	do	Menefee, H. R.	High Voltage Switch.
1743478	do	Pratt, F. J.	Magnetic Device.
1743588	do	Affel, H. A., and Hamilton, B. P.	Carrier Transmission System for Printing Telegraphy.
1743670	do	Hartley, R. V. L.	Controlling the Frequency of an Alternating Current.
1743691	do	Shea, T. E.	Wave Transmission.
1743701	do	Anderson, S. E.	Vacuum Tube Circuits.
1743708	do	Collis, R. E.	Telephone System.
1743710	do	Englund, C. R., and Llewellyn, F. B.	Secrecy System for Signaling.
1743711	do	Field, J. C.	Supervisory System.
1743856	do	Ives, H. E.	Picture Transmission.
1744031	Jan. 21, 1930	Abraham, L. G.	Measurement of Active Balance Components.
1744044	do	Green, E. I.	Single Side Band Carrier System.
1744047	do	Keller, A. C.	Combined Recorder and Reproducer.
1744053	do	Miller, C. G.	Signaling System.
1744058	do	Shetzline, R. A.	Electrical Protective System.
1744063	do	Wilburn, S. D.	Bridge Duplex Telegraph System.
1744739	do	Blount, H.	Material Spooling Apparatus.
1744760	do	Grondahl, H. H. C.	Tension Device.
1744767	do	Huisken, A. H., and Roman, F. L.	Method of and Means for Rendering Fibrous Materials Transparent or Translucent.
1744776	do	Liss, A. S.	Work Feeding Device.
1744779	do	Massingham, H. R.	Material Feeding Apparatus.
1744782	do	Matthern, O. W., and Siebs, C. T.	Electrical Switching Apparatus.
1744784	do	McDonough, J., and Normann, L.	Flux.
1744797	do	Pfeiffer, C. L.	Method of and Apparatus for Welding.
1744802	do	Rock, G. L.	Percussion Device.
1744804	do	Sanborn, F. A.	Welding Apparatus.
1744810	do	Shallcross, J.	Method of Producing Electrical Contacts.
1744817	do	Ward, H. L.	Oven.
1744831	do	Canning-Martinsson, G. R.	Press.
1744835	do	Ohl, R. S.	Constant Frequency Oscillator.
1744836	do	do	Carrier Amplitude Control in Radio System.
1744840	do	Strieby, M. E., and Fetter, C. H.	Voltage Indicating and Translating Device.
1744887	do	Gruene, W. J.	Device for Introducing Gas Into Cables.
1744918	do	Phelps, H. E., and Davidson, J., Jr.	Telephone System.
1745347	Feb. 4, 1930	Anderson, S. E.	Receiving Circuit.
1745369	do	Holden, W. H. T.	Unipotential Cathode Vacuum Tube.
1745376	do	Ohl, R. S.	Short Wave Radio Receiver.
1745415	do	Green, E. I.	Carrier Amplitude Control System.
1745419	do	Henneberger, T. C.	Apparatus for Testing Open Wire Joints.
1745457	do	Silent, H. C.	Echo Suppressor.
1745612	do	Elmen, G. W.	Non-Magnetic Material.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1745680	Feb. 4, 1930	Kemp, A. R	Continuously Loaded Telephone or Telegraph Cable.
1745686	do	Moore, C. R	Mounting for Phonic Diaphragms.
1745756	do	Gray, F	Electrical Picture Transmission Receiving System.
1746239	Feb. 11, 1930	Best, F. H	Transmission Measuring System.
1746241	do	Clark, A. B., and Best, F. H	Do.
1746304	do	Clark, A. B	Method for Measuring the End Section Capacity of Coil Loaded Telephone Circuits.
1746305	do	Espenschied, L	Radio Signaling System.
1746314	do	Lewis, B. F	Loading System for Long Submarine Cables.
1746729	do	Ives, H. E	Electro-Optical System.
1746730	do	Jones, W. C	Reproducing Apparatus.
1746788	do	Marrison, W. A	Piezo-Electric Device.
1746793	do	Rhodes, W. A., and Dahl, J. F.	Trunking System.
1746800	do	Seacord, K. P	Telephone Receiver.
1746803	do	Stevenson, G. H	Balanced Radio Receiving System.
1746808	do	Wolfe, W. V	Power Line Signaling.
1746817	do	Campbell, T. R	Insulator Mounting.
1746827	do	Fry, J. R., and Hantzsch, R. E.	Retarded Action Circuit Controller.
1746829	do	Goodrum, C. L	Radio Signaling System.
1746960	do	Nichols, H. W	Carrier Communicating System.
1747160	Feb. 18, 1930	Carpe, A	Single Side Band Carrier System.
1747163	do	Dickieson, A. C	Carrier System Testing Method and Circuit.
1747169	do	Hovland, H	Connector Switch Circuits.
1747199	do	Wheeler, C. H	Coin Collection Apparatus.
1747218	do	Bohn, W. C	Automatic Selection of Receiving Channels.
1747219	do	Bowne, L. J., and Koechling, C. D.	Telephone System.
1747220	do	Bown, R	Automatic Selection of Receiving Channels.
1747221	do	do	Do.
1747224	do	Carpenter, W. W	Telephone Exchange System.
1747233	do	Gargan, J. O	Tuning Dial.
1747236	do	Gillett, G. D	Automatic Selection of Receiving Channels.
1747241	do	Hinrichsen, E. E	Telephone System.
1747244	do	Hoyt, F. A	Coin Collection Apparatus.
1747248	do	Knoop, W. A	Synchronizing System.
1747821	do	Field, J. C	Supervisory System.
1747829	do	Harrison, H. C	Electrical Reproducer.
1747830	do	do	Acoustic Horn.
1747833	do	King, G. V	Telephone Switchboard System.
1747835	do	Mathes, R. C	Two-Way Signaling System.
1747837	do	Moore, C. R	Oscillation Generator.
1747841	do	Peterson, A. E	Substation Apparatus.
1747847	do	Schlenker, V. A	Method of Manufacturing Acoustic Radiators.
1747849	do	Strickler, W. B	Telephone System.
1747852	do	Akers, M. K	Vacuum Tube Rectifier.
1747854	do	Bozorth, R. M	Magnetic Structure.
1747863	do	Dickieson, A. C	Electrical Signaling.
1747866	do	Elmer, L. A	Sound Recording and Reproducing Machine.
1748166	Feb. 25, 1930	Bascom, H. M., and Haines, W. T.	Telephone Exchange System.
1748171	do	Clark, A. B	Measurement of Echoes.
1748175	do	Holden, W. H. T	Thermionic Vacuum Tube.
1748186	do	Nyquist, H	Signaling System.
1748192	do	Satterthwaite, J. P., and Dingman, J. E.	Measurement of Echoes.
1748239	do	Matthies, W. H	Telephone System.
1748947	Mar. 4, 1930	Drew, H. S	Apparatus for Coating Cores.
1748969	do	Blankenstein, E. E., and Coulter, C. M.	Method of Testing Materials.
1748970	do	Blood, H. L	Serving Apparatus.
1748978	do	Feeney, J. D	Material Handling Apparatus for Processing Machines.
1748983	do	Hofstetter, R	Control Instrument.
1748993	do	Purdy, C. A	Electrical Coil and Method of Manufacturing It.
1748995	do	Reichelt, L. O., and Rohloff, J. J.	Serving Apparatus.
1749004	do	Strawn, M. L	Speed Regulating Device.
1749006	do	Trebes, B. M. A	Clamping Device.
1749007	do	Wales, C	Pressure Gauging Apparatus.
1749008	do	Walker, H. G	Insulating Material.
1749015	do	Bisbee, F. C	Meter.
1749023	do	Edwards, W. H	Do.
1749044	do	Niles, E. W	Do.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1749045	Mar. 4, 1930	Nyquist, H., and Pfleger, K. W.	Signaling System.
1749048	do	Thorp, V. P., and Rea, W. T.	Carrier Telegraph Alarm System.
1749076	do	Hofstetter, R.	Apparatus for Assembling Members.
1749825	Mar. 11, 1930	Loye, D. P.	Telegraph System.
1749838	do	Niles, E. W.	Selective System.
1749841	do	Nyquist, H.	Voice Operated Relay Equipment.
1749844	do	Roberts, L. C.	System for Furnishing Intermittent Telegraph Service.
1749851	do	Silent, H. C.	Circuit Controller.
1750310	do	Jonkel, F. F., and Larson, H. W.	Apparatus for Arranging Articles.
1750315	do	Franks, C. H., and Olsen, M. R.	Do.
1750327	do	Olsen, M. R.	Do.
1750328	do	Patchen, R. H., and Rock, G. L.	Apparatus for Arranging and Magazining Articles.
1750329	do	do	Apparatus for Arranging Articles.
Des80670	do	Blount, N.	Desk Stand for a Hand Telephone.
Des80671	do	do	Do.
Des80672	do	do	Do.
1750661	Mar. 18, 1930	Bown, R.	Cathode Ray Oscillograph.
1750666	do	Glezen, L. L., Stigers, M. J., and Taylor, E. R.	Toll Circuit.
1750668	do	Green, E. I.	Determining Movement and Position of Moving Objects.
1750688	do	Potter, R. K.	Signaling System.
1750694	do	St. John, E.	Drive Ring.
1751207	do	Johnson, H. B.	Telephone Trunk Circuit.
1751247	do	Mueller, E. C., Jr.	Designation Device.
1751259	do	Wentz, J. F.	Treating Loaded Submarine Cables.
1751263	do	Cesareo, O.	Electrical Switching System.
1751271	do	Farrington, J. F.	Radio Transmitting Apparatus.
1751509	Mar. 25, 1930	Cunningham, J.	Electric Soldering Machine.
1751510	do	do	Method and Apparatus for Making Joints.
1751516	do	Green, E. I.	Common Frequency Broadcasting System.
1751522	do	Mitchell, D., and Silent, H. C.	Multiple Way Connection for Transmission Lines.
1751527	do	Nyquist, H.	Distortionless Amplifying System.
1752046	do	Whittle, H.	Electric Coupling Circuits.
1752303	Apr. 1, 1930	Kelley, L. A.	Interference Neutralizer for Alternating Current Telegraph Systems.
1752325	do	Branson, D. E.	Reduction of Static Interference in Carrier Systems.
1752326	do	do	Do.
1752330	do	Clapp, R. H.	Suppression of Interference in Carrier Telegraph Systems.
1752344	do	Kelley, L. A.	Reduction of Atmospheric Interference.
1752345	do	do	Reduction of Atmospheric Disturbance.
1752346	do	Kelley, L. A., Monk, N., and Thorp, V. P.	Interference Neutralizer for Alternating Current Telegraph Systems.
1752347	do	Leibe, F. A.	Reduction of Atmospheric Disturbance.
1752360	do	Affel, H. A.	Reduction of Static Interference in Carrier Systems.
1752413	do	Buckley, O. E.	Signaling Cable.
1752429	do	Fowler, C. B.	Telephone Set.
1752436	do	Kinkead, F. S.	Telegraph Repeating System.
1752437	do	Kivley, R. C.	Braiding Machine.
1752438	do	Korn, F. A.	Telephone System.
1752461	do	Shea, T. E.	Transmission Network.
1752465	do	Spencer, F. C.	Feeding Device for Drilling Machine Spindles.
1752468	do	Stull, J. S.	Work Feeding Device for Drilling Machines.
1752471	do	Trebes, B. M. A.	Extrusion Machine.
1752474	do	Anderson, C. H.	Method of Treating Metals.
1752480	do	Fay, J. W.	Mechanism for Working Pulpous Material.
1752485	do	Hartley, R. V. L.	Secrecy System.
1752486	do	do	Magnetic Device.
1752487	do	Hoag, C. I.	Sawing Machine.
1752489	do	Jongedyk, R.	Wrapping Apparatus.
1752490	do	Karcher, J. C.	Process for Changing the Properties of Silicon Steel.
1752497	do	Messingham, H. R.	Apparatus for Producing Electrical Cables.
1752498	do	Mathes, R. C.	Telephone System.
1752507	do	Ruthven, W.	Shaping Tool.
1752515	do	Wensley, E.	Sound or Vibration Transmitting Apparatus.
1752528	do	Hubbard, F. A.	Method and Apparatus for Comparing and Adjusting the Electrical Length of Paths for the Transmission of Electrical Energy.
1752531	do	Malm, F. S.	Composition of Matter and Method of Its Preparation.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1752550	Apr. 1, 1930	Dehn, J. W.	Telephone System.
1752573	do	Piper, H. D.	Apparatus for Heat Treating Metals.
1752579	do	Shea, T. E.	Wave Filter.
1752580	do	Snell, H. S.	Molding Compound and Its Method of Production.
1752585	do	Beardsley, H. I., and Clark, H. R.	Cord Fastener.
1752598	do	Jorgensen, E. N.	Electric Welding.
1752604	do	Massingham, H. R.	Material Feeding Apparatus.
1753230	Apr. 8, 1930	Best, F. H.	Meter.
1753231	do	do	Meter for Transmission Testing.
1753256	do	Thorp, V. P.	Alternating Current Relay.
1753321	do	Stokely, R. L.	Telephone Exchange System.
1753325	do	Whittle, H.	Retardation Coil System.
1753329	do	Black, H. S.	Electric Signaling System.
1753330	do	Bragg, H. E.	Metering Device.
1753331	do	Clokey, A. A.	Constant Speed Drive.
1753334	do	Curley, T. V.	Telephone System.
1753336	do	Gilbert, J. J.	Duplex Telegraph System for Loaded Cables.
1753337	do	Given, F. J.	Adjustable Inductance Coil.
1753338	do	Hague, A. E., and Peterson, G. H.	Telephone Exchange System.
1753345	do	Knoop, W. A.	Timing Circuit.
1753346	do	Lum, G. R.	Sound Ranging System.
1753348	do	Newsom, J. B.	Monitoring System.
1753353	do	Steinberg, J. C.	Electrical System for Secret Tramsmission.
1753444	do	Ohl, R. S.	Signaling System.
1753445	do	do	Do.
1753446	do	do	Do.
1753715	do	do	Short Wave Radio Signaling System.
1753746	do	Kemp, A. R.	Plastic Composition.
1753869	do	Reed, T. C., and Odell, A. D.	Method and Means for Preparing Insulating Sleeves.
1753948	do	Selvig, J. N.	Method of and Mechanism for Working Fibrous Material.
1754224	Apr. 15, 1930	Davidson, J., Jr., and Moody, D. L.	Signaling System.
1754234	do	Holden, W. H. T.	Vacuum Tube.
1754238	do	Niles, E. W., and Edwards, W. H.	Coin Box Device.
1754239	do	do	Telephone Singaling System.
1754240	do	Nyquist, H., and Brand, S.	Composite Telephone and Telegraph System.
1755243	Apr. 22, 1930	Crisson, G.	Signaling Means for Telephone Systems.
1755244	do	Dietze, E.	Device for Measuring Level Differences.
1755257	do	Holden, W. H. T.	Vacuum Tube and Method of Preparing the same.
1755258	do	do	Battery Charging Circuits.
1755266	do	Ohl, R. S.	Tuned Radio Frequency Amplifier.
1756097	Apr. 29, 1930	Niles, E. W., and Edwards, W. H.	Electrical Delay Circuit Arrangement.
1756102	do	Rosekrans, W. M.	Telephone System.
1756130	do	Ohl, R. S.	Oscillation Generator.
1756131	do	do	High Frequency Oscillation Generator
1756132	do	do	Do.
1756274	do	Anderegg, G. A.	Signaling Conductor.
1756314	do	Ten Eyck, W. B.	Conductor.
1756319	do	Wentz, J. F.	Do.
1756341	do	Buckley, O. E.	Electrical Conductor.
1756371	do	McCann, P. S.	Continuously Loaded Conductor.
1756546	do	Gilbert, J. J.	Submarine Cable.
1756573	do	Stoller, H. M., and Porter, G. C.	Regulator System.
1756705	do	Smith, W. F., Jr., and Crabtree, T. H.	Voice Screen.
1756931	May 6, 1930	Anderson, S. E.	Loop Antenna.
1757173	do	Dingman, J. E., and Engelbert, R. F.	Combined Cutter and Pressure Roller Device.
1757178	do	Elmen, G. W.	Magnetic Material.
1757181	do	Espenschied, L.	Privacy System for Telephone Transmission.
1757193	do	Hotopp, A. H.	Current Measuring Device.
1757217	do	Rhodes, W. A.	Telephone System.
1757225	do	Singer, F. J.	Telegraph Alarm Circuit.
1757443	do	Sprague, C. A.	Submarine Cable.
1757446	do	Wright, E. P. G., Baker, J. H. E., and Cameron, A. H.	Telephone Exchange System.
1757459	do	Harrison, H. C.	Sound Translating System.
1757464	do	Malick, J. M.	Coin Collection Apparatus.
1757485	do	Moore, C. B.	Acoustic Device.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1757469	May 6, 1930	Oswald, A. A	Space Discharge System.
1757703	do	Curtis, A. M	Electrical Contact Device.
1757704	do	do	Contact Drive Vibratory Fork.
1757708	do	Everett, S. H	Telephone Exchange System.
1757710	do	Fondiller, W	Electromagnetic Circuits and Apparatus.
1757712	do	Harrison, H. C	Acoustic Device.
1757717	do	Johnston, J	Insulated Conductor and Method of Manufacturing the Same.
1757727	do	Marrison, W. A	Electric Control Device.
1757729	do	Mathes, R. C	Wave Transmission System.
1757736	do	Pritchard, W. T	Lubricating Device.
1758025	May 13, 1930	Bolin, C. H	Pole Planer.
1758029	do	Cole, O. R., and Garlinger, M. T.	Do.
1758044	do	Hoyt, R. S	Wave Antenna.
1758056	do	Niles, E. W	Signaling Circuit.
1758058	do	Potter, R. K	High Frequency Communication System.
1758933	May 20, 1930	Chapman, A. G	Transposed and Tapered Antenna.
1759000	do	do	Radio Signaling System.
1759019	do	Murphy, J. B	Electrical Testing System.
1759023	do	Schirmer, A. H	Electrical Protective Device.
1759026	do	Terriberry, W. S	Telegraph Apparatus.
1759046	do	Edelmann, O	Control Device.
1759328	do	Smythe, E. H	Sound Reproducer.
1759332	do	Whittle, H., and Grimley, D. G.	Wave Transmission Circuit.
1759504	do	Gray, F	Electro-Optical Transmission.
1759604	do	Bjornson, B. G	Indicating Device.
1759610	do	Fisher, G. H	Radio Receiving Set.
1759612	do	Given, F. J., Greenidge, R. M., and Weeks, J. R., Jr.	Method of Producing Magnetic Bodies.
1759623	do	Mathes, R. C	Signaling System.
1759632	do	Scheuch, W. A	Acoustic Diaphragm.
1759835	May 27, 1930	Boynton, S. E	Material Feeding Apparatus.
1759837	do	Brown, R. W., and Paulson, C.	System and Apparatus for Testing Impulses and Impulse Devices.
1759844	do	Gudge, A. W., and Wensley, E.	Method of Producing Articles from Sheet Material.
1759850	do	Janicki, J	Strand Coating Apparatus.
1759873	do	Shewmon, D. D	Apparatus for Measuring the Liquid Contents of Vessels.
1759874	do	Stearns, H. C	Power Transmitting Apparatus.
1759898	do	Fruth, H. F	Transmitter.
1759915	do	Potter, R. K	Photoelectric Cell.
1759933	do	Bonell, R. K	Contact Making Device.
1759938	do	Dean, S. W	Coordination of Direction Finder Observations.
1759950	do	Matte, A. L	Alternating Current Telegraph System.
1759952	do	McCurdy, R. G	Electrical Transmission System.
1760159	do	Mathes, R. C	Electro-Optical Image Production.
1760920	June 3, 1930	Stromberg, S. E	Testing System.
1760957	do	Ohl, R. S	Vacuum Tube Detector.
1760973	do	Zobel, O. J	Electrical Network.
1760983	do	Gordon, C. S., and Lowe, J. T.	Insulator.
1760984	do	Hamilton, H. S	Transoceanic Radio Telephone System.
1761565	do	Kaempf, E., and Dalzell, D. P	Cable.
1762139	June 10, 1930	Bennett, A. F., and Mitchell, C. E.	Signaling System.
1762160	do	Curtis, A. S	Means for and Method of Wave Analysis.
1762212	do	Carter, C. W., Jr	Thermionic Vacuum Tube.
1762252	do	Vernam, G. S	Printing Telegraph Exchange System.
1762255	do	Baldwin, C. E	Method of Plugging Cables.
1762278	do	Singer, F. J	Transmission System.
1762279	do	do	Do.
1762725	do	Marrison, W. A	Method of and Means for Indicating Synchronism.
1762727	do	Mathes, R. C	Volume Control System.
1762730	do	McKeehan, L. W	Heat Treatment of Magnetic Materials.
1762731	do	Mead, E. D	Magnetic Device.
1762737	do	Peterson, E	System Employing Space Discharge Device.
1762744	do	Schwartz, E. L., and Williams, A. J., Jr.	Retardation Coil for Composite Sets.
1762745	do	Shann, O. A	Substation Apparatus.
1762746	do	do	Substation Locking Apparatus.
1762751	do	Wright, E. P. G	Telephone System.
1762754	do	Black, H. S	Phantom Carrier Circuit.
1762755	do	do	Method and Means for Reducing Crosstalk in Carrier Current Signaling Systems.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1762759	June 10, 1930	Burkholder, J. C	Volume Control System.
1762763	do	Collis, R. E	Telephone System.
1762768	do	Dickieson, A. C	Transmission System.
1762774	do	Fry, J. R	Electromagnetic Device.
1762775	do	Ganz, A. G	Inductance Device.
1762777	do	Goodrum, C. L	Transmission System.
1762778	do	Gould, J. R	Telephone System.
1762780	do	Hibbard, F. H	Electrical Measuring Instrument.
1762941	do	Wood, E. B	Paper Insulated Conductor.
1762942	do	Wright, J. C., Wheeler, E. B., and Wood, E. B.	Measuring and Recording Device.
1762945	do	Anderson, S. E	Radio Receiving System.
1762952	do	Bell, J. H	Duplex Telegraph System.
1762953	do	Black, H. S	Signaling System.
1762956	do	Buckley, O. E	Signaling Conductor.
1762963	do	Dowd, A. D	Means for Synchronizing Rotary Devices.
1762968	do	Farnsworth, F. F	Composite Conductor.
1762969	do	Farrington, J. F	High Frequency Attenuating Network.
1762971	do	Field, J. C	Remote Control Power System.
1762973	do	Frederick, H. A	Alarm System.
1762974	do	Friis, H. T	Radio Receiving System.
1762976	do	Gilbert, J. J	Loaded Signaling Conductor.
1762981	do	Hartley, R. V. L	Acoustic Device.
1762984	do	Heising, R. A	Secret Communicating System.
1762986	do	Hinrichsen, E. E	Telephone System.
1762991	do	Jones, W. C	Electromagnetic Reproducer or Recorder.
1762996	do	Legg, V. E	Loading of Signaling Conductors.
1762999	do	Manderfield, E. C	Regulator System.
1763000	do	Marrison, W. A	Synchronous Motor.
1763003	do	Mead, E. D	Electromagnetic Device.
1763006	do	Murphy, P. B	Telephone Exchange Equipment.
1763008	do	Priessman, N. Y	Electromagnetic Device.
1763009	do	Quarles, D. A	Loading System.
1763013	do	Skillman, T. S	Telephone System.
1763014	do	Stacy, L. J., and Krom, M. E	Regulator System.
1763015	do	Stevenson, G. H	Operation of Electric Space Discharge Devices.
1763016	do	Stoller, H. M	Electric Regulator.
1763017	do	do	Regulator System.
1763036	do	Entz, F. S	Trunking System.
1763041	do	Gilbert, J. J	Loaded Signaling Conductor and Method of Signaling.
1763042	do	do	Loaded Signaling Conductor.
1763043	do	do	Loading of Conductors.
1763057	do	Krom, M. E	Regulator System.
1763060	do	Meyer, D. C	Telephone Exchange Equipment.
1763138	do	Edelmann, O	Signaling System.
1763157	do	King, G. V	Telephone System.
1763161	do	Koechling, C. D., and King, G. V.	Do.
1763169	do	Mathes, R. C	Sound Recording.
1763172	do	Miller, O. R., and Mead, E. D	Electro-Polarized Relay.
1763194	do	Sivian, L. J	Communication System.
1763203	do	Vieth, W. F	Remote Control System.
1763751	June 17, 1930	Bown, R	Radio Receiving System.
1763770	do	Fish, L. B., and St. John, E	Cable Clamp and Bridle Ring.
1763873	do	Weston, W. K	Telephone Cable.
1763878	do	Bresters, W	Testing System.
1763879	do	Burns, L. J., and Coon, L. E	Selector Supervisory System.
1763880	do	Burton, E. T	Signaling System.
1763881	do	Cioffi, P. P	Variable Inductance.
1763884	do	Elmen, G. W	Heat Treatment of Loaded Conductors.
1763891	do	Jones, W. C	Sound Recording.
1763893	do	Krecek, J. A	Telephone System.
1763909	do	Stoller, H. M., and Morton, E. R.	Speed Regulator.
1764592	do	Adams, A. H	Method of Making Conductor Terminals.
1764606	do	Cook, J. M	Material Working Apparatus.
1764607	do	do	Screw Threading Apparatus.
1764609	do	Dean, R. S	Oxidation Inhibitor.
1764613	do	Donnelly, E. J	Apparatus for Filing Sheets of Material.
1764618	do	Franks, C. H	Strand Distributing Apparatus.
1764619	do	Fruth, H. F., and Westhafer, T. O.	Transmitter.
1764623	do	Grondahl, H. H. C	Carrier.
1764624	do	Hall, E. C	Method of Coating Material.
1764625	do	do	Do.
1764628	do	Hofstetter, R	Indicating Apparatus.
1764629	do	Houts, G. J., Tournier, E. P., and Wulff, J. F.	Apparatus for Supporting Strands.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1764630	June 17, 1930	Houts, G. J.	Device for Supporting and Distributing Strands.
1764633	do	Keller, F. L.	Method of Manufacturing Dies.
1764636	do	Linkenheld, C. F.	Controlling System.
1764638	do	McKeon, E. J.	Article Holding Device.
1764641	do	Oesterle, F. D.	Tool.
1764647	do	Roscoe, R.	Heat Treating Apparatus.
1764650	do	Scott, J. W.	Electrolytic System.
1764662	do	Tomlin, J. H.	Method of Molding Articles.
1764665	do	Wennerberg, A.	Power Driven Apparatus.
1765396	June 24, 1930	Betts, P. H.	Indicating System.
1765404	do	Cook, W. J.	Apparatus for Forming Outlets.
1765413	do	Fruth, H. F.	Vibratory Element and Method of Producing the Same.
1765421	do	Griffin, D. A.	Signal Reception.
1765425	do	Harrison, H. C.	Submarine Signaling.
1765428	do	Hurford, G., and Kipping, N. V.	Molded Finger Plate for Dial Switches.
1765436	do	McCann, P. S.	Method of Producing Magnetic Materials.
1765437	do	McMullan, S., and Schulz, A. E.	Wire Drawing Apparatus.
1765447	do	Pritchard, A. D.	Distributing System.
1765458	do	Siebs, C. T.	System and Method of Electrical Distribution.
1765459	do	do	Method of Forming Outlets.
1765460	do	do	System of Electrical Distribution.
1765470	do	Wales, C.	Apparatus for Assembling and Treating Articles.
1765515	do	Whitfield, H. B.	Coated Core and Method of and Apparatus for Applying the Coating Thereto.
1765517	do	Wier, H. B.	Recording of Music and Speech.
1765520	do	Adams, A. H.	Method of and Apparatus for Insulating Electrical Conductors.
1765521	do	Barrans, W. T.	Method of Making Composite Electrical Conductors.
1765523	do	Ceccarini, O. O.	Signal Transmission System.
1765531	do	Howard, R. S., Brodie, G. H., and Westhafer, T. O.	Protective Device.
1765533	do	Jespersen, H. W.	Method of and Apparatus for Coating Cores.
1765540	do	Ray, W. H.	Terminal Plug.
1765585	do	Herman, J.	Set for Measuring Operating Time of Relays.
1765597	do	Malone, H. E., and Pryor, R. W.	Composition of Matter.
1765599	do	McFarland, R. E.	Strand Working Mechanism.
1765606	do	Ohl, R. S.	Harmonic Producer.
1765607	do	do	Amplifying Device.
1765616	do	Roman, F. L., and Winsemius, H. T.	Cementitious Substance and Method of Making the Same.
1766460	do	Schwerin, P.	Electron Discharge Device.
1766473	do	Wente, E. C.	Electrodynamic Device.
1767854	do	Lundell, A. E., and Clark, E. H.	Telephone Exchange System.
1767929	do	Johnson, H. B.	Telephone System.
1767943	do	Schenk, R.	Do.
1767951	do	Whittle, H.	Transmission Circuits.
1767959	do	Clark, E. H., and Carpenter, W. W.	Automatic Telephone Exchange System.
1767960	do	do	Do.
1767961	do	do	Do.
1767962	do	do	Do.
1767964	do	Cousins, V. M.	Vacuum Tube Circuits.
1768237	do	Elmen, G. W.	Magnetic Material.
1768238	do	do	Do.
1768239	do	Englund, C. R.	Directive Antenna System.
1768240	do	Falk, A. H.	Loading Coil Case.
1768248	do	Green, C. W.	Attenuation Equalizing Circuit.
1768251	do	Heising, R. A.	Electric Wave Transmission Device.
1768262	do	Marrison, W. A.	Phase Measuring System and Method.
1768264	do	Mathes, R. C.	Telephone System.
1768269	do	Schelleng, J. C.	Signaling System.
1768270	do	Strawn, M. L.	Apparatus for Preparing Members for Assembly.
1768273	do	Terry, R. V.	Sound Recording.
1768281	do	Aldendorff, F.	Electromechanical Switching System.
1768283	do	Bell, J. H.	Control System.
1768286	do	Bishop, N.	Radio Receiver.
1768288	do	Mohr, F.	System for Converting Light Energy Into Electrical Energy and Vice Versa.
1768394	do	Bracke, O.	Selector Switch.
1768418	do	Oswald, A. A., and Schelleng, J. C.	Space Discharge System.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1768443	June 24, 1930	Elmen, G. W	Magnetic Material and Appliance.
1769270	July 1, 1930	Ohl, R. S	Harmonic Producer.
1769431	do	Herman, J	Electrical Communication Receiving Apparatus.
1769479	do	Whaley, S. E	Cable Grip.
Des. 81473	do	Bernhard, L	Hand Telephone.
Des. 81474	do	do	Desk Stand for a Hand Telephone.
Des. 81475	do	do	Hand Telephone.
Des. 81476	do	Clarke, R	Desk Stand for a Hand Telephone.
Des. 81477	do	do	Hand Telephone.
Des. 81510	do	Vassos, J	Desk Stand for a Hand Telephone.
Des. 81511	do	do	Hand Telephone.
Des. 81512	do	do	Desk Stand for a Hand Telephone.
Des. 81513	do	do	Hand Telephone.
Des. 81539	do	Jensen, G. B	Do.
Des. 81562	do	Vassos, J	Desk Stand for a Hand Telephone.
1769918	July 8, 1930	Gray, F., and Hefele, J. R	Electro-Optical Transmission System.
1769919	do	do	Do.
1769920	do	Gray, F	Do.
1769959	do	Mead, S. P., and French, N. R.	Loading System.
1769962	do	Nyquist, H	Apparatus for Testing and Repairing Telephone Circuits.
1769969	do	Shaw, T	Neutralizing Transformer Arrangement.
1770422	July 15, 1930	Nyquist, H	Phase Compensating Network.
1770969	July 22, 1930	Cherry, G. L	Method of and Apparatus for Sheathing Cores.
1770985	do	Kivley, R. C	Apparatus for Continuously Sheathing Cores of Material.
1771148	do	Sprague, C. A	Central Energy Wave Signaling System.
1771445	July 29, 1930	Parker, R. D., and Vernam, G. S.	Regenerative Telegraph Repeater.
1771446	do	do	Do.
1771453	do	Vernam, G. S	Do.
Des. 81680	do	Bernhard, L	Desk Stand for a Hand Telephone.
1772165	Aug. 5, 1930	Taylor, E. R., and Hanson, O. B.	Multiplex Broadcast System.
1772166	do	Taylor, E. R	Do.
1772167	do	do	Signaling System.
1772168	do	Taylor, E. R., and Hanson, O. B.	Multiplex Broadcasting System.
1772506	Aug. 12, 1930	Affel, H. A	Wave Filter.
1772508	do	Bascom, H. M	Voltage Limiting Device.
1772509	do	Blye, P. W	Harmonic Eliminator.
1772517	do	Ohl, R. S	Radio Receiver.
1772519	do	Potter, R. K	Electro-Optical Transmission.
1772550	do	Mitchell, D., and Silent, H. C.	Echo Suppressor.
1772551	do	do	Do.
1772552	do	Mitchell, D., and Herman, J	Do.
1772558	do	Shea, T. E	Loading System.
1773082	do	Harrison, H. C	Electromagnetic System.
1773092	Aug. 19, 1930	Clapp, R. H	Carrier Telegraph Circuits.
1773097	do	Dean, S. W	Staggered Wave Antenna System.
1773116	do	Potter, R. K	Single Side Band System.
1773119	do	Reynolds, F. W	Electro-Optical Transmission System.
1773126	do	Affel, H. A	Transmission System.
1773772	Aug. 26, 1930	Berthold, O. H	Harmonic Suppressor.
1773776	do	Crisson, G	Telephone Conference Arrangement.
1773785	do	Nyquist, H	Electro-Optical System.
1773789	do	Rea, W. T	Carrier Current Telegraph System.
1773798	do	Thorp, V. P	Do.
1773901	do	Kendall, B. W	High Frequency Signaling.
1773910	do	Lane, C. E	Sound Radiator.
1773938	do	Bishop, W. M	Method of Manufacturing Loaded Conductors.
1774003	do	Hartley, R. V. L	Synchronizing, Regulating, and Controlling Receivers and Generators.
1775241	Sept. 9, 1930	Horton, J. W	Electro-Optical System.
1775742	Sept. 16, 1930	Thomson, W. H	Sheet Mounting Device.
1775752	do	Edwards, W. H	Oscillation Generator.
1775775	do	Nyquist, H	Method of and Means for Wave Retardation.
Des. 82068	do	Vassos, J	Hand Telephone.
1776301	Sept. 23, 1930	Thompson, G. K	Coin Controlled Apparatus.
1776310	do	Crisson, G	Two-Way Negative Impedance Repeater.
1776311	do	do	Repeater System.
1776821	Sept. 30, 1930	Strieby, M. E	Automatic Volume Control System.
1776822	do	do	Do.
1777016	do	Potter, R. K	Electro-Optical Image Producing System.
1777118	do	Harrison, H. C	Acoustic Device.
1777355	Oct. 7, 1930	Fetter, C. H	Transmission Level Controlling Device.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1777374	Oct. 7, 1930	Martin, DeL. K	Wave Antenna.
1777378	do	Potter, R. K	Photoelectric Cell.
1778035	Oct. 14, 1930	Mason, W. P	Harmonic Noise Suppression Device.
1778077	do	Holden, W. H. T	Remote Control System.
1778085	do	Nyquist, H	Distortionless Amplifying System.
1778086	do	Palm, S. M. and Snyder, J. F.	Apparatus for Pulling Cables Through Conduits.
1778308	do	Burchett, G. W	Acoustic Device.
1778309	do	Carpenter, W. W., and Johnson, L. H.	Telephone Metering System.
1778319	do	Hague, A. E	Do.
1778377	do	Burton, E. T	Telegraph Repeating Device.
1778378	do	Butz, E. D	Telephone System.
1778386	do	Harrison, H. C	Sound Reproducer.
1778400	do	Pocock, L. C., and Blackburn, R.	Telephone Transmitter.
1778401	do	Pratt, E. J	Relay.
1778407	do	Walters, J. N., and Clark, E. H.	Selective Switch.
1778508	do	Peoples, J. S	Apparatus for Measuring and Recording Pressures.
1778725	Oct. 21, 1930	Oswald, A. A., and Sterba, E. J.	Control of Electrical Conditions.
1778750	do	Bruce, E	Transmission Regulation.
1778751	do	Buckley, O. E., and Johnson, J. B.	Control of Electrical Variations.
1778756	do	Elmer, L. A	Coupling Device.
1778759	do	Gilbert, J. J	Submarine Signaling.
1778761	do	Heising, R. A	Remote Control System.
1778768	do	Norton, P	Telephone Ringing System.
1778779	do	Whiting, D. F	Control Circuit for Transmission Systems.
1778871	do	Smythe, E. H	Acoustic Device.
1778894	do	Fry, J. R	Relay.
1779056	do	Till, H. R	Pressure Respofisive Device.
1779058	do	Borgmann, C., Marting, H. E., and Hagland, H. M.	Telephone Switchboard.
1779065	do	Grant, R	Pressure Responsive Device.
1779126	do	Graham, F. H	Negative Resistance Circuits.
1779380	do	Dudley, H. W	Negative Impedance Circuits.
1779382	do	Mathes, R. C	Do.
1779492	Oct. 28, 1930	Rea, W. T	Carrier Current Telegraph System.
1779493	do	do	Do.
1779495	do	Roberts, L. C	Substation Rectification of Carrier Telegraph Currents.
1779500	do	Shanck, R. B	Tone Reception for Carrier Telegraphy.
1779559	do	Royal, J. M	Method of and Apparatus for Covering Cores.
1779560	do	do	Apparatus for Covering Cores.
1779563	do	Siebs, C. T., and Daniel, T. A.	Process of Welding.
1779602	do	Kingsbury, E. F	Alloy for Electrical Contacts.
1779603	do	do	Do.
1779990	do	Shope, J. W	Guard for Guy Rods and Cables.
Des. 82387	do	Labaugh, J. M	Casing for a Telephone Substation Set.
1780229	Nov. 4, 1930	Green, E. I	Oscillation Generator.
1780244	do	Ritter, P. E	Telephone and Telegraph Circuit.
1780245	do	Roberts, L. C	Telephone and Telegraph System.
1780364	do	Reynolds, F. W	Electro-Optical Transmission.
Des. 82414	do	Barnhard, L	Desk Stand for a Hand Telephone.
1780906	Nov. 11, 1930	Carpenter, W. W., and Hersey, R. E.	Automatic Toll Switching Telephone System.
1780910	do	Dunham, B. G	Testing System.
1780917	do	Hoch, E. T	Electric Condenser.
1780919	do	Holland, N. H	Means for Recording Telephone Conversation.
1780921	do	Horton, J. W	Communication System.
1780937	do	O'Neill, H. W	Testing System.
1780953	do	Ten Eyck, W. B	Conductor.
1780962	do	Bailey, A., and Dean, S. W	Radio Signaling System.
1780963	do	Bailey, A	Do.
1780966	do	Blye, P. W	Electrical Transmission System.
1781092	do	Affel, H. A., and Green, E. I	Concentric Conducting System.
1781093	do	Affel, H. A	Do.
1781124	do	Nein, H. R	Do.
1781351	do	Thuras, A. L	Vibratory System.
1781363	do	Bruce, E	Electrical Testing System.
1781385	do	Hague, A. E	Telephone Exchange System.
1781387	do	Harrison, H. C	Diaphragm.
1781396	do	Johnson, K. S	Electrical Network.
1781469	do	Mason, W. P	Wave Filter.
Des. 82505	do	King, D. H., and Martin, H. T.	Wall Mounting for a Hand Telephone.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1781861	Nov. 18, 1930	Rittenhouse, M. J. and, Maurer, O. V.	Radio Reception Apparatus.
1782397	Nov. 25, 1930	Adams, A. H.	Apparatus for Testing Electrical Conductors.
1782402	do	Bouvier, G. A., and Case, H. L.	Do.
1782403	do	Bouvier, G. A.	Method of an Apparatus for Testing Electrical Conductors.
1782404	do	Bowly, H. W., and McWilliams, W. W.	Clamping Device.
1782406	do	Bureau, A. A.	Portable Crane.
1782425	do	Jessup, R. D.	Apparatus for Coating Strands.
1782434	do	McGuire, L. R.	Table Construction.
1782438	do	Oudin, F., and Skinner, B. H.	Clamping Device.
1782439	do	do	Do.
1782440	do	do	Do.
1782447	do	Scranton, DeH. G.	Method of Forming Electrical Terminal Members.
1782448	do	Short, S. F.	Guarding and Guiding Attachment for Tools.
1782907	do	Nielsen, J. F.	Remote Control System.
1782912	do	Snook, H. C.	Method for Eliminating Noise in Machinery.
1783130	do	Ohl, R. S.	Piezo-Electric Oscillator.
1783131	do	do	Mounting for Piezo-Electric Devices.
1783132	do	do	Do.
Des. 82612	do	Labaugh, J. M.	Casing for a Telephone Substation Set.
Des. 82613	do	do	Do.
1783321	Dec. 2, 1930	Weaver, A.	Electrical Transmission of Pictures.
1784176	Dec. 9, 1930	Carpe, A.	Equalization for Carrier Systems.
1784178	do	do	Voice Controlled Circuits.
1784194	do	Mitchell, D.	Transmission Frequency Dealy Measuring Circuit.
1784825	Dec. 16, 1930	Dudley, H. W.	Speech Transmission.
1784827	do	Elmen, G. W.	Magnetic Material.
1784830	do	Flanders, P. B.	Mechanical Impedance Device.
1784833	do	Hageman, E. C.	Toroidal Inductance Device.
1784839	do	Keller, A. C.	Sound Reproducing System.
1784844	do	Marrison, W. A.	Constant Frequency Wave Source.
1784845	do	Morrison, L. A.	Phonograph Needle.
1784858	do	Wente, E. C.	Sound Recording System.
1784859	do	Weston, W. K.	Twisting Machine.
1784860	do	Wiebusch, C. F.	Sound Recorder.
1784867	do	Farrington, J. F.	Singaling System.
1784869	do	Gray, F.	Rectifier.
1784871	do	Harrison, H. C.	Mechanical Transmission System.
1784874	do	Hubbard, F. A.	Control of Wave Transmission.
1784879	do	Peterson, E.	Magnetic Modulator Circuit.
1784891	do	Dean, S. W., and Anderson, C. N.	Privacy Signaling System.
1784898	do	Gary, L. A., and Tasker, H. G.	Circuit Switch.
1784905	do	Morency, G. H.	Telephone Exchange System.
1784957	do	Betts, P. H.	Electric Wave Transmission System.
1784978	do	Taylor, H. S.	Testing Apparatus.
1785036	do	Marrison, W. A.	Oscillation Generator.
1785037	do	Martell, C., and Hagen, B. A.	Method of and Apparatus for Coating Cores.
1785048	do	Reynolds, J. L.	System for Electrically Transmitting and Reproducing Sound.
1785060	do	White, J. H.	Metallurgical Process.
1785062	do	Whittle, H.	Transformer System.
1785818	Dec. 23, 1930	Peterson, G. H., and Rhodes, W. A.	Telephone System.
1785819	do	Silent, H. C.	Prevention of Parasitic Oscillations.
1786065	do	Heimberger, H. T., and Pugh, E.	Holder for Heated Devices.
1786075	do	Martell, C.	Method of Reclaiming or Improving Gum Exudates.
1786086	do	Pritchard, A. D.	System for Charging Storage Batteries.
1786412	do	Crisson, G.	Shielding Arrangement.
1786416	do	Martindell, F.	Apparatus for Treating Materials.
1786546	Dec. 30, 1930	Nyquist, H.	Power Standard Device.
1786549	do	Reed, T. C., and Odell, A. D.	Method and Means for Preparing Insulating Sleeves.
1786565	do	Freeman, A. E.	Thrust Bearing.
1786652	do	Hartley, R. V. L.	Electro-Optical System.
1787508	Jan. 6, 1931	Bulloch, H. D.	Singaling System.
1787511	do	Clapp, R. H.	Patching Arrangement for Carrier Telegraph Circuits.
1787552	do	Rice, J. S.	Filing Cabinet.
1787606	do	White, J. H., and Legg, V. E.	Magnetic Material.
1787688	do	Korthauer, T.	Telephone System.
1788007	do	Abbott, H. H., and Entz, F. S.	Telephone Repeater System.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1788017	Jan. 6, 1931	Elmen, G. W	Heat Treatment of Magnetic Material.
1788022	do	Heising, R. A	Directive Transmission of Energy.
1788028	do	Moore, C. R	Alternating Current Rectifier.
1788030	do	Penn, J. H	Telephone Instrument.
1788031	do	Pritchard, W. T	Forming Tool.
1788035	do	Stevenson, G. H	Volume Control Circuits.
1788470	Jan. 13, 1931	Nyquist, H	Electro-Optical System.
1788472	do	Reynolds, F. W	Light Valve Adjusting Means.
1788476	do	Watson, E. F	Electrical Picture Transmission.
1788487	do	Harrison, H. C	Vibration Transmission System.
1788508	do	Curtis, A. M	Submarine Signaling System.
1788513	do	Fultz, M. E	Signal and Control System.
1788517	do	Gould, J. R	Telephone Exchange System.
1788519	do	Harrison, H. C	Mechanical Transmission System.
1788521	do	Heising, R. A	Short Wave Amplifying System.
1788522	do	Horton, J. W	Signaling System.
1788526	do	Johnson, K. S	Artificial Line.
1788527	do	Kivley, R. C	Apparatus for Treating Articles With a Medium Under Pressure.
1788528	do	Koechling, C. D	Telephone System.
1788531	do	Little, J. S	Mold and Its Method of Construction for Paper Making Machines.
1788532	do	Llewellyn, F. B	Electron Tube Circuit.
1788533	do	Marrison, W. A	Frequency Control System.
1788534	do	Mason, W. P	Acoustic Phase Shifting Device.
1788538	do	Norton, E. L	Filtering Circuits.
1788543	do	Reynolds, J. L	Switching Apparatus for Sound Reproducing Systems.
1788548	do	Siebs, C. T	Approach Structure Between Different Levels and Method of Producing the Same.
1788556	do	Wood, E. B., and Eliason, O. C.	Ventilating Device.
1788560	do	Black, H. S	Wave Generating and Modulating System.
1788704	do	Cesareo, O	Telephone System.
1788714	do	Grimley, D. G	High and Low Frequency Transmission Circuits.
1788720	do	Jensen, A. G	Polyphase Vacuum Tube Oscillator.
1788733	do	Morton, E. R	Regulator System.
1788734	do	do	Do.
1788736	do	O'Neill, H. W	Echo Suppressing and Energy Limiting Circuits.
1788747	do	Scharringhausen, W. H	Telephone Desk Set.
1789261	do	Kidd, S. H. B	Interlocking System.
1789293	Jan. 20, 1931	Barnard, C. H	Switch Mounting.
1789358	do	Franks, C. H	Testing Device for Coil Winding Machines.
1789399	do	Bartenbach, H., and Spowart, J. B.	Earth Auger.
1789416	do	Potter, R. K	Neutralized Vacuum Tube Circuits.
1789419	do	Stone, J. S	Radio Receiving System.
1789451	do	Rosaire, E. E., and Kerns, A. D.	Method of and Apparatus for Manufacturing Electrostatic Condensers.
1789456	do	Blood, H. L	Article Working Apparatus.
1789457	do	Boynton, J. E	Apparatus for Extruding Matter.
1789458	do	Bureau, A. A	Chock.
1789469	do	Knaus, P. J	Article Forming Apparatus.
1789475	do	Powell, R. E	Soldering Iron Holder.
1789485	do	Wren, C. I	Indexing Mechanism.
1790069	Jan. 27, 1931	Neeb, L. S	Designation Label.
1790076	do	Schramm, F. W	Automatic Voltage Regulating Circuit.
1790079	do	Silent, H. C	System for Measuring Delayed Current Effects.
1790382	do	Korthauer, T	Telephone System.
1790673	Feb. 3, 1931	Mills, P. E	Coin Collection Apparatus.
1790687	do	Watkins, S. S. A	Combined Phonograph and Motion Picture Projector.
1790704	do	Harris, J. E	Magnetic Material.
1790742	do	Chapman, A. G	Wave Antenna Array.
1790771	do	Shackleton, S. P	Relay Arrangement.
1790776	do	Thompson, G. K	Telephone Cabinet and Table Lamp.
1791577	Feb. 10, 1931	Singer, F. J	Telegraph Receiving System.
1791578	do	do	Do.
1791579	do	do	Telegraph Signaling System.
1791587	do	Vernam, G. S	Printing Telegraph System.
1791740	do	Morton, S., and Krum, H. L.	Printing Telegraph Receiver.
1792479	Feb. 17, 1931	Bennett, A. F., and Mitchell, C. E.	Alarm System.
1792483	do	Elmen, G. W	Magnetic Material.
1792494	do	Harrison, H. C., and Anderson, H. A.	Phonographic Needle.
1792496	do	Hinshaw, F. A	Switching Device.
1792497	do	Keller, A. C., and Norton, E. L.	Vibration Damping Device.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1792512	Feb. 17, 1931	Siegm nd, H. O	Electromagnetic Device.
1792523	do	Zobel, O. J	Phase Shifting Network.
1792536	do	Harrison, H. C	Sound Radiator.
1792538	do	Hersey, R. E	Telephone System.
1792552	do	Siegmund, H. O	Method of Forming Contacts.
1792579	do	Edwards, W. H	Telephone Circuit.
1792600	do	Ohl, R. S	Radio Signaling System.
1792630	do	Curtis, A. M	Frequency Setting Fork.
1792637	do	Harrison, H. C	Vibration Transmission System.
1792650	do	Manderfeld, E. C	Regulator System.
1792655	do	Norton, E. L	Sound Reproducer.
1792662	do	Sterba, E. J	Antenna System.
1793034	do	Wetzel, C. L	Protective Apparatus.
1793044	do	Biggar, H	Forming Device.
1793090	do	Hite, H. N	Variable Electrical Resistance.
1793092	do	Jespersen, H. W	Strand Tensioning Device.
1793104	do	Larsen, E. W	Strand Handling Apparatus.
1793236	do	McDonough, J	Screw Inserting and Driving Apparatus.
1793247	do	Piper, H. D	Method of and an Apparatus for Working Material.
1793248	do	Rasmussen, R. C	High Frequency Electrical Apparatus.
1793254	do	Shann, O. A	Lock.
1793275	do	Carr, C. B	Method of Drying Material.
Des. 83, 408	do	Mahoney, J. A., and Zitzmann, A.	Combined Table and Cover for Telegraph Printer.
1793491	Feb. 24, 1931	Jones, T. A., and Phelps, W. A.	Current Limiting Device.
1793582	do	Bailey, R. S., Nelson, S. F., and Shipley, F. F.	Telephone System.
1793588	do	Cowan, F. A	Measuring and Monitoring Circuits for Telephone Lines.
1793598	do	Edwards, W. H	Telephone System.
1793835	do	Bruce, E	Electrical Testing.
1794393	Mar. 3, 1931	Bown, R., and Potter, R. K	Transmission Measuring Apparatus.
1794418	do	Potter, R. K	Radio Receiving Circuit.
1794847	do	Green, E. I	Frequency Eliminator.
1794889	do	Fetter, C. H	Multiplex System.
1795204	do	Espenschied, L	Electrical Wave Filter.
1795389	Mar. 10, 1931	Edwards, W. H	Selective Ringing System.
1795393	do	Herman, J	Reduction of Interference.
1795397	do	Hoyt, R. S	Directionally Selective Radio Receiving System.
1795439	do	Pratt, E. J	Magnetic Device.
1795474	do	Ceccarini, O. O	Non-Singing Amplifier.
1795479	do	Dickieson, A. C	Wave Transmission System.
1795484	do	Farrington, J. F	Wave Suppression Circuit.
1795498	do	Mathison, D. W	Electromagnetic Device.
1795499	do	Miller, D. D., and Pratt, E. J	Magnetic Device.
1795626	doz	Watkins, S. S. A	Camera.
1795639	do	Chaston, J. C., and Johns, J. P.	Magnetic Structure.
1795640	do	Collis, R. E	Telephone Exchange System.
1795647	do	Flanders, P. B	Method and Apparatus for Measuring Acoustical Impedances.
1795648	do	Friis, H. T	High Frequency Oscillation Generator.
1795652	do	Kinkead, F. S	Telegraph System.
1795656	do	Massonneau, R. F	Service Observing System.
1795714	do	Deloraine, E. M	Absorption Control Modulating System.
1795813	do	Whitney, W	Telephone System.
1795834	do	Cesareo, O	Testing System.
1795858	do	Heising, R. A	Radio Transmission System.
1795874	do	Mason, W. P	Impedance Element.
1795876	do	McCoy, C. E	Apparatus for Serving Material Upon Cores.
1795914	do	Whittle, H., and Christopher, A. J.	Amplifying System.
1795923	do	Bidwell, E. M	Method of and Apparatus for Handling Strand Material.
1795924	do	Bjornson, B. G	Relay Circuits.
1796486	Mar. 17, 1931	Southworth, G. C	Amplifier for Short Electric Waves.
1796496	do	Volkmar, W. A	Book Holder.
1796497	do	Weaver, A	Rectifying Arrangement.
1796683	do	Carlson, R. E	Method of Producing Articles.
1796803	do	Nelson, C. E	Safety Connection for Power Transmission.
1796805	do	Paulson, C	Method of and Apparatus for Adjusting Springs.
1796814	do	Trebes, B. M. A	Pump.
1796816	do	Wade, L. G	Control Mechanism.
1796819	do	Adams, A. H	Method of Treating Objects.
1796820	do	do	Apparatus for Treating Objects.
1796852	do	McDonough, J	Method of Riveting.
1796853	do	McMullan, S	Molding Apparatus.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1796931	Mar. 17, 1931	Ives, H. E	Electro-Optical Transmission.
1796965	do	Ryan, F. M	Method of and Means for Signaling.
1797284	Mar. 24, 1931	Coram, R. E	High Frequency Signaling.
1797317	do	Brand, S., and Mertz, P	Binaural Phase Discrimination Radio System.
1797337	do	Freeman, A. E	Connecting Pin.
1797365	do	Putnam, H. P	Wire Support.
1798202	Mar. 31, 1931	Herman, J	Relay Arrangement for Use with Voice Operated Devices.
1798235	do	Vernam, G. S	Printing Telegraph Switching System.
1798243	do	Whittle, H., and Hilton, L. B	Electric Transmission System.
1799159	Apr. 7, 1931	Espenschied, L	Multiple Modulation System.
1799174	do	Loye, D. P	Protective Device.
1799188	do	Weaver, M. A	Crosstalk Reduction.
1799189	do	Whiting, D. F	Energizing Electron Tubes.
1799202	do	Wegel, R. L., and Moore, C. R.	Harmonic Analyzer and Switching Mechanism Therefor.
1799214	do	Clokey, A. A	Submarine Telegraph System.
1799223	do	Fowler, C. B	Party Line Message Register System.
1799235	do	Humphrey, H. C	Sound Recording System.
1799627	do	Knoop, W. A	Signal Interpolating System.
1799634	do	Norton, E. L	Wave Transmission.
1799644	do	Roome, F. A	Telephone System.
1799651	do	Siegmund, H. O	Electrical Switching Apparatus.
1799653	do	Stokely, R. L	Telephone System.
1799654	do	do	Telephone Exchange System.
1799679	do	Dunham, B. G., and Fairbairn, R. A.	Do.
1799686	do	Goff, H. W	Impulse Transmitter.
1799794	do	Horton, A. W., Jr	Artificial Line.
1799795	do	Horton, J. W	Sound Recording and Reproducing.
1799796	do	Hovland, H	Telephone Exchange System.
1799798	do	Jacobitti, E. E	Switching System.
1799799	do	Jones, W. C	Sound Reproducer.
1799800	do	Lane, C. E	Adjustable Inductance Coil.
1799809	do	Craft, E. B	Phonograph.
1799810	do	Fry, T. C	Transmission Circuits.
1799811	do	Gooderham, J. W	Signaling System.
1799850	do	Hendry, W. F	Electron Discharge Device.
1800303	Apr. 14, 1931	Lindsay, R. H	Automatic Regulating Arrangement.
1800304	do	do	Relay Regulating Circuits.
1800305	do	do	Do.
1800370	do	Arkema, H. P., and Thronsen, S.	Apparatus for Mounting Dies.
1800372	do	Black, H. S	Frequency Translating Circuit.
1800384	do	Haack, W. F	Tool.
1800389	do	Jespersen, H. W	Method of and Apparatus for Controlling Working of Material.
1800394	do	Lunsford, R. L	Regulating Device.
1800411	do	Selvig, N. J	Coated Core.
1800901	do	Peterson, E., and Evans, H. P	Vacuum Tube Circuits.
1800903	do	Ramsey, E. G	Incandescent Lamp.
1800912	do	Stewart, C. R. G., and Zern, C. J.	Heat Treating Apparatus.
1800914	do	Stull, J. S	Apparatus for Stripping Covered Strands.
1800917	do	Weis, P. B	Do.
1800922	do	Yancey, T. McD	Material Unwinding Apparatus.
1800925	do	Blood, H. L	Perforating and Trimming Mechanism.
1800947	do	Mason, S. R	Method of Coating Articles.
1800950	do	Metzger, C. A	Method of and Apparatus for Removing Core Covering Material.
1801278	Apr. 21, 1931	Knuuti, C. O	Apparatus for Producing Electrical Connecting Elements.
1801311	do	Johnson, G. T	Apparatus for Working Covered Strand Material.
1801342	do	Gannett, D. K., and Kirkwood, M.	Electrical Network.
1801380	do	Vernam, G. S	Signaling System.
1802101	do	Wood, L. E	Molded Article.
1802118	do	Llewellyn, F. B	Modulator and System of Modulation.
1802419	Apr. 28, 1931	Freeman, A. E., and Livermore, W. T.	Gear Mechanism.
1802420	do	Green, E. I	Method of Utilizing a Wide Frequency Range for Signaling Channels.
1802446	do	Schneckloth, H. H	Telephone System.
1802605	do	Kemp, A. R	Method and Machine for Insulating Cables.
1803453	May 5, 1931	Affel, H. A	System for Communicating with Moving Vehicles.
1803454	do	do	Do.
1803466	do	Drew, G. A	Ticket Distributing System.
1803528	do	Hollman, H. E	Production of Electric Waves.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1803700	May 5, 1931	Gray, F.	Electro-Optical System.
1804087	do	Bruce, E., and Friis, H. T.	Wave Amplifying System.
1804121	do	Simonds, G. D.	Motor Vehicle.
1804126	do	Stoller, H. M.	Regulator System.
1804127	do	Stryker, N. R.	Speech Transmission System.
1804140	do	Barry, J. F.	Clamping Device.
1804150	do	Collis, R. E.	Telephone Exchange System.
1804168	do	Keller, A. G.	Method of and Means for Determining Cyclic Variations in a Rotating Member.
1804169	do	Knowlton, A. D., and Everett, S. H.	Telephone Exchange System.
1804178	do	Morton, E. R.	Regulator System.
1804408	May 12, 1931	Fowler, C. B.	Telephone Exchange System.
1804409	do	do	Do.
1804526	do	Coxhead, H. B.	Radio Receiving Circuit.
1804547	do	Shanck, R. B.	Telegraph Repeater Arrangement.
1804548	do	Vernam, G. S.	Telegraph Exchange System.
1804675	do	Clausen, H. P.	Signaling System.
1804688	do	Harrison, H. C.	Acoustic Device.
1804689	do	Holland, N. H.	Do.
1804732	do	Alden, J. L.	Flexible Conductor.
1804746	do	Curtis, A. M.	High Speed Relay.
1804759	do	Flanders, P. B.	Acoustic Device.
1804766	do	Hague, A. E.	Telephone System.
1804767	do	do	Do.
1804778	do	Johnson, L. H., and Stokely, R. L.	Do.
1804786	do	Kuhn, W.	Telephone Testing System.
1804911	do	Alden, J. L.	Core Covering Apparatus.
1804923	do	Fernekes, V. W., and Ray, W. H.	Conveying System.
1804952	do	Rettenmeyer, F. X.	Wave Signalling System.
1805229	do	Atwood, G. F.	Variable Electrical Apparatus.
1805591	May 19, 1931	Ohl, R. S.	Signaling System.
1805594	do	Parker, R. D.	Communicating System.
1805596	do	Potter, R. K.	Signaling System.
1806119	do	Rock, G. L.	Method of and Apparatus for Producing Tubular Articles.
1806121	do	Siebs, C. T.	Method of and Apparatus for Welding.
1806130	do	Stull, J. S.	Stock Feeding Device.
1806131	do	do	Apparatus for Handling Articles.
1806182	do	Seligman, W.	Work Holder for Material Working Apparatus.
1806183	do	Shaw, L. I.	Suspension.
1806188	do	Adams, A. H.	Method of Manufacturing Electrical Switching Apparatus.
1806202	do	Hofstetter, R.	Apparatus for Assembling Members.
1806638	May 26, 1931	Mertz, P.	Television.
1806657	do	Wintringham, W. T.	Power Limiting Apparatus.
1806666	do	Bown, R.	Radio Broadcasting System.
1806754	do	Gilbert, J. J.	Cable Signaling System.
1807740	June 2, 1931	Knandel, G. J.	Telegraph System.
1807744	do	May, H. F.	Do.
1807759	do	Silent, H. C.	Prevention of Parasitic Oscillations.
1807931	do	Purdy, C. A.	Method of and Apparatus for Preparing Compounds.
1808137	do	Hartley, R. V. L.	Electro-Optical System.
1808520	do	Brobst, D. R.	Insulated Conductor.
1808527	do	Carpenter, W. W.	Automatic Telephone Exchange System.
1808538	do	Gabriel, J. C., and Hubbard, F. A.	Transmission Regulation.
1808540	do	Gilbert, J. J.	Signaling System.
1808577	do	Scudder, F. J.	Automatic Telephone Exchange System.
1808579	do	Sivian, L. J.	Generation of Electric Currents.
1808867	June 9, 1931	Stone, J. S.	Directional Antenna Array.
1808868	do	do	Do.
1808869	do	do	Do.
1808894	do	Heising, R. A.	Electric Wave Translation System.
1808902	do	Mueller, E. C., Jr.	Telephone Plug.
1808915	do	Bjornson, B. G.	Repeater Circuits.
1808916	do	Burkholder, J. C.	Circuit Control System.
1808923	do	Horton, J. W.	Synchronizing System.
1808925	do	Knox, W. G.	Composite Conductor.
1809025	do	Cruser, V. I.	Electrical Device.
1809026	do	Cummings, G. C.	Telegraph System.
1809039	do	Hovland, H.	Telephone Exchange System.
1809042	do	Kelsall, G. A.	Magnet Core.
1809043	do	Knoop, W. A.	Printing Telegraph System.
1809067	do	Reeve, H. T.	Method of Making Cathodes.
1809095	do	Wilson, J. R., and Blackburn, C. M.	Process of Coating Thermionic Cathodes.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1809099	June 9, 1931	Arnold, H. D	Vacuum Tube.
1809124	do	Hovland, H	Telephone Exchange System.
1809125	do	Hoyt, F. A	Telephone Set Mounting.
1809625	do	Griggs, E. V	Electric Control Circuits.
1809684	do	Flanders, P. B	Sound Recording and Reproducing Instrument.
1809828	June 16, 1931	Buckley, O. E., and Hartley, R. V. L.	Telephone Transmission.
1809832	do	Curtis, A. M	Synchronous Driving System.
1809839	do	Field, F. E	Transformer and Transformer System.
1809841	do	Goff, H. W., and Forsberg, O. F.	Impulse Transmitter.
1809879	do	Whittle, H	Circuits for Electro-Magnetic Devices.
1809882	do	Wright, E. P. G	Telephone Exchange System.
1809887	do	Broadwell, H	Adapter.
1809925	do	Edwards, W. H	Variable Resistance Device.
1809945	do	Rea, W. T	Control Arrangement for Carrier Apparatus.
1809950	do	Thorp, V. P	Carrier Telegraph System.
1809963	do	Lodge, J. E	Material Feeding Device.
1810004	do	Bjornson, B. G	Voice Operated Relay Circuits.
1810015	do	Hogg, J. L	Transmission System.
1810016	do	do	Voice Operated Relay Circuits.
1810023	do	Lodge, J. E	Feeding Device.
1810024	do	Mathes, R. C	Relay Circuit.
1810025	do	do	Transmission System.
1810164	do	Fay, O. J., Heimberger, H. T., and Pugh, E.	Heating Device.
1810206	do	Gudge, A. W., and Wensley, E.	Apparatus for Producing Articles from Sheet Material.
1810225	do	Pugh, E	Method of and Apparatus for Welding.
1810227	do	Shea, J. R	Drive for Screw Machines and the Like.
1810326	do	Peterson, E	Wave Modulation and Application Thereof.
1811023	June 23, 1931	Potter, R. K	Photoelectric Cell.
1811024	do	do	Photoelectric Tube.
1811025	do	do	Regulation of Level in Broadcast Transmission.
1811102	do	Adams, R. R., and Griggs, E. V.	Signal Transmission by Guided and Unguided Waves.
1811369	do	St. John, E	Guard for Guys and the Like.
1811839	June 30, 1931	Arnold, H. D	Sound Transmission.
1811841	do	Benjamin, J. C	Sound Reproducing System.
1811844	do	Dixon, A. F	Automatic Telephone Exchange System.
1811856	do	Long, M. B	Switching Device for Radio and Phonograph Combinations.
1811857	do	Melhuish, L. E	Railway Traffic Controlling System.
1811858	do	Miller, O. R	Control System for Transmission of Signals.
1811860	do	Morton, E. R	Regulator System.
1811897	do	Runquist, E. M., and Yancey, T. McD.	Method of and Apparatus for Forming Cables.
1811905	do	Affel, H. A., and Carpe, A	Means to Control Crosstalk.
1811915	do	Carpe, A	Do.
1811941	do	Keith, C. R	Apparatus for Reducing Disturbing Currents.
1811947	do	Legg, V. E	Noise Suppressing Circuit.
1811954	do	Mitchell, D., and Silent, H. C.	Transmission Volume Control.
1811955	do	do	Do.
1811963	do	Peterson, E	Apparatus for Reducing Crosstalk Currents.
1812389	do	Wente, E. C	Acoustic Device.
1812402	do	Gray, F	Electro-Optical Transmission System.
1812405	do	Ives, H. E	Do.
1812617	do	Baker, J. H. E	Telephone Exchange System.
1812619	do	Blattner, D. G	Sound Reproduction.
1812624	do	Cummings, G. C	Telephone and Telegraph Signaling System.
1812625	do	Curtis, A. M	Signal Monitoring Device.
1812630	do	Gilbert, J. J	Cable Armoring.
1812634	do	Jones, W. C	Sound Reproducer.
1812635	do	Knoop, W. A	Signaling System.
1812828	do	Gray, F	Switch or Commutating Means.
1812961	July 7, 1931	Kent, R. J	Cable Guide.
1812964	do	Labaugh, J. M., and Miller, V. F.	Calling Dial.
1812977	do	Ohl, R. S	Oscillation Generator.
1812984	do	Richey, C. V	Lock-Out for Outgoing Calls for Telephone Systems.
1813143	do	Bruce, E	Aerial System.
1813154	do	Franz, E. E	Terminal for Electrical Devices.
1813179	do	Lodge, J. E	Device for Closing Openings.
1813196	do	Pettus, J. H	Melting Pot.
1813197	do	Reichelt, L. O	Cable Forming Apparatus.
1813208	do	Smythe, E. H	Acoustic Device.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1813425	July 7, 1931	Rosaire, E. E.	Method of Heating an Electrical and Thermal Non-Conductor.
1813913	July 14, 1931	Clokey, A. A., and Knoop, W. A.	Rotary Distributor.
1813923	do	Heising, R. A.	Radio Receiving System.
1813926	do	Hofstetter, R.	Clutch and Speed Reducing Mechanism.
1813933	do	Klein, C. H.	Wire Support.
1813942	do	Malles, R. E.	Frequency Indicator.
1813958	do	Rock, G. L.	Apparatus for Rotating Articles.
1813961	do	Schelleng, J. C.	Signaling System.
1813969	do	Smith, E. B.	Method and Apparatus for Measuring Small Time Intervals.
1814017	do	Wright, S. B., and Mitchell, D.	Means for Controlling Sensitivity of Voice Operated Devices.
1814018	do	do	Do.
1814038	do	Herman, J.	Echo Suppressor.
1814052	do	Mitchell, D.	Do.
1814158	do	Holden, W. H. T.	Signaling System.
1814238	do	Bode, H. W.	Wave Filter.
1814248	do	Gooderham, J. W.	Telephone System.
1814263	do	Reynolds, J. L.	Electrical Control System.
1814269	do	Terry, R. V.	Portable Talking Motion Picture Projector.
1814898	do	Deardorff, R. W.	Measuring System.
1814956	do	Ohl, R. S.	Radio Signaling System.
1814987	do	Weaver, A., and Branson, D. E.	Picture Transmitting System.
1815203	July 21, 1931	Ives, H. E.	Image Producing System.
1815212	do	Ogg, R. A.	Terminal Connector.
1815218	do	Spear, J. P.	Apparatus for Supporting and Handling Objects.
1815230	do	Boynton, S. E.	Assembling Fixture.
1815238	do	Cherry, G. L.	Cleaning Device.
1815241	do	Crisson, G.	Transmission System.
1815245	do	Dowd, A. J.	Coil and Method of Manufacturing Coils.
1815246	do	Englund, C. R.	Radio Direction Finder.
1815250	do	Gaylord, H. F.	Apparatus for Rewinding Rolls of Material.
1815254	do	Hoyt, R. S.	Shunt Type Impedance Equalizer for Any Smooth Line.
1815255	do	do	Impedance Equalizer for Any Smooth Line.
1815256	do	do	Series Type Impedance Equalizer for Any Smooth Line.
1815262	do	Larsen, E. W.	Feeding Mechanism.
1815263	do	do	Do.
1815264	do	do	Supporting Device.
1815269	do	Nydegger, R. R.	Apparatus for Supplying Material.
1815691	do	Wilson, R. V.	Method of Heat Treating Metal Parts.
1815695	do	Babbitt, B. J.	Method of and Material for Sealing Containers.
1815699	do	Bonsor, W.	Apparatus for Positioning and Holding Work for Material Working Apparatus.
1815709	do	Guthmann, E. A.	Apparatus for Detecting a Difference in the Thickness of Materials.
1815717	do	Kranz, H. E.	Apparatus for Measuring Variations in Thickness of Metallic Bodies.
1815721	do	McGraw, G. P.	Method of and Apparatus for Manufacturing Articles.
1815728	do	Robson, D. C., and Selvig, J. N.	Strand Reeling Apparatus.
1815976	July 28, 1931	Green, E. I.	Coupling Between Carrier and Transmission Lines.
1815986	do	Parker, R. D.	Telegraph Reading Machine.
1815996	do	Weaver, A.	Do.
1816558	do	Zupa, F. A.	Electromagnetic Device.
1816570	do	Draper, J. B.	Testing System.
1816599	do	Mathes, R. C.	Signal Transmission System.
1816601	do	McNeill, G. A.	Electron Discharge Device.
1816613	do	Powell, A. C.	Telephone System.
1816621	do	Stacy, L. J.	Testing System.
1816634	do	Carpenter, W. W., Dahl, J. F., Davis, R. C., and Kittredge, L. E.	Telephone Exchange System.
1816846	Aug. 4, 1931	Harvey, W. H.	Electrical Connector.
1816862	do	Miller, R. A.	Amplifying System.
1816875	do	Siegmund, H. O.	Electrolytic Device.
1816887	do	Adams, E. W.	Automatic Article Selecting and Distributing System.
1816905	do	Horton, J. W.	Communication System.
1816906	do	Jones, W. C.	Electromagnetic Device.
1816909	do	Larsen, E. W.	Material Handling Apparatus.
1816913	do	Schelleng, J. C.	Protective Circuit for Vacuum Tubes.
1816917	do	Smythe, E. H., and Flanders, P. B.	Apparatus for the Measurement of Acoustic Impedance.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1816953	Aug. 4, 1931	Bown, R	Privacy Signaling System.
1816958	do	Clark, A. B., and Best, F. H.	Transmission Measuring System.
1816967	do	Green, I. W	Telephone System.
1817024	do	Voos, F. A	Retractile Device.
1817949	Aug. 11, 1931	Smith, T. C	Snatch Block.
1817964	do	Carson, J. R., and Mead, S. P.	Concentric Conductor Transmission System.
1818018	do	Stocker, C. P	Control Circuit.
1818026	do	Wright, E. P. G	Telephone System.
1818027	do	Affel, H. A., and Green, E. I.	Concentric Conductor System.
1818054	do	Elmen, G. W	Magnetic Material.
1818064	do	Johnson, H. B., and Von Nostitz, E.	Telephone System.
1818070	do	Lathrop, H	Magnetic Body.
1818099	do	Rapelje, J. A	Drive Ring.
1818127	do	Gilbert, J. J	Submarine Cable Insulation.
1818131	do	Harrison, H. C	Mechanical Transmission System.
1818156	do	O'Neill, H. W	Designation Strip.
1818463	do	Curtis, A. M., and Burton, E. T.	Zero Correcting Circuit.
1818560	do	Lamplough, L. F	Device for Joining Articles.
1818568	do	Melick, J. M	Coin Collection Apparatus.
1818584	do	Schroeder, W	Lifting Device.
1818591	do	Tournier, E. P	Apparatus for Supporting Strands.
1818596	do	Zimmerman, P. P	Electromagnetic Device.
1818602	do	Bowly, H. W	Support for Strand Material.
1818648	do	Purdy, C. A	Apparatus for Pressing Condensers.
1818659	do	Tournier, E. P	Clamping Device.
1819054	Aug. 18, 1931	Affel, H. A	Carrier Signaling System.
1819069	do	Bonell, R. K	Static Frequency Changer.
1819083	do	Edwards, W. H	Phonograph Reproducer.
1819612	do	Massingham, H. R	Electrical Connection Cord and Method of Producing It.
1819614	do	Mathes, R. C	Wave Transmission System.
1819625	do	Schroeder, W	Industrial Truck.
1819629	do	Whiting, D. F	Vacuum Tube Circuits.
1819648	do	Mathes, R. C	Wave Transmission System.
1819649	do	do	Do.
1819675	do	Chaplin, M. P	Switch.
1820088	Aug. 25, 1931	Parker, R. D., and Best, F. H.	Recording Apparatus.
1820094	do	Smith, T. C., Spowart, J. B. and Fitzpatrick, P. G.	Winch Rope Winder.
1820116	do	Burns, R. W	Testing System.
1820990	Sept. 1, 1931	Siebs, C. T	Indicator Switch.
1821004	do	Carpe, A	Compression of Frequency Range.
1821005	do	Cowan, F. A	Gain Measuring Apparatus.
1821006	do	Crisson, G	Measurement of Negative Resistance.
1821076	do	Peterson, E	Amplifying System.
1821547	do	Hartley, R. V. L	Sound Radiator.
1821586	do	Smythe, E. H	Acoustic Device.
1821928	Sept. 8, 1931	Clark, A. B	Telephone Echo Suppressor.
1821993	do	Tradup, A	Telephone System.
1821997	do	Winthringham, W T	Compression of Frequency Range.
1822385	do	Watson, K. M	Apparatus for Coating Electrical Conductors.
1822432	do	Bradley, W. R	Article Handling Apparatus.
1822441	do	Knuuti, C. O., and Metzger, C. A.	Assembling Apparatus.
1822474	do	Bureau, A. A	Reel.
1822484	do	Hartsough, R. C	Method of Coating Electrical Conductors.
1822585	do	Lum, G. R	Mounting for Vacuum Tubes.
1823040	Sept. 15, 1931	Hague, A. E	Call Charging Telephone Exchange System.
1823085	do	Campbell, T. C	Show Case.
1823088	do	Clokey, A. A., and Burton, E. T.	Submarine Cable Repeating System.
1823091	do	Dahl, J. F., and Davis, R. C.	Indicating and Recording System.
1823120	do	O'Neill, H. W	Signaling and Communication System.
1823322	do	Heising, R. A	Wave Transmitting and Amplifying.
1823323	do	Hopkins, I. L	Desk Telephone Set.
1823329	do	Marrison, W. A	Piezo-Electric Device.
1823338	do	Skillman, T. S., Freeth, L. G., and Berry, R. J.	Dial Switching Toll System.
1823349	do	Chapman, S. C	Sound Picture System.
1823354	do	Dowd, A. D., Kerr, M. B., and Locke, G. A.	High Speed Submarine Cable Telegraph System.
1823360	do	Heising, R. A	Signaling System.
1823659	do	Miller, R. A	Wave Transmission System.
1823664	do	Pascarella, A. J	Circuit Maker and Breaker.
1823667	do	Powell, A. C	Trunking System.
1823671	do	Thode, W. N	Method of and Apparatus for Casting.
1823678	do	Bowman, H. N	Cabinet for Portable Testing Apparatus.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1823679	Sept. 15, 1931	Busch, A. J.	Call Charging Telephone Exchange System.
1823680	do	Curtiss, N. A.	Forming Apparatus.
1823687	do	Heising, R. A.	System for Frequency Translation of Electric Waves.
1823688	do	Hovland, H.	Telephone Exchange System.
1823739	do	Horton, J. W.	System Operating on a Marginal Current Basis.
1823827	do	Franz, E. E.	Electrical Device.
Des. 86107	do	Lum, G. R.	Wall Mounting for a Hand Telephone.
1823885	Sept. 22, 1931	Cherry, G. L.	Method of and Apparatus for Handling Strand Material.
1823933	do	Edwards, W. H.	Repeater Apparatus.
1823944	do	Kittredge, L. E., and Dorff, L. A.	Time Recording.
1823948	do	McCann, T. A.	Radio Telephone and Telegraph System.
1823981	do	Lamplough, L. F.	Method of Handling Strand Material.
1823982	do	Lodge, J. E.	Method of and Apparatus for Handling Strand Material.
1824801	Sept. 29, 1931	Bouton, L. L.	Electrical Potentiometer.
1824802	do	Brehaman, L. W.	Insulation Testing System.
1824827	do	Martin, De L. K.	Radio Signaling System.
1824829	do	McCurdy, R. G.	Cable Testing System.
1824857	do	Wintringham, W. T.	Electrical Switching Device.
1825715	Oct. 6, 1931	Cory, S. I.	Telegraph Transmission Measuring System.
1825723	do	Friend, O. A., and Heitsmith, W. J.	Telephone System.
1826196	do	Abraham, L. G.	Echo Suppressor.
1826709	Oct. 13, 1931	Adams, A. H.	Method of Soldering.
1826710	do	do	Apparatus for Soldering.
1826711	do	Andrews, J. W.	Method of Making Magnetic Structures.
1826716	do	Bartenbach, H.	Gas-Tight Plugging of Cables and the Like.
1826717	do	do	Dispensing Device.
1826725	do	Boynton, J. E.	Coupling In an Apparatus for Extruding Matter.
1826795	do	Larson, H. W.	Indenturing Apparatus.
1826808	do	McDonough, J., and Norman, L.	Apparatus for Removing Connecting Elements.
1826812	do	Nyquist, H.	Electro-Optical Transmission.
1826828	do	Schoof, A. W.	Apparatus for Gauging and Adjusting Articles.
1826835	do	Spousta, W. C.	Assembling Articles for Transportation.
1826856	do	Zimmerman, P. P.	Method of Treating Materials.
1827186	do	Borgeson, S. E.	Winding Machine.
1827187	do	Brown, G. R., and Loesges, C.	Recording Apparatus.
1827191	do	Casper, W. L.	Shielded Inductance.
1827196	do	Heising, R. A.	Piezo-Electric Oscillator.
1827198	do	Hofstetter, R.	Threading Apparatus.
1827203	do	Little, J. S.	Cellulose Containing Articles and Method of Producing Such Articles.
1827204	do	Mason, S. R.	Method of Protecting Metal Surfaces.
1827205	do	Middlekauff, R. P.	Composite Relay Stud.
1827209	do	Robbins, C. W.	Industrial Truck.
1827210	do	Siebs, C. T.	Method of Welding.
1827247	do	Mason, S. R.	Method of Protecting Metal Surfaces.
1827263	do	Roman, F. L.	Composition for Flame-Proofing Inflammable Materials.
1827297	do	Moore, C. R.	Method of Joining Wires by Means of Sleeves.
1827302	do	Stull, J. S.	Material Working Apparatus.
1827843	Oct. 20, 1931	Green E. I.	Piezo-Electric Frequency Eliminator.
1827855	do	Parker, L. T.	Reeling Device.
1827860	do	Thorp, V. P.	Carrier Telegraph System.
1827931	do	Blankenstein, E. E.	Method of Producing Carbon Granules.
1828009	do	Westhafer, T. O.	Do.
1828046	do	Howard, R. S.	Do.
1828454	do	Bode, H. W.	Transmission Network.
1828455	do	Borgmann, C.	Telephone Switchboard.
1828498	do	Heising, R. A.	Oscillation Circuits.
1828503	do	Lutomirski, K.	Means for Reducing Interference in Electrical Circuits.
1828507	do	Murphy, P. B.	Circuit Controlling Device.
1828513	do	Smythe, E. H.	Sound Reproducer.
1828803	Oct. 27, 1931	Freeman, A. E., and Livermore, W. T.	Multiple Drive Apparatus.
1828823	do	Taylor, E. R.	Combined Telephone and Telegraph System.
1829185	do	Herman, J.	Method and Means for Measuring Distortion of Telegraph Signals.
1829783	Nov. 3, 1931	Chesnut, R. W., Fisher, H. J., and Sanial, A. J.	Method and System of Secret Signaling.
1829798	do	Hatton, W., De Vriendt, C., and Rousseau, E. J.	Community Dial Switching Telephone System.
1829799	do	Hatton, W., De Vriendt, C., and Rousseau, E. J.	Zone Metering Telephone Exchange System.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1829801	Nov. 3, 1931	Jones, W. C	Sound Reproducing System.
1829803	do	Korn, F. A., and Entz, F. S	Telephone System.
1829805	do	Mathes, R. C	Transmission Control.
1829806	do	do	Do.
1829810	do	Reeve, H. T	Electron Emitter.
1829825	do	Freeman, A. E., and Livermore, W. T.	Brake for Power Driven Shafts.
1829830	do	Herman, J	Pilot Channel for Telegraph Systems.
1829836	do	Newby, N. D	Signaling System.
1829837	do	do	Do.
1829838	do	Nyquist, H	Transmission Delay Measuring System.
1829992	do	Kemp, A. R	Rubber Composition.
1829997	do	Martell, C	Composition of Matter and Method of Its Preparation.
1829998	do	do	Do.
1830163	do	Gray, F	Glow Discharge Lamp.
1830173	do	Nelson, E. L	Radio Television System.
1830210	do	Oswald, A. A., and Schelleng, J. C.	Electric Discharge Apparatus.
1830219	do	Bjornson, B. G	Transmission Control.
1830220	do	do	Do.
1830226	do	Dudley, H. W	Transoceanic Cable Circuit.
1830238	do	Nukiyama, H., and Nagai, K	Relay and Discharge Tube Circuit.
1830240	do	Peterson, E	Electric Wave Limiting Device.
1830834	Nov. 10, 1931	Green, J. W	Telephone System.
1830864	do	Weaver, A	Elimination of Radio Interference Due to Printing Telegraph.
1830873	do	Haines, W. T	Telephone System.
1830880	do	Misenheimer, H. N	Antenna Circuit.
1830896	do	Wintringham, W. T	Adjustable Electric Filter System.
1831018	do	Little, J. S	Machine for Making Articles from Pulpous Material.
1831037	do	Scott, K. L	Signaling Device.
1831375	do	Adams, W. J., Jr	Electrical Tuning Device.
1831377	do	Blount, N	Telephone Receiver.
1831380	do	Curley, T. V	Telephone System.
1831385	do	Hague, A. E	Do.
1831387	do	Hatton, W., De Vriendt, C., and Rousseau, E. J.	Dial Switching Rural Telephone Exchange System.
1831391	do	Perreault, G. E	Telephone Desk Set.
1831398	do	Spencer, C. G., and Hall, J. A	Telephone System.
1831399	do	Stevens, C. E., and Den Hertog, M.	Register Equipment for Automatic Telephone Exchanges.
1831400	do	Stokely, R. L	Telephone System.
1831881	Nov. 17, 1931	Potter, R. K	Radio Signal Measuring Device.
1831901	do	Bascom, H. M	Telephone System.
1831921	do	Martin, DeL. K	Short Wave Radio Antenna System.
1831922	do	McDavitt, M. B., and Schwantes, P. C., Jr.	Telephone Exchange System.
1831931	do	Stern, A. B	Telephone System.
1831945	do	Boynton, J. E	Forming Tubes.
1831992	do	do	Material Handling Apparatus.
1832261	do	Stevenson, G. H	Non-Singing Amplifier.
1832263	do	Strickler, W. B	Telephone System.
1832285	do	Elmer, L. A	Mechanical Coupling.
1832292	do	Fowler, C. B	Electrical Circuits.
1832293	do	Friedl, G., Jr., and Gastonguay, A.	Protective Device.
1832294	do	Gent, E. W	Sensitometer.
1832306	do	Kille, L. A	Semi-Automatic Telephone System.
1832307	do	Kingsbury, E. F	Alloy for Electrical Contacts.
1832308	do	Knoop, W. A	Interpolating System.
1832309	do	do	Synchronous Telegraph System.
1832366	do	Dudley, H. W	Electrical Communication System.
1832430	do	Siebs, C. T	Winding Device.
1832131	do	Sivian, L. J	Electric Wave Transmission System.
1832444	do	Berger, B	Safety Device.
1832446	do	Boe, H. J	Apparatus for Handling Reels.
1832417	do	Carpenter, W. W	Telephone System.
1832453	do	Fowler, C. B	Telephone Metering System.
1832455	do	Gilbert, J. J	Submarine Signaling Conductor.
1832466	do	Means, W. J	Resistance Unit.
1832886	Nov. 24, 1931	Whiting, D. F	Current Supply Circuits.
1832901	do	Harrison, H. C	Measurement of Mechanical Impedance.
1832969	do	Edwards, P. G., and Herrington, H. W.	Testing System.
1832977	do	Gannett, D. K	Multiple Way Connection for a Plurality Lines.
1832981	do	Haislip, R. A	System for Building Out Loading Sections of Signaling Cables.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1832996	Nov. 24, 1931	Percival, H. S., and Bartlett, H. H.	Grade Clamp.
1833000	....do	Shafer, W. L	Selective Signaling System.
1833616	....do	Nelson, C. E., and Stull, J. S.	Material Forming Apparatus.
1833636	....do	Dahl, A. C	Article Conveying System.
1833637	....do	Dennison, L. I	Method of and Apparatus for Handling Articles.
1833640	....do	Fruth, H. F	Microphonic Material and Method of Producing the Same.
1833641	....do	....do	Do.
1833642	....do	....do	Sound Generating and Sound Responsive Device.
1833644	....do	Haegele, O. P	Intermittent Motion Transmitting Device.
1833654	....do	McMullan, S	Signaling System for Material Handling Apparatus.
1833656	....do	Nelson, C. E	Material Forming Apparatus.
1833657	....do	....do	Do.
1833658	....do	Pullan, J. F	Do.
1833659	....do	Ravenschlag, A. G., and Tikalsky, F. P.	Ejecting Mechanism.
1833660	....do	Siebs, C. T., and Daniel, T. A.	Welding Apparatus.
1833661	....do	Stull, J. S	Threading Die.
1833662	....do	....do	Apparatus for Handling Articles.
1833663	....do	Tikalsky, F. P	Die Casting Machine.
Des. 85617	....do	Lum, G. R	Audiphone.
1833958	Dec. 1, 1931	Watson, E. F., and McCann, T. A.	Telegraph Signal Recording System.
1833966	....do	Fetter, C. H	Multiplex System.
1833968	....do	Holden, W. H. T	Amplifying System.
1834002	....do	Nyquist, H	Distortion Neutralizing Repeater.
1834005	....do	Roberts, L. C	Selective Circuit Arrangement.
1834376	....do	Boving, H	Insulated Wire.
1834393	....do	Fowler, C. B	Telephone Exchange System.
1834956	Dec. 8, 1931	Lonie, J. H	Hydraulic Feed for Work Tables.
1834986	....do	Strawn, M. L	Control Mechanism.
1834992	....do	Almquist, M. L	Device for Producing Modulated Currents.
1835003	....do	Bisbee, F. C	Telephone System.
1835031	....do	Espenschied, L., and Affel, H. A.	Concentric Conducting System.
1835080	....do	Pfleger, K. W	Transmission Regulation in Cable Circuits.
1835099	....do	Stone, J. S	Valve Commutator and Its Use in Multiplex Signaling.
1835597	....do	Hill, W. M., and McFarland, R. E.	Apparatus for Working Strand Coverings.
1835737	....do	Williams, S. B	Electrical Recorder.
1835743	....do	Aster, A. K	Sound Picture System.
1835757	....do	Burchett, G. W	Connecting Device.
1835771	....do	Gilbert, J. J	Submarine Signaling Cable.
1835783	....do	Kendall, B. W	High Frequency Signaling.
1835788	....do	Knoop, W. A	Electrical Contact Element.
1835792	....do	Lum, G. R	Head Set.
1835795	....do	Mason, W. P	Sound Transmission.
1835802	....do	Meszar, J	Signaling System.
1836106	Dec. 15, 1931	Broe, E. P	Overflow Jack Circuit.
1836109	....do	Edwards, W. H	Impedance Modifying Device.
1836114	....do	Green, E. I	System of Carrier Current Signaling on Power Lines.
1836127	....do	Matte, A. L	System for Testing and Adjusting Energy Levels in the Transmission of Signals.
1836129	....do	Potter, R. K	Signaling System.
1836549	....do	Paine, R. C	Telephone Exchange System.
1836556	....do	Shelleng, J. C	Regulating Device for High Frequency Power Amplifiers.
1836558	....do	Sherman, R. J	Light Valve.
1836569	....do	Benjamin, J. C	Electric Translating Device.
1836674	....do	Burton, E. T	Signal Shaping Amplifier.
1836582	....do	Dunham, B. G	Telephone Exchange System.
1836589	....do	Haigh, L. B	Rural Telephone System.
1836594	....do	Heising, R. A	Radio Signaling System.
1836804	....do	Kahl, W. E	Carrier Repeating System.
1836808	....do	Marrison, W. A	Inductance Coil.
1836809	....do	Mason, W. P	Distortion Corrections in Transmission Systems.
1836810	....do	....do	Do.
1836816	....do	Riesz, R. R	Artificial Larynx.
1836824	....do	Steinberg, J. C	Wave Transmission with Narrowed Bands.
1836829	....do	Weinhart, H. W	Electric Discharge Device.
1836839	....do	Coram, R. E	Oscillation Generator.
1836841	....do	Dudley, H. W	Electric Wave Signaling System.
1836844	....do	Fry, T. C., and Struik, D. J.	Distortion Correction in Transmission Systems.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1837202	Dec. 22, 1931	Burton, E. T.	Circuit Breaker.
1837206	do	Collis, R. E.	Ca l Charging Telephone Exchange System.
1837217	do	Hayward, J. M.	Telephone Card Holder.
1837229	do	Mason, W. P.	Distortion Correction in Transmission Systems.
1837237	do	Shangle, A. H.	Telegraph Apparatus.
1837238	do	Siegmund, H. O.	Method of Making Electrical Switch Contacts.
1837243	do	Watkins, S. S. A.	Sound Recording and Reproducing System.
1837245	do	Wheeler, E. B.	Inductance Device.
1837316	do	Crisson, G., and Wright, S. B.	Voice Operated Control Arrangement for Telephone Cable Systems.
1837327	do	Lewis, B. F.	Transmission Network.
1837337	do	Roberts, L. C.	Means for Producing Current of Reduced Frequency.
1837355	do	Burns, R. M., and Warner, C. W.	Electro-Deposition of Alloys.
1837364	do	Ives, H. E.	Signaling Apparatus.
1837365	do	do	Light Sensitive Device.
1837373	do	Ronci, V. L.	Glass Working Machine.
1837385	do	Wegel, R. L.	Sound Radiator.
1837413	do	Dobson, E. S.	Inductive Coupling Device.
1837434	do	Hickson, D. C.	Horn Support.
1837448	do	Krom, M. E.	Signaling System.
1837491	do	Sarbacher, R. I.	Horn Support.
1837721	do	Mason, S. R.	Method of Treating Metallic Surfaces.
1837723	do	McGraw, G. P.	Method of Manufacturing Electrical Connecting Plugs.
1837733	do	Stearns, H. C.	Protective Covering and Method of Producing Such Covering.
1837754	do	Calmus, C. J., and Tomlin, J. H.	Method of Producing Electrical Apparatus.
1838027	do	Clarke, H. R.	Electrodynamic Device.
1838268	Dec. 29, 1931	Ladner, H., and Welch, P. V.	Biased Carrier Telegraph System.
1838278	do	Montagnon, J.	Spanner Wrench.
1838281	do	Nyquist, H.	Transmission Line.
1838370	do	Dean, R. S., and Wilson, R. V.	Soldering Flux.
1839263	Jan. 5, 1932	Reiber, A. H.	Automatic Control System.
1839290	do	Bailey, A.	Direction Finder for Radio Waves.
1839320	do	Kellems, E. E.	Cable Reel Trailer.
1839321	do	Kent, R. J.	Reeling Device.
1839344	do	Scott, K. L.	Method of Treating Magnetic Materials.
1839345	do	Scott, K. L., Kirby, A. L., and Leach, M. R.	Method of Heat Treating Magnet Steels.
1839361	do	Weaver, A., and Branson, D. E.	Image Producing System.
1839436	do	Wood, L. E.	Method of Producing Composite Articles.
1839439	do	Raymond, G. F.	Measuring Device.
1839477	do	Grondahl, H. H. C.	Control Apparatus.
1839490	do	Moeller, L. J.	Apparatus for Distributing Parts.
1840015	do	Bjornson, B. G.	Transmission Control Circuit.
1840089	do	Gilbert, J. J.	Loaded Submarine Cable.
1840090	do	Goodrum, C. L.	Impulse Circuit.
1840097	do	Hinrichsen, E. E.	Do.
1840101	do	Jespersen, H. W.	Apparatus for Controlling the Working o Material.
1840102	do	do	Apparatus for Cleaning Articles.
1840109	do	Koechling, C. D.	Telephone System.
1840112	do	Lane, C. E.	Artificial Larynx.
1840113	do	Latimer, K. E.	Telephone Transmission System.
1840116	do	Linton, G., and Townsend, J. R.	Switch Cleaning Device.
1840132	do	Roberts, T. H.	Telephone System.
1840144	do	Wheeler, C. H.	Coin Collector.
1840350	Jan. 12, 1932	Ceccarini, O. O.	Radio Frequency Amplifier.
1840352	do	Elmen, G. W.	Process of Producing Magnetic Bodies.
1840356	do	Goodrum, C. L.	Automatic Telephone Exchange System.
1840357	do	do	Panel Dial Switching System.
1840359	do	Hellner, P. H.	Metering and Timing Apparatus for Telephone Systems.
1840360	do	Herman, J.	Selective Circuit Arrangement.
1840362	do	Hunter, R. N., and Stover, H. F.	Transposition Bracket for Insulators.
1840364	do	Irvine, F. S.	Telephone Dial System.
1840368	do	Porter, L. F.	Telephone Exchange System.
1840376	do	Whitney, W.	Telephone System.
1840377	do	Williams, R. R.	Electrical Conductor.
1840434	do	Cowan, F. A.	Conductor System for Signaling Currents.
1840580	do	Heising, R. A.	Crystal Controlled Oscillator.
1841033	do	Ives, H. E.	Photoelectric Tube.
1841034	do	do	Electro-Optical Apparatus.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1841084	Jan. 12, 1932	Bragg, H. E	Telephone System.
1841085	do	Bruce, E	Unidirectional Antenna System.
1841088	do	Christopher, A. J	Electrical Testing System and Method.
1841093	do	Dahl, J. F	Call Distributing System.
1841097	do	Elmen, G. W	Heat Treatment of Conductors.
1841101	do	Flanders, P. B., and Harrison, H. C.	Loud Speaker.
1841120	do	Hibbard, F. H	Slow Acting Relay.
1841123	do	Hovland, H	Telephone Exchange System.
1841125	do	Hoyt, F. A	Coin Collection Apparatus.
1841142	do	Mathes, R. C	Wave Communication System.
1841197	do	Massonneau, R. F., and Roberts, T. H.	Telephone Alarm System.
1841394	Jan. 19, 1932	Bachelet, A. E	Circuit for Space Discharge Devices.
1841405	do	Dudley, H. W	Transmission Control Circuits.
1841422	do	Stull, J. S	Apparatus for Forming Articles.
1841428	do	Barrows, L. D	Contact Mechanism.
1841468	do	Ford, B. K	Connecting Plug.
1841469	do	Franks, C. H	Telephone Receiver.
1841472	do	Given, F. J	Inductance Device.
1841473	do	Green, E. I	Arrangement for Connecting or Terminating Coaxial Conductors.
1841476	do	Griffiin, J. T	Method of Facilitating the Location of Members Secured Within Bodies.
1841479	do	Jessen, G. J	Combined Cable and Wire Support.
1841484	do	Larsen, H. M	Process of Treating Materials.
1841485	do	do	Apparatus for Treating Materials.
1841486	do	Legg, V. E	Composite Metallic Strand.
1841488	do	Liss, A. S	Material Feeding Apparatus.
1841489	do	Marrison, W. A	Oscillation Generator.
1841496	do	Milne, G. D	Electromagnetic Device.
1841501	do	Sivian, L. J	Circuits for Electric Discharge Devices.
1841504	do	Stoller, H. M	Do.
1842037	do	Mason, S. R	Article Made of Chromium.
1842478	Jan. 26, 1932	Rea, W. T	Telegraph System.
1842496	do	Wagner, R., Jr	Mounting for Books and the Like.
1842523	do	Hanley, F. H	Telegraph System.
1842721	do	Kleinschmidt, E. E	Radio Telegraph System.
1842722	do	do	Signaling System.
1843189	Feb. 2, 1932	Bailey, A	Radio Telephone and Telegraph System.
1843227	do	Herman, J	Do.
1843228	do	Herman, J., Taylor, E. R., and Wright, S. B.	Radio Telephone and Telegraph Circuits.
1843910	Feb. 9, 1932	Broadwill, H	Tuning Fork.
1844027	do	Bascom, H. M., and Nelson, S. F.	Signaling Arrangement for Telephone Systems.
1844108	do	Smythe, E. H	Method of Manufacturing Acoustic Impedance Elements.
1844110	do	Steinberg, J. C	Determination of Telephone Quality.
1844111	do	Stokely, R. L	Telephone Exchange System.
1844114	do	Bishop, W. M	Manufacture of Continuously Loaded Conductors.
1844121	do	Hibbard, F. H	Electromagnetic Switching Device.
1844123	do	Holland, N. H	Acoustic Diaphragam.
1844125	do	Kelsay, L. W	Cable Terminal Device.
1844147	do	Clark, E. H	Automatic and Semi-Automatic Telephone System.
1844422	do	Mathes, R. C., and Horton, A. W., Jr.	Cable Telephony.
1844423	do	Mathes, R. C	Attenuation and Volume Control.
1844424	do	Horton, A. W., Jr	Long Distance Telephone Transmission.
1844886	do	Herman, J	Means for Measuring Time of Propagation of Wave Fronts over Circuits.
1844887	do	do	Method of and Means for Measuring Time of Propagation of Wave Fronts over Circuits.
1844953	Feb. 16, 1932	Friis, H. T	Radio Receiving Circuits.
1844973	do	Ports, E. G	Radio Communication System.
1845017	do	Edwards, W. H	Telephone Signaling System.
1845033	do	Bausch, E	Switching Mechanism.
1845034	do	Bickelhaupt, C. O	Signaling Apparatus for Recording Systems.
1845041	do	Boving, H	Insulated Electric Conductor.
1845042	do	Burns, R. M	Electron Discharge Device.
1845075	do	Boving, H	Insulation for Electrical Conductors.
1845077	do	Dixon, J. B., and Hayford, W. S.	Drawing Tool.
1845080	do	Eyring, C. F., Hanson, R. L., and MacNair, W. A.	Studio for Acoustic Purposes.
1845081	do	Ferris, L. P	Electrical Protective System.
1845113	do	Andrews, J. W., and Gillis, R	Magnetic Material and Magnet Core.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1845144	Feb. 16, 1932	Gillis, R.	Method of Making Magnetic Structures
1846261	Feb. 23, 1932	Kittredge, L. E.	Telephone System.
1846262	do	do	Do.
1846516	do	Haines, W. T.	Do.
1846678	do	Ferrell, M. P.	Speeding Measuring Apparatus.
1846883	do	Locke, G. A.	Synchronous Signaling System.
1846917	do	Stevenson, G. H.	Bushing for High Frenquency High Voltage Current.
1847079	Mar. 1, 1932	Burton, E. T.	Wave Modulation and Application Thereof.
1847086	do	Gargan, J. O.	Fluid Operated Switch.
1847089	do	Heising, R. A., and Farrington, J. F.	Radio Receiving System.
1847100	do	Rock, G. L.	Terminal and Method of Attachment Thereof.
1847102	do	Scott, W. J.	Ceramic Material.
1847113	do	Keller, L.	Communication System.
1847116	do	Labaugh, J. M.	Telephone Substation Set.
1847122	do	Macintyre, M.	Electrical Connector.
1847123	do	Malm, F. S.	Compositions of Matter and Methods of Their Preparation.
1847124	do	Marrison, W. A.	Oscillation Generator.
1847137	do	Roberts, J. G.	Communication System.
1847140	do	Shee, P. L.	Locating Device.
1847142	do	Sivian, L. J.	Means and Method of Signaling by Electric Waves.
1847145	do	Tarr, J. E.	Amplifier System.
1847151	do	Watson, E. F., and Hunt, A. E.	Transmitter of Variably Biased Impulses.
1847160	do	Affel, H. A.	Frequency Control.
1847161	do	Alden, J. L.	Feeding Apparatus.
1847174	do	Dixon, A. F.	Communication System.
1847181	do	Harrison, H. C.	Talking Motion Picture System.
1847190	do	Marrison, W. A.	Electric Wave Signaling System.
1847191	do	Morton, E. R.	Control System.
1847196	do	Scott, W. J.	Ceramic Material and Method of Manufacturing Ceramic Articles.
1847197	do	Shaw, L. I., and Scott, W. J.	Ceramic Material and Method of Making the Same.
1847208	do	Bennett, F. W.	Inclosure for Devices.
1847213	do	Folkner, G. W.	Selector Switch.
1847702	do	Thuras, A. L.	Sound Translating Device.
1848126	Mar. 8, 1932	Heising, R. A.	Generation and Modulation of Electric Waves.
1848134	do	Lambert, K. B.	Electrical Testing System.
1848143	do	Pfannenstiehl, H.	Motion-Picture Apparatus.
1848169	do	Greenidge, R. M. C.	Adjustable Inductance.
1848174	do	Irvine, F. S., and Roberts, T. H.	Trouble Recording System.
1848180	do	Knoop, W. A.	Synchronizing System.
1848181	do	do	Synchronous Signaling System.
1848187	do	McNally, J. O.	Vacuum Tube Amplifier.
1848196	do	Polinkowsky, L., and From, O. C.	Semi-Automatic Rural Telephone System.
1848209	do	Strong, C. E.	Vacuum Tube Circuits.
1848212	do	Waterman, J. S.	Apparatus for Producing Artificial Breathing.
1848220	do	Lindsay, R. H.	Energy Control Arrangement.
1848221	do	McCurdy, R. G.	Filter Arrangement.
1848222	do	Potter, R. K.	Producing Musical Sounds.
1848364	do	Legg, V. E.	Treating Magnetic Materials.
1849087	Mar. 15, 1932	Hovland, H.	Telephone System.
1849088	do	do	Do.
1849141	do	Dutton, T. D.	Transmission Regulator System.
1849189	do	Holden, W. H. T.	Gain Control Apparatus.
1849193	do	McCurdy, R. G.	Submarine Cable.
1849641	do	Sandeman, E. K.	Mechanical Wave Transmission Device.
1849643	do	Seasongood, C. C., and McWilliams, C. W.	Electric Contact Device.
1849645	do	Stoller, H. M.	Motor Structure.
1849646	do	do	Motor Control System.
1849651	do	Anderson, S. E.	Radio Apparatus.
1849656	do	Bennett, W. R.	Transmission Network.
1849662	do	Dunham, B. G.	Telephone Exchange System.
1850130	Mar. 22, 1932	Gannett, D. K.	Talking Moving Picture System.
1850145	do	Thorp, V. P.	Carrier Telegraph System.
1850146	do	Zobel, O. J.	Electrical Wave Filter.
1850576	do	Zimmerman, L. C.	Apparatus Used in the Process of Heat Treating Metallic Articles.
1850579	do	Casper, W. L.	Adjustable Inductance Coil.
1850580	do	Coram, R. E.	Oscillation System.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1850581	Mar. 22, 1932	Duclos, A. J. M.	Apparatus for Sealing Conductors under Pressure.
1850591	do	Martin, F. D.	Apparatus for Handling Material.
1850593	do	Mathes, R. C.	Transmission Control.
1850597	do	McGuire, L. R.	Method of and Apparatus for Shipping Articles.
1850603	do	Quass, R. L.	Telephone System.
1850608	do	Stokely, R. L.	Do.
1851072	Mar. 29, 1932	Vernam, G. S., Watson, E. F., and Perry, D. B.	Apparatus and Method for Electrical Transmission of Pictures.
1851090	do	Fetter, C. H.	Transmission Delay Circuits.
1851091	do	do	Signaling System Including Adjustable Wave Filter.
1851092	do	do	Transmission Delay Circuits.
1851139	do	Stokely, R. L.	Telephone System.
1851173	do	Hall, A. G.	Method of and Apparatus for Gauging Articles.
1851185	do	Johnson, L. H.	Telephone System.
1851778	do	Walbran, C. J.	Tape Moistening and Pasting Device.
1852045	Apr. 5, 1932	Edwards, W. H.	Signaling Arrangement for Telephone Lines.
1852050	do	Hamilton, B. P.	Telegraph System.
1852061	do	Hamilton, B. P., and Rea, W. T.	Telegraph Repeater System.
1852162	do	Harris, J. E., and White, J. H.	Refining of Copper.
1852584	do	Mathes, R. C.	Transmission Control.
1852605	do	Carlton, R. C., Tinus, W. C., and Vadersen, H.	Inductance Device.
1852647	do	Gooderham, J. W.	Telephone System.
1852743	do	Elmer, L. A.	Motion Picture Apparatus.
1852746	do	Gooderham, J. W.	Telephone System.
1852747	do	Hague, A. E.	Trunk Circuit for Telephone Exchange Systems.
1852753	do	Knoop, W. A.	Telegraph Signal Distributing Device.
1852756	do	Pritchard, W. T.	Lubricating Device.
1852758	do	Schroeder, W.	Material Handling Apparatus.
1852759	do	Shaw, L. I., and Johnson, A. G.	Enameled Article and Method of Producing the Same.
1852769	do	Collard, J.	Interference Determining.
1852773	do	Gent, E. W.	Electromagnetic Signaling Device.
1852774	do	Gent, E. W., and Potts, L. M.	Transiating Device.
1852777	do	Hoernel, P. C., and Smith, J. W.	Cooling System.
1852792	do	Siebs, C. T., and McGuire, L. R.	Reel and the Transportation Thereof.
1852793	do	Scrantom, D. G.	Apparatus for Amplifying and Distributing Sound Waves.
1852795	do	Wegel, R. L.	Wave Transmission Device.
1853022	Apr. 12, 1932	Allison, S. W., and McCullagh, W. I.	Automatic Dialing Circuits.
1853070	do	Mitchell, D.	Equalization of Power Level in a Signal Transmitting System.
1853077	do	Peterson, G. H.	Timing Circuit for Telephone Calls.
1853117	do	Espenschied, L., and Fetter, C. H.	Receiver for Radio Broadcast and Wire Distributing Systems.
1853548	do	Casper, W. L.	Coil.
1853912	do	MacNair, W. A.	Studio for Acoustic Purposes.
1853924	do	Owens, C. D.	Process for Insulating Magnetic Bodies.
1853929	do	Rettenmeyer, F. X.	Electric Wave Filter.
1853955	do	Blattner, D. G.	Acoustic Device.
1853969	do	Ganz, A. G.	Circuits for Coupling Lines of Different Impedances.
1853974	do	Hogg, J. L., and Doba, S.	Transmission System.
1854106	do	Carpenter, W. W.	Automatic Telephone System.
1854247	Apr. 19, 1932	Brand, S., and Mertz, P.	Multiplex Phase Discrimination Transmission System.
1854255	do	Green, E. I.	Triple Concentric Conductor System.
1854267	do	Matte, A. L.	Tuning Fork Generator.
1854432	do	Thurston, G. M.	Generation of Electric Waves.
1854457	do	DeCoutouly, G. C.	Electric Wave Signaling System.
1854760	do	Paulson, C.	Apparatus for Gauging Material.
1854795	do	Kaempf, E.	Electric Communication Cable.
1854802	do	Meyer, A.	Telephone Receiver.
1854812	do	Steinberg, J. C.	Do.
1854824	do	Burgess, H. A.	Toroidal Coil.
1854828	do	Doba, S.	Transmission System.
1854830	do	Flanders, P. B.	Acoustic Device.
1854832	do	Gastonguay, A., and Puller, G.	Support.
1854838	do	Hartsough, R. C.	Apparatus for Inspecting Material.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1854916	Apr. 19, 1932	Wirth, G	Telephone Exchange System.
1855288	Apr. 26, 1932	Green, E. I	Coaxial Construction for Power Line Carrier System.
1855303	do	McCurdy, R. G	Multiple Coaxial Conductor System.
1855321	do	Shackleton, S. P	Gas Pressure Alarm System for Toll Cables.
1855571	do	Fondiller, W	Continuously Loaded Conductor.
1855576	do	Keith, C. R	Frequency Translating System.
1855578	do	Legg, V. E	Heat Treatment of Signaling Conductors.
1855593	do	Whitney, W	Telephone System.
1855598	do	Carpenter, W. W., and Collis, R. E.	Telephone Exchange System.
1855600	do	Clarke, H. R	Sound Translating Device.
1855601	do	Gorton, W. S	Impulse and Wave Transmission System.
1855602	do	Kerner, S	Crimping Tool.
1855616	do	Stevens, W. E	Telephone System.
1855849	do	Babbitt, B. J	Apparatus for Determining Magnetic Properties of Materials.
1855855	do	Gillis, R., and Morison, J. C	Molding Die.
1855862	do	McCann, P. S., and Spousta, W. C.	Container Handling and Dumping Device.
1855869	do	Pugh, E	Method of and Apparatus for Coating Articles.
1855870	do	Rinker, J. C	Filing Device.
1855872	do	Shaw, L. I	Detergent.
1855874	do	Stull, J. S	Apparatus for Forming Articles.
1855876	do	Barker, V. D	Method of and Apparatus for Producing Electrical Resistance Elements.
1855877	do	Blood, H. L., and Olson, H. O.	Material Handling Apparatus.
1855930	do	Stull, J. S	Apparatus for Forming Articles.
1856202	May 3, 1932	Wilson, L. T	Testing Apparatus.
1856204	do	Affel, H. A., and Green, E. I	Coaxial Conductor System.
1856213	do	Hamilton, B. P., and Rea, W. T.	Radio Receiving Apparatus.
1856224	do	Perry, D. B	Telegraph Communication System.
1856373	do	Burton, E. T	Power Amplifier.
1856654	do	Nebel, C. N	Terminating Circuit for Two-Way Signaling Systems.
1856665	do	Stoller, H. M	Power Supply System.
1856666	do	do	Filter Circuits.
1856676	do	Weston, W. K	Telephone Cable.
1856702	do	Gilbert, J. J	Tapered Loading of Conductors.
1856707	do	Horton, J. W	Frequency Measuring Circuits.
1856714	do	Locke, G. A	Printing Telegraph Radial Switching System.
1857201	do	Lathrop, H	Process for Insulating Magnetic Bodies.
1857238	do	Cory, S. I	Transmission System.
1857258	do	Rea, W. T	Do.
1857259	do	do	Do.
1857786	do	Krum, H. L	Telegraph Printer and the Like.
1857794	do	Smythe, E. H	Wave Energy Translating Diaphragm and Method of Mounting It.
1857801	do	Arkema, H. P., and McMullan, S.	Strand Slackening Device.
1857817	do	McCann, P. S	Winding and Reeling Device.
1857819	do	Merriam, F. F	Radio Telephone System.
1857820	do	Rice, E. U	Serving Device.
1857827	do	Stacy, L. J	Telephone System.
1857828	do	Wagar, H. M	Circuit Controlling Device.
1857830	do	Whittle, H	Transmission Circuit.
1857835	do	Bidwell, E. M	Apparatus for Handling Strand Material.
1857848	do	Hinrichsen, E. E	Communication System.
1858037	do	Burton, E. T	Zero Correcting Circuit.
1858237	May 17, 1932	do	Submarine Cable Telegraph System.
1858307	do	Nyquist, H	Means for Compensating for Non-Linear Distortion in Transmission Circuits.
1858338	do	do	Do.
1858339	do	Ohl, R. S	Piezo-Electric Oscillator.
1858350	do	Weaver, A	Printing Telegraph System.
1858364	do	Koenig, W., Jr	Multiple Slide Wire Potentiometer.
1859011	do	Wales, C	Method of and Apparatus for Making Glass Articles.
1859019	do	Bjornson, B. G	Voice Operated Relay Circuits.
1859020	do	Brown, L. H	Method of and Apparatus for Measuring Materials.
1859030	do	Dudley, H. W	Distortion Correction in Transmission Systems.
1859047	do	Paulson, C	Apparatus for Determining Indications of Measuring Instruments and Controlling Apparatus Thereby.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1859067	May 17, 1932	Beath, C. P., and Heinicke, H. M. E.	Method of Producing Magnetic Materials.
1859087	do	Heinicke, H. M. E	Do.
1859111	do	Rock, G. L	Indexing Apparatus.
1859385	May 24, 1932	Edwards, W. H	Telephone System.
1859386	do	do	Do.
1859390	do	Green, E. I	Concentric Conductor System.
1859404	do	McDavitt, M. B	Telephone Exchange System.
1859423	do	Arnold, H. D	Sound Recording.
1859470	do	Road, R. A., and Redmond, F. J.	Selector Brush.
1859475	do	Skillman, T. S., and Freeth, L. G.	Call Indicator System.
1859476	do	Skillman, T. S	Semi-Automatic Telephone System.
1859494	do	Black, H. S	Circuits for Electric Discharge Devices.
1859498	do	Carpe, A	Vacuum Tube Control System.
1859565	do	Keith, C. R	Apparatus for Reducing Cross Talk Currents.
1859867	do	Friis, H. T., and Jensen, A. G.	Wave Transmission Circuits.
1859885	do	Paine, R. C	Telephone System.
1859892	do	Ricker, N. H	Acoustic Device.
1859901	do	Trebes, B. M. A	Extruding Apparatus.
1859910	do	Bowne, L. J	Telephone System.
1859921	do	Heising, R. A	Acoustic Device.
1859924	do	Johnson, L. H., and Gibson, E. S.	Call Charging Telephone Exchange System.
1859929	do	McKim, J. B	Telephone System.
1859930	do	Miller, I. R	Recording and Reproduction of Intelligence.
1859941	do	Stokely, R. L	Telephone Exchange System.
1860007	do	Bascom, H. M	Telephone Office Alarm Circuit.
1860070	do	Blount, H	Strand Working Apparatus.
1860130	do	do	Do.
1860446	May 31, 1932	Bailey, R. S., Newby, N. D., and Moody, D. L.	Signaling System.
1860455	do	Dietze, E	Lineman's Test Set.
1860457	do	Edwards, W. H	Signaling System for Party Telephone Lines.
1860458	do	do	Telephone Signaling System.
1860459	do	do	Signaling Arrangement for Two-Party Telephone Lines.
1860464	do	Kleinschmidt, E. E	Selective System and Apparatus Therefor.
1860498	do	Ford, L. S	Electrical Cable.
1860500	do	Gilbert, J. J	Conductor.
1860503	do	Holland, N. H	Acoustic Diaphragm.
1860515	do	Stokely, R. L	Telephone Exchange System.
1860535	do	Goff, H. W	Impulse Transmitter.
1860556	do	Sole, J. H	Regulator.
1860820	do	Scott, K. L	Method of Producing Magnetic Cores.
1860843	do	do	Apparatus for Producing Magnetic Cores.
1860844	do	Sorensen, E. H	Assembling Apparatus.
1860935	do	Marrison, W. A. and Horton, J. W.	Speed and Position Control for Television Apparatus.
1860936	do	do	Electricl Control System.
1861196	do	Stokely, R. L	Telephone Exchange System.
1861201	do	Whiting, D. F	Electron Tube Circuits.
1861204	do	Berrian, J. A	Electrical Controller System.
1861221	do	Martin, H. T. and Hoyt, F. A.	Reeling Device.
1861344	do	Hulfish, D. S	Printing Telegraph System.
1861524	June 7, 1932	Coolidge, O. H	System for Neutralizing Crosstalk between Signaling Circuits.
1861549	do	Ratta, J. A	Vehicle Chock.
1861550	do	Rea, W. T	Motor Generator Regulator System.
1861553	do	Shanck, R. B	Alarm Circuit.
1861556	do	Smith, T. C. and Livermore, W. T.	Cable Reel Trailer.
1861562	do	Bouget, Y. A. and Reichelt, L. O.	Supporting Arbor.
1861574	do	Larson, H. W. and Patchen, R. H.	Material Working Apparatus.
1861851	o	Gilbert, J. J	Submarine Signaling Cable.
1861945	do	Ward, H. L	Method of Producing Composite Articles.
1861990	do	Troche, E. R	Apparatus for Handling Strand Material.
1862005	do	Cherry, G. L. and Troche, E. R.	Apparatus for Sheathing Cores.
1862458	do	Barstow, J. M	Measuring Apparatus.
1862519	June 14, 1932	Brown, H. G. W	Time of Day Announcing System.
1862532	do	Ferguson, J. G	Telephone System.
1862536	do	Hartley, G. C. and Wright, E. P. G.	Tandem Trunk Circuits.
1862537	do	Hatton, W. and Sano, K. M	Time Measuring Device.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1862540	June 14, 1932	Koll, H. M	Carrier.
1862549	do	Raymond, R., and Scully, W. J.	Telephone System.
1862551	do	Rosander, A. P., and Tikalsky, F. P.	Apparatus for Actuating the Cores of a Die Casting Machine.
1862552	do	Schlenker, V. A	Acoustic Device.
1862554	do	Smythe, E. H	Do.
1862556	do	Welhaven, E	Tool.
1862559	do	White, J. H. and Wahl, C. V.	Workable Magnetic Compositions Containing Principally Iron and Cobalt.
1862569	do	Gargan, J. O	Remote Control Device.
1862570	do	Given, F. J	Electrical Condenser.
1862571	do	Goff, H. W	Terminal Strip.
1862578	do	Murphy, P. B	Signaling System.
1862582	do	Schlenker, V. A	Acoustic Device.
1862583	do	Skriba, R. A	Abrading Apparatus.
1862587	do	Almquist, M. L	Signaling Arrangement for Telephone Systems.
1862591	do	Fisher, D	Conduit Threader.
1862595	do	Holden, W. H. T	Voltage Regulator.
1862598	do	Livermore, W. T	Reeling Device.
1862608	do	Schimming, H. H	Arrangement for Producing Modulated Currents.
1863048	do	Hayford, W. S	Method of Joining Wires.
1863072	do	Smythe, E. H	Sound Radiator and Method of Making the Same.
1863073	do	do	Method and Means for Tensioning and for Mounting Diaphragms.
1863086	do	Curley, T. V	Telephone System.
1863089	do	Field, J. C	Remote Control System.
1863137	do	Keckler, C. E., and Hague, A. E.	Time of Day Announcing System.
1863139	do	Massonneau, R. F	Do.
1863141	do	Prince, W. B	Do.
1863225	do	Krum, H. L	Electric Selector Mechanism.
1863292	do	Whitney, W	Telephone System.
1863307	do	Hovland, H	Telephone Exchange System.
1863308	do	Jones, W. C	Receiver.
1863309	do	Kitts, H. L	Motion Picture Projector.
1863322	do	Bennett, A. F	Telephone Pay Station.
1863330	do	De Vriendt, C	Telephone Exchange System.
1863342	do	Kelly, M. J	Electron Discharge Device.
1863384	do	Terry, R. V	Lens Tube Adjusting Appliance.
1863411	do	Nachumsohn, I	Remote Control Selective Mechanism.
1863651	June 21, 1932	Chapman, A. G	Apparatus and Method for Remedying Crosstalk.
1863655	do	Hamilton, B. P	Means for Reducing Lightning Interference in Carrier Telegraph Systems.
1863671	do	Pitts, F. B., Garlinger, M. T., and Smith, T. C.	Cable Laying Apparatus.
1863674	do	Thorp, V. P	Means for Reducing Lightning Interference in Carrier Telegraph Circuits.
1863675	do	do	Do.
1864054	do	Elmen, G. W	Magnetic Material.
1864061	do	Gooderham, J. W	Telephone Ringing System.
1864074	do	Krum, H. L	Telegraph Signaling System.
1864076	do	Legg, V. E	High Frequency Furnace.
1864082	do	Massonneau, R. F	Telephone Exchange System.
1864088	do	Morton, S	Selecting Mechanism.
1864091	do	Parsons, I. H	Method and Means of Testing Photographic Developers.
1864524	June 28, 1932	Bragg, H. E	Telephone System.
1864527	do	Castner, T. G	Measuring Apparatus.
1864528	do	Crawford, A. I., and Glass, M. S.	Vacuum Bulb Mounting.
1864535	do	Hach, C. A., and Sanborn, F. A.	Chair.
1864543	do	Horton, J. W	Frequency Measuring Circuits.
1864547	do	Morton, E. R., and Stoller, H. M.	Incandescent Lamp.
1864553	do	Quass, R. L	Telephone System.
1864558	do	Seeley, G. A	Strand Supplying and Distributing Apparatus.
1864645	do	Edwards, W. H	Telephone Signaling System.
1864646	do	do	Telephone Signaling Arrangement.
1864670	do	Reynolds, F. W	Electro-Optical System.
1864676	do	Smith, T. C., Freeman, A. E., and Livermore, W. T.	Cable Reel Trailer.
1864955	do	Stokely, R. L	Telephone Exchange System.
1864963	do	Vadersen, H	Electron Discharge Device.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1864981	June 28, 1932	Curtis, A. M.	Circuit Breaker for Motors in Signaling Systems.
1865004	do	Haring, H. E.	Reference Electrode.
1865005	do	Harrison, H. C.	Power Transmitting Mechanism.
1865028	do	Mallina, R. F.	Film Editing System.
1865136	do	Potts, L. M.	Synchronizing System.
1865165	do	Bjornson, B. G.	Transmission Control Circuits.
Des. 87286	do	Bescherer, E. A., and Zitzman, A.	Combined Table and Cover for Telegraph Printer.
1865516	July 5, 1932	Gray, F.	Glow Discharge Lamp.
1865571	do	Kline, W. H.	Means for Eliminating Interference in Grounded Telegraph Systems.
1865593	do	Singer, F. J.	Do.
1865600	do	Welch, P. V.	Multi-Switch Coupling.
1866095	do	Foley, E. J.	Cutting Tool.
1866097	do	Gaetje, J. H., and Santschi, A. E.	Electrical Heating Device.
1866100	do	Hach, C. A.	Coating Apparatus.
1866101	do	Hach, C. A., and Hoag, C. L.	Apparatus for Shaping Saw Teeth.
1866102	do	Hach, C. A.	Do.
1866120	do	McWilliams, W. W.	Tool for Handling Clamping Members.
1866123	do	Neighbors, C. C.	Magnetic Material, Method of Making the Same and Articles Made Therefrom.
1866128	do	Pfeiffer, C. L.	Clutch.
1866142	do	Waters, D. V.	Apparatus for Handling Material.
1866250	do	Curtiss, N. A.	Method of Forming Cables.
1866260	do	King, G. V., and Bonomi, F. A.	Telephone System.
1866261	do	Lutomirski, K.	Signal Transmission System.
1866272	do	Seeley, G. A.	Cable Forming Apparatus.
1866274	do	Stoller, H. M.	Resilient Support.
1866275	do	Stoller, H. M., and Morton, E. R.	Speed Regulator.
1866403	do	Elmer, L. C.	Phonograph Recorder and Reproducer Arm.
1866533	July 12, 1932	Horton, J. W.	Vacuum Tube Mounting.
1866592	do	Bjornson, G. B.	Voice Operated Repeater Circuit.
1866593	do	Dahl, J. F., and Carpenter, W. W.	Call Distributing System.
1866601	do	Rendall, A. R. A., and Sandeman, E. K.	Compensating for Distortion in Transmission.
1866603	do	Schlenker, V. A.	Acoustic Device.
1866604	do	Siegmund, H. O.	Electrolytic Device.
1866606	do	Warner, L. C.	Time of Day Announcing System.
1866611	do	Affel, H. A.	Concentric Conducting System.
1866631	do	Dorff, L. A., and Sandalls, G., Jr.	Magneto-Optical Device.
1866669	do	Rhodes, W. A.	Impulse Transmitter.
1866924	do	Cioffi, P. P.	Magnetic Material.
1866925	do	do	Do.
1867333	do	Smith, E. M.	Telegraph Exchange Switchboard.
1867340	do	Weinhart, H. W., and Hall, H.	Electro-Optical Apparatus.
1867350	do	Burchett, G. W.	Artificial Larynx.
1867356	do	Friis, H. T.	Electric Wave Translating System.
1867362	do	Lathrop, H.	Insulation of Metal Bodies.
1867368	do	Massonneau, R. F.	Testing System.
1867373	do	Morton, E. R.	Motor Control System.
1867380	do	Runyon, B. F.	Thermal Switch.
1867638	July 19, 1932	Weaver, A.	Telegraph Printer.
1867663	do	Garber, L. H., Hall, R. G., and Blackwood, C.	Arrangement for Producing Modulated Currents.
1867976	do	Kleinschmidt, E. E.	System of Signaling and Repeater Therefor.
1868090	do	Bostwick, L. G.	Sound Translating Device.
1868105	do	Hopper, F. L.	Apparatus for Measuring Reverberation Time.
1868296	do	Stokely, R. L.	Automatic Telephone System.
1868309	do	Carpenter, W. W., and Dahl, J. F.	Telephone System.
1868315	do	Ellis, W. C.	Continuously Loaded Conductor.
1868318	do	Greenidge, R. M. C.	Adjustable Inductance.
1868321	do	Harrison, H. C.	Sound Recording.
1868326	do	King, G. V.	Telephone System.
1868366	do	Pfannenstiehl, H.	Driving Mechanism.
1868369	do	Sailliard, J. H.	Sound Recording Machine.
Des. 87387	do	Eighmey, D. T.	Transmitter.
1868559	July 26, 1932	Bascom, H. M.	Relay.
1868579	do	Lane, E. Z.	Broad Band Audio-Amplifier.
1868585	do	Phelps, H. E.	Telephone System.
1869160	do	Marrison, W. A.	Piezo-Electric Resonator.
1869171	do	Rose, C. F. P.	Oscillation Generator.
1869175	do	Sprague, C. A.	Radio Clock Regulation.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1869178	July 26, 1932	Thuras, A. L.	Sound Translating Device.
1869180	....do	Anderson, S. E	Transformer.
1869181	....do	Beck, W. O	Electric Test Connector.
1869184	....do	Burr, G. W	Jig.
1869194	....do	Gray, F	Electro-Optical System.
1869196	....do	Hibbard, F. H	Method of and Apparatus for Measuring Reverberation Time.
1869323	....do	Evans, P. H	Communication System.
1869458	Aug. 2, 1932	Bickelhaupt, C. O., and Penuel, C. E.	Do.
1869459	....do	Bostwick, L. G	Amplifying System.
1869466	....do	Cole, I. E	Voltage Limiter.
1869484	....do	Knoop, W. A	Peak Voltage Limiter.
1869515	....do	Shanck, R. B	Measurement of Attenuation and Noise.
1869870	....do	Stevenson, G. H	Filtering Circuits.
1869884	....do	Curtis, A. M	Testing Device.
1870271	Aug. 9, 1932	Wegel, R. L	Acoustic Device.
1870352	....do	Watson, E. F	Telegraph System.
1870392	....do	....do	Telegraph Printer.
1870396	....do	Abraham, L. G., and Staples, E. M.	Telephone Signaling System.
1871243	....do	Smythe, E. H	Acoustic Device.
1871266	....do	Gray, F	Electro-Optical Transmission.
1871269	....do	Hobrock, R. H	Method of Drying Materials.
1871272	....do	Jongedyk, R	Material Handling Apparatus.
1871278	....do	Powell, R. E	Method of Finishing the Edge of a Material.
1871304	....do	Clement, L. M	System of Space Discharge Tubes.
1871310	....do	Entz, F. S., and Bachelet, A. E.	Communication System.
1871317	....do	Gillis, R	Magnetic Core and Method of Making the Same.
1871321	....do	Hayford, W. S., and Moore, C. R.	Forming Tool.
1871339	....do	Pearson, A	Apparatus for Drying Parts.
1871347	....do	Stoller, H. M	Constant Speed Motor.
1871351	....do	Wentz, J. F	Entrance Die for Tanks.
1871356	....do	Butterfield, J. T	Electrical Contact.
1871361	....do	Curtis, A. M	Indicating Device.
1871383	....do	Miller, R. A	Sound Reproducing System.
1871391	....do	Robson, D. C	Strand Working Machine.
1871404	....do	Brown, L. H	Method of and Apparatus for Indicating Speed.
1871406	....do	De Turk, J. A., and Hanson, E. D.	Molding Apparatus.
1871408	....do	McDonough, J., and Rock, D. D.	Work Holding Fixture.
1871414	....do	Liss, A. S	Feeding Device.
1871456	Aug. 16, 1932	Kivley, R. C	Method of and Apparatus for Treating Materials.
1871886	....do	Inglis, A. H., Goodale, W. D., Jr., and Dietze, E.	Sound Measuring System.
1871904	....do	Niles, E. W., and Edwards, W. H.	Frequency Converter.
1871906	....do	Nyquist, H	Concentric Shield for Cables.
1871916	....do	Pierce, R. E	Signal Monitoring Device.
1871923	....do	Singer, F. J., and Gardner, L. A.	Printing Telegraph System.
1871933	....do	Watson, E. F	Telegraph Printer.
1871944	....do	Best, F. H	Transmission Measuring System.
1871959	....do	Corderman, R. C	Transmission Regulator System.
1871967	....do	Edwards, P. G., and Henneberger, T. C.	Electrical Testing System.
1871986	....do	Hamilton, H. S	Method of and Means for Reducing Distortion of Vacuum Tube Amplifiers.
1873206	Aug. 23, 1932	Kleinschmidt, E. E	Selective System and Apparatus.
1873255	....do	Arnold, H. B	Power Line Carrier Telephone System.
1873268	....do	Bjornson, B. G	Transmission Control Circuits.
1873283	....do	Burton, E. T	Telegraph Repeater.
1873315	....do	Dreyer, C. F	Gauging Apparatus.
1873334	....do	Sarros, J. D	Power Line Carrier Telephone System.
1873346	....do	Siegmund, H. O	Method of Producing Switching Apparatus Parts.
1873357	....do	St. John, E	Grade Clamp.
1873387	....do	Gray, F	Electro-Optical System.
1873393	....do	Hallam, C. A	Method of and Apparatus for Separating Materials.
1873394	....do	....do	Do.
1873395	....do	Hallam, C. A., and Palmer, R.	Do.
1873411	....do	Ives, H. E., and Gray, F	Television.
1873429	....do	Knoop, W. A	Electric Current Distributing Device.
1873440	....do	Locke, G. A	Rotary Distributor Phasing Circuit.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1873470	Aug. 23, 1932	Peek, R. L., Jr., and Hippensteel, C. L.	Cable Armor.
1873477	....do....	Quarles, D. A.	Coaxial Conductor Transmission Line.
1873609	....do....	Locke, G. A.	Synchronous Signaling System.
1874191	Aug. 30, 1932	Ives, H. E.	Electro-Optical System.
1874200	....do....	Manderfeld, E. C.	Electro-Optical Image Producing System.
1874238	....do....	Callahan, V. T.	Fuel Control Mechanism.
1874242	....do....	Christopher, A. J.	Inductance Network.
1874271	....do....	Fracker, E. G.	Resilient Mounting for Electrical Devices.
1874281	....do....	Gilbert, J. J.	Submarine Signaling Cable.
1874307	....do....	Kemp, A. R.	Insulating Compound.
1874326	....do....	Mason, W. P.	Sound Muffler.
1874374	....do....	Sole, J. H.	Control System.
1874380	....do....	Stoller, H. M., and Morton, E. R.	Regulated Motor System.
1874466	....do....	Demarest, C. S.	Transmission Regulating System.
1874472	....do....	Edwards, W. H.	Party Telephone Signaling Arrangement.
1874492	....do....	Ganz, A. G.	Electric Wave Transmission.
1874530	....do....	Holden, W. H. T.	Transmission Regulating System.
1874537	....do....	Jaycox, E. K.	Manufacture of Vacuum Devices.
1874543	....do....	Kent, R. J.	Cable Car.
1874550	....do....	Kuhn, J. J.	Phonograph Record Turntable.
1874563	....do....	Martin, DeL. K.	System for Producing High Voltage Direct Currents.
1874664	....do....	Vernam, G. S.	Multiplex Telegraphy.
1874684	....do....	Wright, E. P. G.	Telephone System.
1874698	....do....	De Turk, J. A.	Molding Machine.
1874707	....do....	Oswald, A. A.	Electric Discharge Apparatus.
1874716	....do....	Stoller, H. M.	Electric Regulator.
1875156	....do....	Roberts, L. C.	Method and Means for Producing Loss Varying with Energy Level.
1875157	....do....	....do....	Compression and Expansion of Range of Energy Level.
1877872	Sept. 20, 1932	Hollman, H. E.	Production of Short Electric Waves.
1878147	....do....	Ives, H. E.	Electro-Optical Transmission.
1878152	....do....	Kleinschmidt, E. E.	Printing Telegraph.
1878711	....do....	Reynolds, F. W.	Electro-Optical Transmission System.
1878724	....do....	Stevens, W. A.	Generating and Modulating Apparatus.
1878936	....do....	Legg, V. E.	Refining of Copper.
1879741	Sept. 27, 1932	Haines, W. T.	Telephone System.
1879746	....do....	Holden, W. H. T.	Submarine Concentric Conductor System.
1879773	....do....	Swart, L. K.	Electrical Protective System.
1880285	Oct. 4, 1932	Scheppman, W.	Wireless System.
1880311	....do....	Boose, H. B.	Printing Telegraph System.
1880412	....do....	Burton, E. T.	Transformer.
1880425	....do....	Flanders, P. B.	Measurement of Mechanical Impedance.
1880511	....do....	Soreny, E.	Mounting for Electrical Devices.
1880676	....do....	Beck, W. O.	Circuit Controlling Device.
1880714	....do....	Bjornson, B. G.	Gas Filled Tube Circuits.
1880715	....do....	Bjornson, B. G., Horton, A. W., Jr., and Norwine, A. C.	Transmission Control Circuits.
1880727	....do....	Blood, H. L.	Fluid Actuated Device.
1880728	....do....	Blount, H.	Drilling Mechanism.
1880729	....do....	....do....	Lapping Mechanism.
1880746	....do....	Bouton, G. M.	Lead Alloy.
1880764	....do....	Buckley, O. E.	Submarine Signaling Cable.
1880765	....do....	Bureau, A. A., and Burk, E. P.	Portable Platform or Skid.
1880794	....do....	Carter, H. F.	Apparatus for Preparing and Distributing Material.
1880800	....do....	Chestnut, R. W., Terry, D. M., and Kannenberg, W. F.	Regulating Circuits.
1880805	....do....	Christopher, A. J.	Inductive Device.
1880806	....do....	Cioffi, P. P.	Heat Treating Furnace.
1880809	....do....	Clarke, H. R.	Spool for Electrical Devices.
1880833	....do....	Crawford, A. I.	Electron Discharge Device.
1880889	....do....	Doba, S., Jr.	Signal Transmission, System.
1880917	....do....	Eastlake, W. H.	Method of and Apparatus for Coating Materials.
1880942	....do....	Erickson, E. C.	Photographic Recorder.
1881018	....do....	Cary, M. C.	Coiling Apparatus.
1881019	....do....	McFarland, R. E.	Winding Apparatus.
1881020	....do....	....do....	Material Slitting Device.
1881273	....do....	Haigh, L. B., and Borger, H. E. A.	Telephone System.
1881460	Oct. 11, 1932	Fry, J. R.	Relay.
1881469	....do....	Gastonguay, A., and Puller, G.	Motion Picture Projector.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1881480	Oct. 11, 1932	Gilbert, J. J	Continuously Loaded Communication Conductor.
1881481	do	do	Duplex Telegraph System.
1881483	do	Gillett, G. D	Radio Transmission Systems.
1881499	do	Gorton, W. S	Submarine Cable Loading Coil.
1881501	do	Gosmann, E	Sound Reproducing System.
1881503	do	Graham, F. H	Mounting Frame for Electrical Apparatus.
1881515	do	Grimley, D. G	Transmission Circuit.
1881520	do	Gros, G. A	Composite Article.
1881524	do	Gustafsson, H. G	Guarding Device.
1881544	do	Hartley, G. C	Testing Device for Telephone Exchange Systems.
1881550	do	Hatton, W., Spann, R. D., Rousseau, E. J., and Larson, F. O. V.	Telephone System.
1881607	do	Hunt, A. E., and Lang, W. Y	Printing Telegraph System.
1881616	do	Ives, H. E	Electro-Optical Device.
1881621	do	Janicke, J	Strand Covering Apparatus.
1881633	do	Johnson, E. V	Overload Clutch.
1881639	do	Johnstone, H. G	Perforating Apparatus.
1881640	do	do	Tabulating System.
1881642	do	Jones, H. L., and Veazie, E. A.	Transmission Control Circuits.
1881657	do	Keith, C. R	Circuit for Electrical Discharge Apparatus
1881669	do	King, G. V., and Bonomi, F. A.	Telephone System.
1881684	do	Knoop, W. A	Synchronizing System.
1881685	do	do	Phase Shifting Device.
1881698	do	Kuriyama, Z	Electric Soldering Iron.
1881706	do	Larsen, E. J	Apparatus for Handling Articles.
1881711	do	Lathrop, H	Magnetic Structure.
1881785	do	Malm, F. S	Method of Cleaning and Vulcanizing Materials.
1881788	do	Manning, A. L	Apparatus for Securing and Bracing Articles for Transportation.
1881801	do	Mathes, R. C	Two-Way Signaling System.
1881810	do	Marrison, W. A	Frequency Control Method and System.
1881829	do	Miller, D. D	Electromagnetic Signaling Device.
1881830	do	Miller, R. J	Electrical Sound Reproduction of Gramaphone and Like Records.
1881868	do	Nelson, C. E	Magazining Device.
1881869	do	Nelson, I. S	Rolling Mill Guide.
1881887	do	Normann, L	Apparatus for Removing Material from Articles.
1881891	do	Olpin, A. R	Electric Discharge Device.
1882081	do	Kemp, A. R	Insulating Adhesive.
1882125	do	Edwards, P. G	Testing System.
1882150	do	Kent, R. J	Manhole Guard.
1882718	Oct. 18, 1932	Arkema, H. P., and Trebes, B. M. A.	Reel.
1882753	do	Bowne, L. J	Telephone System.
1882755	do	Boynton, S. E	Method of Producing Assembling Fixtures.
1882757	do	Boynton, J. E	Method of Sealing Joints.
1882815	do	Haegele, O. P., and Paulson, C.	Apparatus for Testing Electrical Coils.
1882829	do	Hall, H	Relief Picture Viewing Screen.
1882849	do	Marrison, W. A	Frequency Control System.
1882850	do	do	Frequency Producer.
1882851	do	Matthies, W. H	Telephone System.
1882854	do	Mead, E. D	Mounting Frame for Electrical Apparatus.
1882866	do	Mathes, R. C	Signaling System.
1882885	do	Polkinghorn, F. A	Holder for Crystal Resonators.
1882892	do	Potts, L. M	System for Causing Impulses to Control the Production of Impulses of Different Frequency.
1882893	do	do	Sound Picture Camera.
1882902	do	Reichelt, L. O	Cable Forming Apparatus.
1882919	do	Robbins, C. W	Apparatus for Locating Objects.
1882924	do	Rock, D. D	Screw Driving Mechanism.
1882925	do	Rock, G. L	Method of Sealing Materials.
1882936	do	Ronci, V. L	Electron Discharge Device.
1882940	do	Rosander, A. P., and Tikalsky, F. P.	Die Casting Machine.
1882974	do	Schlenker, V. A	Acoustic Device.
1882981	do	Schreiber, L. J. J., Chevigny, G. P., and Lens, G. X.	Switching Mechanism.
1882985	do	Schroeder, W	Apparatus for Handling Material.
1882994	do	Schwerin, P	Electron Discharge Device.
1882998	do	Scott, J. W	Process of Refining Copper.
1883006	do	Shea, J. R	Apparatus for Working Material.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1883007	Oct. 18, 1932	Sheel, H.	Conveyer.
1883011	do	Shewmon, D. D., and Schroeder, W.	Method of and Apparatus for Securing Inclosure Elements on Containers.
1883043	do	Soreny, E.	Pouch.
1883060	do	Stull, J. S., and King, J. W.	Apparatus for Forming Articles.
1883098	do	Templeton, B. O.	Electrical Resistance Device.
1883111	do	Thurston, G. M.	Piezo-Electric Crystal Mounting.
1883116	do	Tomlinson, M. C. W.	Device for Determining the Condition of a Gas.
1883117	do	Tompkins, W. J.	Combined Floor and Cove Covering.
1883130	do	Troche, E. R.	Strand Handling Device.
1883137	do	Waller, L. R.	Switching Device.
1883140	do	Walter, R. C.	Rolling Mill.
1883155	do	Watson, K. M.	Method of Coating Electrical Conductors.
1883158	do	Ulrich, H. W.	Trunk Cicruit.
1883163	do	Van Voorhis, F., Jr.	Remote Control Device.
1883181	do	Weaver, L. L.	Material Advancing Apparatus.
1883269	do	Yonkers, E. H.	Electrical Conductor.
1883290	do	Ives, H. E.	Projection of Stereoscopic Pictures.
1883291	do	do	Do.
1884562	Oct. 25, 1932	Carr, J. O., and Benjamin, A. S.	Signaling System.
1884567	do	Catogge, J. J.	Telegraph Exchange System.
1884582	do	Crawford, A. I.	Vacuum Tube Socket.
1884675	do	Helsing, R. A.	Electric Wave Transmission System.
1884697	do	Horton, A. W., Jr.	Long Distance Telephone System.
1884711	do	Jensen, A. G.	Electric Wave Transmission System.
1884724	do	Keller, A. C.	Sound Box for Phonic Diaphragms.
1884743	do	Kleinschmidt, E. E.	Single Magnet Reperforator.
1884744	do	do	Repeating System and Apparatus.
1884745	do	do	Selective System and Apparatus.
1884753	do	Krum, H. L.	Keyboard Mechanism for Printing Telegraph Apparatus.
1884754	do	do	Printing Telegraph.
1884755	do	do	Coupon Printer.
1884760	do	Lake, R. A.	Mechanism for Feeding and Aligning Multiple Printed Forms.
1884807	do	Morton, S.	Keyboard Mechanism for Telegraph Apparatus.
1884844	do	Peterson, E.	Magnetic Wave Amplifying Repeater.
1884845	do	do	Magnetic Amplifier.
1885060	do	Cherry, G. L., and Lamplough, L. F.	Apparatus for Handling Treated Articles.
1885151	Nov. 1, 1932	Sterba, E. J.	Directive Antenna System.
1885168	do	Affel, H. A.	Concentric Conducting System.
1885195	do	Green, E. I.	Concentric Conductor Transmission System.
1885214	do	Almquist, M. L., and Thompson, A. C.	Signaling System.
1885299	do	Schramm, F. W.	Monitoring System.
1885632	do	Schelleng, J. C.	Oscillation Generator.
1885728	do	Keith, C. R.	Harmonic Generating and Selecting System.
1885798	do	Brand, S.	Transmission Regulation.
1885826	do	Holden, W. H. T., and Bonell, R. K.	System of Photography Employing Frequency Modulation.
1886808	Nov. 8, 1932	Herman, J.	Bias Control in Telegraph Communication.
1887172	do	Smith, T. C., and Spowart, J. B.	Combined Earth Boring Machine and Derrick Apparatus.
1887576	Nov. 15, 1932	Bollinger, H. M.	Telephone Pay Station Apparatus.
1887599	do	Nyquist, H.	Constant Current Regulation.
1888227	Nov. 22, 1932	Horton, A. W., Jr.	Volume Control System.
1888266	do	Herman, J.	Measurement of Crosstalk.
1888275	do	Larsen, L. O.	Electrical Apparatus and Method of Manufacturing It.
1888280	do	McCann, T. A.	Reduction of Interference.
1888288	do	Purdy, C. A., and Stockfleth, S. J.	Container and Its Method of Manufacture.
1888558	do	Latimer, K. E.	Method of and Means for Reducing Crosstalk in Cable Systems.
1889053	Nov. 29, 1932	Nelson, S. F.	Annunciator System.
1889083	do	Wintringham, W. T.	Frequency Stabilizing System.
1889106	do	Rattig, G.	Time Announcing System.
1889398	do	Bishop, J. S.	Electrical Coil and a Method of Manufacturing It.
1889421	do	Schwartzmann, H.	Do.
1889576	do	Snook, H. C.	Apparatus to Enable the Blind To Read.
1889821	Dec. 6, 1932	Chapman, A. G., and McCurdy, R. G.	Prevention of Overhearing in Program Circuits.
1889824	do	Edwards, P. G.	Testing System.
1890013	do	Dean, R. S.	Lead Alloy.
1890014	do	do	Do.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1890454	Dec. 13, 1932	Bruce, E.	Automatic Gain Control.
1890488	do	Arnold, H. B.	Remote Control System.
1890523	do	Marshall, T. A.	Telephone System.
1890543	do	Holden, W. H. T.	Current Suppressor.
1890561	do	Cash, C. C.	Telephone Circuit.
1890899	do	Capek, A., and Van den Broecke, F.	Telephone System.
1890904	do	Gent, E. W.	Translating Device.
1891241	Dec. 20, 1932	Pfannenstiehl, H.	Sound Picture System.
1891297	do	Wintringham, W. T.	Variable Gain Circuit Device.
1891299	do	Anderson, C. N., Taylor, E. R., and Wright, S. B.	Radio Telephone System.
1892253	Dec. 27, 1932	Schelleng, J. C.	Directive Antenna System.
1892279	do	Kemp, A. R.	Communication Cable.
1892284	do	Mathes, R. C.	Voice Operated Circuit.
1892352	do	Kleinschmidt, E. E.	Printing Telegraph Apparatus.
1892358	do	Morgenstern, O.	Electromagnetic Device.
Des. 88804	do	Lum, G. R.	Desk Stand for a Hand Telephone.
1893031	Jan. 3, 1933	Llewellyn, F. B.	Control Circuits for Space Discharge Devices.
1893302	do	Peterson, E.	Method of and Means for Controlling Electric Wave Amplifiers.
1893545	Jan. 10, 1933	Gannett, D. K.	Alternating Current Amplifier.
1893569	do	Thorp, V. P.	Reduction of Interference in Carrier Systems.
1894016	do	Blount, N.	Telephone Desk Set.
1894022	do	Cruser, V. I.	Container.
1894023	do	Dawson, W. L.	Circuits for Photoelectric Cells.
1894025	do	Dennison, L. I., and Dreyer, C. F.	Gauging Apparatus.
1894322	Jan. 17, 1933	Nyquist, H.	Means for Eliminating Distortion in Repeaters.
1894335	do	Zinn, M. K.	Phantom Telephone Circuit.
1894644	do	Sturdevant, E. G.	Method of Coating Metallic Bodies.
1894671	do	Cox, T. K.	Method of Coating Articles.
1894823	do	Hoyt, F. A.	Coin Receptacle.
1895020	Jan. 24, 1933	Bascom, H. M.	Telephone System.
1895058	do	Weaver, A.	Combined Telegraphy and Telephony.
1895441	Jan. 31, 1933	Bostwick, L. G.	Sound Translating Device.
1895461	do	Heising, R. A.	Combined Radio Telephone and Telegraph System.
1895462	do	Henning, G. E.	Braiding Machine.
1895463	do	do	Self-Aligning Strand Carrier for Braiders.
1895466	do	Kuntz, F. A.	Hinge.
1895487	do	Quinlan, A. L.	Method of and Apparatus for Constructing Electrical Coils.
1895488	do	Reisinger, J. C.	Power Driven Fan.
1895494	do	Smythe, E. H.	Sound Reproducer.
1895498	do	Stoller, H. M.	Electric Regulator.
1895531	do	Weaver, A.	Electro-Optical System.
1895542	do	Deardorff, R. W.	Pilot Channel Indicating System.
1895757	do	Gent, E. W.	Translating Device.
1895760	do	Hunt, F. L.	Fluid Treating Apparatus.
1895774	do	Smets, F. E. A., and Hansen, C. F.	Signal Shaping Circuit.
1895828	do	Van Inwagen, C. L., Jr.	Wire Splicing Machine.
1896065	Feb. 7, 1933	Budenbom, H. T.	Selective Circuit for Superheterodyne Radio Receivers.
1896195	do	Green, I. W., and Bisbee, F. C.	Electromagnetic Signaling Device.
1896196	do	Green, I. W.	Telephone Substation Apparatus.
1896464	do	Ronci, V. L.	Electron Discharge Device.
1896473	do	Townsend, J. R.	Article of Metallic Compositions or Alloys of Lead.
1896478	do	Burns, R. M.	Treating Wood and Preventing Corrosion of Cables.
1896480	do	Christopher, A. J.	Balanced Inductance Device.
1896485	do	Flint, J. G., and McKie, D. G.	Acoustic Device.
1896487	do	Gibson, R. D.	Calling Circuit.
1896510	do	Given, F. J.	Adjusting Inductance.
1896512	do	Hayford, W. S., and Moore, C. R.	Metal Rolling Tool.
1896513	do	Hovgaard, O. M.	Piezo-Electric Crystal.
1896757	do	Strickler, W. B.	Telephone Exchange System.
1896762	do	Whittle, H.	Coil.
1896767	do	Buckley, O. E.	Signaling System.
1896780	do	Llewellyn, F. B.	Modulating Device.
1896781	do	do	Constant Frequency Oscillator.
1896785	do	Ohl, R. S.	Modulating Device.
1897040	Feb. 14, 1933	Christopher, A. J.	Inductive Device.
1897045	do	Fry, J. R.	Relay.

Digitized by Google

List of unexpired patents owned or controlled by the American Telephone & Telegraph Co., Apr. 1, 1933—Continued

Patent no.	Date of issue	Inventor	Title
1897047	Feb. 14, 1933	Grace, B. B., Skillman, T. S., Roch, A. H., and Sandeman, E. K.	Frequency Discrimination Signaling System.
1897048	....do.....	Hatton, W.	Telephone System.
1897050	....do.....	Beising, R. A.	Electric Wave Transmission.
1897068	....do.....	Morton, E. R.	Constant Speed Motor.
1897069	....do.....	Newsom, J. B.	Telephone Exchange System.
1897083	....do.....	Strickler, W. B.	Do.
1897104	....do.....	Bailey, R. S., and Sholfstall, H. F.	Signaling System.
1897106	....do.....	Bascom, H. M.	Telephone System.
1897533	....do.....	Richey, C. V.	Time Control System for Telephones.
1897566	....do.....	Alden, J. L.	Gauging Apparatus.
1897583	....do.....	Nelson, C. E.	Blank Handling Apparatus.
1897589	....do.....	Reeve, H. T.	Melting and Casting of Metals.
1897596	....do.....	Tietz, W. J.	Instrument for Varying Electrical Potential.
1897598	....do.....	Wyman, T. P., Jr.	Transporting Platform.
1897604	....do.....	Clemons, D. R.	Electromagnetic Device.
1897606	....do.....	Cole, I. E.	Hand Welding Machine.
1897614	....do.....	Johnson, J. R.	Wrench.
1897626	....do.....	Voss, A. H.	Method of Producing Rubber Articles.
1897629	....do.....	Boving, H.	Flame-Proof Article.
1897639	....do.....	Kreer, J. G., Jr.	Transmission Network.
1898118	Feb. 21, 1933	Demarest, C. S.	Signaling System.
1898133	....do.....	Leibe, F. A.	Gauge for Testing Eccentricity of Insulators.
1895516	....do.....	Arnold, H. B., and Cooke, L. B.	Calling Circuit.
1898921	....do.....	Watson, E. F.	Remote Control System.
1899163	Feb. 28, 1933	Marrison, W. A.	Piezo-Electric Crystal.
1899410	....do.....	Bruce, E.	Directive Antenna System.
1900045	Mar. 7, 1933	Crisson, G.	Two-Way Negative Resistance Repeater.
1900106	....do.....	Hamilton, H. S., and Crisson, G.	Bridging Connection for Program Circuits.
1900976	Mar. 14, 1933	Carpe, A., and Leibe, F. A.	Concentric Conductor System.
1900992	....do.....	McCann, T. A.	Impulse Transmission System.
1901400	....do.....	Marrison, W. A.	Harmonic Analyzer.
1904403	....do.....	Murphy, P. B.	Telephone System.
1901408	....do.....	Peterson, E.	Bilateral Modulator Circuit.
1901432	....do.....	Bradley, R. W.	Pressure Leak Indicator.
1901433	....do.....	Burchett, G. W.	Artificial Larnyx.
1901443	....do.....	Garvin, J. S.	Signaling Device.
1901449	....do.....	Hoge, J. F. D.	Multi-Contact Switch.
1901893	Mar. 21, 1933	Brodie, G. H.	Electrical Protector Device.
1901898	....do.....	Clark, H. R.	Sound Translating Device.
1901901	....do.....	Dixon, J. B., and Honan, E. M.	Testing of Electrical Contacts.
1901916	....do.....	McCoy, C. E.	Power Transmission Device.
1901919	....do.....	McKee, C. A.	Art of Telephony Signaling.
1901920	....do.....	McMullan, S.	Method of and Apparatus for Drawing Wire.
1901921	....do.....	Mears, W. J.	Electrical Meter.
1901929	....do.....	Peterson, E.	Voltage Limiting System.
1901938	....do.....	Tirrus, W. C.	Method of and Means for Tapping a Conductor.
1901940	....do.....	Wright, E. P. G.	Telephone Exchange System.
1901944	....do.....	Allen, L. H.	Telephone System.
1901947	....do.....	Bescherer, E. A.	Supporting Device.
1901951	....do.....	Dunham, C. R., and Roche, A. H.	Multiplex Telegraph Distributor.
1901954	....do.....	Fruth, H. F.	Liquid Spray Device.
1901958	....do.....	Gooderham, J. W.	Substation Circuit.
1901966	....do.....	Hoffman, R. E., and Paulson, C.	Apparatus for Gauging Material.
1902030	....do.....	Holden, W. H. T.	Gain Control Apparatus.
1902031	....do.....	....do.....	Filtering Apparatus.
1902817	Mar. 28, 1933	Affel, H. A., and Green, E. I.	Communication with Moving Trains.
1902893	....do.....	Potter, R. K.	Signaling System.

Digitized by Google

United States of America, before Federal Trade Commission. In the Matter of General Electric Co., American Telephone & Telegraph Co., Western Electric Co., Inc., Westinghouse Electric & Manufacturing Co., the International Radio Telegraph Co., United Fruit Co., Wireless Specialty Apparatus Co., and Radio Corporation of America. Docket No. 1115.

COMPLAINT

Acting in the public interest pursuant to the provisions of an act of Congress, approved September 26, 1914, entitled, "An Act To create a Federal Trade Commission, to define its powers and duties, and for other purposes", the Federal Trade Commission charges that the various persons, corporate and individual, mentioned in the caption hereof and more particularly hereinafter described and hereinafter referred to as respondents, have been and are using unfair methods of competition in commerce in violation of the provisions of section 5 of said act, and states its charges in that respect as follows:

PARAGRAPH 1. The General Electric Co. is (and was at all times hereinafter named) a corporation organized and doing business under the laws of the State of New York. Its principal place of business is in Schnectady, N. Y. It is engaged in the manufacture and sale in interstate and foreign commerce of apparatus intended for the generating and application of electric current to various purposes, including communication by radio or wireless waves. Prior to October 1919, and subsequently, it has employed a large staff of electrical experts in research and experiment with a view to developing new inventions, discoveries, and devices applicable to any of the various uses of electricity, including apparatus for radio communication, both transmitting and receiving. It was the owner of many patents and licenses or rights under patents for the manufacture, use, and sale of the articles above described and certain applications for patents covering important inventions for use in vacuum tubes used in radio communications. The General Electric Co. is the largest manufacturer of electrical apparatus, including devices used in radio communication, in the United States.

PAR. 2. The American Telephone & Telegraph Co. is a corporation organized and doing business under the laws of the State of New York. It has its principal place of business in New York City, State of New York. It is engaged principally in the transmission of telephone messages by wire from point to point in the United States. The Western Electric Co. is a corporation organized and doing business under the laws of the State of New York. It has its principal office and place of business in Cleveland, Ohio. It is engaged principally in the manufacture and sale, in interstate commerce and with foreign countries, of apparatus and devices used in wire telephony and in ether applications of electricity. A large majority of the stock of the Western Electric Co. was and is owned by the American Telephone & Telegraph Co. Prior to October 1919, and subsequently, the said American Telephone & Telegraph Co. and the Western Electric Co. maintained a large staff of experts in research and experiment with a view to developing new inventions, discoveries, and devices applicable to any of the various uses of electricity, including radio communication. Each of them was the owner of many patents and licenses or rights under patents, relating to such inventions and devices, and particularly of important patents relating to vacuum tubes as used in radio communication. The Western Electric Co. manufactured and sold in interstate commerce various articles under the patents of the American Telephone & Telegraph Co. and its own patents, including the aforesaid vacuum tube patents. The Western Electric Co. is one of the largest manufacturers of electrical apparatus, including apparatus used in radio communications in the United States.

PAR. 3. The Westinghouse Electric & Manufacturing Co. is a corporation organized and doing business under the laws of the State of Pennsylvania. It has its principal place of business in Pittsburgh, State of Pennsylvania. It is engaged principally in the business of the manufacture and sale, in interstate commerce and with foreign countries, of electrical apparatus for the generation of electric current and its application to various purposes. Prior to October 1919, and at all times hereinafter named, it maintained a large staff of experts in research and experiment with a view to deveolping new inventions, discoveries, and devices applicable to any of the various uses of electricity, including radio communication. It is the owner of many patents and licenses and rights

Digitized by Google

under patents relating to such inventions and devices, and particularly certain important patents covering inventions and devices known as the Armstrong "regenerator" and the Fessenden heterodyne patents, of primary importance in radio communication. The Westinghouse Electric & Manufacturing Company is the second largest manufacturer of electrical apparatus, including apparatus used in radio communication in the United States.

PAR. 4. The International Radio Telegraph Co. is a corporation organized and doing business under the laws of the State of Delaware. It is the successor of the International Radio Telegraph Co., having been organized under an agreement of May 22, 1920, between the latter and the Westinghouse Electric & Manufacturing Co. The earlier company had been engaged in the business of transmitting and receiving wireless messages in a limited field prior to the war, and of manufacturing under patents and selling radio apparatus in interstate commerce. The new company, the International Radio Telegraph Co., continued the business of radio communication.

PAR. 5. The United Fruit Co. is a corporation organized and doing business under the laws of the State of New Jersey. It has its principal place of business in New York City. It is engaged in the growing of fruit and the transportation thereof from Central and South America to the United States and the sale thereof, and in connection therewith operates a fleet of steamships. Prior to October 1919, and subsequently, it had in connection with its business, through its subsidiary, the Tropical Radio Telegraph Co., owned and operated stations for the sending and receiving of wireless communications between the United States and various points in the territory where it produced and shipped its products and was equipped with the necessary apparatus for such purposes. These stations were also open to the public for the receiving and transmission of wireless messages. Prior to October 1919, the United Fruit Co. and the Wireless Specialty Apparatus Co., another of its subsidiaries, had acquired and were the owners of various patents and licenses and rights under patents, for the use, manufacture, and sale of various important devices and apparatus useful in radio communication, especially broad patents covering the use of crystal receiving apparatus. It and its said subsidiary, the Wireless Specialty Apparatus Co., employed staffs of experts in research and exeriment with a view to developing new inventions, discoveries, and devices applicable especially to radio communication.

PAR. 6. The Radio Corporation of America is a corporation organized and doing business under the laws of the State of Delaware, having been incorporated on or about October 17, 1919, its principal place of business is in New York City.. Its capitalization was 5,000,000 shares preferred stock, par value $5, and 5,000,000 shares of common stock, no par value. It is engaged in conducting a public radio communication service between points in different States in this country and between ships and ships and shore, and between the United States and Cuba and foreign countries, and in the business of buying and selling apparatus and devices for use in radio broadcasting and receiving and radio communication and shipping the same among and between the States of the United States and to foreign countries.

PAR. 7. The Marconi Wireless Telegraph Co. of America was, prior to October, 1919, a corporation organized and doing business under the laws of the State of New Jersey. It had its principal place of business in New York City, State of New York, and was engaged in operating a transoceanic radio service and from ships to shore, and in the manufacture of apparatus and devices used in radio communication. It owned and operated stations at various points in the United States and elsewhere for the conduct of its business, equipped with the necessary apparatus therefor, and through its connection with the Marconi Wireless Co., Ltd., of Great Britain, the largest holder of its stock, was equipped for transoceanic radio traffic. It was the owner of various patents and licenses and rights under patents for inventions and devices used in radio communication, and it manufactured and sold various articles under said patents, including important patents relating to the manufacture and use of vacuum tubes in radio communication.

PAR. 8. Prior to this country's entering the war the General Electric Co., in connection with its research work in the radio field, had developed and constructed a powerful rapid alternating generator known as the Alexanderson generator. The efficiency of this machine in transoceanic communication by radio was demonstrated during the war. The movement for control of this machine and other patented radio devices not owned by General Electric Co.,

Digitized by Google

led to the organization of Radio Corporation of America as above alleged, by persons among whom the interests of General Electric Co. predominated. On or about October 22, 1919, the General Electric Co. entered into an agreement with the Marconi Wireless Telegraph Co. of America, whereby the latter agreed to seek the approval by its stockholders of a proposed agreement between the Radio Corporation of America and the Marconi Wireless Telegraph Co. of America, and the General Electric Co. agreed to cause the Radio Corporation of America to execute and deliver said proposed agreement as soon as approved by the stockholders of the Marconi Wireless Telegraph Co. of America. This proposed agreement provided substantially for the sale to the Radio Corporation of America of the assets of the Marconi Wireless Telegraph Co. of America, including its patents and physical assets and stock of various subsidiary corporations, in consideration of the issuance to it by the Radio Corporation of America of two million shares of its preferred stock and two million shares of its common stock, as more fully appears from said agreement. Thereafter, and on or about November 20, 1919, said proposed agreement between the Radio Corporation of America and the Marconi Wireless Telegraph Co. of America was executed and delivered. In connection with said negotiations and agreements, the General Electric Co. purchased the holdings of the Marconi Wireless Telegraph Co., Ltd., a British corporation, in the stock of the Marconi Wireless Telegraph Co. of America, for the Radio Corporation of America. In August 1919, the Marconi Wireless Telegraph Co. of America was dissolved, a trust, however, being created, with the corporation's directors as trustees, for the purpose of prosecuting claims of the corporation against the United States Government and accounting for any proceeds thereof. All the stock of the company has been exchanged for shares in the Radio Corporation of America, it being noted in the stock of the Marconi Co. so exchanged that it was entitled to share pro rata in any moneys resulting from the prosecution of said claims against the United States Government, and it was provided further that such moneys were to be invested in the preferred stock of the Radio Corporation of America.

PAR. 9. On or about October 22, 1919, the Radio Corporation of America agreed, by appropriate action of its directors, to issue to the General Electric Co., in consideration of its services and expenses in bringing about the purchase above described from the Marconi Wireless Telegraph Co. of America, and otherwise, 135,174 shares of preferred and 2,000,000 shares of the common stock of the Radio Corporation of America. Among the considerations referred to was the procuring of an agreement between Marconi Wireless Telegraph Co., Ltd., a British corporation, and the Radio Corporation of America, for the conduct of international transoceanic radio traffic. Prior thereto the former corporation (British Marconi Co.) had been the largest stockholder in the Marconi Wireless Telegraph Co. of America, and had entered into agreements and contracts with it covering the exchange of traffic facilities and all equipment and apparatus under patent rights. By said agreement between the Radio Corporation and the Marconi Wireless Telegraph Co., Ltd., all said agreements and rights of the Marconi Wireless Telegraph Co. of America under said contracts and agreements and specifically the agreement of April 18, 1902, were confirmed and continued to the Radio Corporation of America under an agreement executed on or about November 20, 1919 between the Marconi Wireless Telegraph Co., Ltd., and the Radio Corporation of America.

PAR. 10. On or about November 20, 1919, the General Electric Co. and the Radio Corporation of America made an agreement by which the General Electric Co. granted to the Radio Corporation of America the exclusive divisible license to use and sell (with certain reservations as to use) but not to make, unless the General Electric Company is not in a position to do so, apparatus for radio purposes under all patents, present or future, owned or controlled by the General Electric Co., for the term of the agreement, namely, until 1945. The Radio Corporation of America granted to the General Electric Co. the exclusive divisible right to make and sell radio devices through the Radio Corporation only, under all its patents, present or future, for the term of the agreement, except certain patents acquired by purchase, for which special provision for apportioning costs was made; and the Radio Corporation agreed to purchase from the General Electric Co. all radio devices covered by patents, which the General Electric Co. is in a position to supply, and not to sell patented articles except as a part of the radio system; and generally to restrict its business to radio supplies and not to enter with any patented device, process, or system, the field of

Digitized by Google

the General Electric Co. or encourage others so to do as more fully appears from said agreement. On December 31, 1922, the General Electric Co. owned 620,800 shares of the preferred stock and 1,876,000 shares of the common stock of the Radio Corporation of America.

PAR. 11. Said agreement of November 20, 1919, between the Marconi Wireless Telegraph Co., Ltd. (British), and the Radio Corporation of America recited the agreement of November 20, 1919, described in paragraph 10 between the General Electric Co. and the Radio Corporation of America; also that both companies (Radio and British Marconi) owned and controlled patented inventions in radio devices and intended to prosecute diligent research for improving same and producing others in order to establish economically world-wide public commercial wireless; that the Marconi Co. owns rights in all the Marconi radio patents for the British Empire and Marconi patents and inventions of its employees outside of the British Empire existing and in the future; whereupon it is agreed that the trans-Atlantic circuit of radio communication shall be maintained by the parties together and a traffic agreement entered into therefor between them, temporary provision being made for the division of tolls equally. The Radio Corporation then sells to the Marconi Co. for radio purposes only, all its patents and licenses, etc., existing or acquired during the term of the agreement, for the Marconi territory (except those acquired by purchase, as specially provided), and the Marconi Co. grants to the Radio Corporation (subject to previous grants) nonexclusive rights and licenses under its patents, present and future, for radio purposes, and the right to make and sell thereunder radio devices in the territory between the southern jurisdiction of the United States and the Republic of Panama and adjacent islands and regions. The agreement provides that the traffic agreement shall run to January 1945, and the British Marconi Co. agrees to transmit or receive over the circuit established by it and the Radio Corporation, every message sent or received by or to it, or any affiliated company or interest, which originates in or passes through or to Great Britain and is destined to or routed through or from the territory of the Radio Corporation, and, reciprocally the Radio Corporation agrees to transmit over said circuit every message sent or received by it or any affiliated company or interest which originates in or passes through or to the territory of the Radio Corporation and is destined or routed to or through or from Great Britain. The agreement of November 20, 1919, by which the licenses and rights of the Marconi Wireless Telegraph Co. of America under all the patents of the British Marconi Co. were transferred to the Radio Corporation of America and the grant above described of its patents for radio purposes by the Radio Corporation to the British Marconi Co. effected an interchange of licenses in all the patents now or during the term of the contract owned or controlled by the British Marconi and Radio Corporation pertaining to radio. The agreement provides for the maintenance of special departments by each of the parties for the diligent prosecution of research for the improvement of the radio art and for free exchange of information and patents relating thereto, all of which more fully appears by the terms of said agreement of November 20, 1919.

PAR. 12. On or about May 22, 1920, the Wetinghoue Electric & Manufacturing Co. entered into a contract with the International Radio Telegraph Co. (see par. 5) for the formation of a new company of the same name. The International Radio Telegraph Co. to take over patents and certain assets of the International Radio Telegraph Co. (the prior company) relating to apparatus for radio communication. The consideration for this contract was the payment by the Westinghouse Co. of $2,500,000 for one-half of the common voting stock of the new company. The purpose was that the new organization should enter the commercial radio communication field in a more comprehensive way and in pursuance of said purpose, the new company did construct and operate stations for the transmission and reception of radio messages at Cape May, N. J., and Siasconsett, Mass., and reopened or rehabilitated stations formerly operated by the old International Co. In connection with the contract of May 22, 1920, the old International Co. agreed to grant to the Westinghouse Co. the right to manufacture and sell radio devices and apparatus under all the patent rights to be transferred to the International Co., subject to the condition that it should not sell such devices or apparatus to business competitors of the International Co. for use in the latter's field. On or about June 29, 1921, the parties above named entered into an agreement which

Digitized by Google

recited that the International Co. had, by separate instruments, assigned to the Westinghouse Co. all of its existing patents and applications therefor, and that the International Co. granted to the Westinghouse Co. the exclusive, divisible right to make and to sell radio devices to the International Co. only, as well as the exclusive, divisible right to make use of and sell devices other than radio devices under all its future patents and applications for patents, inventions, and rights or licenses under, or in connection with, patents which the International Co. may require during the term of the agreement, namely until January 1, 1945, except as to certain patents acquired by purchase. The Westinghouse Co. granted to the International Co. an exclusive, divisible license to use and sell, as well as a nonexclusive, indivisible license to make only when the Westinghouse Co. is not in a position to supply the desired device with reasonable promptness, every radio apparatus under all patents, applications for patents, inventions, or rights and licenses under, or in connection with, patents which the Westinghouse Co. owns or may acquire during the term of the contract. The International Co. further agreed to purchase from the Westinghouse Co. all radio devices covered by said patents and the Westinghouse Co. agreed to produce the same. The International Co. agreed to use care not to enter, under any patent rights, into the field of the Westinghouse Co. or encourage others so to do. The parties also agreed to assist each other with scientific information and results of research of their engineers, in their respective fields. Among the patents so acquired by the Westinghouse Co. were patents covering important inventions for radio communication known as the Fessenden or heterodyne, all of which more fully appears from said agreement of June 29, 1921. On December 31, 1922, the Westinghouse Co. owned 1,000,000 shares of the common and 1,000,000 shares of the preferred stock of the Radio Corporation of America.

PAR. 13. On or about July 1, 1920, the General Electric Co. and the American Telephone & Telegraph Co. made an agreement by which each granted to the other, with certain reservations and restrictions, licenses under all patents and rights to or under patents, owned by each respectively, present and future, for the term of the agreement (namely, 10 years, unless previously terminated by consent of the parties) to use methods and processes, and to make, use, lease, sell, or otherwise dispose of apparatus, machines, and devices thereunder in the fields in which the licenses are granted to each respectively, but no rights are granted to either party to manufacture under patents, license for which are granted in said agreement, apparatus at the time manufactured by the other party, except in the factories of either party; the uses by each party to which said grants of licenses are restricted, in the fields of telephony and telegraphy, broadcasting and commercial communication, are carefully defined; certain fields of use and manufacture of radio apparatus under said licenses being granted to one party and others to the other. The American Telephone & Telegraph Co. acquired the exclusive right to manufacture and sell broadcasting transmitting apparatus for commercial purposes, and the General Electric Co. acquired the exclusive right to manufacture and sell receiving apparatus for noncommercial purposes. It is provided that when either party acquires rights to patents applicable to the fields of both, it must do so in such a manner that both parties shall be given an opportunity to acquire the patent, in their respective fields. Each party grants to the other a license for transoceanic wireless telephony, subject to the condition that the General Electric Co., so far as concerns service on this continent for the public and others than the General Electric Co., must render such service through only the telephone Company's wire or wireless telephone systems, so long as it supplies that service; and that the telephone company in the field of transoceanic wireless telephony, so far as concerns service for the public or for others than the telephone company, shall render such service through only the General Electric Co.'s system for transoceanic communication, so long as the latter supplies such system. It is agreed that information with reference to patents and inventions shall be exchanged and facilities mutually afforded for the development of wireless telephony, and that each party shall manufacture for the other certain apparatus covered by patents which are the subject of this agreement; as more fully appears from the said agreement of July 1, 1920. On December 31, 1922, the American Telephone & Telegraph Co. owned 400,000 shares of the preferred stock of the Radio Corporation of America.

PAR. 14. By an agreement dated July 1, 1920, between the General Electric Company, the American Telephone & Telegraph Co., the Radio Corporation

Digitized by Google

and the Western Electric Co., provision was made whereby the Telephone Co. could extend to the Western Electric and likewise the General Electric could extend to the Radio Corporation their respective rights under the agreement of July 1, 1920, described in paragraph 13, and the Western Electric Co. did extend to the General Electric Co. and the Radio Corporation of America grants to the American Telephone & Telegraph Co. rights under their respective radio patents, present and future, of the same character and scope as the rights granted between the General Electric Co. and the American Telephone & Telegraph Co. by the agreement of July 1, 1920, described in paragraph 13, and subject to similar reservations, limitations, and conditions as therein provided, as more fully appears from said agreement dated July 1, 1920, first named herein.

PAR. 15. On March 7, 1921, the Radio Corporation of America entered into an agreement with the United Fruit Co. by which the former granted to the latter a license to use the inventions and devices covered by its patents, present or future, relating to wireless communication or apparatus or devices in connection therewith. This grant was limited, however, to certain territory, defined in said agreement and being generally the territory in which said United Fruit Co. had previously operated in Central America and adjacent regions, and limited otherwise. The United Fruit Co. in said agreement granted to the Radio Corporation an exclusive license under its patents, reserving a right to license similarly, the Wireless Specialty Apparatus Co., to make or have made, use and sell radio devices under its own patents. The United Fruit Co. further agreed to limit its wireless communication business within its territory as defined in said agreement, and to purchase its supplies under the patents under which it is licensed by the Radio Corporation from the Radio Corporation, except at its option to purchase from the Wireless Specialty Apparatus Co. such apparatus as the latter is licensed to make. Provision is made for the exchange of information with reference to inventions and patents relating to wireless communications or apparatus and exchange of licenses under patents thereafter obtained; the agreement includes provisions for exchange of traffic, all of which more fully appears in the said agreement of March 7, 1921. Prior to the date of the agreement above described, namely, March 7, 1921, the United Fruit Co. had purchased 200,000 shares of the preferred stock (par value $5) and 200,000 shares of the common stock (no-par value) of the Radio Corporation for the sum of $1,000,000 cash. On December 31, 1922, the United Fruit Co. owned 160,000 shares of the common and 200,000 shares of the preferred stock of the Radio Corporation of America.

PAR. 16. On March 7, 1921, the Radio Corporation of America and the General Electric Co., parties of the first part, entered into an agreement with the Wireless Specialty Apparatus Co., being a subsidiary of the United Fruit Co., whereby the parties of the first part granted to the Wireless Specialty Apparatus Co. under all patents or patent rights owned by them then or thereafter, a nonexclusive license to manufacture and sell certain apparatus, specifically named, and excluding vacuum tubes, for use in radio communication, limited, however, to manufacture for sale to the United Fruit Co. or its subsidiaries for use under the license granted of even date, namely, March 7, 1921, by the Radio Corporation of America, to the United Fruit Co. (par. 15 above); and the Wireless Specialty Apparatus Co. granted to the parties of the first part an assignable license to make and use under all its patents having to do with radio communication or with apparatus or devices in connection therewith, present or future, reserving, however, the right to grant licenses to the United Fruit Co., the said agreement to continue until January 1, 1945, all of which more fully appears in said agreement of March 7, 1921.

PAR. 17. By letter of June 30, 1921, the American Telephone & Telegraph Co. and the Western Electric Co. agreed to the extension by the General Electric Co. and the Radio Corporation of America to the Westinghouse Electric & Manufacturing Co. of the rights under the licenses acquired or to be acquired under the agreement of July 1, 1920 (described in pars. 13 and 14), in consideration of the grant to the American Telephone & Telegraph Co. and the Western Electric Co. of licenses under the present and future patents and inventions of the Westinghouse Electric & Manufacturing Co., corresponding to rights granted by the General Electric Co. in the aforesaid agreement of July 1, 1920; the receipt of such grants from the Westinghouse Electric & Manufacturing Co. being acknowledged by the American Telephone & Telegraph Co. and the Western Electric Co.

Digitized by Google

PAR. 18. On June 13, 1921, an agreement was made between the Westinghouse Electric & Manufacturing Co., the Radio Corporation of America, and the General Electric Co. by which rights under the Armstrong-Pupin patents were extended by the Westinghouse Electric & Manufacturing Co., with the consent of the Radio Corporation of America, to the General Electric Co., and the terms of payment therefor by the Radio Corporation and the General Electric Co. were fixed.

PAR. 19. On June 30, 1921, the Radio Corporation of America entered into an agreement with the International Radio Telegraph Co. by which in consideration of the issuance to it by the Radio Corporation of America of 1,000,000 shares of its preferred and 1,000,000 shares of its common stock, the International Radio Telegraph Co. sold and assigned all of its assets and liabilities to the Radio Corporation, including its patents rights, and licenses under patents, real estate, and especially the right to the sum of $2,200,000 payable by the Westinghouse Electric & Manufacturing Co. to the International Radio Telegraph Co. in accordance with the terms and provisions of an agreement dated June 21, 1921, between said companies. (See par. 12 above.)

PAR. 20. By a letter dated March 9, 1921, the American Telephone & Telegraph Co. and the Western Electric Co., its subsidiary, assented to the grant by the General Electric Co. and the Radio Corporation of America of special licenses to the United Fruit Co., the Tropical Radio Telegraph Co., and the Wireless Specialty Apparatus Co. under the patent licenses acquired or to be acquired under the agreement of July 1, 1920, between the General Electric Co. and the American Telephone & Telegraph Co. (par. 14 above), on the condition of a grant to the American Telephone & Telegraph Co. and the Western Electric Co. by the United Fruit Co., the Tropical Radio Telegraph Co., and the Wireless Specialty Apparatus Co. of licenses under all United States patents now or hereafter owned or controlled by the United Fruit Co., Tropical Radio Telegraph Co., and the Wireless Specialty Apparatus Co.

PAR. 21. On or about March 14, 1923, the Radio Corporation of America procured from the Radio Engineering Co., a New York corporation, an assignable and divisible license to make, use, sell, and lease under certain patents owned by the Radio Engineering Co., with the right to the Radio Corporation of America, after 2 years, to take an assignment of these patents, all of which more fully appears from said agreement.

PAR. 22. On or about September 1922 the Radio Corporation of America entered into an agreement with the Federal Telegraph Co. of California to incorporate the Federal Telegraph Co. of Delaware for the purpose of carrying out certain agreements between the Federal Telegraph Co. of California and the Government of China executed on or about January 8 and September 20, 1921, for the construction, installing, and operation in China of a radio system for communication between this country and China; said agreement between the Radio Corporation of America and the Federal Telegraph Co. of California was for the term of 10 years and provided for the taking over by the Federal Telegraph Co. of Delaware of said contracts of January 8 and September 20, 1921, and the participation of the Radio Corporation of America in the carrying out of the agreement with the Federal Telegraph Co. of California with the Chinese Government on the basis of an equal share of the profits, the Radio Corporation to name the chairman of the board of directors, on which the Radio Corporation of America and the Federal Telegraph Co. of California were to have equal representations in number; the president of the Federal Telegraph Co. of California to be president of the Delaware corporation. By said agreement of September 1922 the Radio Corporation granted to the Delaware corporation, for the purpose of construction and communication under the Federal Co.-China contracts, a nonexclusive license under all its patents in the United States, to use in China for radio telegraphing purposes but not to make or sell, and the Federal Telegraph Co. of California granted to the Delaware corporation a similar license under its patents, all of which more fully appears from said agreements.

PAR. 23. On or about July 10, 1922, the Radio Corporation of America and the Postal Telegraph Co., a New York corporation, entered into an agreement by which the Postal Co. agreed to accept for and receive from the Radio Corporation messages, each to pay the other for its respective service tolls; the Radio Corporation agreed to tender the Postal Co., to be forwarded over its lines, all trans-Atlantic radio messages received by it or its connections

Digitized by Google

destined to points in the United States reached by the Postal Co., except where the Radio Corporation has its own facilities; it being provided that no traffic arrangement should be made with any other company where the Postal Co. has facilities except for ship-to-shore and ship-to-ship traffic, the Postal Co. agreeing to receive radiograms only of and from the Radio Corporation and not otherwise to be the forwarder of trans-Atlantic radio messages under any agreement for through radio telegraph service, all of which more fully appears from said agreement.

PAR. 24. On or about September 25, 1920, the Radio Corporation of America and the American Telephone & Telegraph Co. entered into an agreement for extracontinental radio traffic, which recites that the latter company in connection with its telephone system maintains some telegraph terminals and that the Radio Corporation purposes to establish transfer offices for the transfer of extracontinental radio telegrams between land lines and its radio stations; said agreement provides that the Radio Corporation may attach wires connecting its transfer offices with radio stations to poles of the American Telephone & Telegraph Co. at the same rates as commercial telegraph companies for use only for the transmission of the Radio Corporation's extracontinental radio telegraph messages, and transmission of its telegraph service and other messages at the Radio Corporation's expense, on the condition that the Radio Corporation shall not direct elsewhere a material part of its extracontinental traffic, all of which more fully appears from said agreement.

PAR. 25. Among the assets of the Marconi Wireless Telegraph Co. of America, acquired as hereinbefore alleged by the Radio Corporation of America, by an assignment dated on or about March 27, 1920, was an agreement entered into or about August 22, 1916, between the Marconi Co. and the Imperial Japanese Government, which provided for a mutual exclusive contract for the handling of traffic unless specially ordered otherwise by senders, and provided that rates are as cheap as elsewhere, and subject to the terms of the International Telegraph Convention of St. Petersburgh so far as compatible with said agreement, all of which more fully appears from said agreement.

PAR. 26. By various agreements by assignment from the Marconi Wireless Telegraph Co. of America, or directly with the Governments and/or companies having exclusive rights for the operation of radio communication from said Governments, respectively, of Germany, France, Sweden, Norway, and Poland, the Radio Corporation of America has acquired in the year 1920, and thereafter, exclusive and/or preferential traffic arrangements and/or exclusive or preferential arrangements for the exchange of patents and patent rights, relating to radio communication and the operation of same, respectively, as more fully appears from said agreements.

PAR. 27. By an agreement entered into on or about October 14, 1921, between the Radio Corporation of America and representatives of British, French, and German interests owning or controlling rights for the operation of radio communication in and with various territories of Central and South America, a trust was created of which the chairman was to be named by the Radio Corporation with power of veto, by which the parties agreed to communicate exclusively with the stations of the other parties and their affiliated companies in their respective territories and for traffic in the territory of the other parties with the consent of the respective parties, as more fully appears from said agreement.

PAR. 28. Since the organization of the Radio Corporation of America, the following respondents have been represented on the board of directors: General Electric Co., Westinghouse Electric & Manufacturing Co., American Telephone & Telegraph Co., and United Fruit Co.; and on December 31, 1922, the respondents named, with the exception of the American Telephone & Telegraph Co., were so represented.

PAR. 29. The Radio Corporation of America has, by appropriate action of its board of directors, caused to be published in connection with its radio apparatus offered for sale a so-called "patent license" containing restrictions as to the use thereof by purchasers, viz, to amateur and experimental purposes only and not for commercial purposes or sale, and not for use in circuits or sets made or assembled for commercial purposes; and has also provided that transmitting apparatus, not exceeding 2 kilowatts antenna input, and receiving apparatus may be leased to competing companies and others for communication only be-

Digitized by Google

tween ship and shore and vice versa, also for private use and not for tolls and not to resell, on condition that, other things being equal, the Radio Corporation should be given preference in routing business transmitted by such apparatus; also that apparatus not for external international communication purposes may be sold or leased, provided transmitting apparatus shall not exceed 2 kilowatts per antenna input; also that whenever possible, an agreement should be secured giving exclusive traffic connections to stations of the corporation and its affiliated companies; and that no licenses of whatsoever nature are to be granted for the manufacture and sale of vacuum tubes; also, its policy, as recommended by its board of directors, has been that apparatus sold for amateur, entertainment, and experimental purposes differ as widely as practicable from the designs of the apparatus sold or leased for other purposes, as "the best way in which to protect our licensees and enforce our restrictions" and to offer "just one more obstacle that nonlicensees will have to overcome."

PAR. 30. By reason of the facts and acts of the respondents set forth in the preceding paragraphs numbered 8 to 29, inclusive, the respondents have combined and conspired for the purpose and with the effect of restraining competition and creating a monopoly in the manufacture, purchase and sale, in interstate commerce, of radio devices and apparatus, and other electrical devices and apparatus, and in domestic and transoceanic radio communication and broadcasting by the following means:

(1) Acquiring collectively, directly, and indirectly patents and patent rights covering all devices and apparatus known to and used in any and all branches of the practice of the art of radio, and combining and pooling, by assignment and licensing, rights thereunder to manufacture and use and/or sell such devices and apparatus, competing and noncompeting, and allotting certain of such rights exclusively to certain respondents.

(2) Granting to the Radio Corporation of America the exclusive right to sell such devices and apparatus manufactured under said patents and patent rights and restricting purchases by the Radio Corporation of America of devices and apparatus useful in the art of radio to certain respondents and apportioning such purchases among them.

(3) Restricting the competition of certain respondents in the respective fields of manufacture and commerce of other respondents.

(4) Attempting to restrict and restricting the use for radio communication and/or broadcasting of articles manufactured and sold under said patents and patent rights.

(5) Acquiring the equipment heretofore existing in this country essential for transoceanic radio communication and perpetuating the monopoly thereof by refusing to supply to others apparatus and devices necessary for the equipment and operation of such service.

(6) Entering into exclusive contracts and preferential agreements for the handling of transoceanic radio traffic, and the transmission of radio messages in this country, thereby excluding others from the necessary facilities for the transmission of radio traffic.

(7) Agreeing and contracting among themselves to cooperate in the development of new inventions relating to radio and to exchange patents covering the results of the research and experiment of their employees in the art of radio, including patents on inventions and devices which they may obtain in the future, seeking thereby to perpetuate their control and monopoly of the various means of radio communication and broadcasting beyond the time covered by existing patents owned by them or under which they are licensed.

PAR. 31. The above alleged acts and practices of respondents are all to the prejudice of the public and of respondents' competitors and constitute unfair methods of competition in commerce within the intent and meaning of section 5 of an act of Congress entitled, "An act to create a Federal Trade Commission, to define its powers and duties, and for other purposes", approved September 26, 1914.

Wherefore, the premises considered, the Federal Trade Commission, on this 24th day of January, A. D. 1924, now here issues this its complaint against said respondents.

NOTICE

Notice is hereby given you, and each of you, General Electric Co., American Telephone & Telegraph Co., Western Electric Co., Inc., Westinghouse Electric & Manufacturing Co., the International Radio Telegraph Co., United Fruit Co.,

Digitized by Google

Wireless Specialty Apparatus Co., and the Radio Corporation of America, respondents herein, that the 14th day of March 1924, at 10:30 o'clock in the forenoon, is hereby fixed as the time, and the office of the Federal Trade Commission, in the city of Washington, D. C., as the place, when and where a hearing will be had on the charges set forth in this complaint, at which time and place you shall have the right, under said act, to appear and show why an order should not be entered by said Commission requiring you to cease and desist from the violation of the law charged in this complaint.

In witness whereof, the Federal Trade Commission has caused this complaint to be signed by its secretary, and its official seal to be hereto affixed at Washington, D. C., this 26th day January 1924.

By the Commission; Commissioner Van Fleet dissenting.

OTIS B. JOHNSON, *Secretary.*

UNITED STATES OF AMERICA—BEFORE FEDERAL TRADE COMMISSION

At a regular session of the Federal Trade Commission, held at its office in the city of Washington, D. C., on the 31st day of January, A. D. 1928.

Present: William E. Humphrey, chairman; Abram F. Myers, Edgar A. McCulloch, Garland S. Ferguson, Jr., C. W. Hunt, commissioners.

In the matter of General Electric Co., et al. Docket No. 1115, order amending complaint.

The above cause coming on for hearing on this 23d day of January 1928, upon the motion by attorneys for the Commission to amend the complaint to conform to proof as follows:

Comes now counsel for Commission at the close of the Commission's case in chief and in order to conform to proof, moves the Commission to amend its complaint in this case by adding at the end of paragraph 30 the following:

"(8) Substantially lessened competition and tended to create a monopoly in the sale in commerce of unpatented parts of chassis, and of unpatented consoles and cabinets, and of other unpatented parts of radio devices and apparatuses which are made by various respondents and by agreements sold exclusively through and by respondent Radio Corporation of America."

And counsel for the Commission and for respondent being present and having presented arguments, and the Commission being duly advised in the premises, after full consideration.

It is ordered that the motion be and the same is hereby granted and the complaint is amended accordingly.

By the Commission:

[SEAL] OTIS B. JOHNSON, *Secretary.*

UNITED STATES OF AMERICA—BEFORE FEDERAL TRADE COMMISSION

At a regular session of the Federal Trade Commission, held at its office in the city of Washington, D. C., on the 19th day of December, A. D. 1928.

Commissioners: Abram F. Myers, chairman; Edgar A. McCulloch, Garland S. Ferguson, Jr., C. W. Hunt, William E. Humphrey.

In the matter of General Electric Co., et al. Docket 1115, order of dismissal.

This matter coming on to be heard on the motions of the respondents to dismiss the complaint herein as amended, and the Commission having heard oral argument in support of said motions and oral argument in opposition to said motions, and the Commission having considered briefs filed in support of and in opposition to said motions and the Commission being fully advised in the premises,

It is hereby ordered that the said motions be and the same are hereby granted, and that the said complaint as amended be and the same is hereby dismissed.

By the Commission:

[SEAL] OTIS B. JOHNSON, *Secretary.*

Digitized by Google

No. 147. REQUIRED REPORT

(Complying with Department's instruction of Dec. 19, 1933, with which was enclosed a memorandum specifying the revised periodic report requirements of the Department of Commerce.)

MOTION PICTURE NOTES FOR AUGUST 1935

From: Walter W. Orebaugh, American Vice Consul, Wellington, New Zealand. Date of Completion: September 10, 1935. Date of Mail Leaving: September 20, 1935.

Approved:

GEO. A. BUCKLIN,
American Consul General.

GENERAL

According to sources considered authoritative, a further improvement in aggregate theater revenue has materialized during the past 3 months. It is stated that the increase for all theaters is about 10 percent, but that a few are running as much as 30 percent ahead of receipts for the same period of last year.

To account for this improvement there is, of course, the better state of business in general, which has made significant progress, even during the usually slack winter quarter. But more particularly relevant is the fact that the motion pictures released for exhibition this year in New Zealand have as a class been definitely superior to the general average of those shown in previous years, and hence have attracted larger audiences.

Exhibitors throughout the Dominion are very pleased with this year's results and are looking forward with confidence to a continuation of good conditions.

STANDARD FILM-HIRE CONTRACT FORM

Exhibitors also have been cheered by the announcement that the standard film-hire contract form, which was gazetted on August 19 by the Minister of Internal Affairs under the Cinematograph Films Amendment Act, 1934, will govern all future contracts. This form, it will be remembered, has been sought by them for several years and was one of the principal factors which prompted the Government to institute a fact-finding investigation into the film industry as a whole, early in 1934. In the act referred to above, which was passed as a result of the Government's inquiry, the need for a standard film contract form was recognized, and a committee representing both exhibitors and exchanges was charged with the responsibility of framing a document mutually satisfactory. This was finally accomplished, although a few points not agreed upon were left for decision to the committee chairman, a stipendiary magistrate, who was delegated authority to rule on any outstanding issues.

While most of the exchanges in New Zealand feel that the realm of private industry has been unduly invaded, and that the contract form is yet another manifestation of a socialistically inclined government, it is not felt that they will suffer much hardship. It is indeed true that under the old individual contracts practically all responsibility was apportioned to the exhibitors, and that the distributors could more or less dictate whatever terms they chose to make.

It is now felt that the whole contract is placed on a more clearly defined and equitable basis and that responsibilities are shared about equally. Under the terms of the new contract there are alternative clauses fixing minimum prices. In the one most generally applicable, the exhibitor agrees to charge an admission price of not less than 1 shilling for adults and sixpence for children, except for matinees, at which the minimum charge may be set at threepence for children. The alternative clause stipulates a minimum of sixpence for adults and threepence for children in all instances. However, both these clauses are subject to legislation, which permits the lower minimum to be adopted only in the case of films over 2 years old. An important clause bears the practice of the giving away of any gifts which would have the effect, directly or indirectly, of reducing the admission price below the minimum set.

Copies of the standard film-hiring contract form as gazetted on August 19, 1935, are transmitted herewith.

Enclosure: Film-hiring contract form.

A true copy of the signed original. W. W. O.

×

Digitized by Google

Y4.P27/3:P78/2

POOLING OF PATENTS

APPENDIX TO HEARINGS

BEFORE THE

COMMITTEE ON PATENTS
HOUSE OF REPRESENTATIVES

SEVENTY-FOURTH CONGRESS

ON

H. R. 4523

A BILL PROVIDING FOR THE RECORDING OF PATENT POOLING AGREEMENTS AND CONTRACTS WITH THE COMMISSIONER OF PATENTS

FEBRUARY 11, 14, 20, 25, 28, MARCH 7
OCTOBER 15, 16, 17, 18, DECEMBER 2, 3, 4, 5, 6, 9, 10, 12, 1935

PART IV

Printed for the use of the Committee on Patents

UNITED STATES
GOVERNMENT PRINTING OFFICE
49629 WASHINGTON : 1936

UNIVERSITY OF MINNESOTA RECEIVED MAY 8 1936 LIBRARY

Digitized by Google

Digitized by Google

POOLING OF PATENTS

APPENDIX TO HEARINGS

BEFORE THE

COMMITTEE ON PATENTS
HOUSE OF REPRESENTATIVES

SEVENTY-FOURTH CONGRESS

ON

H. R. 4523

A BILL PROVIDING FOR THE RECORDING OF PATENT POOLING AGREEMENTS AND CONTRACTS WITH THE COMMISSIONER OF PATENTS

FEBRUARY 11, 14, 20, 25, 28, MARCH 7
OCTOBER 15, 16, 17, 18, DECEMBER 2, 3, 4, 5, 6, 9, 10, 12, 1935

PART IV

Printed for the use of the Committee on Patents

UNITED STATES
GOVERNMENT PRINTING OFFICE
49629 WASHINGTON : 1936

Digitized by Google

COMMITTEE ON PATENTS

WILLIAM I. SIROVICH, New York, *Chairman*

FRITZ G. LANHAM, Texas
BRASWELL D. DEEN, Georgia
THOMAS O'MALLEY, Wisconsin
MATTHEW A. DUNN, Pennsylvania
CHARLES J. COLDEN, California
CHARLES KRAMER, California
J. BURRWOOD DALY, Pennsylvania
J. HARDIN PETERSON, Florida
GRAHAM A. BARDEN, North Carolina
JOHN L. McCLELLAN, Arkansas
FRANK W. BOYKIN, Alabama
WM. B. BARRY, New York

RANDOLPH PERKINS, New Jersey
CLARENCE J. McLEOD, Michigan
FRED A. HARTLEY, JR., New Jersey
L. C. ARENDS, Illinois
RALPH E. CHURCH, Illinois
CHARLES F. RISK, Rhode Island

R. T. BUCKLER, Minnesota
THOS. R. AMLIE, Wisconsin

EDWIN FAIRFAX NAULTY, *Clerk*

Digitized by Google

POOLING OF PATENTS

SUPPLEMENT TO THE NEW ZEALAND GAZETTE OF THURSDAY, AUGUST 15, 1935

(Published by Authority.—Wellington, Monday, August 19, 1935)

FORM OF STANDARD FILM-HIRING CONTRACT APPROVED BY THE MINISTER UNDER THE CINEMATOGRAPH FILMS AMENDMENT ACT, 1934

WELLINGTON, *August 16, 1935.*

Pursuant to the provisions of section 10 of the Cinematograph Films Amendment Act, 1934, I hereby approve of the terms and conditions of the standard form of film-hiring contract as set out hereunder. I also approve of the use in practice of a printed form in which Parts A, B, and C of the said standard form of contract are printed in full and the provisions of Part D are included by reference in Part C to the gazetted copy of the said standard form. This approval shall be effective for a period of 12 months from date hereof.

J. A. YOUNG,
Minister of Internal Affairs.

STANDARD FILM-HIRING AGREEMENT

Agreement made this ____ day of _____, 19__, between _____, a company duly incorporated in _____, and carrying on business in the Dominion of New Zealand (hereinafter called "the renter"), of the one part, and _____, of _____, an exhibitor operating the _____ theatre at _____ (hereinafter called "the exhibitor"), of the other part, whereby it is agreed between the parties hereto as follows:

PART A.—EXHIBITION PERIOD

The renter agrees to hire and the exhibitor to take on hire for the purposes of exhibition the films contracted for herein on the dates specified or otherwise provided for in the Schedule hereto and in accordance with the provisions hereof. The period for the supply and the exhibition of the whole of the films contracted for shall extend from the ____ day of _____, 19__, until the ____ day of _____, 19__, but shall not in any event extend beyond the period or periods limited by section 37 of the Cinematograph Films Act, 1928, as modified by section 3 of the Cinematograph Films Amendment Act, 1929.

PART B.—SCHEDULE

This agreement refers to films released during the 19__–19__ film-renting season.

(NOTE.—These blanks must be filled in.)

Number of film(s)	Particulars	Number of screening days	Screening dates	Rental per film

Digitized by Google

Rider: The above films are feature films and sufficient short subjects shall be supplied with each feature film to be supplied hereunder to make up a programme of approximately 11,000 feet.

(NOTE.—This rider may be deleted or varied to suit the circumstances.)

PART C.—SPECIAL CONDITIONS

This agreement is made subject to the provisions of Part D hereof and the following special provisions [*Here insert special provisions, if any*]:

PART D.—PROVISIONS OF GENERAL APPLICATION

(1) *Supply and Classification of Films.*—(*a*) The films to be supplied are those designated either specifically or generally in the Schedule hereto.

(*b*) In so far as such films are not specified by title or other particulars then (subject to the provisions of paragraphs (*f*) and (*i*) of this clause) the renter shall, unless the parties by express stipulation otherwise agree, offer to the exhibitor for selection all the films which are required to be included in the statement required to be made by the renter pursuant to section 7 of the Cinematograph Films Amendment Act, 1934, with respect to the film-renting season in question.

(*c*) (i) If no express provision be inserted either in the said Schedule or elsewhere in this agreement for the classification of the said films, the same may be classified by the renter.

(ii) Provided, however, that unless identical terms of hiring shall apply to all films the subject of this agreement any differentiation of such terms shall be deemed to be a classification within the meaning of this provision.

(iii) Provided also that the renter shall include in the notice of availability of every released film offered to the exhibitor pursuant to this agreement an intimation of the classification of such film.

(iv) Provided further that, if the renter shall offer to the exhibitor a lesser number of films than are provided for by this agreement, the numbers of films stated in respect of each class shall be adjusted *pro rata*. If such adjustment should vary the classification of any picture already screened, and hire paid, or to be paid in respect thereof, the variation in the amount of such hire shall be adjusted retrospectively, the average rentals from the different classes being the basis of such adjustment, and the renter shall debit or credit to the exhibitor in account any deficiency or excess of hire ascertained upon such adjustment. In the event of any dispute, the matter shall be determined by arbitration.

(*d*) If during the film-renting season the renter releases or offers for release more films than are included in the statement required to be made to the Minister pursuant to section 7 of the Cinematograph Films Amendment Act, 1934, and if this agreement provides for the supply wholly or in part of unnamed or undescribed films, the unnamed or undescribed films to be made available to the exhibitor shall be the films released or offered for release in New Zealand which were first generally released in the country of origin, and in the case of any dispute as to which of those unnamed or undescribed films are included in this agreement, the matter shall be determined by arbitration.

(*e*) If the renter shall fail during the period of supply designated herein to offer to the exhibitor any named or specifically described film required to be so offered, which film is released in the country of origin in the film-renting season corresponding to that to which this agreement has reference, the renter agrees that if he releases such film during the next succeeding film-renting season, he will offer such film to the exhibitor, in the same relative priority in relation to other exhibitors in the city, town, or locality in which the exhibitor's theatre or theatres is or are situated, and upon the same terms, *mutatis mutandis*, as would have applied had the film been duly tendered during the period of supply under this agreement. Upon written notice of the availability of such film the exhibitor may within twenty-one days of such notice elect to take such film, and if he shall not within such period so elect, he shall be deemed to have waived his rights under this subclause. In the event of any dispute as to the season in which any such film was released in the country of origin the matter shall be determined by arbitration.

(*f*) Nothing in this agreement shall prevent the parties (in the event of their so agreeing by express provision in the said Schedule or elsewhere in this agreement) from conferring on the renter a right to reserve or withhold from the films which would otherwise be offered to the exhibitor pursuant hereto such number of films as may be designated in that behalf: Provided,

Digitized by Google

however, that if any of such films have been named or defined as in subclause (*b*) of this clause, then no reservation shall apply unless such film is adequately identified in the memorandum of reservation.

(*g*) Unless any of the said films is specifically contracted for first- or second-run exhibition, the renter shall not be under any obligation to supply the same until it has had first- and second-run exhibitions in the chief city or town of the provincial district in which the said theatre is situated.

(*h*) All films referred to in this agreement are to be of the standard size only (35 mm. width).

(*i*) Should the renter for any of the reasons hereinafter named be unable to deliver on the due date any of the films specified by title or other particulars herein or otherwise intended to be supplied hereunder, the renter shall, upon notifying the exhibitor, have the right either to select and supply some other film in lieu thereof or to reduce the number of films to be supplied to the extent that the renter is unable to deliver for any of the said reasons. In the event of the renter electing to supply a substitute film, it shall be optional on the part of the exhibitor whether he will accept the same by way of substitution, but he shall be deemed to have accepted if he fails within fourteen days after the receipt of notification to inform the renter of his rejection thereof; and in the event of his rejection the number of films to be supplied hereunder shall to that extent be reduced. The reasons for any of which the right conferred on the renter by this present paragraph (*i*) shall be deemed to arise are as follows:

(i) Any cause beyond the control of the renter.

(ii) The loss or destruction of the film, or such damage thereto as to render it unfit for exhibition.

(iii) If in the opinion of the renter the delivery of the film would or might involve the renter or the exhibitor in a suit, action, or proceeding by any person claiming any interest in copyright or any other right or interest affecting the film.

(iv) If difficulties arise between the renter or its suppliers on the one hand and any person holding or claiming to hold any interest in copyright or any other right or interest affecting such film on the other hand, which in the opinion of the renter may render it unprofitable or inexpedient from the point of view of the renter to deliver such film.

(*j*) Any change by the renter of the name or title of any film shall not by reason only thereof be deemed to constitute such film a substitute film.

(*k*) Subject, however, to the provisions of subclause (*c*) hereof, if the renter releases during the said film-renting season a lesser number of films than he contracts to supply hereunder, the exhibitor shall not be entitled to require the renter to make good the deficiency or any part thereof out of films which are acquired by the renter *bona fide* for release by the renter in a subsequent season.

(2) *Time and Place of Exhibition.*—The exhibitor agrees to exhibit the said films, but only at the theatre or theatres hereinbefore specified on the exhibition date or dates fixed in the said Schedule or determined as herein provided, and save with the consent of the renter not to allow any print thereof to leave the exhibitor's possession during the period specified for the exhibition thereof by the exhibitor, nor to exhibit or permit the exhibition of any such print at any other time or place. Unless otherwise provided herein, the exhibitor will not, without the written consent of the renter, exhibit any of the said films on any Sunday or between the hours of 11:45 p. m. on any day and 6 a. m. on the following day.

(3) *Designation of Play Dates.*—Unless the Schedule hereto designates the screening dates then, on the execution of this agreement or thirty days before the commencement of the exhibition period, the exhibitor may give written notice to the renter designating the dates during the first three months of such period on which he can take and exhibit a proportionate number of the films the subject of the contract, and he may give the like notice thirty days before each succeeding three months of such period. If the exhibitor fails to give any such notice the renter may designate the dates for exhibition of the said films during the relative three-monthly period, and in either case such designation shall be binding on both parties. No such designation of dates by the exhibitor shall entitle him to appropriate particular films to particular dates, the intention being that the renter shall determine the allocation of films to the dates so designated.

(4) *Payment Clause.*—(*a*) Flat Rentals: Subject in the case of percentage bookings to the special provisions specified in paragraph (*b*) hereof (which

Digitized by Google

shall be deemed to apply only to the percentage portion of the hire), the hire payable for each film, together with all advertising, freight, and other charges, shall be paid free of exchange to the renter not less than three days in advance of the date of despatch from renter's exchange or from the last previous exhibitor.

(*b*) Percentage Bookings: In any case where the hiring fee is to be computed entirely or in part upon the gross admission receipts of the said theatre, the exhibitor shall pay to the renter within seven days of the first authorized exhibition date, or if the exhibition period exceeds one week, then within seven days of the first authorized exhibition date in each respective week or part of a week, a sum equal to the proportion of the gross admission receipts aforesaid due to the renter, as well as all moneys which may be due and owing to the renter for freight, cartage, and other charges: Provided that, in any case where the hiring fee is to be so computed, the exhibitor shall, prior to the exhibition period of the film, or at any time during such period, if so requested by the renter, deposit with the renter in cash or otherwise to the satisfaction of the renter a sum of money based upon the estimated hiring fee or balance thereof, as the case may be, such estimated hiring fee or balance thereof to be determined by the renter. All moneys so deposited by the exhibitor may, at the option of the renter, be applied by the renter in or towards satisfaction of the hiring fee and other moneys due and payable to the renter for the film, and any surplus remaining shall be refunded to the exhibitor without unreasonable delay. The exhibitor hereby undertakes to supply to the renter immediately after the authorized exhibition period, and in a form satisfactory to the renter, a certified itemized statement of the daily gross admission receipts for the exhibition date or dates of each film for which payment is so required to be made. Upon such date or dates an authorized representative of the renter is hereby given the right to verify the sale of all tickets of admission to said theatre and receipts therefrom, and for such purpose shall have access to the theatre including the box-office and also access to and the right to examine at all reasonable times the exhibitor's books and records in so far as they relate to such gross receipts, including copies of returns furnished to taxation authorities for purposes of entertainment-tax for the purpose of verifying such box-office statement. The renter agrees that any information obtained by it pursuant to the provisions of this clause will be treated as confidential except in any arbitration proceedings or litigation in respect of this agreement. The words "gross receipts" used in this or any other part of this agreement mean gross receipts exclusive of entertainment-tax.

(*c*) Nothing herein contained shall impose any obligation on the exhibitor to make payment for any film which is not delivered in reasonable physical condition for projection and exhibition, and which for that cause he does not screen.

(*5*) *Unplayed Dates: Flat Rentals.*—If in the case of any of the said films in respect of which a flat hiring fee alone is payable the exhibitor fails to exhibit the same on the date or dates specified in the said Schedule and/or determined in accordance with the provisions hereof for any reason other than specifically mentioned in clause (25), the exhibitor agrees to pay the renter free of exchange the hire payable for such film, together with all advertising, freight, and other charges on the due date. On receipt of such payment the renter undertakes to grant the exhibitor a substitute exhibition date as shall be mutually agreed upon, but the exhibitor shall not be entitled in the case of such film to any priority of exhibition over other exhibitors that may be conferred upon him by this agreement.

(*6*) *Liquidated Damages: Percentage Hiring.*—If this agreement calls for payment computed either in whole or in part upon a percentage of the exhibitor's gross admission receipts, and if the exhibitor fails or refuses to exhibit such film as provided in this agreement, the exhibitor shall pay to the renter as liquidated damages for each day that the exhibitor fails or refuses to exhibit such film (in addition to any fixed sums payable hereunder in respect thereof) a sum equal to such percentage of the average daily gross admission receipts of such theatre on the corresponding days of the twelve weeks prior to the date or dates when such film should have been so exhibited: Provided, however, that if the exhibitor shall exhibit such film for less than the full number of days provided for in this agreement, such sum equal to such percentage shall for each day on which the exhibitor fails to exhibit the film be computed upon a sum equal to seventy-five (75) per cent of the gross receipts of the said

Digitized by Google

theatre for the last day of the exhibition thereat of such film. An itemized statement of the said daily gross receipts shall be delivered by the exhibitor to the renter upon demand therefor, and the renter shall have the same right of access and inspection as aforesaid.

(7) *Admission Prices.*—(*a*) The exhibitor agrees that he will charge a price for the admission to the theatre of not less than 1s. for adults and 6d. for children, except at matinees, when the minimum charge may be 3d. for children, and also except in the case of films designated in a list approved by the Minister for the purposes of this clause, in which case the minimum charge shall be 6d. for adults and 3d. for children; or

The exhibitor agrees that he will charge a price for admission to the theatre of not less than 6d. for adults and 3d. for children.

(NOTE.—Either of these alternative forms may be used at the discretion of the renter.)

(*b*) For the purposes of this clause a child shall be deemed to be a person under the age of fifteen years.

(*c*) The exhibitor further agrees with the renter that he will not do or offer to do any act, matter, or thing, or give or offer to give any benefit, inducement, advantage, gratuity, or other property to patrons of the said theatre which will have the effect, directly or indirectly, of reducing the charge for admission of any person below such minimum as aforesaid or of reducing the net result to the exhibitor in respect of the admission of such person below the minimum.

(*d*) In the event of any breach by the exhibitor of this clause the exhibitor shall pay to the renter by way of liquidated damages the sum of five pounds (£5) in respect of each exhibition in respect of which such breach is committed, but this provision shall be without prejudice to the exercise by the renter of any other remedy to which he may be entitled under these presents by reason of such breach.

(8) *Exhibition and Advertising.*—(*a*) The exhibitor agrees in any advertising to announce each film as "A [*mentioning the name of the producer*] picture", and to give full prominence to the trade-mark of the renter.

(*b*) The exhibitor shall not use any advertisement or publicity of which the renter has notified his disapproval in writing and shall indemnify the renter against any loss or damage suffered by the renter by reason of any breach of this obligation.

(*c*) No lithographic posters, photographs, slides, lobby displays, or other advertising accessories purchased, leased, or otherwise acquired by the exhibitor from or through the renter shall be sold, leased, lent, or given away by the exhibitor to any other person. Upon the breach or attempted breach of this provision by the exhibitor the right to the immediate possession of such advertising matter shall revert to the renter which may take possession of the same wherever found.

(*d*) The exhibitor agrees that not more than one other feature-length film is to be presented at the same performance with any feature-length film supplied hereunder.

(*e*) Nothing in this agreement shall preclude any special written agreement relating to advertising in any particular case.

(9) *Delivery and return of Films.*—(*a*) Delivery: The renter shall make deliveries hereunder to the exhibitor by delivery at the renter's exchange or by forwarding or consigning to the exhibitor either by the renter or by some other person at the renter's direction, and either by rail, steamer, post, or othe means of transport, not being by air, as the renter may decide, and shall use its best efforts to have each and every film delivered to the exhibitor in time for the authorized exhibition on the exhibition date in said theatre: Provided that the renter shall not be liable in any way whatever for failure or delay in making delivery by reason of the elements, accidents, labour troubles, fires, Government Proclamations, ruling of censors, or by reason of any other delay, accident, or hindrance of whatever kind soever beyond the control of the renter.

(*b*) Possession: For the purposes of this agreement all films and accessories shall be deemed to be in the possession of the exhibitor from the time the exhibitor takes delivery from the premises of the renter or from the time the film is forwarded or consigned to the exhibitor as aforesaid until delivery by the exhibitor to the renter at the renter's exchange, or consignment by any of the means of transport as aforesaid to another exhibitor notified to the exhibitor in writing by the renter.

Digitized by Google

(*c*) Return: The exhibitor shall promptly return all films, together with spools and straps, in the same condition as same were received (reasonable wear and tear excepted), and properly packed in containers and properly addressed to the renter's exchange or to any other place named by the renter in writing to the exhibitor by delivery or consignment as aforesaid. The exhibitor shall consign by such means of transport, other than by air, as may be specified in writing by the renter.

(*d*) Freight: The exhibitor will pay all costs of transportation of the said films and/or accessories from the renter's exchange, and return to renter's exchange, or to another exhibitor, as the case may be.

(*e*) Damages: The exhibitor agrees that if for any reason not beyond his control despatch instructions are not carried out by him, with the result that loss is thereby caused to the renter and/or the exhibitor to whom the films should have been despatched in accordance with the despatch instructions of the renter, he will pay to the renter by way of liquidated damages a sum equivalent to the amount of the loss thereby suffered by the renter and/or such other exhibitor, and will indemnify the renter against any claim preferred by such other exhibitor against the renter in respect of such loss.

(*10*) *Sound and Projection Equipment.*—The exhibitor undertakes that the reproducing equipment used in connection with any films supplied hereunder will operate properly, reliably, and efficiently to reproduce such recorded sound with adequate volume and high quality, and that he will maintain and keep the projection machine and all other apparatus used by him in a good, proper, and substantial state of repair, order, and condition, and will at all times allow free access for a representative of the renter appointed in writing by the renter for that purpose to enter into every part of the said theatre or theatres for the purpose of inspecting and/or testing such sound and/or projecting equipment and apparatus. If, after any such inspection or test, the representative (being a person approved by writing in that behalf by the Chief Inspector for the time being under the Cinematograph Films Act, 1928) serve upon the exhibitor or leave for him at the said theatre notice in writing requiring the exhibitor, within a time specified in such notice, to do or to refrain from doing anything in connection with the said equipment or the use thereof which in the opinion of the representative is necessary for the more satisfactory exhibition of the said films, the exhibitor shall observe and/or perform the requirements of such notice within the time specified therein, and in the event of the exhibitor failing to observe or perform the requirements of such notice, and so long as such failure continues, the renter shall be entitled to refuse to supply or allow the said films or any of them to be exhibited, but nevertheless without prejudice to any other right or remedy the renter may have under this agreement.

(*11*) *Copyright.*—(*a*) The right to exhibit the said films shall include a right under all copyrights in respect of such films and of the recorded sound in synchronism therewith, but not the right to perform in public any musical work included in such recorded sound.

(*b*) The exhibitor warrants that he will have at the date or dates of the exhibition of each of such films an effective license from the Australasian Performing Rights Association, Limited, or other person or association of persons designated in writing by the renter upon inquiry by the exhibitor who or which may control the right of public performance of such copyrighted musical or other composition to perform publicly such composition.

(*c*) Each party will indemnify the other against any claim in respect of infringement of copyright or infringement of the right of public performance, as the case may be, where the same arises by reason of a breach by such first-named party of his obligations under this clause.

(*12*) *Slander or Libel.*—The renter will indemnify the exhibitor against any claim in respect of any slander or libel which arises exclusively from the contents of any film exhibited pursuant hereto and/or the use of advertising matter in relation thereto supplied by the renter.

(*13*) *Cutting and Alteration of Films.*—The exhibitor shall exhibit each film in its entirety, and shall not copy, duplicate, cut, or alter any film excepting with the written or telegraphic consent of the renter.

(*14*) *Loss and Damage to Films.*—(*a*) The exhibitor shall forthwith on the receipt of any film hereunder report to the renter on a form to be supplied by the renter upon application by the exhibitor the condition of such film.

(*b*) The exhibitor shall immediately notify the renter's exchange by prepaid telegram of the loss, theft, or destruction of or damage or injury to any print. If any film shall be received from the exhibitor by the renter or any subsequent

Digitized by Google

exhibitor in a damaged or partially destroyed condition it shall be deemed to have been so damaged or destroyed while in possession of the exhibitor, unless the latter before or immediately after the first public exhibition thereof shall have telegraphed the renter that such print was received by the exhibitor in a damaged or partially or wholly destroyed condition, and setting forth fully the nature of such damage and the amount of footage so damaged or destroyed.

(*c*) The exhibitor shall pay to the renter a sum equal to the cost of replacement at the renter's exchange for each linear foot of film which may be lost, stolen, destroyed, or so damaged as to be unfit for further exhibition while in the possession of the exhibitor.

(*d*) If damage occurs to any film while in the possession of the exhibitor, but such damage is not of such nature as to preclude further exhibition, the exhibitor shall pay to the renter a sum in proportion to the nature and extent of such damage. The amount of such damage shall be determined by mutual agreement or by arbitration, but in no case shall it exceed the value of the film as set out in subclause (*c*) hereof.

(*e*) The exhibitor shall not be relieved of his obligation to return all discs and other accessories by reason of the same having been broken, worn out, or damaged.

(*15*) *Insurance.*—The exhibitor shall insure and keep insured all films to be supplied hereunder while in his possession under a block risk policy effected and operated from time to time by a Board constituted of an equal number of representatives of the Film Exchanges Association of New Zealand (Incorporated) and the New Zealand Motion Picture Exhibitors' Association (Incorporated), and constituted pursuant to an agreement between the said associations, dated the 6th day of August 1935, or to any agreement in substitution or renewal thereof, and shall punctually pay to the said Board all contributions or levies required of or made upon him by the said Board to enable such insurance to be effected and maintained; and, in the event of default by the exhibitor in payment of any such contribution or levy, the renter may if it thinks fit pay the same and recover the amount thereof from the exhibitor: Provided, however, that in the event of such Board for any reason ceasing to exist or to function, the exhibitor shall insure and keep insured the said films whilst the same are deemed to be in his possession hereunder against the same risks as specified in the said block policy in some insurance office approved by the renter, the total insurance cover in respect of any one programme to be not less than £300 (or such other sum as may be agreed upon from time to time or in default of agreement fixed by arbitration), and shall punctually pay all premiums in respect thereof, the renter having the right in the event of default by the exhibitor to pay the same and recover the amount from the exhibitor.

(*16*) *Broadcasting prohibited.*—The broadcasting of or from any films supplied under this agreement is expressly prohibited.

(*17*) *Switching.*—The renter reserves the right to switch each and every film supplied hereunder to any other exhibitor or exhibitors for return in due course: Provided that such switching shall not affect the normal screening of the programme of which such film is a part. No costs or expense in effecting such switching shall be borne by the exhibitor unless the switching be at his request.

(*18*) *Observance of Acts and By-Laws.*—The exhibitor and the renter shall as the same are applicable to motion-picture theatres and/or the control, care, and use of film at all times fully and effectually comply with all Acts of Parliament and rules and regulations thereunder, as well as with all by-laws of any local government or other authority having power in that behalf for the locality or district wherein the said films are to be used.

(19) *Assignment.*—This agreement shall not be assigned, transferred, or otherwise disposed of by the exhibitor to any other person without the written consent of the renter, which consent shall not be arbitrarily withheld, and shall not in any case be effective until such other person has agreed with the renter to carry out the terms and provisions hereof. Notwithstanding such consent, the exhibitor shall remain responsible to the renter hereunder unless a release from liability is given to him in writing.

(20) *Waiver.*—The waiver by either party of any breach or default by the other party shall not be construed as a waiver of any other or subsequent breach or default by such other party whether similar or otherwise.

(21) *Notices.*—(*a*) All notices to be given to either party hereunder shall be sufficiently served if sent by prepaid post to the address of the party to whom notice is given last known to the other party, and any notice so sent shall be

Digitized by Google

deemed to have been received on the day when it would have ordinarily been received in the course of post: Provided that any notice of the despatch of film or accessories shall be addressed to the theatre to which the film is booked.

(*b*) Any notice of availability given to the exhibitor under the provisions of section 9 of the Cinematograph Films Amendment Act, 1934, shall expressly intimate that it is an availability notice under the Act.

(22) *No Partnership.*—It is expressly agreed that this agreement in no way constitutes a partnership between the parties hereto.

(23) *Oral Promises.*—No oral promise, representation, understanding, or agreement in reference hereto shall be of any force or effect.

(24) *Stamp Duty.*—The renter has the right to stamp his copy of this agreement and to charge the exhibitor with the amount of stamp duty paid thereon.

(25) *Theatre closed.*—In the event of the said theatre being closed by Government Proclamation or by Parliamentary, Ministerial, departmental, or local authority (statutory or otherwise) under any real or assumed authority or power not being due to any withdrawal or suspension of the exhibitor's license in respect of such theatre for any cause within the power of the exhibitor to remedy, or in the event of such theatre being destroyed or damaged to such an extent as to be unfit for use or occupation so that any film to be exhibited hereunder cannot be exhibited on the day or days when it should be so exhibited, then this contract shall terminate in respect of such number of films as would have been exhibited in the theatre in terms of this contract: Provided that in the event of screening not being resumed by the exhibitor in the said theatre or a substitute theatre in or near the same locality within forty days next after the day when a film was last screened therein, the renter shall have the right of terminating this agreement, in which case the agreement shall be deemed to have terminated at the date when the theatre closed owing to one or either or all of the causes aforesaid. Such determination of the agreement shall be without prejudice to the rights of either party in respect of any matter then outstanding between them under this agreement up to the time of such determination.

(26) *Breach.*—(*a*) If during the term hereof the renter fails or refuses to deliver and/or the exhibitor fails or refuses to exhibit any of the said films (save and except such as may be rejected under section 8 of the Cinematograph Films Amendment Act, 1934, or where elimination of any film or delay or failure is due to any of the permissible reasons provided herein), or if either party violate or breach the provisions contained herein, the renter or the exhibitor, as the case may be, shall pay to the other party the damage so caused.

(*b*) If the exhibitor—

(i) Shall fail or refuse to pay the rental of any such film as provided in this agreement or to furnish statements of the receipts of such theatre if any are required hereunder, or to give the renter's representative access to the said theatre or its box-office and/or to the exhibitor's books and records relative to films the rentals of which are based upon the said theatre's admission receipts as herein provided; or

(ii) Makes default in the due observance and performance of the obligations on his part under clauses numbered 2 (Time and Place of Exhibition), 7 (Admission Prices), 11 (Copyright), 15 (Insurance), 16 (Broadcasting), and 18 (Observance of Acts and By-laws), or any of them; or

(iii) Commits any other breach going to the root of the contract; or

(iv) Becomes insolvent or is adjudicated a bankrupt, or in the case of a company goes into liquidation except for reconstruction, or executes an assignment for the benefit of his creditors; or if a receiver is appointed for any of the property of the exhibitor; or

(v) Voluntarily or by operation of law should lose control of the said theatre or of his said interests therein, making it impossible for the exhibitor to exhibit the said films at the said theatre;

then, upon the happening of any one or more of said events, the renter may at his option (1) terminate this agreement, or (2) suspend the delivery of films hereunder until such default or defaults should cease and be remedied: Provided that the renter may not suspend delivery of films as provided herein on account of any payment arising out of this agreement which may be *bona fide* in dispute and in respect of which arbitration as provided for in this agreement is applied for. The lodgment of the amount in dispute with the Secretary of the New Zealand Motion Picture Exhibitors' Association to abide the result of the dispute shall be a sufficient warranty of the exhibitor's *bona fides*.

(*c*) In the event of suspension of delivery by the renter in exercise of the foregoing power in that behalf, the renter shall have the right to reduce the

Digitized by Google

number of films by the number the delivery of which is suspended pending ratification of the breach, and to deal with such suspended films in all respects as the renter thinks fit.

(*d*) If the renter shall—

(i) Persistently fail to supply film on due dates; or (ii) Give prior exhibition to a competitive theatre in breach of this agreement; or (iii) Commit any other breach going to the root of the contract, then, upon the happening of any of such events, the exhibitor may at his option—(1) Terminate this agreement; or (2) Suspend payments herein until such default or defaults shall cease and be remedied, and in the event of such suspension may reject such number of films as would otherwise have been screened by him during such period of default in addition to any other rights of rejection he may have hereunder.

(*e*) It is agreed that the exercise of any of the said remedies by the renter or the exhibitor shall be in addition to and without prejudice to any right or remedy of either against the other at law or in equity and/or otherwise provided for in this agreement.

(27) *Tender of Film.*—In any circumstances arising in connection with the exercise by the renter of its remedies under this agreement where the formal tender to the exhibitor of any film may be necessary to the proper exercise of any such remedy a written offer to supply such individual film on the due date shall for that purpose be deemed a sufficient tender to the exhibitor of the film therein named. No such offer shall be effective unless it contains an intimation that it is intended as a formal tender of film for the purposes of this clause.

(28) *Arbitration.*—If any question or difference whatsoever shall arise between the parties hereto touching these presents, or any clause or thing herein contained, or the construction of this agreement, or as to any matter in any way connected with or arising thereout or the operation thereof, or the rights, duties, or liabilities of either party in connection with the premises, then, and in every such case, unless the parties concur in the appointment of a single arbitrator, the matter in difference shall be referred to two arbitrators, one to be appointed by each party to the difference, or to an umpire to be appointed by the arbitrators pursuant to and so as with regard to the mode and consequence of the reference, and in all other respects to conform to the provisions in that behalf contained in the Arbitration Act, 1908, or any then subsisting statutory modification thereof: Provided, however, that in the case of any such question or difference (excepting where in any particular previous clause of this agreement an express reference to arbitration is made) where the matter in dispute involves a sum of money exceeding £100, or where the determination of the matter in dispute is likely to or may result in the payment by one party to the other of a sum exceeding that amount or in a loss falling on either party equivalent in terms of money to a sum in excess of that amount, it shall not be obligatory on the parties to have such question of difference submitted to arbitration as aforesaid, but either of them shall be at liberty as to proceed as though this clause relating to arbitration were not embodied herein, and in that event the other party shall not be entitled to plead this clause in bar of such proceedings.

(29) *Venue.*—This agreement shall be deemed to have been made at the office of the renter in the City of Wellington, New Zealand, and shall be governed by the laws of New Zealand.

(30) *Acceptance by Renter.*—Until accepted in writing by the renter, its managing director, or manager, or other authorized agent on behalf of the renter, and notice of acceptance sent to the exhibitor, this agreement shall be deemed an application for a contract only and may be withdrawn by the exhibitor any time before such acceptance. Unless such notice is sent to the exhibitor within twenty-eight days after the date of the exhibitor making such application, the said application shall be deemed to have been withdrawn. A copy of this application signed by the exhibitor shall be left with the exhibitor at the time of signing, and in the event of the acceptance thereof as above provided, a duplicate copy signed by the renter in manner aforesaid shall be forwarded to the exhibitor.

(31) *Interpretation of Terms.*—The word "film" means a motion-picture film with all disks, records, and/or other devices other than sound reproducing equipment, which may be necessary to reproduce sound (including music and/or words) in synchronization with such film. The reference in this agreement to "the said theatre" shall, unless the context otherwise requires, mean the theatre of which the name is set out in the introductory part of these presents or the

Digitized by Google

Schedule hereto, and where the names of two or more theatres are set out reference in this agreement to "the said theatre" shall, unless the context otherwise requires, means such of the theatres so set out at which any film in question was or is to be or ought to be or ought to have been exhibited as the case may require. In this agreement, except where the context otherwise requires, words importing the singular number shall be deemed to include the plural number and *vice versa*, and words importing the masculine gender shall be deemed to include the feminine and neuter genders. This agreement has for convenience of reference been set out in paragraphs with suitable captions but such captions shall not be read so as to indicate that all the provisions relating to any one subject are necessarily contained under the caption suggesting that subject.

(32) *Standard Form.*—This standard form may not be varied so as to provide for any right of cancellation at the option of the renter other than for a breach coming within clause 26 hereof.

Any addition hereto not inconsistent herewith shall be written or printed in Part C hereof, or in some separate document.

In Equity No. 793—In the United States District Court for the District of Delaware. *United States of America, petitioner, v. Radio Corporation of America, RCA Communications, Inc., et al., defendants.* Amendment to Consent Decree. Filed July 2, 1935.

Part VI of the consent decree entered herein on November 21, 1932, having provided that the issues presented by the amended and supplemental petition, and the amendment to the amended and supplemental petition with reference to contracts, arrangements and understandings between the defendants or any of them and foreign companies and governments should be specially reserved for trial and determination if that should become necessary, for a period of two and one-half years from the date thereof;

And such of the issues aforesaid as pertained to license and sales agreements having been terminated before the expiration of such period of two and one-half years by the entry of a decree on May 25, 1934; and the period of two and one-half years referred to in Part VI of the aforesaid decree having elapsed, and petitioner by leave of court having filed its second amendment to its amended and supplemental petition, and defendants, Radio Corporation of America and RCA Communications, Inc., having filed their answers to the amendment and to the second amendment to the amended and supplemental petition, and the cause having heretofore been set down for hearing and trial upon the remaining issues, that is to say, those pertaining to foreign traffic and communications agreements, arrangements, and understandings between defendants, Radio Corporation of America or RCA Communications, Inc., and foreign governments and companies and others; and no testimony or evidence having been taken herein;

And said defendants, Radio Corporation of America and RCA Communications, Inc., and petitioner having consented to the entry of this Amendment to said consent decree entered on November 21, 1932, as noted at the foot hereof;

Now, therefore, said consent decree entered on November 21, 1932, is hereby amended by adding thereto the following paragraphs:

"A

"Said defendants, Radio Corporation of America and RCA Communications, Inc., and their subsidiaries are hereby perpetually enjoined from claiming or asserting that any of their foreign traffic or communication agreements, arrangements, or understandings with governments, companies, or others prevents or prohibits the other contracting party thereto (a) from establishing, or permitting to be established, with any other person or persons, such radio circuit or circuits to or from the United States, its territories or possessions (either direct or indirect) as such other contracting party may desire, in addition to or other than those provided for by the aforesaid agreements, arrangements, or understandings, or (b) from transmitting, or permitting to be transmitted, by or over such other or additional circuit or circuits messages which may be specially so routed by the sender.

Digitized by Google

"B

"Said defendants, Radio Corporation of America and RCA Communications, Inc., and their subsidiaries are hereby perpetually enjoined from hereafter making or entering into any foreign traffic or communications agreement, arrangement, or understanding with any government, company, or person which shall, or which shall be claimed or construed by said defendants or any of their subsidiaries to prevent or prohibit the other contracting party thereto (a) from establishing, or from permitting others to establish, with any other person or persons, such radio circuit or circuits to or from the United States, its territories, or possessions (either direct or indirect) as the other contracting party may desire, in addition to or other than any circuit or circuits provided for by such agreement, arrangement, or understanding, or (b) from transmitting, or permitting to be transmitted, by or over such other or additional circuit or circuits messages which may be specially so routed by the sender.

"C

"The said defendants, Radio Corporation of America and RCA Communications, Inc., being the only defendants involved in said reserved issues as to foreign traffic and communication contracts, arrangements, or understandings, this cause is dismissed as to the other defendants, as to said issues."

JOHN P. NIELDS,
D. Judge.

JULY 2, 1935.

The entry of the foregoing amendment to the decree of November 21, 1932, is hereby consented to.
July 2, 1935.

UNITED STATES OF AMERICA,
By HOMER CUMMINGS, *Attorney General.*
HAROLD M. STEPHENS,
Assistant Attorney General.
GOLDEN W. BELL,
ROBERT L. LIPMAN,
MAC ASBILL,
HAMMOND E. CHAFFETZ,
Special Assistants to the Attorney General.
RADIO CORPORATION OF AMERICA,
RCA COMMUNICATIONS, INC.
By WILLIAM G. MAHAFFY,
Solicitor and of Counsel.
CHARLES NEAVE,
NEWTON D. BAKER,
MANTON DAVIS,
THURLOW M. GORDON,
Of Counsel.

District Court of the United States, District of Delaware. In Equity No. 793. *United States of America, Petitioner* v. *Radio Corporation of America, General Electric Company, International General Electric Company, Westinghouse Electric & Manufacturing Company, Westinghouse Electric International Company, National Broadcasting Company, Inc., R. C. A. Communications, Inc., R. C. A. Photophone, Inc., RCA Radiotron Company, Inc., RCA Victor Company, Inc., American Telephone and Telegraph Company, Western Electric Company, Inc., General Motors Corporation and General Motors Radio Corporation, Defendants.* Consent Decree.

This cause coming on to be heard this 21st day of November 1932, and the several defendants having accepted service of process and having appeared and filed their answers to the Petition and to the Amended and Supplemental Petition herein, which latter has superseded the original Petition and is hereinafter referred to as the Petition, and the cause having heretofore this day been dismissed as to the General Motors Corporation, General Motors Radio Corporation, American Telephone and Telegraph Company, and Western Electric Company, Inc.;

Digitized by Google

And the petitioner and the remaining defendants (hereinafter in this decree referred to as the defendants) having filed a stipulation with the Clerk of the Court wherein and whereby the defendants consent to the making and entering of this decree;

And the petitioner by its counsel having represented to the Court that this decree will provide suitable relief concerning the matters which the petitioner charges in said Petition, and having requested that this decree be made and entered;

And it appearing that by reason of the consents of the defendants to this decree and the acceptance of the same by the petitioner it is unnecessary to proceed with the trial of the cause or to take testimony therein or that any adjudication be made by the Court of the issues presented by the pleadings herein, other than those hereinafter specially reserved in Section VI hereof;

Now, therefore, without taking any testimony or evidence and without making any adjudication, it is, upon and in accordance with such stipulation and consent, hereby ordered and decreed as follows:

I

The Court has jurisdiction of the subject matter hereof and of all the parties hereto and has full power and authority to enter this decree and the allegations of the Petition state a cause of action against the defendants under the provisions of the Act of Congress of July 2, 1890, entitled "An Act to protect trade and commerce against unlawful restraints and monopolies" and Acts amendatory thereof and supplemental or additional thereto, known as the Federal Anti-Trust Laws.

II

General Electric Company and Westinghouse Electric & Manufacturing Company, respectively, shall divest themselves of the holdings of themselves and their respective subsidiaries of shares of stock of the Radio Corporation of America. This shall be done as follows:

General Electric Company shall within three months from the date hereof divest itself of substantially one-half of all of the holdings of itself and its subsidiaries of the shares of common stock of Radio Corporation of America by distributing such shares ratably to its own common stockholders, or causing them to be so distributed.

The balance of such common stock and the shares of preferred stock of Radio Corporation of America held by General Electric Company and its subsidiaries shall be disposed of within three years from the date hereof, by distributing such shares ratably to its own common stock holders, or causing them to be so distributed, or otherwise disposed of.

Westinghouse Electric & Manufacturing Company shall within three months from the date hereof divest itself of substantially one-half of all of the holdings of itself and its subsidiaries of the shares of common stock of Radio Corporation of America, by distributing such shares ratably to its own stockholders, or causing them to be so distributed.

The balance of such common stock and the shares of preferred stock of Radio Corporation of America held by Westinghouse Electric & Manufacturing Company and its subsidiaries shall be disposed of within three years from the date hereof by distributing such shares ratably to the shareholders of Westinghouse Electric & Manufacturing Company, or causing them to be so distributed, or otherwise disposed of.

The distribution of shares of Radio Corporation of America to shareholders of General Electric Company and of Westinghouse Electric & Manufacturing Company, herein provided for, shall be without any restriction on the full rights of ownership of the several distributees, including the right to dispose of the same as they see fit.

In any disposition of shares of common stock hereby required to be made by General Electric Company and Westinghouse Electric & Manufacturing Company, or its or their subsidiaries (other than for the purpose of distribution to stockholders), they shall not knowingly sell or transfer to any one interest shares of such common stock to an aggregate in excess of 150,000 shares of the present common stock, or stock which at the time may be equivalent to 150,000 shares of the present common stock in respect to the then existing voting rights.

Digitized by Google

Pending the disposition of such stock, General Electric Company and Westinghouse Electric & Manufacturing Company and their respective subsidiaries (other than G. E. Employees Securities Corporation) shall be enjoined from exercising any voting rights with respect to such stock, except that they shall from time to time, as requested by the executive committee of the board of directors of Radio Corporation of America, as such executive committee may then be constituted, give to it or to such person or persons as such executive committee may designate, proxies, with power of substitution, to vote such stock for the election of directors of Radio Corporation of America or for the transaction of ordinary business at any annual or special meeting of stockholders; and as to all other matters as to which the stockholders' action is required, such holders may, at their election, give proxies to such executive committee or, in case any of them fails to do so within ten days before the date set for any such meeting, it shall give such proxies as may be directed by an order of this Court on the application of the defendant, Radio Corporation of America, or the holder of such stock.

General Electric Company and Westinghouse Electric & Manufacturing Company shall report to the Court at the ends of the aforesaid periods of three months and three years, respectively, with regard to their compliance with the foregoing provisions of this Section II.

Except as aforesaid, General Electric Company and Westinghouse Electric & Manufacturing Company, and each of them, are enjoined after the expiration of such period of three months from acquiring or holding, directly or indirectly, any shares of stock of Radio Corporation of America or any of its subsidiaries, present or future; provided, however, that nothing herein contained shall be construed to prevent G. E. Employees Securities Corporation from continuing to hold, and from exercising all rights with respect to, not more than 50,000 shares of A Preferred and 10,000 shares of B Preferred stock of Radio Corporation of America now held by it.

III

General Electric Company and Westinghouse Electric & Manufacturing Company, respectively, shall cause all of their officers, directors, employees, or agents, who are now members of the board of directors, or other boards or committees of Radio Corporation of America, or of any of its subsidiaries, to resign, within ten days from the date hereof, from such boards and committees, and are hereby enjoined and restrained from thereafter permitting any such officer, director, employee, or agent to act as a member of any such board or committee; and Radio Corporation of America and its subsidiaries are likewise enjoined and restrained from thereafter permitting any officer, director, employee or agent of General Electric Company or Westinghouse Electric & Manufacturing Company to become or to act as a member of any such board or committee; provided, however, that for a period of not longer than five months from the date hereof, Owen D. Young and Andrew W. Robertson may continue to serve, at the pleasure of the Radio Corporation of America, as members of the boards and committees of Radio Corporation of America and its subsidiaries, and provided, further, that the Advisory Council of National Broadcasting Company, Inc., so long as its functions shall continue to be merely advisory, shall not be deemed to be a board or committee within the meaning of the foregoing provision.

IV

The defendants are hereby enjoined and restrained from recognizing as exclusive or asserting to be exclusive any license for the enjoyment of patents or patent rights in the following agreements, referred to in the Petition:

1. The Agreement between the Radio Corporation of America and the General Electric Company, dated November 20, 1919, and referred to as Agreement A;
2. The Agreement between General Electric Company and American Telephone and Telegraph Company, dated July 1, 1920, and referred to as Agreement B;
3. The Agreement between the Radio Corporation of America and United Fruit Company, dated March 7, 1921;
4. The Agreement between the Westinghouse Electric & Manufacturing Company and The International Radio Telegraph Company, dated June 29, 1921, and referred to as Agreement D;

Digitized by Google

5. The Agreement between the General Electric Company, Radio Corporation of America, and Westinghouse Electric & Manufacturing Company, dated June 30, 1921, and referred to as Agreement E;

6. The Agreement between General Electric Company and American Telephone and Telegraph Company, dated July 1, 1926, and referred to as Modified Agreement B;

7. The Agreement between General Electric Company, Radio Corporation of America and Westinghouse Electric & Manufacturing Company, dated June 11, 1929, and referred to as Agreement L;

8. The Agreement between General Electric Company, Radio Corporation of America, and Westinghouse Electric & Manufacturing Company, dated January 1, 1930, and referred to as Agreement M;

and are likewise enjoined and restrained from recognizing or asserting the continued existence or the continued obligation of any provision of any of said agreements restricting or limiting the right of a party thereto freely to engage in such business or activities as it may desire or to make such use of its patents or patent rights as it may desire.

V

The defendants are and each of them is further enjoined and restrained from making or entering into any combination, agreement, understanding, or joint endeavor between them or any two or more of them (except between any one defendant and its subsidiaries, or between subsidiaries of any one defendant) or between them or any one of them and third persons, in restraint of interstate or foreign commerce of the United States in violation of the Anti-Trust Laws of the United States by:

(*a*) limiting or restricting the freedom of any defendant to grant licenses under its own patents or patent rights in the fields of radio purposes as defined in the Agreement A-1 attached to the stipulation consenting to this decree, or in the application in fields other than of radio purposes, of radio tubes or tubes having the functional characteristics of radio tubes or of other radio devices or circuits;

(*b*) limiting or restricting the freedom of any defendant or any party to such combination, agreement, understanding, or joint endeavor to engage in trade and commerce in said fields of radio purposes and in said applications either by exchange of exclusive licenses under patents, by agreements restricting or burdening the right of an owner of a patent or patent right to enjoy the same or to grant licenses thereunder, by agreements for division of fields of territory, or by other similar means or devices;

provided, however, that nothing herein contained shall be deemed or construed to prevent any defendant from acquiring or assigning or agreeing to acquire or assign patents or other property or granting or agreeing to grant, or continuing to act under, exclusive rights thereunder or in connection therewith, or taking any other action, if not done to restrict liberty of action as part of a plan or purpose to restrain interstate or foreign commerce of the United States as prohibited by the Anti-Trust Laws of the United States, it being recognized that patents and patent rights may be bought, sold, and transferred as may other kinds of property and subject only to like limitations.

VI

The issues presented by the Petition and the amendment thereto this day filed, with reference to contracts and arrangements and understandings between the defendants or any of them and foreign companies and governments, are specially reserved for trial and determination if that becames necessary, for a period of two and one-half years from the date hereof, such period being allowed for the reason stated in the stipulation consenting to this decree. Said contracts, arrangements, and understandings now existing are not affected by and do not come within the provisions of the previous Sections of this decree. The defendants affected hereby shall at the end of one year from the date hereof render to the Attorney General a written report as to what has been and what is being done with reference to the matters covered by the foregoing portion of this Section VI, and on the request of the Attorney General shall at any time irrespective of the rendering of said report give to him

Digitized by Google

full information respecting such matters. If prior to the expiration of said period of two and one-half years the defendants have succeeded in securing modifications or changes of said contracts, arrangements, and understandings, to meet the objections of the petitioner, the cause shall be dismissed as to the issues so reserved, but otherwise upon the expiration of said period (unless it be shown to the Court at that time that defendants have used due diligence to secure the modification or change of said contracts, arrangements, or understandings and that no reason of public interest exists why such trial should not be further continued, in which case the trial may be postponed to such time as the Court deems advisable) the cause shall forthwith be placed upon the trial calendar next following and shall be set for trial on the reserved issues at the earliest convenience of the Court. If said issues are to be tried the defendants may file their answers to the amendment to the Petition on or before the expiration of said period, but a failure to do so shall not prevent the cause from being placed on the calendar and set for trial as hereinbefore provided. At any time after the said one year from the date hereof the petitioner may, on notice to the defendants affected thereby, apply to the Court to have said period of two and one-half years shortened upon showing to the satisfaction of the Court that the defendants have not been diligent in dealing with said foreign contracts, arrangements, and understandings by negotiation or otherwise, or that there appears no likelihood of their being satisfactorily adjusted.

VII

The term subsidiary as used in this decree means a corporation the majority of the voting stock of which is owned by any of the named defendants.

VIII

Jurisdiction is hereby expressly reserved for the purpose of enforcing or modifying this decree on application of any of the parties hereto. Jurisdiction is further reserved to permit any of the defendants, after the expiration of three years from the date hereof, to apply to the Court for permission to acquire stock in any other of the defendant corporations, or their subsidiaries, which permission may be granted upon proof to the satisfaction of the Court that such acquisition of stock will not tend to defeat the purpose of this decree or violate the anti-trust laws or operate in any manner otherwise inimical to the public interest.

(Signed) JOHN P. NIELDS,
J. Judge.

NOVEMBER 21, 1932.

MEMORANDUM FOR THE CHAIRMAN

(Re: Information available in the library on the subject of patent pools.)

On May 15 you transmitted to me copy of a letter of May 14 from Senator Wheeler, and asked if I had anything on the subject which might be sent him. He desires material and information upon which a legislative study might be made of the patent pool situation—particularly in the electrical appliance and radio fields.

In response I send you herewith, in duplicate, copies of an informal bibliography on the subject compiled in the library in 1931, with two or three recent additions; and copies of an office memorandum, dated February 2, 1933, to the chief examiner, by Attorney-Examiner Edward R. Pruner. Both these papers are in the nature of guides to further study on the subject, rather than definitive source material.

Attention might be directed especially to the following items noted in the bibliography: The three reports of the Federal Trade Commission on kitchen furnishings and domestic appliances, radio industry, and supply of electrical equipment and competitive conditions; hearings before the House Committee on Patents on H. R. 4523, Seventy-fourth Congress, on pooling of patents; the newly formed American Economic Foundation; and to the case of *U. S.* v. *Radio Corporation of America, et al.* The petition, answer, and decree are doubtless available from the Department of Justice. Of possible interest is the following excerpt taken from the list of principal activities now under

Digitized by Google

way in larger trade associations which appears in the introduction to "Selected Trade Associations of the United States, January 1935"; "A number of leading industries have solved the problem of interfering patents or claims, which otherwise might have been ruinous to the development of a new or to the improvement of an existing industry, by various cross-licensing plans."

Respectfully submitted.

HOWARD R. ELIASON, *Librarian.*

MAY 17, 1935.

SELECT LIST OF REFERENCES ON PATENT POOLS

BOOKS AND PAMPHLETS

Balkeland, L. H. The abuses of our patent system. Paper read before New York section of chemical societies. April 1912.

Haney, Lewis Henry. Business organization and combination. New York, 1928.

Montague, Gilbert H., and answered by Gladney, Frank Y. Assault on patent system and how section 4 of the Clayton anti-trust bill hurts manufacturers, dealers, and purchasers of patented articles. Washington, 1914.

National industrial conference board. Trade associations, their economic and legal status. New York, 1925.

Perry, J. S. A defense of the patent system of the United States.

Thornton, William Wheeler. A treatise on combinations in restraint of trade. Cincinnati, 1928.

U. S. Bureau of corporations. Farm machinery trade associations. 1915. p. 122–3.

U. S. Congress. House. Select committee of inquiry into operation of United States air service. Opinion of Robert H. Young. 68th Congress, 2d session, H. R. 1653. p. 12. 1925.

U. S. Congress. House. Committee on patents. Pooling of patents. Hearings, 74th Congress, 1st session, Feb. 11–Mar. 7, 1935. Hearings on H. R. 4523, a bill providing for the recording of patent-pooling agreements and contracts with the Commissioner of Patents.

U. S. Dept. of Justice. Annual report of the Attorney General. 1924, p. 16; 1925, p. 20.

U. S. Federal Trade Commission. Report * * * on the house furnishings industry. v. 8. Kitchen furnishings and domestic appliances. October 6, 1924. 1925.

U. S. Federal Trade Commission. Report * * * on the radio industry. December 1, 1923. 1924.

U. S. Federal Trade Commission. Electric-power industry. Supply of electrical equipment and competitive conditions. 1928.

Van Hise, Charles Richard. Concentration and control. New York. 1921.

Vaughan, Floyd Lamar. Economics of our patent system. New York, 1925.

Wagner, Hugh Kiernan. Damages, profits, and accounting in patent and unfair competition cases. St. Louis, 1926.

MAGAZINE ARTICLES

Abbott, Edwin H., jr. Patents and the Sherman Act. Columbia law review, 1912. v. 12: 709–23.

Acquisition of patents in restraint of trade. Columbia law review, June 1924. v. 24: 654–60.

Airplane makers pool their patents. New York Times, April 15, 1931. v. 1: 25.

American economic foundation. A statement concerning the drive to be started by this new organization to end abuses in the patent system. Christian Science Monitor, May 14, 1935. p. 3: col. 1.

Bauer, F. Patent pooling develops auto industry. Management & Administration in manufacturing industries, March 1926.

Chamberlain. Patented articles: When are they emancipated from the patent monopoly under which they are manufactured? Illinois law review, 1912. v. 6: 357.

Felix, E. H. Buying patent rights, the only legal monopoly. Advertising & Selling, Dec. 28, 1927. p. 19–20.

Digitized by Google

Fleming, Karl. Interest of trade associations in patents and trade marks. Harvard Business Review, Oct. 1924. v. 3: 81–84.

Gladney, Frank Y. Restraint of trade in patented articles. American Law Review, July 1928.

Grosvenor, Edwin P. The "Rule of Reason" as applied by the United States Supreme Court to commerce in patented articles. Columbia Law Review. v. 17: 209–29.

Keyes, B. D. Shall we abolish patent trust? Chemical & Metallurgical Engineering, Dec. 1926. p. 785–6.

Lamb. The relation of the patent laws to the Federal anti-trust laws. Cornell Law Quarterly, 1927. v. 12: 261.

McCormack. Alfred. Restrictive patent licenses and restraint of trade. Columbia Law Review, May 1931.

Montague, Gilbert H. The Sherman anti-trust act and the patent law. Yale Law Journal, 1912. v. 21: 433.

Munson, F. Granville. Control of patented articles after sale. Yale Law Journal, 1916–17. v. 26: 270–90.

National Electric Manufacturers Association. Resolution of the National Electric Manufacturers Association. New York Times, March 19, 1927.

Nikonow, J. P. Different forms of patent agreements. American Machinist, July 1924, p. 144.

Patents & Trade Associations. Chemical Age, Dec. 1923, p. 546.

Patent is a Monopoly. Electric Railway Journal, Oct. 15, 1927. p. 764.

Peaslee, Amos J. The effect of the Federal anti-trust laws on commerce in patented and copyrighted articles. Harvard Law Review, 1914–1915. v. 28: 394–406.

Perfler, A. J. Operation and advantages on the patent trust. Trust companies, January 1928, p. 81–2.

Podell, David L. and Kirsch, Benjamin S. Patent pools and the anti-trust laws. American Bar Association Journal, August 1927. v. 13: 430.

Reeves, Alfred. How automobile men are banded together. New York Evening Post, March 27, 1922.

Relation of Patents and Anti-Trust Laws. Yale Law Journal, December 1928. v. 38: 246–52.

Seligson, Harold P. Trade regulation. American Bar Association Journal, April 1924, p. 247–8.

Toulmin, Harry A., jr. Patent purchases and license agreement. Electrical World, September 19, 1925. p. 586–7.

University Law Review, January 1914. v. 62: 169.

We have with us again section 3 of the Clayton Act. Printers Ink, February 23, 1928. v. 142: 124.

Workman, H. C. Patent pools in regulation to patent laws. American Bar Association Journal, October 1927. v. 13: 585–7.

Zollman, Carl. Patent rights in air-craft. Marquette Law Review, 1927. v. 11: 216.

Cases

Blount Manufacturing Company vs. *Yale & Towne Manufacturing Company* (166 Fed. 555). There seems to be no way to prevent a patentee from buying up and suppressing competing patents as they appear. It has been suggested that acquisition of competitive patents may be controlled by judicial limitations on the power of assignment clause of the Patent act.

Indiana Manufacturing Company vs. *J. I. Case Threshing Machine Co.* (148 Fed. 21.)

Motion Picture Patents Company vs. *Universal Film Manufacturing Co.* (325 Fed. 398, 399, 800.)

National Cotton Oil Company vs. *Texas.* (197 U. S. 115.)

National Harrow Company vs. *E. Bement & Son.* (57 N. E. 764.)

National Harrow Company vs. *Hench.* (83 Fed. 36.)

Rubber Tire Wheel Company vs. *Milwaukee Rubber Works Company.* (142 Fed. 531; 154 Fed. 358; 210 U. S. 439.)

Standard Sanitary Manufacturing Company vs. *United States* (226 U. S. 20). In this case the ostensible machinery was a trade association which held the patents and of which the greater part of the manufacturers and jobbers (90% in number and purchasing power) were members. In this case price fixing was also present.

Digitized by Google

U. S. vs. *General Electric Company* (272 U. S. 476). "It is well settled, as already said, that where a patentee makes the patented article and sells it, he can exercise no future control over what the purchaser may wish to do with the article after his purchase. It has passed beyond the scope of the patentee's rights."

U. S. vs. *Radio Corporation of America, General Electric Co., American Telephone & Telegraph Co. et al.* Involves pooling and cross-licensing of radio patents. Petition filed May 13, 1930; consent decree entered November 21, 1932. In re petition of Torquay Corporation for leave to intervene dismissed, April 3, 1933.

U. S. vs. *Standard Oil of Indiana et al.* (33 Fed. 617). Decree reprinted, IV CCH., p. 1077.

U. S. vs. *United Shoe Machinery Company.* (247 U. S. 32.)

U. S. vs. *Winslow.* (227 U. S. 202.)

United States Consolidated Seeded Raisin Company vs. *Griffin.* (126 Fed. 364.)

U. S. Dept. of Justice. Official opinions of the attorneys-general. Opinion of Attorney-General to Secretary of War relative to cross licensing agreement of Manufacturers Aircraft Association. v. 31: 71.

Virtue vs. *Creamery Package Company.* (227 U. S. 8.)

MEMORANDUM

SUBJECT: PATENT POOLS

This memorandum was prepared in compliance with instructions from the Chief Examiner, and reference is made to letter dated January 18, 1933, addressed to Commissioner Humphrey by Congressman Bloom, of New York, who requested information concerning "how many industries in the United States have a closed licensing system of patent control and/or how many patent pools there are in the United States." The question arises whether the word "closed" as used above was not intended to mean "cross", because "cross-licensing" is a familiar term used in connection with pooling of patents.

On the specific question presented by Congressman Bloom as to the number and size of patent pools in the United States, the writer's search revealed that little or no authentic information exists, although numerous references to the practice of pooling patents were found. Sufficient information on the subject was found to show that the practice of pooling patents is quite common. Of course, this conclusion is partially based upon the number of court decisions centering about patent pools during the past 35 years, to which limited reference is made here. There will be given later a list of patent pools collected from various sources, and while it is not known how many more might be in existence, it is reasonably safe to say that those shown below are being operated at the present time.

Referring briefly to the court decisions rendered on the subject of patent pools, about 20 cases involving such pools have been in the high courts since 1902, when the case of the *National Harrow Company* v. *Bement* (186 U. S. 70) was decided. Most of the court cases arising since 1912 following the famous *"Bathtub case"* (*Standard Sanitary Manufacturing Company* v. *United States*, 226 U. S. 20). Pooling of patents was declared illegal in the *Bathtub case*, and it became a leading case on the subject. Later examples of patent pools came to light in such cases as *Motion Picture Patents Company* v. *Universal Film Company* (243 U. S. 502); the *Shoe Machinery case* (247 U. S. 32); the *Gasoline Cracking case* (*Standard Oil Company of Indiana et al.* v. *United States*, 283 U. S. 163); and the very recent case involving the Radio Corporation of America. A review of practically all of the important cases on patent pools is contained in the *Gasoline Cracking case.*

Little information of value as to the number and size of patent pools was obtained from interviews with officials of the Department of Justice, Department of Commerce, United States Patent Office, the Library of Congress, and the library of the Supreme Court.

In an interview with the acting special assistant to the Attorney General in charge of antitrust work the writer learned that the Department of Justice had no available compilation of existing patent pools or combinations among industries concerning patents. Mr. Hardy, the acting special assistant, stated that while the Department of Justice handled individual cases involving patent pools

Digitized by Google

as each one came before it, no study was ever made of the practice of pooling patents. However, he offered access to the general files of the Department, should it be desired to count such cases involving combinations on patents as might be found. This offer was not accepted. However, the Attorney General in his annual report for the fiscal year 1924 refers (p. 16) to patent pools as follows:

"The work of this division during the year has been directed mainly toward the solution of two major problems arising in the enforcing of the antitrust law. * * * The second problem involves the application of the antitrust law of restraints of trade and monopolies based upon the acquisition of or pooling of competitive patents." And in his annual report for the fiscal year 1925 (p. 20) the matter of pooling patents was again referred to as follows:

"Combination by means of cross licenses under patents are now frequently encountered in the work of the division."

The United States Patent Office could furnish no information on the subject of patent pools. The law examiner and assistant to the Commissioner of Patents pointed out that the Patent Office did not require licenses to be recorded after the manner of recording assignments of patents which is a requirement in the Office. He also pointed out that if there is a practice among industries to pool their patents there would be an attaching secrecy which would prevent publicity being given to them. He stated that the Commissioner of Patents had been asked concerning a similar question which was submitted to him by the Bureau of Foreign and Domestic Commerce of the Department of Commerce and that the Commissioner replied on that occasion that he had no information concerning the number and size of patent pools among industries.

Inquiry was made at the Office of Bureau of Foreign and Domestic Commerce, Department of Commerce, with reference to what study had been made concerning patent pools, and in an interview with Mr. George S. Parsons, business assistant in the Marketing Service Division, it was learned that he made a somewhat superficial investigation of the subject at the Department of Justice, United States Patent Office, and the Federal Trade Commission and had collected a few references to patent pools from trade journals and other magazines. This study was made in compliance with a similar request which Congressman Sol Bloom, of New York, had made to the Department of Commerce. Mr. Parsons stated that when he learned that the Federal Trade Commission had the question under consideration he concluded that the Commission would reply more fully on the subject than the Department of Commerce could do, and prepared a memorandum to that effect for his superior in the Department.

Inquiry was also made to the librarian of the Supreme Court library as to whether or not any compilation had been made which would show the number and extent of patent pools among industries. The librarian informed the writer that the subject was one on which the library had scant information, as they relied on the Patent Office and the Library of Congress for such information. The librarian referred the writer to the United States Patent Office.

A similar inquiry was made to the Library of Congress, and, together with the librarian in charge of the law section, a search was made for authorities concerning the specific subject of the number and size of patent pools. No bibliography has been prepared covering the general subject of patent pools, and the most that could be learned in the law section was that patent pools were referred to in articles appearing in law-school reviews and similar books. However, these works were confined to a review of cases appearing in court decisions, which are already noted above.

Reference was made through the industrial arts and readers' guide indexes to numerous books and periodicals which treated the subject of patent pools, and from this source was obtained practically all the information used in the preparation of the list of patent pools given herein. Many of the books which have been published on the subject of patents contain sections on interchange of patent rights (patent pools), and some of them are worthy of note. These are: Trade Associations, Their Economic Significance and Legal Status, published by the National Industrial Conference Board (1925); the Economics of Our Patent System, by Floyd L. Vaughn (1925); and Trade Associations: Their Legal Aspects, by Benjamin S. Kirsh (1928). These books refer only to the automobile and aircraft pools. However, the volumes named above give a complete review of the decided cases on patent pools. Many other authorities on patent pools and interchange of patent rights as a legal subject might be named, but this is not done, for the reason that practically all books consulted review the

Digitized by Google

court cases on the subject and give little information on patent pools alleged to be operating at the present time.

A memorandum was prepared on January 4, 1923, by the Chief of the Enemy Trade Division of the Federal Trade Commission for Commissioner Thompson on the subject of United States patent laws. This memorandum contained a paragraph on pooling of patents, in which are named the automobile, radio, and airplane industries and also the International Harvester Co. and the Du Pont interests as being involved in patent pools. Although it is stated in the memorandum that "no authentic information on this point could be secured", the memorandum also suggests that pooling agreements would be more or less secret in charatcer, of which Patent Office officials and others disclaimed any knowledge.

The Federal Trade Commission has had before it the question of patent pools forming illegal combinations in restraint of trade or tending to create a monopoly in a number of cases, one of the most important being the *Radio case*, recently closed by a consent decree. A similar case was *Federal Trade Commission* v. *Poor & Moore* (F. T. C. 1–3886–3–1), which was a patent pool on railroad rail anchors. This case was investigated rather extensively, although no action on it was taken by the Commission.

While it is believed that an extensive list of existing patent pools might be prepared if the facts about them could be obtained, it is regretted that the available sources contain so little information concerning their existence and operation. The following list gives those patent pools found in the course of the writer's investigation, as described above, and believed to be in existence today:

Washing-machine industry—Patent pool: Organized by washing machine manufacturers in 1917. The pool was still in existence in 1925, according to the F. T. C. report on house furnishings industry, vol. III, p. 21.

Automobile industry—Pool on development patents: Created by the Automobile Chamber of Commerce and put into execution in 1915, following the long litigation over the Selden patents. Referred to in Trade Associations, published by the National Industrial Conference Board (p. 144).

Aircraft industry: Patent pool formed on April 14, 1931, by the Manufacturers Aircraft Association, based upon a cross-licensing agreement which made patents available to all builders of aircraft, thus preventing litigation and other interferences, as announced in the New York Times, issue of April 15, 1931 (p. 25).

Hosiery—Patent pool about completed: No-run hosiery development to be controlled by patent pool. Article states: "While the initial organization of the patent pool has been practically completed, according to attorney Smith, a 'complete patent monopoly' is contemplated as the first step toward the protecting of mills licensed by the pool. * * * Announced by Textile World (81–713, issue of Feb. 20, 1932).

Petroleum: Distillation Corporation created to hold patents. Stock to be purchased by Standard Oil of New Jersey, Standard Oil Development Co., Atlantic Co., and the Foster-Wheeler Corporation. Announced by National Petroleum News, issue of July 13, 1932 (p. 32).

Petroleum: Hydrogenation patent pool announced in the Business Week, issue of August 17, 1932. The article states: "When Standard of New Jersey acquired from the German Chemical Trust, American rights to the patents for hydrogenation process, the decision was made of mutualizing the patents for the benefit of the whole industry." It was announced that any important refiner may subscribe to stock in the patent-holding company which was created. This patent pool may be the same as the one announced above in the petroleum industry.

German Patents Exchange: May or may not be patent pool. Formed to lease licenses. Development of plan for the international exchange of patent rights on a sale or leasing basis is sought by B. Lillienthal, president of A. G. Fuer, Amerika Interessen. * * * The plan as outlined by Mr. Lillienthal (according to exporters who are reported in Automotive Industry) is the first organized attempt to promote patent interchange, but interest in the subject has been keen for the past year. Announced in Automotive Industry, issue of October 1, 1932.

Lacquer industry: Patent pool referred to in article in the Metal Industry, issue of August 1931 (p. 329), E. I. du Pont de Nemours Co. filed suits against the Glidden Co. on June 18, 1931. The suit was brought because "the Glidden Co. refused to sign the Du Pont lacquer licensing agreement which has been offered to a limited number of lacquer manufacturers."

Digitized by Google

The most enlightening discussion on patent pools is contained in an article which appeared in Sales Management, issue of May 11, 1929, by John Allen Murphy, entitled "Cooperation as a Substitute for Mergers, Cross Licensing as a Preventative of Monopoly." In that article Mr. Murphy states:

"Increasingly, businessmen are wondering if they cannot enjoy some of the benefits of mergers without having to destroy the independence or separate identities of their organization. Numerous companies are finding the materialization of this desire in cooperation. Companies in many of our principal industries are getting together with the aim of achieving through association the same objectives that other concerns are attempting to accomplish through consolidation.

"This cooperative movement is tending in several different directions, but principally, as follows:

"(1) Cooperation for the interchange of patents."

* * * * * * *

The author reviews the situation in business of various industries engaging in interchange of patent rights and names such industries as rayon, lacquer, radio, airplane, paints and varnishes, glass, iron puddling, decorative art products, hosiery, farm machinery, automobile, gasoline, and closes with special mention of radio manufacturers' association's promotion of a cross-licensing plan on patents. Mr. Murphy closes his article with the following statement:

"Let me make it clear in conclusion that all the units in an industry where patent pools exist do not subscribe to the cross-licensing agreement. Hence all patents covering a licensing industry are not in the pool. Anyway, to do its job well, the patent pool does not have to include all patents. The pool can be successful if it includes the principal patent and if the agreement contains representative members of the industry. When thus handled a patent pool acts as a stabilizing force in an industry and as an influence against demoralizing litigation."

Respectfully submitted.

EDWARD R. PRUNER,
Attorney-Examiner.

FEBRUARY 2, 1933.

United States of America, before Federal Trade Commission. Docket No. 1115, in the matter of General Electric Co. et al. Brief in opposition to motion of the respondents to dismiss the complaint. Edward L. Smith, attorney; Robert E. Healy, chief counsel.

INTRODUCTORY

The motion of the respondents presents, broadly stated, three points of law upon which they rely and certain propositions of fact. The propositions of law may be stated to be these:

(1) That the Commission has no jurisdiction, because the acquisition of property, through the interchange of patent licenses or otherwise, is not within the jurisdiction of the Commission.

(2) That if the cross licenses bring about an unlawful restraint of trade, the only law violated, if any, would be the Sherman Act; for it is claimed section 5 of the Federal Trade Commission Act does not confer a jusisdiction coextensive with that of the courts to enforce the Sherman Act, and because, it is also claimed, the Commission has only power over involuntary restraints of trade as distinguished from voluntary restraints.

(3) That since traffic contracts between the Radio Corporation of America and foreign governments in some cases, and between the Radio Corporation of America and companies in foreign countries in other cases, are challenged by the complaint, those governments or companies are indispensable parties.

To these points of law may, perhaps, be added, although it is not expressly stated to be such, the claims that the Federal Government assisted in the organization of the Radio Corporation; that the cross-license agreements attacked by the complaint were entered into with the knowledge of an officer of the Navy; and that certain of the contracts were filed with Attorneys General of the United States.

The matters of fact upon which the respondents rely may broadly be stated to be these:

Digitized by Google

1. That the parties respondents were not competing but supplementary in their relations to each other.

2. That the cross licensing furnished the solution of a patent deadlock.

3. That certain benefits to the public have resulted from the combination of the respondents, which benefits would not have been brought about if the attacked agreements had not been entered into.

As a part of the issues of fact raised by the respondents may be considered the point hereinabove mentioned, namely, that the Radio Corporation was organized and the combination of respondents brought about by the Federal Government, and that there has been approval, either express or implied, by successive Attorneys General of the United States, of the agreements charged by the Commission to be in violation of section 5 of the Federal Trade Commission Act.

All of these points, both as to law and as to fact, will be answered, the points of fact by way of setting forth the activities of each company entering into the combination prior to the cross-licensing contracts, the advances made in the art up to those times, and the position of each of the companies entering into the cross-licensing agreements.

We will point out that the record shows conclusively that the companies entering into the combination were competitors, both actual and potential; that competing devices and competing patents (rights to exclude others from manufacturing, using, or selling devices and apparatus capable of the same uses) were brought into the combination; that the combination has had the effect of retarding the art instead of advancing it; that the Federal Government did not participate in any way in the organization of the Radio Corporation, or approve, expressly or by implication, any of the agreements; that at the time that the cross-licensing agreements were entered into, the entire radio field was open, the fundamental patents having expired, to whomsoever desired to enter the field; that the conduct of the respondents has been such as to negative the claim of Government participation if such a claim would be a legal defense to this proceeding, which we submit it is not; that even though the patents involved were supplementary, the contracts bring about illegal restraints in violation of the Federal Trade Commission Act.

The record (p. 113) shows the filing of a petition by the United Fruit Co. before the taking of testimony was begun, which petition was in the nature of a motion to dismiss. On the hearing of the motion the restraints as to the United Fruit Co. in the contracts involved were pointed out.

The motion was overruled by the Commission on October 13, 1924 (record, p. 116). On October 30, 1925, before the taking of testimony was begun (record, p. 129), a motion was filed by all of the parties to dismiss the complaint. The motion was referred by the trial examiner to the Commission, which directed the trial examiner to hear arguments on the motion and to pass upon it. On January 11, 1926, this motion was heard (record, pp. 493–549). Upon the conclusion of the arguments the trial examiner overruled the motion.

All of the contracts set out in the complaint and all of the matters of corporate record set out in the complaint are established. The pending motion being in the nature a demurrer to the evidence, we do not deem it necessary, insofar as the facts are concerned, to discuss the facts to the degree which might be required if the case were before the Commission on the entire proof. Therefore, the facts will be presented in the brevity which the nature of the motion requires; and we submit that this record shows directly and without uncertainty, facts legally sufficient to justify this Commission to enter its order in this case. (*Indiana Quartered Oak Co.* v. *Federal Trade Commission*, not yet reported.)

I. Argument on the Facts

United Fruit Co., Wireless Specialty Apparatus Co.

The record discloses that the United Fruit Co. through its subsidiaries, the Tropical Radio Telegraph Co., a wireless operating company, and the Wireless Specialty Apparatus Co., a manufacturing company, was a strong factor in wireless. The stations which the United States Fruit Co. had, prior to entering into the attacked cross licenses, were located at the following places and were constructed in the years indicated: Cape San Antonio, Cuba, 1908 or 1909; Swan Island, Caribbean Sea, 1907 or 1908; Santa Marta, Colombia Station, 1911 or 1912; Bocas del Toro Station, 1904 or 1905; Limon, Costa Rica,

Digitized by Google

1904 or 1905; Bluefields, Nicaragua, 1905 or 1906; Rama, Nicaragua, 1905 or 1906; New Orleans, 1912; Burrwood, 1912 (record, pp. 1024–1025). These stations communicated with ships as well as with shore stations. The communication from these stations was as follows:

The Bocas del Toro station communicated with Limon, Costa Rica; the Bluefields station communicated with Limon, Costa Rica, and occasionally with Bocas; the Limon station communicated with Bluefields and with Bocas and occasionally with Swan Island, depending on conditions; the Swan Island station communicated with Santa Marta and with ships, and, as occasion arose, Bluefields and Limon and Bocas del Toro also communicated with ships. Swan Island communicated with ships and with Santa Marta and with New Orleans. Rama, Nicaragua, communicated with Bluefields, Nicaragua, and Limon, Costa Rica; Cape San Antonio, Cuba, communicated with ships and with New Orleans and with Swan Island; New Orleans communicated with Cape San Antonio and with Swan Island and with Burrwood, and Burrwood communicated with New Orleans and with ships. Swan Island communicated with Belize, British Honduras, with Tela, Honduras, with Puerto Cortez, Honduras, with Celba, Honduras, with Puerto Castilla, Honduras; Limon communicated with Colorado Bar, Costa Rica, and Bluefields also communicated with some station at a mine up in Nacaragua (record, pp. 1027–1029).

At places where the United Fruit Co. had wireless stations there were no other wireless stations (record, p. 1029). An idea of the scope of the business of the United Fruit Co. in wireless can be gathered from the fact that up to 1917, the United Fruit Co. had invested about $2,000,000 in wireless (record, p. 1045), and from the further fact (record, p. 1051) that next to the Marconi Co., the United Fruit Co. in 1917, probably was more heavily interested financially in radio than was any other corporation.

In 1917, at a hearing before the Committee on Merchant Marine and Fisheries of the House of Representatives, Sixty-fourth Congress, second session, George S. Davis, general manager of the radio department of the United Fruit Co. (record, p. 1055), said: "We now have under contract, high-powered stations which, when completed, will probably be more modern than any other station in the country, including those of the Government."

At a hearing before the Committee on Merchant Marine and Fisheries of the House of Representatives, Sixty-fifth Congress, third session, on H. R. 13159, the radio manager of the United Fruit Co., in speaking of the claim of the American Marconi Co. that it intended to acquire 100 percent of the communication business, said this: "There has been a great deal of discussion before the committee about the monopoly of radio. Mr. Nally said he hoped to obtain 100 percent. I do not like to tear down a house of cards; but I will assure you, or anyone, that the United Fruit Co. would have prevented, through the operation of its system, the entire monopolizing of the radio business, and will, if this bill is not passed" (record, p. 1069).

The purpose of the United Fruit Co. to continue in the wireless field in competition with the Radio Corporation of America after that corporation was formed, but before the United Fruit Co. entered into the cross-licensing arrangement with it, appears from the fact (Commission's exhibit 128) that the Tropical Radio Telegraph Co., with a number of other wireless companies, was endeavoring to purchase or lease the Siasconsett station of the Navy Department.

Commission's exhibits 126 and 127 show the patents and applications belonging to or licensed to United Fruit Co., the Tropical Radio Telegraph Co., and the Wireless Specialty Apparatus Co. The patents are about 110. The applications are approximately five in number. The interest of United Fruit Co. in radio is further shown by Commission's exhibit 6, which is a publication of the Wireless Specialty Apparatus Co., entitled "Radio equipment", copyrighted in 1919, although written in 1918. From this book it appears that the company was manufacturing transmitters, battery-charging panels, motor generators, low-tension control panels, transformers, high-tension radio panels, antenna switches, lighting switches, radio pack equipment (by this is meant a complete two-way radio unit capable of sending as well as receiving radio messages), generators, receivers, detectors of various kinds, vacuum-tube receivers, amplifyng transformers, vacuum-tube sockets, generators for transmitters, telephones, condensers, variable air condensers, rotary spark gaps, constant impedance audibility meters, and wireless telephone transmitters. The company had built wireless telephone transmitters as early as September 6, 1902.

Digitized by Google

"The 50 or more patents issued since 1906 to the Wireless Specialty Apparatus Co. control a wide range of devices and circuits used in radio telegraphy and telephony" (Commission's exhibit 6, pp. 66).

We quote the following from Commission's exhibit 6:

"The Wireless Specialty Apparatus Co. of Boston resulted from a partnership formed in 1906, by Messrs. Greenleaf Whittier Pickard and Philip Farnsworth. Mr. Pickard, after years of research, had solved the problem of aural reception of radio signals. His inventions in the field of radio detectors and receiving apparatus retired the unreliable coherer forever from the art. The purpose of the partnership was a formation of a legal and engineering combination to patent, market, and manufacture the fruits of Mr. Pickard's inventive genius. In 1907, Col. John Firth was admitted to the organization, and the Wireless Specialty Apparatus Co., Inc. At that time its sole capital was the talent possessed by its three partners in their respective fields.

"The first order received by the company was in February 1907, when the Signal Corps of the United States Army ordered 35 silicon detectors.

"Between 1907 and 1912 Mr. Pickard continued his research. He developed and patented all the successful forms of crystal detector apparatus and circuits in use today. He also patented the loop direction finder and radio compass in 1908, and the circuits in use at the present time for static elimination and unilateral direction finding. He patented, as well, a mass of specific manufacturing and design solutions for existing radio problems. The radio pack set for the United States Signal Corps was designed and manufactured in large quantities during this period. Our I-P-76 receiver is the most widely known radio receiver in the art.

"In 1912, when Colonel Firth disposed of his interest, the company's engineering, manufacturing, and sales organizations were moved from New York to Boston, Mass., where they, as well as the general offices of the company, are now located.

"The growth of the company from 1912 on was very rapid, and its business reached a great magnitude. It was during this period that the United Fruit Co. decided to equip all of the vessels of its Great White Fleet and its shore stations in Central and South America and the West Indies with radio apparatus designed and manufactured by the Wireless Specialty Apparatus Co.

"The United Fruit Co., as is well known, maintains an extensive radio communication service not only on its great fleet of ships but in the countries of North, South, and Central America and the West Indies, where, owing to the severe atmospheric conditions prevailing during 9 months out of the year, it is very difficult to maintain reliable radio communication. Radio apparatus for this service must be designed not only to withstand the ravages of tropical heat and dampness but to function under the most severe physical and electrical conditions imaginable and still retain the highest possible degree of selectivity in order to 'work through' tropical static.

"The Wireless Specialty Co.'s apparatus installed at all of the United Fruit Co. tropical stations and on the steamships of its Great White Fleet has successfully met all of these conditions, and more than anything else has contributed to the latter company's success in maintaining radio service of unequaled reliability to and from its ships and between the countries of Central and South America and the West Indies and the United States.

"The marked superiority of the United Fruit Co.'s radio service, largely carried on through the medium of radio equipment furnished by the Wireless Specialty Apparatus Co., led to our equipment being installed on many other steamships, and the Wireless Specialty Co. equipment became standard radio apparatus the world over.

"At the beginning of the war over 90 percent of the commercial ship and shore stations, as well as the vast majority of experimental and research stations, in the Western Hemisphere were equipped with crystal detecting and receiving apparatus either sold directly by us or licensed under our patent designs. By 1917 the products of the Wireless Specialty Apparatus Co. were being used in every country of the globe.

"Then came the World War, and the company exerted all of its energies toward the design and manufacture of radio equipment for the United States and allied governments. The same pre-war superiority of the Wireless Specialty apparatus was maintained during the stress of war. Tremendous quantities of high-grade apparatus were developed and built for the United States Navy. Code messages that guarded our crusaders across the submarine-infested Atlantic were continuously transmitted and accurately received during this

Digitized by Google

stirring period by means of the equipment furnished to the Navy Department by the Wireless Specialty Apparatus Co. Our citizen soldiery, when hundreds of miles off the coast of Europe, felt the relief brought by the presence of the misty horizon of United States and allied destroyers summoned by radio. If they could have looked into the radio rooms of the transport flotilla they would have seen the peacetime product of the Wireless Specialty Apparatus Co. functioning smoothly in its new war dress, guarding lives with the same effectiveness with which it served the commerce of the United States and Central and South America through the medium of the United Fruit Co.'s Great White Fleet and this company's chain of radio stations in the countries bordering the Gulf of Mexico and the Caribbean Sea.

"During the war the research and manufacturing organizations passed through another expansion phase. Five additional manufacturing plants were equipped. The total value of the apparatus manufactured by the company during this period is measured in millions of dollars.

"At the present time the Wireless Specialty Apparatus Co. is the second largest radio engineering and manufacturing organization in the Western Hemisphere."

* * * * * * *

"We are in an excellent position to develop and build special radio telegraph and telephone equipment and condensers. We will gladly quote from your drawings and specifications."

* * * * * * *

"In the 6 years between 1906 and 1912 the Wireless Specialty Apparatus Co. built a series of special transmitters for the needs of its research organization. Along with this work was carried on the development of condensers and the various units which compose a transmitter, such as coils and switch mechanism.

"In 1912 two types of transmitters were offered for commercial and military purposes. These sets were, respectively, a portable set for field service and a 1-kilowatt panel transmitter for ship and shore stations. The pack set designed by the Wireless Specialty Apparatus Co. combined a complete transmitting and receiving equipment in one chest. At this stage of the radio art it was the practice to install the units comprising the transmitter separately on the walls, ceiling, and floor of the operating room, and the 1-kilowatt transmitter developed as a result of our experience with pack sets was the pioneer transmitting set in which all transmitting units were combined and permanently located upon a single panel board. This provided a compact unit for centralizing the control of the prime mover, the 500-cycle system, and the radio-frequency circuits. With this type of equipment, wave length could be rapidly changed and power easily varied. The adjustments thus became greatly simplified. Since this time practically all radio transmitters have been built on the panel-board principle."

* * * * * * *

"Some of the other important inventions and patents owned by the Wireless Specialty Apparatus Co. are:

"The standard receiving inductance with two interconnected switches for control by large and small units.

"Leyden jar condensers in which the conducting surfaces are electrolytically deposited copper or other metal.

"Basic patent for use of the combination consisting of a 500-cycle generator at the transmitter and rectifying detector with telephone at the receiver.

"Various forms of sheet condensers for spark circuits, protective condensers, and various other uses.

"Constant impedance audibility meter.

"Telephone receivers with protective spark gaps.

"The so-called inductance ticker system of receiving radio signals.

"Testing apparatus for detectors and receiving circuits, using oscillations from a buzzer or other source.

"Rotary tone condenser reception.

"Various circuits: The apparatus and methods for transmission and reception, including the standard system involving the transmission of waves in groups of high frequency, the rectification of the received currents, the charging of a condenser and discharging in through the telephones.

"Various practical forms of static eliminators, including those using the loop antenna.

Digitized by Google

"A large number of patents on important phases of radio communication are pending. This is indicative of the policy of the company to maintain its supremacy as a specialist in the development of the radio art.

"The accompanying photographs show the earliest successful apparatus for the transmission of speech by means of wireless waves, known to us.

"On September 6, 1902, in Boston, Mass., Mr. Greenleaf Whittier Pickard used this equipment in a demonstration before a group of telephone engineers, including Messrs. H. J. W. Fay and H. W. Shreeve, under the auspices of the American Telegraph & Telephone Co. (Bell System). The receiver was of special interest, for it included the first Wollaston-wire 'electrolytic' detector. The transmitter was of the spark type, using discharges above audible frequency.

"This 1902 installation was not of commercial nature, of course, but it was operative radio telephony and demonstrated the future possibilities."

These statements which appear in the publication of the Wireless Specialty Apparatus Co. are not by any means exaggerations, for the record establishes the truth of the statements (record, pp. 1080–1086).

The competition which existed between the Radio Corporation of America from its organization and the United Fruit Co., both in the communication field through the Tropical Radio Telegraph Co., and in the manufacturing field through the Wireless Specialty Apparatus Co. was eliminated in 1921 by the contracts mentioned in paragraphs 15 and 16 of the complaint, in evidence as Commission's exhibits 89, 90, and 129. By one of these contracts the General Electric Co. acquired one-half of the stock of the Wireless Specialty Apparatus Co., owned by the United Fruit Co. (United Fruit Co. owning 98 percent of the stock) and later but during the taking of testimony in the proceeding, the General Electric Co. acquired from the United Fruit Co. its remaining stock in the Wireless Specialty Apparatus Co. These contracts will be briefly summarized, as will other important contracts entering into the combination hereinafter.

THE INTERNATIONAL RADIO TELEGRAPH CO. AND THE WESTINGHOUSE ELECTRIC & MANUFACTURING CO.

That part of the transcript of the record (pp. 579–763) containing the testimony of Samuel M. Kintner (vice president of the International Co. until its dissolution and manager of the research department of the Westinghouse Electric & Manufacturing Co. since February 1922), establishes conclusively that through the International Radio Telegraph Co. and the Westinghouse Electric & Manufacturing Co. there was potential and actual competition in every branch of the wireless field between the Radio Corporation of America, General Electric Co., American Telephone & Telegraph Co., and United Fruit Co., and their subsidiaries, on the one hand, and Westinghouse and International, on the other. The Commission will remember that the Westinghouse Co. and International Co. were not brought into the combination until June 30, 1921, prior to which time the Radio Corporation, the General Electric Co., the United Fruit Co., and the American Telephone & Telegraph Co., and their subsidiaries, had combined.

The activities of the International Radio Telegraph Co. were not as well known to the general public as they were to those in the wireless communication field and in the scientific field. Prior to its dissolution, which was brought about after it conveyed its assets to the Radio Corporation of America, it had been in existence almost 20 years. It built and sold wireless apparatus as early as 1909 and 1910. This apparatus consisted of shore stations complete and ship sets, both transmitting and receiving (record, pp. 585–587). It had in its employ more men of professional prominence engaged in radio research than were employed by any other radio organization in this country, if not in the world (record, 598). Among these was Professor Fessenden, whose testimony in this proceeding will hereinafter be referred to at some length. Kintner candidly states that Fessenden is one of the outstanding figures in the development of radio (record, p. 601).

The company as early as 1902, had invented wireless telephony; it had given public demonstrations of the system as early as 1903 (record p. 601). Of the demonstrations, Kintner said: "I know from the records that he (Fessenden) had made tests to prove that it would operate prior to that time" (1903)[1] (record, p. 601).

[1] Parenthesis ours.

Digitized by Google

As early as 1906, the company had succeeded in developing a high frequency alternator for the "transmission in the most efficient ways" and which was also necessary for the best operation of radio telephone. When Kintner was asked what effect the progress of his organization had upon the utility of the Marconi system then in use, he said:

"It did not have any immediate effect, but it demonstrated the workability of the system, which, prior to that time, was looked upon as rather a fanciful conception" (record, p. 603).

When he was asked his opinion as to the relative merits of the Marconi Co. system and the system of his organization as early as 1906, he said that the system developed by the organization with which he was then connected (that is, a predecessor of the International Radio Telegraph Co.) was superior to the system of the Marconi Co. (record, p. 603).

The International Radio Telegraph Co. went through several reorganizations and changes of name. It was early known as the National Electric Signalling Co., but in our reference to the activities of the companies up to and including the acquisition of the assets of the company by the Radio Corporation of America, we will refer to it as the International Co.

In 1906 a demonstration of the International system of radio telephony was given to a number of scientists and engineers, including several engineers of the Bell Telephone Co. As early as 1906 the International Co. had conducted trans-Atlantic communication between its station at Brant Rock, Mass., and its station at Machrihanish, Scotland. That was the earliest recorded two-way trans-Atlantic communication, although earlier than 1906 the Marconi Co. had conducted one-way trans-Atlantic communication (record, pp. 606–608).

As early as 1909, or early in 1910, the International Co. had contracted with the Navy Department for the construction and equipment of, and later under that contract manufactured and equipped, the Navy Arlington Radio Station. The equipment was accepted after acceptance tests proved the worth and workability of the apparatus (record, p. 609). Equipment was furnished as early as 1913 for powerful transmitters for Navy cruisers. As early as 1911, it operated a radio station located at the Bush Terminal in New York. This station was so well equipped that it could handle all of the New York radio traffic, both incoming and outgoing (record, p. 773).

Perhaps the situation of the International Co. in the communication field is best described in a statement made by Kintner on December 22, 1920, before the House Committee on Merchant Marine and Fisheries, as follows:

"At present we are operating five ship-to-shore stations on the Atlantic coast from Cape May to Siasconset, Mass., and are now engaged in the construction of our first transatlantic station up in Maine" (record, p. 680).

It should be stated here that the contemplated trans-Atlantic station mentioned by Kintner was the one with which the Westinghouse Co., through the International Co., intended to enter the transatlantic communication field in competition with the General Electric Co. and the Radio Corporation of America.

The International Co. was the owner of a large number of patents. These appear as annexed exhibit 1 to Commission's exhibit 7. These patents, as is apparent from the description of them, cover all of the phases of wireless telegraphy and wireless telephony, as, for instance, antenna, tubes, towers, tuning antenna, methods for increasing efficiency, sustained waves, location of ships by triangulation, high frequency, and musical spark operation, receiving on telephone, broad radio telephone apparatus, radio telephone method, signaling, effecting modulation, simultaneous sending and receiving on same aerial, high-speed sending and phonograph recording, high-speed secret sending, high-speed rotating disc electrode gap, signaling by varying the frequency, inserting signaling, secrecy operation and interference prevention, tuning arrangements involving several circuits, high-power station design and accessories, method of controlling spark gaps, beats method of operation, group-frequency selection, signalling from aeroplanes, system for locating direction from which signals are coming, directional-wave projection, operation by earth component of waves, duplex operation, generation of oscillations, impulse excitation method, general distribution of news by sound writing pictures, receivers, interference prevention, relay method for operating sounder, simultaneous variation for tuning and coupling, detector current operated constantly receptive, hot-wire barretter detector, liquid-barretter detector, form of crystal detector, static type receiver, receiver operating by change in frictional contact, vacuum tube containing rarified helium gas, operation in receiving, high-speed recording, re-

Digitized by Google

ceiver circuit arrangement, hysteresis forms of detector, crystal rectifier detectors, electrolytic detectors, series of coupled resonant circuits to secure selectivity, static reducing, detector operating by change of surface tension, tuners, coils for intense fields, relay for sounder, special form of coherer, variable tuners, finder for pick-up of spark signal, detail of design for high frequency alternator, compressed air condenser, wave chute, static telephone receiver, conducting sheet around lead-in wires, method of tuning requiring special inductance, details of gap construction employing critical distance phenomena, amplifying telephone relay, means for driving high-frequency alternators, device for generating oscillations, multiple series gap, spark gaps, condensers, high-speed constant torque prime mover, ultra-high frequency alternator, lightning arrester, multiple line signaling, telephone transmitter, galvanometer, break-key, wave meter, method of forming stranded conductor for radio work, form of contact members, special construction of telegraphone wire, receiving transformer, circuit arrangement for amplifying, remote-control switch.

It is apparent, therefore, that the patent situation of the International Co. was so strong as to cover the entire field of wireless telegraphy and wireless telephony and that when these patents were pooled with the patents of the other companies entering into the combination attacked by the complaint, they were joined with patents covering the same fields. In other words, the patents of the International Co. were a part of the vast pool of competing patents.

The patent situation of the International Co. was further strengthened by reason of a license agreement between it and Armstrong (Commission's Exhibit 15). This license agreement gave the International Co. the right to use the Armstrong feed-back circuit or regenerative circuit for the following class of stations: (*a*) Coastal land radio stations carrying on ship and shore work at comparatively low powers and for short distances; (*b*) intermediate or moderately powered stations carrying on business principally in competition with wire telegraphy and wholly within the United States over distances not exceeding 1,500 miles; (*c*) high-powered or long-distance stations for carrying on such communication as transoceanic, transcontinental, intercontinental, or, in general, operating in competition with long distance cables or transcontinental and long-distance land lines. Therefore, insofar as the use of the Armstrong regenerative circuit patents might have been necessary for the successful operation of wireless telegraphy and telephony, the International Co., by reason of this license agreement of May 12, 1920, was in position to use those patents.

Previously, that is as early as October 15, 1914, the company had entered into a cross-licensing arrangement with the Marconi Co. of America (Commission's Exhibit 15). The company was further fortified by reason of the fact that on August 5, 1920, it secured from the Navy Department (Commission's Exhibit 25) a license to use the Poulsen arc patents which the Navy Department (Commission's Exhibit 25) purchased, with other assets, from the Federal Telegraph Co. of California for $1,600,000. These patents appear as exhibit A of Commission's Exhibit 25, and aggregate almost 200.

The record in this case establishes beyond any question that with these Navy patents alone, the International Co. and its successor to the patents, the Westinghouse Co. (see Commission's Exhibit 25) could have, without the use of any other patents, conducted commercially successful trans-Atlantic, trans-Pacific, transcontinental, and intercontinental communication in competition with the Radio Corporation of America; for it was by means of arc apparatus that communication, that is to say, reliable, dependable communication was had between this country and Europe prior to the organization of the Radio Corporation (record, pp. 624–671).

The best proof of our claim in this respect is in the fact that (Commission's exhibit 94, Jan. 8, 1921) an agreement between the Federal Telegraph Co. of California and the Government of China for the installation and operation of radio stations in China and in America to communicate with one another by means of this arc system, employing exactly the same patents as those licensed to the International Co. by the Navy Department, was assumed by the Federal Telegraph Co. of Delaware which was organized by the Radio Corporation of America and the Federal Telegraph Co. of California.

The history of the International Co. from 1919, when the General Electric Co. went into the wireless field through the Radio Corporation of America, is very interesting. On August 5, 1920, the new International Co. secured its license from the Navy Department. On May 12, 1920, the International Co.

Digitized by Google

had secured its license from Armstrong. Then, or about that time, there arose some real interest in the activities of the International Co. General Electric Co. made an offer to purchase the company (record, pp. 661–663) but on June 21, 1920 (Commission's exhibit 8) the Westinghouse Co. agreed to subscribe $2,500,000 in cash for the capital stock of a new company which was to take over the assets of the old International Co. On the same day, June 21, 1920 (Commission's exhibit 9), the International Co. granted to the Westinghouse Co. an exclusive license, with a right to grant sublicenses, under all of the patents of the International Co. then obtained, or which it might obtain prior to January 1930. By this contract, the International Co. was to embark into the communication business. The Westinghouse Co. was to do the manufacturing, but agreed not to sell patented devices or apparatus to business competitors of the International Co. for use in the field of the International Co. About this time Kintner went to Europe in behalf of the Westinghouse Co. and in behalf of the International Co. in order to negotiate traffic contracts with foreign stations (record, p. 697). Prior to that time, the International Co. has made tests of its ability to receive messages destined from stations located in foreign countries, particularly European countries, to this country. Kintner found that the Radio Corporation of America had entered into such traffic contracts in Europe as to make it impossible for traffic contracts to be entered into with European companies or countries satisfactory, from the standpoint of revenue, to the International Co. (record, p. 696).

The intention of the company to embark seriously into trans-Atlantic communication field, and other radio fields, is further apparent from this testimony of Kintner (record, pp. 683–684):

"Question. What other plans did the International Radio Telegraph Co. have in the communication field upon its organization in the year 1920?

"Answer. Well, its plans in communication consisted of the building of one transoceanic station and the building of a sufficient number of stations to engage in the ship-to-shore business. That was as far as their plans extended at that time.

"Question. Did it at any time later than June 1920, have additional plans or aims in the communication field?

"Answer. No.

"Question. Did it intend or plan to broadcast weather reports as part of its ship-to-shore service?

"Answer. Yes.

"Question. And what other things, as part of its ship-to-shore service, did the International Co. plan?

"Answer. Well, its ship-to-shore service would consist of the handling of messages for the shipowners in the navigation of their vessels in the transmission of commercial messages which originated with the passengers or on shore and addressed to the passengers, and, in order to popularize the service, they proposed to send news items and things of that kind, which could be used by the ships in bulletins or in little newspapers published on the ships, for the benefit of the passengers.

"Question. Did the company intend to or plan, or did you intend to or plan, to give that information to others than those who were using your shore-to-ship service? Did you intend to give that information generally to whomsoever might listen?

"Answer. I do not recall the details of that. It was quite likely that it was addressed to our own ships.

"Question. Do you remember having said that you intended to be a sort of a town crier from Pittsburgh, with a voice that could be heard for several hundred miles?

"Answer. That, I think, was in connection with the Pittsburgh broadcasting service rather than the ship service.

"Question. Were the radio activities of the Westinghouse Co. centered in the International Radio Telegraph Co. after June 1920, or did the Westinghouse Co., under its own name, do its radio work?

"Answer. All the communications in a public-service connection were conducted by the International Radio Telegraph Co., and all communications between the factories of the Westinghouse Co. and their own interests in parallel with telegraph lines were conducted by the Westinghouse Co. In addition to that the Westinghouse Co. started up a broadcasting activity.

"Question. When was that?

Digitized by Google

"Answer. Their first broadcast was started in the reporting of the Presidential election in 1920.

"Question. Was that the first broadcast station, as we now know broadcast stations to be, in this country?

"Answer. That was the original broadcasting station, and that night was the beginning of that regular service."

The Pittsburgh broadcast station of the Westinghouse Co. having proved such a great success, the company constructed another at Newark, N. J., at about the same time. Another broadcast station at Springfield, Mass., and still another at Chicago were planned (record, p. 696). That the Westinghouse Co. was the first of the companies in this combination to conduct broadcasting regularly is further apparent from the cross-examination of Mr. Kintner (record, pp. 632–633). This testimony also shows the sale and use of radio receiving sets as early as 1919, 2 years prior to the time when the Westinghouse Co. entered into its arrangement with the Radio Corporation of America, the telephone company, and the other respondents. (See also record, p. 1595.)

"Question. Can you describe in any great detail what he was doing, if anything, in the way of broadcasting at his home before the erection of the broadcasting station at the East Pittsburgh works?

"Answer. Late in 1919 he started telephony in his experiment and sent out messages of speech and phonograph records, and things of that kind, and later a number of people who listened in on the signals that he sent wrote to him in considerable number and even supplied him with new phonograph records to play for them, and he was finally persuaded, on account of the number of requests that he received, to undertake this broadcasting at regular intervals; so he agreed to do this every Wednesday and Saturday night at certain times. This kept growing in size and numbers of requests until, by the summer of 1920, the late summer of 1920, some of the department stores in Pittsburgh were carrying radio receiving sets of approved types, which were advertised as suitable for listening to Mr. Conrad's concerts. It was as a result of this publicity that the attention of Mr. Davis, vice president of the Westinghouse Co., conceived the idea of broadcasting as we know it today; and I recall very distinctly his remarking to Mr. Conrad that he was going to take his station away from him and put it in East Pittsburgh and start a regular service every night in the week and advertise the program that he was going to put out and run it like a newspaper was run. The station was hastily put together and was in operation just 1 or 2 days preceding the election in 1920; and I remember very distinctly the fears we had that the station might fail in carrying through the program that night, so Mr. Conrad had his station all ready to go on the air in the event that such an occurrence happened."

The sum of $2,500,000 paid by Westinghouse Co. for capital stock of the International Co. was not the only financial investment of the company in the wireless field. It purchased from Armstrong and Pupin the feedback or regenerative patents, together with the other patents which appear in Commission's exhibit 14⅓; under one condition of that option the commitment of the Westinghouse Co. was $335,000, while under another condition the commitment was $535,000.

The Westinghouse Co., therefore, we have shown, was engaged in broadcasting, had purchased the patents which enabled it to manufacture and sell broadcast receivers. It had on hand a supply of vacuum tubes (record, p. 746). It was in a position to enter the wireless field in competition with the Radio Corporation of America, and it was in a position to enter into the field of wireless telephony; that is, commercial wireless telephony in competition with the wire telephony system of the American Telephone & Telegraph Co. That all of this is so must be apparent from the fact that in the short period of 6 months, namely, from May 22, 1920, to November 4, 1920, it committed itself to the expenditure of over $3,000,000.

All of this competition, both actual and potential, was eliminated on June 30, 1921, when the Westinghouse Co. entered into the cross-licensing arrangement with Radio Corporation of America, the General Electric Co., and other respondents, and when, on the same day, the International Co. sold all of its assets excepting its patents (these having previously been sold to the Westinghouse Co.) to the Radio Corporation of America for 1,000,000 shares of preferred stock of the Radio Corporation of the par value of $5 each and for 1,000,000 shares of its common stock without par value.

The Commission will find in Commission's exhibit 14⅓ the mention of certain licenses which had previously been granted by Armstrong; these license

Digitized by Google

contracts are in evidence. The patents licensed were sufficient for the construction of complete radio receiving sets (record, p. 3,734), and through these licensees there sprung up, upon the advent of broadcasting by the Westinghouse Co., a market for radio receiving sets beyond the market which had previously existed, the previous market having been to so-called amateurs. Among the names of the licensees will be found the Precision Equipment Co., whose name was changed to the Crosley Manufacturing Co., which produced well-known radio receiving sets. Another is A. H. Greebe & Co., which manufacture the well-known Greebe sets. These sets were manufactured and sold by all of these licensees prior to June 1921, when the Westinghouse Co. entered into its arrangement with the Radio Corporation of America. The record shows that thereupon suits were commenced by the Westinghouse Co. against the licensees based upon the claim that the licenses did not permit the licensees to sell sets to the general public. Many of these suits were settled by supplementary agreements between the Westinghouse Co. and the licensees expressly conferring the right to sell to the public generally but increasing the royalty to a much higher rate than the royalties called for in the original license agreements. (See Commission's exhibit 162.)

During the course of the oral argument made by the respondents in support of their motion to dismiss, and in their briefs, great stress is laid on the tube situation and upon the alleged need by the Westinghouse Co. of tubes. The record in this case shows conclusively—and it is not contradicted, nor was the witness cross-examined—that prior to the Westinghouse cross-licensing arrangement with General Electric Co., the former had developed receiving tubes and transmitting tubes which it felt were safe as far as infringement of the DeForest and other patents was concerned, and that arrangements for the distribution of these tubes were being negotiated by the Westinghouse Co. and distributors. This appears (record, p. 2,209) from the testimony of C. B. Cooper, one of the outstanding men in the radio industry:

"Question. Do you remember whether you were told by Weston or somebody else that some of the Westinghouse officials thought that the receiving tube would not infringe existing patents?

"Answer. My recollection is that Weston told me that they were pretty sure it was O. K.

"Question. What do you mean by O. K.?

"Answer. That they would go ahead and put them out—I think that was about the last I heard of it.

"Question. And that was prior to June 1921?

"Answer. Yes.

"Question. Did you ever receive any of these receiving tubes from the Westinghouse Co.?

"Answer. I do not believe I ever did. I cannot recollect now that I did.

"Question. But you did receive the transmitting tubes?

"Answer. Yes.

"Question. What was your purpose in negotiating with the Westinghouse Co. regarding the receiving tubes? What was your object?

"Answer. To distribute them also. In other words, what I was trying to bring about was that we would become their distribution and service medium as far as the ships were concerned.

"Question. How far did those negotiations go; was there any arrangement made?

"Answer. No arrangement was ever made; it was purely negotiation.

"Question. What became of the negotiations?

"Answer. It entirely dropped.

"Question. At what time?

"Answer. Oh, at the time the combination was formed."

THE AMERICAN MARCONI CO.

When the Radio Corporation of America acquired the assets of the American Marconi Co., it acquired a vast number of patents (Commission's exhibit 73). The Radio Corporation also acquired patent rights from the British Marconi Co. (Commission's exhibit 86). The American Marconi Co. had had rights in the patents of the National Electric Signaling Co. (Commission's exhibit 56). It also had a license under the Armstrong patents (Commission's exhibit 57). The Radio Corporation secured the American Marconi Co.'s patents, rights in

Digitized by Google

the patents of the British Marconi Co., and the American Marconi Co.'s rights in the Armstrong patents.

The early wireless situation from the standpoint of stations is best portrayed by a map of principal interoceanic wireless stations and coast stations of the world, which appears as an appendix to the annual report of the American Marconi Co. for 1914 (Commission's exhibit 60). All of the American trans-Pacific and trans-Atlantic stations shown on the map are those of the American Marconi Co. The map shows foreign stations with which American Marconi Co. had traffic arrangements.

As early as 1914 there was communication by wireless between this country and Japan and if the British Admiralty had not commandeered the English transoceanic stations there would have been trans-Atlantic communication between this country and Europe as early as 1914. This is our answer to the contention by the respondents that if it had not been for the combination attacked by the complaint there would yet be no trans-Atlantic or trans-Pacific communication by wireless. We quote from the 1914 annual report of the directors of the Marconi Wireless Telegraph Co. of America, as follows (Commission's exhibit 60):

"REPORT ON HIGH-POWER STATIONS

"In addition to the progress made in ship and shore communications much has been accomplished during the year with the high-power stations for long-distance work. In the northern district on the Pacific coast—probably the largest in point of territory in the Marconi organization—there has been completed a powerful station at Ketchikan, Alaska, and a chain of wireless stations to cover this territory has been planned.

* * * * * * *

"At Juneau your company has another station under construction and the United States terminal at Astoria, Oreg., is nearing completion. This latter plant will be ready about May 1, and the first link in the chain will then be open to public service.

"Your company's trans-Pacific service between San Francisco and Honolulu opened September 24, and with but few interruptions of short duration, due to the failure of the power company to supply current, has been working continuously ever since. The service rendered has been most satisfactory and almost without complaint from the public.

"This service was inaugurated with a substantial reduction in the rates established and maintained by the cable company over a period of some 11 years' operation. As a result your company secured most of the business, and, notwithstanding the fact that the cable company was compelled some months since to reduce their rates to meet ours, the volume of wireless traffic still shows a continued increase. Two new classes of messages, the night letter and the week-end letter which were introduced into the wireless service have become very popular with the Hawaiians.

"The arrangements made for direct service between New York and London had been practically completed when the outbreak of the war forced your officers to set aside the vigorous campaign through which it had been planned to secure a share of the trans-Atlantic cable business. The duplex stations at Belmar, N. J., and New Brunswick, N. J., were completed and being tested late in July when word came that the corresponding English stations at Carnarvon and Towyn, in Wales, had been commandeered by Great Britain for the use of the Admiralty. This came as a very serious blow to your company's hopes. A strong transoceanic department had been organized and 24-hour service was to be provided through a new commercial office opened in the heart of New York's financial district.

"There is small likelihood that your company shall be able to continue tests or open the stations to public service until the end of the war, but when that time arrives your officers expect to be reimbursed in full, claims for indemnity on losses sustained being included with those which the affiliated English Marconi Co. will ask from the British Government.

"The direct service between Boston and Norway through the transoceanic stations which have been building at Marion, Mass., and Chatham, Mass., has also been blocked by the war. The construction work on both the stations of your company and those in Norway is almost finished and the installation of the apparatus could have been completed before now had it not been that

Digitized by Google

the equipment is being made in England. It is doubtful whether it can be delivered here or in Norway until the war is over.

"Norway, though popularly conceived as a country of little commercial importance, in reality ranks fourth in tonnage among all the maritime powers of the world, and the connection with Boston, one of America's greatest seaports, should prove a profitable one when the circuit can be opened."

The application of wireless to other fields had already been made prior to 1915 by the American Marconi Co., as witness the following (Commission's exhibit 60):

"The application of wireless to railroading has made some advances following the graphic demonstration of its utility during the blizzard which swept the eastern States early last year. All the railroads in the zone affected were blocked for hours, and in some cases, days, the one exception being the Lackawanna Railroad, which had installed a Marconi system, and through it operated its trains wholly by wireless and without mishap. Two other railroads called upon the Lackawanna to forward messages and were greatly aided during the time when their wire telegraph lines were prostrated. Wireless telegraphy as an auxiliary means of communication is now receiving the close consideration of railroad organizations, and from all appearances this branch of your compny's business is soon to be considerably expanded."

The advances made in the arts of radio by this company were so great as to call for the following in the report of the engineering department (Commission's exhibit 60) for 1915:

"WIRELESS TELEPHONE DEVELOPED

"It is also practically assured that during the coming year a commercial wireless telephone will be placed on the market."

The present claim that the American Marconi Co. was dominated by British interests is disapproved by the following statement in the 1915 annual report of the American Marconi Co. (Commission's exhibit 61):

"With wireless communication featured prominently in the official measures taken for the safeguarding of the country, it is reassuring to know that your company, representing practically the entire American field of commercial wireless telegraphy, is managed by Americans and conducts its operations under the direct supervision of the United States Government. Any suggestion that its control is in the hands of foreign interests through capital investment is directly refuted by a very recent analysis of its list of stockholders, numbering 23,027, of whom 21,664 are residents of the United States."

The efficiency of the Marconi wireless system is further shown in this report of 1915, as follows (Commission's exhibit 61):

"REPORT OF HIGH-POWER STATIONS

"There has been no change in the commercial status of the trans-Atlantic stations, the high-power equipments remaining closed to business on account of the war. The British Admiralty still holds for imperial government use the English plants constructed to operate with your company's Belmar and New Brunswick duplex stations, and thus far, because of the war, it has been impossible to open similar direct service with Norway and northern Europe through the newly completed high-power stations at Marion, Mass., and Chatham, Mass.

"Reliable and rapid service has been maintained between your company's stations in California and Hawaii, and the volume of traffic shows steady improvement.

"The Hawaiian stations are known as two-way stations, being constructed so as to work with California and Japan simultaneously. The Japanese Government recently notified your company that its new wireless stations at Funnabashi and Otchisi near Tokio, are complete and tests are now being made daily with a view to early inauguration of a public service, spanning 5,600 miles of the Pacific. Negotiations on traffic regulations are now in progress with the Japanese Government Department of Communications, and it is expected that by means of the Japanese Government cables the service will be extended to China, Manchuria, and other Far Eastern countries.

"The new circuit connecting the United States with Alaska was opened in August 1915 and has since furnished reliable communication throughout the 826 miles covered by your company's stations at Astoria, Oreg., and Ketchikan and

Digitized by Google

Juneau, Alaska. Although operated in competition with the submarine cable, the wireless traffic has shown steady increase each month, and has given practically continuous service, whereas the cable is operated by 6 hours daily. Many times since the opening the cable service has been interrupted, and your company's system has furnished the only means of communication with the territory.

A reduction of some 20–25 percent in rates and the establishment of three classes of dependable service have been the means of making the Marconi service exceedingly popular, and it has been highly commended by the Alaska press, commercial houses, and the public.

Direct service between America and Japan was inaugurated by the American Marconi Co. in November 1916. The annual report of the company for 1916 states (Commission's Exhibit 62):

"The war conditions, preventing the operation of your trans-Atlantic stations at New Brunswick and Belmar, N. J.; and at Marion and Chatham, Mass., remain unchanged. The British Admiralty still holds, for military purposes, the English plants constructed for exchange of traffic with this country. The continuance of the war has likewise rendered it impossible to inaugurate our direct service with Scandinavia.

"Service with Japan was successfully inaugurated on the 15th of November, last, and an increasing volume of traffic is being handled, under Government censorship, at a tariff one-third lower than that of the submarine cable. On the Pacific, as on the Atlantic, operations are restricted by war conditions, the Japanese stations being controlled by that Government. For the present, therefore, the new service is limited to traffic between San Francisco, Hawaii, and Japan."

The 1917 report of the company states (Commission's Exhibit 63):

"The Massachusetts stations, intended for communication with Scandinavia and Russia, and now in course of construction, have likewise been commandeered by the Navy Department, and the work of completion is being pushed forward as rapidly as possible, so that they may be turned over to that Department without unnecessary delay."

From this report further proof on the lack of necessity of General Electric Co.'s patents is evidenced by the description of the Pan-American Wireless Telegraph & Telephone Co., which was organized to construct high-power stations to connect America with Mexico, West Indies, Central and South America for wireless communication.

That the Marconi Co., independent of the General Electric Co. and all of the other corporations respondents in this proceeding, was able to conduct transoceanic wireless is further evidenced from its 1918 annual report, which contains a statement made by Mr. Nally, general manager of the American Marconi Co. (who upon the organization of the Radio Corporation became its president), before the House Committee on Merchant Marine and Fisheries on December 17, 1918. Mr. Nally said (Commission's Exhibit 64):

"I might also say that the Marconi Co. has successfully operated transoceanic radio service at a higher rate of speed than has ever been accomplished by other agencies. The Marconi Co. was the pioneer in automatic high-speed transmission and automatic high-speed reception. It has developed this system to a remarkable degree of proficiency. Whereas it is not possible to operate a radio circuit by hand (or, as we term it, manual operation) at more than 30 words per minute, the Marconi Co. has successfully and for long periods transmitted by automatic-speed operation at speeds varying from 60 to 100 words per minute. This remarkable advance in the art, as can readily be seen, immediately doubles and even quadruples the capacity of a single circuit. I believe I am safe in saying that the Navy Department still makes use of the old system of manual transmission in the operation of its high-power station.

* * * * * * *

"When, in August 1914, the European war broke out, the American Marconi Co. was at work upon the final tests of the high-power stations which it had constructed at great cost at New Brunswick and Belmar, N. J., for operation with similar and complementary stations owned by the British Marconi Co. and located in Carnarvon and Towyn, Great Britain.

"Immediately upon declaration of war, Great Britain took over the high-power stations at the places named, and we were, therefore, unable to carry on our great enterprise.

Digitized by Google

"Many months in advance of the time that we had appointed for the opening of our service we engaged a corps of the finest and most expert operators that ever worked a cable—we had our pick from the different cable companies. These men were given a course of many months' training in wireless, and finally, when on September 24, 1914, we completed our chain of high-power stations in California and Hawaii for trans-Pacific communication with Japan, via Hawaii, we utilized many of these men for this service, which was in very satisfactory operation at the time our country entered the war in April 1917, when our Government took over all of our stations, both coastal and high power, and have had them ever since.

"We also erected in Massachusetts, a transmitting station at Marion, and a receiving station at Chatham, Cape Cod, high-power station similar to the New Jersey, California, and Hawaii stations above referred to, but the completion of these stations was delayed and interfered with on account of the war, the Norwegian stations, with which they were to work, having only recently been completed. This circuit was intended for wireless communication with Scandinavia and Russia, and but for the war would be in full operation at this time.

"The company also constructed and operated coastal stations for ship-and-shore business at 45 points, from northern Alaska, on the Pacific coast, to southern California, and from the extreme north Atlantic coast to the extreme South, and in the Gulf region, and in the region of the Great Lakes."

Further evidence that we are correct in our claim appears from the statement of Hon. John W. Griggs, a former Governor of New Jersey, a former Attorney General of the United States, and, at the time of his statement, president of the American Marconi Co. (Commission's exhibit no. 64):

"When Mr. Marconi had developed the knowledge of the Hertzian waves so as to be able to produce signals, and had secured patents in Great Britain and the United States, they formed the Marconi Co. of New Jersey, and Mr. Marconi conveyed to it all the patents and inventions he then had with an agreement to convey to it all other patents and inventions which the parent company acquired, and I think that is substantially the only agreement on the subject that ever existed between the two companies.

"In addition to the patents in that contract, the company has put out $7,000,000 worth of stock, which was paid for in cash. Its present capital is $10,000,000, and I think its total assets, as figured on its statement, amount to something like $12,000,000. It has no bonded indebtedness—it has no indebtedness whatever except the week-to-week current bills that it incurs. It has paid two dividends in the course of the 15 or 16 years it has been engaged in business. It has 22,000 stockholders, the most of whom are residents of the United States, who acquired their stock on the hope and expectation that eventually the Marconi Co. would be able to become a successful competitor of the oceanic cables and thereby would derive a large income which would justify an investor in waiting 10 or 15 or even 20 years for a dividend, because he expected when the result was obtained he would reap largely in returns.

"The company, out of the $7,000,000 which it raised in 1912 by an issue of stock of that amount, has spent about $5,000,000 in building stations preparatory to trans-Atlantic, trans-Pacific, transoceanic service. Of course, you cannot have transoceanic service unless you have not only a station at this end, but you have to have a coordinating station in the other country. So that whether it is the United States Navy, or whoever it is, that attempts to carry on wireless internationally, they must have somebody to cooperate with at the other end or they cannot do it.

"The Marconi Co. had in Great Britain the British Marconi Co. to cooperate with, who did agree to put up and who did put up a coordinating station. The Marconi Co. had a contract with the Government of Norway to put up a coordinating station in Norway, and they have put up that station there. The Marconi Co. had an agreement with Japan to put up a coordinating station in Japan, and when the United States was dragged into this war, we were carrying on successfully profitable wireless communication with Japan.

"And I might stop right here to say that since the United States Navy took over our San Francisco and Hawaiian stations, that service has been stopped. It has not been renewed, and today it takes 7 days to get a cable from the United States to Japan, and we put it through and got an answer back in less than an hour.

"I said we spent $5,000,000 in getting ready to do this international communication business. It was from that that the promoters of the company—and

Digitized by Google

when I speak of 'promoters' I mean not in the sense of those who sold the stock, because we did not have any such promotion, but I mean those who were proceeding with the business and development of the company. It was their expectation that the great profit of the company would come from this long-distance service, and what we expect was that we would so cut into the rates charged by the cable companies that we would acquire a very large part of the business; and not only that but that we could take certain messages that were called 'deferred' messages at rates which the cable companies could not afford to transmit.

"Well, just when we were ready to inaugurate this service with the British Islands, Great Britain went into the war, and, of course, they had to take over the stations, and our stations have been idle ever since. I am speaking only of our long-distance stations—they have been idle ever since, so far as the Marconi Co. has been concerned, although I understand the Navy Department has operated one or more of them to some extent."

The claim by the respondents that transoceanic wireless was brought about by the combination which is attacked by the complaint, is refuted by all of this proof which we have cited, and by the further fact that prior to 1917 traffic contracts were made by the American Marconi Co. for communication with Japan (Commission's exhibit 79), and for communication with Norway (Commission's exhibit 80)..

Stress has been laid on the claim that the American Marconi Co. was dominated by alien interests. The record shows that claim also to be ill-founded. The stock of the British Marconi Co. in the American Marconi Co. was non-voting (record, p. 870). Besides the stock interest of the British Marconi Co. was not a controlling interest, being about one-sixth. The record shows the following statement by the witness Sarnoff, connected with the American Marconi Co., and since the organization of the Radio Corporation of America, general manager for the latter company:

"The American-Marconi Co. is an affiliated company. We are not a subsidiary of any company. The American company is controlled by an American management. Its policies are formed and executed here. The apparatus used on ship and shore is manufactured in this country and designed by American engineers, and we are in no wise subsidiary to the British Marconi Co. The affiliation is essential because of the international communication which is proposed by the Marconi Co. We must have an agreement with people abroad, just the same as the United States Government would have to have an agreement abroad if it communicated internationally."

He further stated that while the British Marconi Co. owned stock in the American Marconi Co., its interest was by no means controlling (record, pp. 915-916). Indeed, respondent's exhibit no. 6 shows that the entire foreign stock holdings in the American Marconi Co., including the holdings of the British Marconi Co., were about 42 percent on July 1, 1919.

We submit that the record in this case establishes from the testimony of the witness Weagant, formerly chief engineer of the Marconi Co., and at the time he testified employed by the Radio Corporation as an expert for patent litigation (record, p. 2935), that the American Marconi Co., without any patents other than those which it owned and in which it had an interest, could have conducted its business without any patents of the General Electric Co., the American Telegraph & Telephone Co., United Fruit Co. or Westinghouse Co., or any of their associated and affiliated companies. He testified that the General Electric Co. saw a big commercial possibility in the American Marconi Co. (record, 6. 2955). Of the patent situation, he said (record, p. 2964):

"In the reception there was one patent that was vital. That was the DeForest audion. There was a tube that I invented myself and which our attorney said was noninfringing. That could have done the job so that the acquiring of the patents was not necessary. There was another very important patent, the Fessenden heterodyne. I invented one or two substitutes for it. Alexanderson invented another that was desirable, but not absolutely necessary. This pooling of the patents by this combination was not necessary for the transoceanic or for the ship-to-shore and ship-to-ship communication field. The fundamental motives leading to the combination was the desire on the part of the General Electric Co. to realize on their very large investment in the development of the Alexanderson system; also the fact that they very cleverly seized upon and made use of the opposition of the Navy Department to the British Marconi Co. to aid in carrying out this plan; whereas, on the other hand, I very firmly believe that the Marconi Co. could have carried on" (record, pp. 2964-2967).

Digitized by Google

Some of Weagant's inventions are described in the book called "Vacuum Tubes in Wireless Communication", copyrighted in 1919 by the Wireless Press, Inc., a subsidiary of the Radio Corporation of America. The book is known as Commission's exhibit 403 for identification. The Commission will remember that at the oral argument on the pending motion the book was offered in evidence as Commission's exhibit no. 403. From page 176 to and including page 182 will be found descriptions of Weagant's tube, Weagant's circuit for his transmitting tube, and Weagant's circuit for wireless telephony transmission. On pages 102–103 appear descriptions of Weagant's receiver for damped and undamped oscillations and of Weagant's receiver for continuous and discontinuous waves.

The testimony of Bucher (record, p. 4066–4096) and his books show circuits of the Marconi Co. and complete descriptions of the Marconi Co.'s system of wireless communication. It is convincing from this record that when the General Electric Co., through the radio Corporation of America, acquired the American Marconi Co., it put itself into the communication field of wireless telegraphy and wireless telephony in a way which made it unnecessary to secure any other patents and in a degree which put the Radio Corporation of America, without any patents other than the Marconi patents, in a position to compete with the American Telegraph & Telephone Co. by way of offering to the American public wireless telephony in competition with the wire telephony system of the American Telegraph & Telephone Co.

Indeed the position of the Marconi Co. for transoceanic communication is further established, if further proof be deemed necessary, by the fact that in 1914 the American Marconi Co. caused to be organized a number of telegraph companies (record, pp. 809–814) for the purpose of connecting its trans-Atlantic stations by land telegraph wires to strategic points in the United States, which were looked upon as localities from and to which trans-Atlantic messages would be destined.

THE GENERAL ELECTRIC CO. AND THE RADIO CORPORATION OF AMERICA

The Radio Corporation of America, being from its inception controlled by the General Electric Co., it seems not inappropriate to discuss these two companies together. We have previously shown how, when the Radio Corporation of America acquired the assets of the American Marconi Co., it put itself in position to conduct every kind of wireless communication.

The General Electric Co. at that time, namely, 1919, was also in the very same position, as appears from the record.

Respondents' exhibit no. 17, which is a letter dated March 29, 1919, to Assistant Secretary of the Navy Roosevelt, in itself, partly at least, indicates the developments made up to that time by the General Electric Co. We quote the following from the letter:

"We have, over an extended period, been negotiating with the Navy Department in regard to furnishing several of our radio devices, including a photographic receiver, barrage receiver, and methods of simultaneous sending and receiving of radio messages, and we now have a contract with the Navy Department for completing the installation of the New Brunswick high-power radio station."

The Navy Department itself was familiar with the developments made by the General Electric Co., for, in answering the letter hereinabove quoted, Assistant Secretary Roosevelt mentioned the fact that the General Electric Co. had "numerous excellent devices for radio telegraphy" (respondents' exhibit 18).

In January and February 1920, which was prior to the General Electric Co.-American Telephone & Telegraph Co. license, the Radio Corporation of America published a copyrighted book called the "Alexanderson System for Radio Telegraphy and Radio Telephone Transmission." The book (Commission's exhibit 272) contains 55 pages which completely describe the system. It is a system developed by Alexanderson, of the General Electric Co. We quote the following from pages 53 and 55 of the exhibit:

"Figure 47 is an oscillographic record taken on the 200-kilowatt set at New Brunswick, N. J., with Secretary Daniels, of the United States Navy Department, at Washington, D. C., speaking to President Wilson aboard the U. S. S. *George Washington* at sea.

"The satisfactory operation provided by the amplifier is here again well demonstrated.

Digitized by Google

"When the Alexanderson system is used in radiotelephony the control circuit of the amplifier is placed in the output circuit of a bank of vacuum valve amplifiers. The input circuits of the amplifier bank are controlled by three preceding stops of vacuum tube amplifiers, which in turn are actuated by the microphone.

"In a number of experimental tests made with the telephone set at New Brunswick, the voice was projected to European stations. At distances up to 2,500 miles very satisfactory results were obtained. The eventual use of the Alexanderson system for commercial long-distance radiotelephony can be predicted with considerable confidence."

It must have been of this long-distance wireless telephone conversation between President Wilson and Secretary Daniels that the witness Sarnoff was speaking (record, p. 923) when he stated that the distance over which the telephone conversation was held was in excess of 1,000 miles.

Further evidence of the extent to which the General Electric Co. had developed wireless communication is found in the testimony of Albert G. Davis (record, p. 2803), in which, referring to the book, "Radio Telephony", by Goldsmith, copyrighted 1918 (Commission's exhibit 385), he said:

"I remember particularly when Alexanderson was able to send and receive from a ship simultaneously, and that was not long before the contracts, not long before this book was copyrighted. It was regarded as a very wonderful thing."

Prior to July 1, 1920, the General Electric Co. had also interested itself in broadcasting. This is established by the testimony of Albert G. Davis, a vice president of the General Electric Co. We quote from the record (p. 1855):

"July 1, 1920, we had this Union Club broadcasting performances which I mentioned this morning, and our engineers cooperated with those boys on that.

"We had had some telephone conversations between Pittsfield and Schenectady, which I think I mentioned yesterday. We had made some important inventions, but we had not put any radiotelephone into use. The Telephone Co. had a plant at Deal Beach, N. J., which had been run experimentally, and I think had done some experimental broadcasting, but they can tell you better than I can about it, and I think about that time Mr. Conrad, of the Westinghouse Co., one of their engineers, was beginning to carry on broadcasting experiments on a small scale which ultimately led, and not very long afterwards, to the establishment of the station KDKA, which was the first permanent broadcasting station in the world, so far as I know.

"The principal practical use of radiotelephony—the only practical use of radiotelephony, as far as I know, had been with the Government in connection principally with the Navy, and to a lesser extent in connection with the Army. By the time the war finished a whole squadron of airplanes could be in communication with the ground and each other."

Thus shows the record: Three of the companies respondents—that is to say, Radio Corporation of America, American Telephone & Telegraph Co., and Westinghouse Co.—were in a position prior to the cross-licensing agreements to enter the broadcasting field in competition with each other.

The list of General Electric Co.'s radio patents in evidence shows that the interest of the General Electric Co. in radio long antedated 1919. When the witness Davis was asked to describe the inventions developed by the General Electric Co. in the radio, or other communication fields, he stated as follows (record, p. 1765–6):

"There were a great number. One of the most important was the invention of Dr. Langmuir on the vacuum tube which was then involved in interference in the Patent Office with Dr. Arnold, of the Western Electric Co.

"Then there was the Alexanderson alternator which is covered by a group of patents and the so-called accessories to the alternator, such as the multiple-tuned antenna and also the so-called barrage receiver, a very important speed governor for the alternator which was quite important to radio alternators because radio alternators must be maintained at very accurate speeds, and it was a very severe test to do it because the whole load is thrown on and off when the key is opened and closed, so that there is a tendency for the alternator to speed up and slow down again very rapidly.

"Then there was the magnetic-modulator also invented by Alexanderson, which was a very important contribution to long-distance telegraphy which was what, at that time, we had our principal thought about, transoceanic commercial communication.

Digitized by Google

"Then Dr. Alexanderson had also invented what is known as the geometric radio frequency tuning, which is a very important development in reception which is now embodied in, I think, all of the very high-grade broadcasting receiving sets—certainly most of them—and, in addition to that, he had made some fundamental inventions in what we call modulation, which is the emission of the—it is part of the sending out of the telephone signal from the station, the vital part of the sending out of the telephone signal, and he has a patent on that. I do not remember whether it issued before or after this date, but the application was then pending which covers the modulation which is used, as far as I know, in every telephone transmitting or broadcasting station in the world.

"There were a great many other patents, there were hundreds of them, and inventions."

The General Electric Co. had also developed vacuum tubes; that is, tubes capable of the same uses as were the DeForest tubes. This is established by the testimony of the witness Albert G. Davis (record, p. 4071) and the tubes are described in chapter 53 of Bucher's book, called Vacuum Tubes in Wireless Communication, to which we have hereinbefore referred. The book, as we have said, was written prior to the organization of the Radio Corporation. The same book shows that the General Electric Co. had invented circuits for the use of these vacuum tubes. Again we refer the Commission to this book, Bucher's testimony (record, p. 4086–4096) and to Dr. Goldsmith's book on radiotelephony (Commission's exhibit 385).

The Radio Corporation, although fortified as we have shown it to have been, by reason of the fact that it consolidated two complete systems (that is, one of the Marconi Co. and the other of the General Electric Co.), in order to forestall any competition in the trans-Atlantic communication field, acquired early in its history the Tuckerton wireless station, which prior to 1919 had communicated with Europe (record, p. 922; Commission's exhibit 75, dated Sept. 2, 1919).

This record establishes that the Radio Corporation of America did not require for its business of communication, nor for broadcasting, nor for the broadcast-receiver field, any patents of the telephone company, of the Westinghouse Co., United Fruit Co., or of any other person or organization, so that when the combination with the other respondents was brought about by the contracts attacked, separate and independent methods and patents were consolidated into one pool, which eliminated competition among these powerful corporations.

THE AMERICAN TELEPHONE & TELEGRAPH CO. AND THE WESTERN ELECTRIC CO.

(By our reference to the American Telephone & Telegraph Co. we mean not only that company, but its manufacturing subsidiary, the Western Electric Co.)

An examination of the patents of the American Telephone & Telegraph Co., that is, patents originating from its own work (Commission's exhibit 274–275), will disclose that the interest of the telephone company in wireless was long prior to the organization of the Radio Corporation of America. In addition to the patents which it secured through its own inventions, it had important additional patent rights; among these were rights in the DeForest tube, circuit, and other patents (Commission's exhibit 275), while, as early as December 7, 1916 (Commission's exhibit 271), it had acquired patent rights from the Atlantic Communication Co., which, prior to that time, had communicated by wireless between America and Europe (record, p. 2060). In addition to these patents, it secured licenses under the Latour patents (Commission's exhibit 275).

The patents of the telephone company and the patents under which it was licensed, covered practically every phase of commercial wireless and of wireless or radio for entertainment. Just as others of the respondents had patents for complete systems of wireless, so had the telephone company. Again we refer the Commission to the examination of Bucher concerning his book on Vacuum Tubes in Wireless Communication (Commission's exhibit 403 for identification), to that part of his examination devoted to the progress made in wireless as shown in his book called Practical Wireless & Telegraphy and to Radio Telephony (Commission's exhibit 385) by Goldsmith.

The general manager of the Radio Corporation of America testified as follows (record, p. 923):

"Question. Were you in any wise familiar with any wireless telephony or radio telephony or experiments in that direction being conducted by the American Telephone & Telegraph Co. directly, or through its affiliated or subsidiary companies?

"Answer. Only in a general way.

Digitized by Google

"Question. What was your knowledge?

"Answer. I knew of the experiments which they had conducted with a wireless-telephone station at the Arlington Naval Station, and of the fact that they had transmitted the human voice to Hawaii and also to Paris.

"Question. When had they done that?

"Answer. I believe it was either 1914 or 1915."

We know of no better way of asserting our claim that the American Telephone & Telegraph Co., without any patents other than those which it owned and for which it had licenses, was in a position prior to the organization of the Radio Corporation of America, to enter into all forms of radio and wireless, than to quote in full a letter written July 18, 1919, by Gen. John J. Carty, vice president of the American Telephone & Telegraph Co., to Hon. Josephus Daniels, the Secretary of the Navy. The letter in full is as follows (Commission's exhibit 276):

NEW YORK CITY, *July 18, 1919.*

HON. JOSEPHUS DANIELS,
Secretary of the Navy, Washington, D. C.

DEAR SIR: Now that the hostilities have ceased, this company is going forward with radio development work which was suspended during the war because we placed the scientific staff of this company at work upon war problems for the Navy and for the Army.

We have made important advances in radio telegraphy and telephony. These improvements, in addition to the large number of other important fundamental devices for which we hold the patent rights, give us assurance that we can give satisfactory telephone service between ships at sea and to all portions of the United States through the medium of radiotelephone and the wires of our system.

Before attempting to arrange for commercial working, it is thought that it would be best to plan at first only for an experimental demonstration on a commercial scale which would be made by erecting two radio stations, one on the New Jersey coast and the other on Cape Cod. Each of these stations could be employed for private telephone service from telephones in our wire system to ships at sea within a radius of 200 miles. This would enable ships entering or leaving Boston or New York, or ships at intervening points, to connect with telephone subscribers nearly everywhere in the United States.

In the performance of our function of providing telephone service to the public, it is desirable that it should be made comprehensive and should include, where practicable, communication with ships.

In the schedule attached hereto is given a statement of the wave lengths or frequencies which would be required for the use of our proposed radio stations.

It is our understanding that the Navy Department now exercises the functions with respect to radio licensing and control which were formerly under the jurisdiction of the Department of Commerce. Accordingly, therefore, we request that we be permitted to employ, in the radio stations above-mentioned, for the purpose of radiotelephony, wave lengths as described in the schedule attached hereto.

Attached also is a map showing the proposed location of the New Jersey station. The exact location of the Cape Cod station is not yet determined. In locating a radiotelephone station proximity to the wire system must be considered as well as nearness to the sea. It is expected that these stations will be completed early in the next year and we are confident that the results will be gratifying and of value to the public.

We feel they will be particularly interesting to the Navy Department because of the historic association of the Navy with our development of radiotelephony. I have in mind the day, a few years ago, when I heard you, sitting at your desk in the Navy Department at Washington, and using the earlier system which we developed, speak and give orders to Captain Chandler on the bridge of the *New Hampshire* at Hampton Roads, the first time in the history of any Navy that such a thing was done.

We would be greatly obliged if you would advise us regarding our request for the use of the wave lengths specified in the schedule. Concerning permission to operate these radio stations, we are told that the proper time to apply for the necessary authority is after the stations have been erected and equipped. Having in mind the harmonious cooperation which has existed so long between the Navy and this company, particularly in the matter of radiotelephony, we would welcome any suggestions which you may care to make.

Respectfully submitted.

JOHN J. CARTY, *Vice President.*

Digitized by Google

This letter is our answer to the claim of the respondents that the Telephone Co. was not able, by reason of the patents which it owned, and in which it had an interest, to enter the wireless field in competition with the Radio Corporation of America, the General Electric Co., the Westinghouse Co., and the United Fruit Co. It is our answer to the claim that the organization of the Radio Corporation, and the execution of the cross licenses attacked by the complaint, brought about wireless telephony. It supports the testimony of Fessenden, to which we hereinafter refer.

THE STATE OF THE ART AT THE TIME OF THE CROSS LICENSE AGREEMENTS, AND THE SCOPE OF SUCH AGREEMENTS

Respondents claim that through the cross licenses a new art and industry was brought into being, and they point particularly to the field of broadcasting and to the field of wireless telephony. The record shows from the testimony of witnesses that the agreements have retarded development in radio (record, p. 1432) and that they have stifled the art (record, p. 3893). Broadcasting was known as early as 1906, for on Christmas Eve of that year, the National Electric Signalling Co. broadcast a program which was heard as far as Cape Hatteras (record, p. 3907). In 1910 the DeForest Co. broadcast the opera "Pagliacci", from the Metropolitan Opera House in New York (record, p. 3131). In 1914 a company with which the witness Myers was associated, broadcasted entertainment regularly (record, p. 3776) and before the cross licenses were entered into, there was regular broadcasting from a station in California (record, p. 2291).

As early as 1905 there were purchased by the Navy Department from the National Electric Signalling Co., apparatus for wireless telephony, apparatus for wireless telegraphy for use for distances up to 1,000 miles, apparatus for secret sending which was guaranteed to send and receive messages without the possibility of their being read by other vessels not equipped with that apparatus, apparatus for locating the positions of ships at sea at all distances within 200 miles of shore, apparatus for indicating the position and course of ships within the range of 3 miles in fog, and apparatus guaranteed to prevent interference (record, p. 3906).

As early as 1907 wireless telephony was developed to a degree which rendered it adaptable for general commercial use, so much so that a contract was drawn between the Bell Telephone Co. and a wireless company for the installation of radio telephony for use over long distances in place of the use of wire lines. This contract was drawn only after extensive tests, showing the workability of the apparatus, had been made and had been approved by the Telephone Co.; and it appears from the record that the American public would have had wireless telephony as early as 1907 but for the fact that the installation of wireless would have rendered obsolete and brought about a loss of the wire lines in which the Telephone Co. had a tremendous investment (record, p. 3892–9).

Respondents also point to the development of radio receiving sets; but the record shows that before the cross licenses, radio receiving sets were being manufactured and sold by numerous manufacturers in the United States.

On our Pacific coast, for years prior to the cross licenses, the Federal Telegraph Co. was conducting, and still conducts, a reliable, dependable wireless telegraph system between the important cities on the Pacific coast. Indeed, the record shows that long prior to the cross licenses, ships at sea were able to communicate with one another at distances of 5,000 miles (record, p. 1365).

Therefore, the record thoroughly establishes that the claims of the respondents as to bringing about a new art are unfounded.

The extent of the power possessed by the respondents by reason of the vast number of patents pooled through the cross licenses and by reason of their financial strength, is shown by the following testimony of the witness Priess regarding an interview he had with Dr. Goldsmith, of the Radio Corporation, which at the time, was endeavoring to acquire certain patent rights of the witness (record, pp. 3041–3044; 3046–3047):

"Question. Was any statement made to you by Dr. Goldsmith, by way of inducing you to give an option to the Radio Corporation of America?

"Answer. That matter was generally discussed, and Dr. Goldsmith pointed out the advantages of dealing with the Radio Corporation.

"Question. What did he say were the advantages?

"Answer. The advantages were that the Radio Corporation, through their dominant patent situation, or strong patent situation, could give a strength to the patents resulting from these inventions that no other company could.

Digitized by Google

"The Radio Corporation had numerous inventions on file, and by agreement a laborious process of interference could be reduced.

"Question. Do you remember anything else that Mr. Goldsmith said in that connection?

"Answer. He also pointed out that the reverse was true if there was some other small radio company which held the inventions.

"Question. What do you mean by that?

"Answer. That the numerous cases of the Radio Corporation which it then had, patent cases and numerous cases that they had in the office would serve to tangle the resulting patents in interferences or other proceedings so that it was for that the patents would have little or no value to the company obtaining a license.

"Quesion. That is, you mean to the smaller company?

"Answer. Yes.

"Question. Did he say anything else in that same connection that you recollect?

"Answer. I do not recall.

"Question. Do you remember whether or not Dr. Goldsmith said to you that the Radio Corporation was a logical company to deal through or with?

"Answer. Yes; he said that in substance.

"Question. Do you remember whether or not he said that was because they were in a position to practically invalidate any patents that they sought to fight?

"Answer. Correct, that is so.

"Question. He said that to you?

"Answer. He did.

* * * * * * *

"By Mr. SMITH:

"Question. Did you believe, when you entered into the option agreement with the Radio Corporation, that the Radio Corporation was in a position to practically invalidate any patents they sought to fight?

* * * * * * *

"Answer. I did.

* * * * * * *

"By Mr. Smith:

"Question. Why did you believe that?

"Answer. I believed that because there are very few inventions that are of such a nature that they stand in an art independent of any other work of man; and since such is the case inventions in the same art, that all the claims of inventions in the same art serve to restrict the scope of one particular invention, and the more claims that can be assembled the more restricted that scope can be made. If each of these claims is hotly prosecuted and they are sufficient in number, an invention can be reduced to practically zero value by its narrowing, by this narrowing process.

"I knew the Radio Corporation had under its control the maximum number of radio inventions in this country, and they also had the proper legal talent and the financial resources to perform the maneuver of the type mentioned.

"Question. Particularly as against an individual or small company?

"Answer. Particularly against an applicant with no financial resources and without the expert talent that the Radio Corporation possessed."

* * * * * * *

"Question. Did Mr. Goldsmith in these negotiations with you speak of the financial power of the Radio Corporation?

"Answer. Not that I remember.

"Question. Do you remember that he said or spoke of its ability to stand a long seige of litigation?

"Answer. I do in that connection. Dr. Goldsmith mentioned the fact that the Radio Corporation differed from a small company in that it could stand a loss of the magnitude of half a million dollars without seriously affecting the Radio Corporation, while a smaller company would be wiped out completely with such a loss.

"Question. Did he also suggest to you anything about the ability of the Radio Corporation to build up a ground work of interference action by reason of the patents which it held?

Digitized by Google

"Answer. He did. I have already testified as to that.

"Question. Now, have you stated all that you recollect that he said to you during these negotiations?

"Answer. In substance that is the essence.

"Question. Do you remember whether or not he pointed out to you that if you dealt with any other company, that company would be the target of litigation by the Radio Corporation?

"Answer. Yes; that expression was used.

"Question. He told you that if you dealt with any other company, that company would be the target of litigation by the Radio Corporation?

"Answer. Correct."

FESSENDEN'S TESTIMONY (RECORD, PP. 3864–3942, 3950–4015)

The witness Fessenden's testimony shows conclusively that the cross licenses have retarded the art of radio; that at the time the cross licenses were entered into each of the companies entering into the combination was able from a patent standpoint to enter the entire radio field in competition with the others; that all of the forms of wireless now familiar to the public were well known and practiced prior to the combination; that the combination was brought about by a realization on the part of the respondents of the practically unlimited commercial advantage to them in monopolizing the entire field.

Professor Fessenden is one of the outstanding figures in radio, and ranks with Marconi and DeForest. All of the witnesses who were asked about his standing gave him unstinted praise, and that applies as well to witnesses associated with the respondents. His testimony goes so squarely to the issues involved in the complaint, and so thoroughly confirms the evidence we have previously pointed out in discussing the activities of the companies entering the combination, that perhaps it should be set forth in full in this brief. The testimony, however, is quite lengthy; for that reason, we do not set it forth at length herein, but commend that part of the record to the Commission's consideration. The testimony confirms (record, p. 3941) the testimony of Myers and others and the other convincing proof that in this combination were pooled innumerable competing patents.

RESTRICTIONS ON SALE BY RADIO CORPORATION

The respondents concede that the Radio Corporation, in the sale of various articles, employs notices of restrictions imposed upon the purchaser. These appear in evidence as Commission's Exhibit Nos. 113, 382. These notices, or rather the restraints sought to be imposed by the notices, have long since been held to be beyond the right of a seller, in a long line of cases with which this Commission is familiar, namely:

Dr. Miles Medical Company v. *John D. Park & Sons Company* (220 U. S. 373).

Boston Store v. *American Graphaphone Company* (246 U. S. 8).

Motion Picture Patents Company v. *Universal Film Company* (243 U. S. 502).

Strauss v. *Victor Talking Machine Company* (243 U. S. 490).

Bauer v. *O'Donnell* (229 U. S. 1).

Bobbs-Merrill Company v. *Strauss* (210 U. S. 339).

TRAFFIC CONTRACTS

All of the traffic contracts of the Radio Corporation with companies in foreign countries, and with countries owning stations, are in evidence. The traffic manager of the Radio Corporation of America testified that as to those countries with which the Radio Corporation had traffic contracts, there were no stations other than those owned by the countries capable of communicating with America, and that with respect to the companies in foreign countries with which the Radio Corporation of America has traffic contracts, there are no other companies owning stations capable of communicating with the United States (record, p. 4020). All of these contracts are exclusive, either expressly so, or exclusive in effect.

Digitized by Google

THE PROOF OF THE POOLING OF COMPETING PATENTS

In our discussion of the activities of the companies entering into the cross licenses, we have indicated how each of the companies had its own independent system of radio. That the combination is a pool of competing patents is firmly established by the testimony of witnesses. The following appears in the testimony of the witness Simon (record, p. 3223):

"Question. Do you have any familiarity with the patents which have been cross licensed among the General Electric Co., the Radio Corporation, the Westinghouse Co., the Telephone Co., the Wireless Specialty Apparatus Co., and the United Fruit Co.?

"Answer. I am familiar with them in a general way.

"Question. Do those licenses cover different systems for reception?

"Answer. I should say they do.

"Question. Do they cover different means or methods for transmission?

"Answer. Yes, sir; they do.

"Question. Can any of these systems of reception covered by these cross-licensing agreements be used independently of the other systems?

"Answer. Yes; they can.

"Question. Can any of these systems of transmission pooled by these cross-licensing arrangements to be used independently of any of the other systems?

"Answer. Yes; I am sure they can."

We quote the following testimony of the witness Myers (record, pp. 3729–3734):

"Question. Are you familiar with the advances made by the General Electric Co., or that have been made by the General Electric Co. prior to 1919, and with the patents which it owned prior to 1919?

"Answer. In a general way; yes.

"Question. Do you have an opinion as to whether or not the General Electric Co., prior to its purchase of the assets of the Marconi Wireless Telegraph Co. of America, could have conducted successfully wireless communication commercially without the use of any other patent other than those of its own; do you have an opinion?

"Answer. Well, there was some public indication that they could.

"Question. Over any distance?

"Answer. Yes; I believe they could have held commercial communication.

"Question. For what distance?

"Answer. That I would hesitate to say, because I am not at all familiar with the scope of the patents they held at that time.

"Question. Only in a general way?

"Answer. Yes.

"Question. You state by way of answering the question that there were certain indications as to what the General Electric Co. was able to do. What do you mean by that?

"Answer. The usual newspaper publicity as to the so-called epoch-making strides in radio.

"Question. Did you, prior to the organization of the Radio Corporation—did you hear any claims made by the General Electric Co. as to the progress being made by that company in the wireless field?

"Answer. Yes.

"Question. What were those statements and who made them?

"Answer. Why, they have always specifically announced their epoch-making strides in radio communication.

"Question. Those statements that you have in mind in your answer were published statements?

"Answer. Press statements; yes.

"Question. Did you ever hear any oral statements from any of the officers or employees of the General Electric Co. prior to the organization of the Radio Corporation as to the progress being made by the General Electric Co. in radio?

"Answer. No.

"Question. Are you familiar with the patents which the American Telephone & Telegraph Co. and the Western Electric Co. owned, or had an interest in, by way of licenses prior to the organization of the Radio Corporation of America?

"Answer. That is radio patents?

"Question. Yes.

"Answer. In a general way; yes.

Digitized by Google

"Question. State whether or not, in your opinion, the American Telephone & Telegraph Co., prior to the organization of the Radio Corporation of America, could have, by reason of the patents which it owned, by reason of the patents licensed to it, carried on successful commercial wireless communication?

"Answer. I think they probably demonstrated the efficacy of their apparatus in these historical tests from Arlington to Paris and from Arlington to Hawaii by telephone and telegraph.

"Question. When was that?

"Answer. In 1915, I believe.

"Question. Is that a matter of history in the radio world and radio art?

"Answer. That was the first trans-Atlantic, trans-Pacific telephone demonstration ever given over those vast distances.

"Question. And that is a matter of history in the radio world?

"Answer. Oh, yes.

"Question. Are you familiar with the patents which have belonged to the Federal Telegraph Co. of California, sold by that company to the Navy Department, and licensed by the Navy Department either to the International Radio Telegraph Co. or to the Westinghouse Electric & Manufacturing Co.?

"Answer. I was thoroughly familiar with the original patents, Mr. Smith.

"Question. And are you familiar with the patents sold to the Navy Department.

"Answer. In a general way.

"Question. State whether or not, in your opinion, the Westinghouse Electric & Manufacturing Co. or the International Radio Telegraph Co., as the case may be, could have from the patents licensed to them, or either of them, by the Navy Department, have conducted a successful commercial trans-Atlantic wireless system or communication?

"Answer. May I ask whether they are Poulsen patents?

"Question. Yes.

"Answer. My answer is 'Yes.'

"Question. That is without the use of any patents belonging to the General Electric Co.?

"Answer. Undoubtedly.

"Question. And without the use of any patents belonging to the Marconi Wireless Telegraph Co. of America?

"Answer. Yes.

"Question. And without the use of any patents belonging to the corporations respondent in this case?

"Answer. Yes.

"Question. Are you familiar with the patents owned or controlled by the Wireless Specialty Apparatus Co., United Fruit Co., and Tropical Radio Telegraph Co., at the time the United Fruit Co. entered into its arrangement—its cross-licensing arrangement, with the Radio Corporation of America?

"Answer. Only in a general way, Mr. Smith.

"Question. Will you state your opinion as to whether there were any patents owned by any of those companies which were necessary to the Radio Corporation of America for successful wireless communication?

"Answer. I don't believe so.

"Question. Do you know whether or not, prior to the organization of the Radio Corporation of America, tube radio receiving sets were sold in the United States?

"Answer. Oh, yes."

In addition to this proof the witness Armstrong (typewritten record, p. 3810–3817, which testimony has not been printed by the respondents) pointed out specific patents covering the manufacture of articles adaptable for the same uses covered by patents included in the licenses.

Without quoting herein all of the testimony of the witness Fessenden, regarding the pooling of competing patents by the respondents, we believe it will be sufficient if we call the attention of the Commission to the following question and answer, on page 3941:

"Question. Do you know whether or not there entered into this combination, called the Radio Corporation, competing patents of the companies making up the group or combination, or were all of the patents which entered into this combination independent patents?

"Answer. A considerable number of them were competing patents."

Digitized by Google

He proceeds during the course of the examination to outline some of the competing patents which entered into the pool. These are described in the record on pages 3941–3942, 3951.

The record, therefore, establishes clearly that the patents pooled by the cross licenses were not independent patents but that the pool acquired a vast number of competing patents.

REFUSAL TO SELL

The monopoly possessed by the respondents through their cross licenses has been carefully guarded by them, by their persistent and combined refusal to sell to anyone who might by any chance enter the communication or broadcasting field in competition with them. These instances are numerous. We suggest herein but a few of them:

Simon (record, p. 3193).
International News (record, p. 4036–4038).
Commercial Cable Co. (record, p. 3456–3465).
United States Shipping Board (Commission's exhibit 411).
Federal Telegraph Co. (record, p. 1745).
Wired Wireless, Inc. (record, p. 2404–2410).
The city of New York (record, p. 4109–4130).
Simpson (record, p. 1427).

The refusal to sell to Wired Wireless, Inc., was a refusal by the Telephone Co. to furnish a wire line to be used by Wired Wireless, Inc., so that its programs might be originated at its studio in New York instead of at Staten Island, which is inconvenient to the artists furnishing programs.

The refusal to sell to the city of New York was by the Telephone Co., which quoted such a high price for a broadcasting station, and which imposed such restrictive terms on the use of the station that the city considered the price and the restrictions the equivalent of a refusal to sell. As a matter of fact, the Telephone Co. did not sell the broadcasting station which the city of New York wanted to buy.

CHARTS SUBMITTED BY THE RESPONDENTS

The respondents have submitted a number of charts; among them are two of station KDKA. The charts include a list of patents employed.

As to the tube patents, we submit that the testimony establishes that there are no pending patents on vacuum tubes which are considered by tube manufacturers as valid or valuable. In other words, many of the patents cover nonessentials, are therefore unnecessary and there is no adjudication of any of these tube patents which restricts any tube manufacturer from manufacturing and selling tubes.

An examination of the patents shown to be employed in station KDKA will reveal that a great number of them were issued long after the cross licenses were entered into.

The Commission will find in the patents a great number expiring in 1940, 1941, 1943, which indicates that the patents were issued long after the cross licenses were entered into. This fact alone, we submit, would establish the lack of necessity of the cross licenses. Besides, radio is a changing art just as other industries are changing, notably the automobile industry, and the fact that a number of patents are now employed in the manufacture of an automobile does not by any means signify that automobiles could not be built without all of the patents now employed.

The charts also portray patents employed in radio receiving sets sold by the Radio Corporation of America. One chart gives the patents in Radiola 20, production of which was started in 1925. Here again will be found patents on tubes and patents which were not issued until long after the cross licenses were entered into. Besides, a chart showing patents employed in a receiving set produced in October 1925 is no criterion of the patents employed in 1921, which was the year in which the Westinghouse, General Electric, Radio Corporation, Telephone Co. and the United Fruit Co. contracts were entered into.

As against the showing of these charts, we recall to the Commission's attention the fact that the Westinghouse Co. did manufacture and sell radio receiving sets prior to 1921 and that the Armstrong patents which it owned were sufficient for the construction of a complete radio receiving set. Further as against this chart, we submit the proof in the record that the United Fruit Co. and others had manufactured and sold radio receiving sets prior to 1921, and

Digitized by Google

that all of the companies were able in 1921 to go into the radio receiving set field in competition with each other.

SALE BY TELEPHONE CO. AND UNITED FRUIT CO. OF THEIR STOCK IN RADIO CORPORATI N OF AMERICA DOES NOT WARRANT DISMISSAL OF THE PROCEEDINGS AS TO THOSE COMPANIES

The United Fruit Co. and the American Telephone & Telegraph Co. claim to have disposed of the stock which they owned in the Radio Corporation of America, and they urge that fact as grounds for dismissal of the proceeding as to them. The contracts making up this patent pool have not been canceled. They are still in existence. The Telephone Co. contract is essentially continuous. That is because, while its term is for 10 years, there is a provision in the contracts for automatic extensions unless a 3-year prior notice is given. As to the United Fruit Co. contracts, they run for a definite term of 24 years, and a further indefinite term depending upon the life of any patent that may be granted to any of the contracting parties up to 1945, and for a further period depending upon the granting of a patent on any application for a patent that may be filed at any time up to 1945. Therefore, the contracts which brought about the restraints being still in effect, the sale of stock does not bring about a situation consistent with the laws against restraints and unfair competition.

THE CROSS-LICENSING CONTRACTS BRIEFLY SUMMARIZED

The cross-licensing contracts (Commission's exhibits 14, 17, 19, 83, 88, 89, 90, 129) may be briefly summarized as follows:

1. They contain conditions and terms beyond the reward which a patentee, by the grant of his patent, is entitled to.
2. They contain conditions which in their very nature are illegal.
3. They apportion among the respondents the entire field of wireless.
4. They protect each of the companies against any competition in their respective fields from any of the other companies in the combination; for instance, the potential competition between the General Electric Co. and Westinghouse Co., on the one hand, and the American Telephone & Telegraph Co., on the other hand, in wire telephony or wireless telephony is eliminated.
5. The restraints imposed by the licenses extend for a term far beyond the life of any patent in existence at the time of the execution of the contracts. The Telephone Co. contract, while for a definite term of 10 years, is automatically extended indefinitely after such 10-year period, while the other contracts run for a term of 24 years, which is 7 years longer than the term of any patent issued in 1921; in addition, a further term is provided by the agreement that the licenses shall also continue in effect during the life of any patent which may be granted on any application for a patent filed by any of the parties up to 1945.
6. The General Electric Co. and the Westinghouse Co., by apportioning among themselves all of the manufacturing of articles to be sold exclusively by the Radio Corporation of America, eliminated themselves from competition against each other in the sale of radio equipment; and by the agreements the General Electric Co. and Westinghouse Co. put themselves out of interstate commerce in competition with each other. The establishment of the Radio Corporation of America as a sole seller of articles manufactured by Westinghouse Co. and by General Electric Co. monopolized the sale of radio materials produced by the manufacturing companies.
7. The agreement on the part of the Radio Corporation of America to purchase from General Electric Co. and Westinghouse Co. eliminated the Radio Corporation of America from competition with those two companies.
8. Competition was substantially lessened and the tendency to create a monopoly in the sale of unpatented parts of chassis and of unpatented consoles and cabinets and of other unpatented radio devices and apparatus, was brought about (consequently the effect charged in the amendment made to the complaint on Jan. 31, 1928, was brought about by the contracts).
9. Price competition was eliminated.
10. By the contracts, the General Electric Co. and Westinghouse Co. eliminated themselves from the field of selling broadcasting transmission equip-

Digitized by Google

ment and gave that field to the Telephone Co., while the Telephone Co., by the licenses, eliminated itself from the field of manufacturing and selling radio receiving sets and gave that field to the Radio Corporation, General Electric Co., and Westinghouse Co.

11. The contracts eliminated competition in the purchase of inventions and patents, for the contracts require that no party shall acquire rights under or patents or inventions applicable to the field of any of the other parties, unless the party proposing to acquire such rights shall give the other parties an opportunity to be represented in the negotiations and thereby to acquire rights for their fields.

12. The United Fruit Co., by its contract, agreed not to compete in wireless communication with the Radio Corporation of America, and the restraints to which it committed itself are similar to those hereinabove mentioned. The United Fruit Co. eliminated itself from competition in the sale of radio apparatus by these means:

(*a*) By conveying to the General Electric Co. the stock in its manufacturing subsidiary, and

(*b*) By agreeing to purchase wireless and radio devices from the Radio Corporation.

13. The contracts brought about the restraint of competition and the creation of a monopoly as set out in paragraph 30 of the complaint.

14. Such a vast number of patents of every kind, that is, good, invalid, adjudicated, nonadjudicated, useful, and obsolete were pooled as to place it within the power of the respondents to keep everyone not in the combination out of the radio field.

15. The contracts put the group in a position where real competition cannot arise among the companies in the pool.

THE CLAIM OF GOVERNMENT PARTICIPATION

The respondents claim that the United States Government participated in the organization of the Radio Corporation of America; that the Government approved of the contracts whose legality is attacked by the complaint; that various Departments assisted the Radio Corporation in many of its acts. That claim is shown by the record to be ill-founded. The letter of former Attorney General Daugherty (respondents' exhibit no. 28) is clearly a refusal to comply with the request of the Radio Corporation of America that the Attorney General express an opinion regarding the applicability of the Sherman Antitrust Act and of the Clayton Act to the cross-licensing agreements. The letter of former Attorney General Palmer (Respondents' Exhibit No. 27) also is a refusal to express an opinion on the legality of the contract submitted to him January 15, 1921. Indeed, the Attorney General cautions the General Electric Co. that the "failure to express an opinion is not to be construed as a form of approval."

All that the record does show is that President Wilson designated Admiral Bullard to attend the stockholders and directors' meetings of the Radio Corporation of America as requested by them. The request to the President was made because of the provisions of a bill pending then in the House of Representatives, the bill being known as H. R. 10831. The act was intended to protect against control of the communication business by foreign countries and against the granting to aliens of licenses to operate stations. The bill also provided that certain restrictions of the law should not apply to those corporations whose bylaws provided, among other things, for attendance and hearing at stockholders' and directors' meetings of "a representative of the Secretary of the Navy of or above the rank of captain." Therefore, all that Admiral Bullard was empowered to do, if the bill had passed, would have been to attend meetings of the stockholders and directors; but previous to January 3, 1920, the Radio Corporation of America had been organized, not by the Secretary of the Navy, not by The Assistant Secretary of the Navy, but by the General Electric Co.

There is nothing in this record which indicates in the slightest degree that the Secretary of the Navy or that The Assistant Secretary of the Navy had anything to do with the organization of the Radio Corporation of America; furthermore, there is nothing in this record which shows that the activities of Admiral Bullard were in any way brought to the knowledge of, much less approved, by the Secretary of the Navy or by The Assistant Secretary of the Navy. The record shows that upon the retirement of Admiral Bullard

Digitized by Google

from the Navy he took employment with the Radio Corporation of America (record, p. 894). Furthermore, the record shows that at no time since 1921, when Admiral Bullard was sent by the Navy Department to China, has any officer of the Navy attended meetings of the board of directors of the Radio Corporation. Indeed (record, p. 898), the Radio Corporation of America has not since 1921 requested the designation of anybody from the Navy Department to attend meetings of its board.

The motives of Admiral Bullard appear from this record conclusively to have been personal rather than official for the record establishes (p. 2916) that Admiral Bullard had an ambition to resign from the Navy to become head of the Radio Corporation of America.

The true attitude of the Navy Department is apparent from a letter dated December 16, 1921, by Secretary of the Navy Denby to the Department of State, a copy of which was sent to the Radio Corporation of America. In the letter appears the policy of the Navy Department in the following language:

"The Navy Department fears that any commitment on the part of the Government to an arrangement favorable to a monopoly by a single commercial company, though limited to a particular service, would but lend the means toward extending monopoly to other services, such as development and distribution of apparatus in general, and this is considered absolutely undesirable, particularly in the field of supply and service to ships."

The courtesies extended by the State Department to the Radio Corporation of America of course did not mean any ratification of all of the acts of the Radio Corporation of America, nor did those courtesies signify by any means an approval by the State Department of the cross license or of any of the acts of the Radio Corporation. The Radio Corporation was not the only wireless company which received courtesies from the State Department for the record shows (p. 1650) that the State Department extended the same courtesies to the Federal Telegraph Co. of California when it was undertaking its contract with China, which contract later came under the control of the Radio Corporation of America by the organization of a new Federal Co. of Delaware, to which the China contract was assigned.

The very history of the respondents negatives any claim that the United States, through the Navy Department, the Department of Justice, or State Department, participated in its organization or approved its acts, for that history establishes:

1. That the respondents have divided among themselves the entire field of wireless.
2. That the Radio Corporation sells only to jobbers handling only its sets and that those jobbers sell only to retailers selected by the Radio Corporation (record, p. 1407, 1412).
3. That the Radio Corporation has defamed its competitors (record, p. 3170–3186).
4. That it has defamed its competitors' goods (Commission's exhibit 229; Commission's exhibit 230).
5. That it has cut off from its lists of jobbers those selling sets of other manufacturers (Record, p. 1249–1256; 3473–3479).
6. That the members of the combination have exacted outrageous prices (record, p. 1232–33; 3976).
7. That the Radio Corporation has acquired by purchase the assets of competitors (record, p. 4157).
8. That it has acquired by purchase the capital stock of competitors. (See United Fruit contract; record, p. 2021.)
9. That it has permitted to be held out as independent a competitor when in truth the competitor was selling products manufactured by members of the combination (record, p. 2018).
10. That the Radio Corporation and the other respondents have affixed illegal notice of illegal restrictions on products sold (Commission's exhibit 113, 382).
11. That the Radio Corporation has used its financial power to prevent new capital from being supplied to a competitor (record, p. 2193).
12. That the Radio Corporation has used its power to prevent the consummation of a financial arrangement between a competitor and the Government of China (record, p. 1647).
13. That the General Electric Co. attempted to purchase the stock of a corporation manufacturing parts for a competitor (record, p. 2391).
14. That the Radio Corporation has been refused relief from a court of equity because of the harshness of a contract on which it sued for specific performance (record, p. 3085–3086).

Digitized by Google

15. That the Radio Corporation has been found guilty of contempt of court (record, p. 3762).

16. That the combination has been sued for $60,000,000 for violation of the Sherman Antitrust Act, which suit, we understand, has been settled (record, exhibit 87).

17. That the Radio Corporation has been found guilty by a State court of equity of espionage, which judgment has been sustained by the court of last resort of that State (record, p. 2057).

18. That it has been found guilty of violating section 3 of the Clayton Act (24 Fed. (2d) 565).

19. That it has retarded the art of radio (record, p. 3974; record, pp. 1430–1432).

20. That it has used the cross-licensing of patents as a subterfuge for illegal restraint and monopolization (Commission's exhibit 232; Commission's Exhibit 235).

Therefore, we submit, the claim of Government participation or approval is shown by this record to be unwarranted.

Argument on the Law

1. The jurisdiction of the Commission over voluntary restraint of trade

The respondents contend that the jurisdiction of the Commission is confined under section 5 of the Federal Trade Commission Act to jurisdiction over involuntary restraints as distinguished from voluntary restraints. In that contention respondents are confronted with *Pacific States Paper Trade Association* v. *Federal Trade Commission* (273 U. S. 52), in which a combination which was a voluntary one was held to be amenable to an order to cease and desist issued by this Commission under section 5 of the Federal Trade Commission Act.

Orders by the Commission against other forms of voluntary restraints have been sustained in numerous other cases in circuit courts of appeals. We need to refer to only two as illustrative of the proposition that the Commission has the right to effect the dissolution of voluntary restraint, those two cases being *National Harness Manufacturer's Association* v. *Federal Trade Commission* (288 Fed. 705) and *Southern Hardware Jobber's Association* v. *Federal Trade Commission* (290 Fed. 773).

Therefore, the contention of the respondents in this respect is clearly against the decided cases.

2. No additional parties are necessary to give the Commission jurisdiction

Respondents claim that the traffic contracts being with foreign countries and with foreign companies, the companies are necessary parties before the Commission has power to enter an order affecting those companies, and that as to the countries the subject matter is one for diplomatic action rather than for action by a court or by a commission.

Regarding the contention as to the companies, the contention of the respondent is against the opinion of the Supreme Court in *United Shoe Machine Corporation* v. *U. S.* (258 U. S. 456), in which the court said:

"It is contended that the suit must fail for want of necessary parties in as much as the lessees were not brought into it; that they were necessary parties because their rights were necessarily adjudicated in enjoining the enforcement of the contracts involved. But we agree with the District Court that the lessees were not indispensable or even necessary parties. The relation of indispensable parties to the suit must be such that no decree can be entered in the case which will do justice to the parties before the court without injuriously affecting the rights of absent parties. 1 Street's Equity Practice, section 519, quoted with approval in *Waterman* v. *Canal-Louisiana Bank Co.* (215 U. S. 33), in which case the former adjudications in this court are cited and considered. The covenants were inserted for the benefit of the lessor and were of such restrictive character that no right of the lessee could be injuriously affected by the injunction which was prayed in the case. We are of the opinion that their presence was not necessary to a decision."

The claim of the respondents as to the contracts with foreign countries is based upon a number of cases which have involved only actions in rem against the physical property of a foreign sovereign and actions in personam

Digitized by Google

to recover damages for acts committed in foreign states. Therefore the cases cited by the respondents are not applicable to the jurisdiction of the Commission over the Radio Corporation's contracts with foreign countries.

The commission has jurisdiction over a combination brought about by a conspiracy to violate section 5 of the Commission Act. Since the parties are subject to the jurisdiction of the Commission and since the subject matter of the restraints concerns the violation of laws which the Commission is empowered to enforce and since the traffic contracts with the foreign governments are for the benefit of the combination alleged to be brought about by a conspiracy in restraint of trade, the principle quoted from the *United Machinery case* would seem to be applicable to the case of the respondents in bringing about and maintaining these traffic contracts.

3. THE COMBINATION IS AN ILLEGAL RESTRAINT OF TRADE

On two broad and general principles the combination of the respondents is an illegal restraint of trade:

(1) The first of these is that the licenses contain conditions and provisions which are beyond the reward which the patentee by the grant of the patent is entitled to secure. This principle was reaffirmed in *U. S.* v. *General Electric Company* (47 Sup. Ct. Rep. 192), in which the court said:

"Conveying less than title to the patent or part of it, the patentee may grant a license to make, use, and vend articles under the specifications of its patent for any royalty or upon any condition or promise of which is reasonably within the reward which the patentee by the grant of the patent is entitled to secure."

(2) The second of these is that rights secured by a patent do not protect the making of contracts in restraint of trade or those which tend to monopolize trade or commerce, in violation of the general laws against the restraint of trade. The principle has been stated by the Supreme Court in *United Shoe Machinery Corporation* v. *U. S.* (258 U. S. 463), in these words:

"Undoubtedly the patentee has the right to grant the use of the rights or privileges conferred by his patent to others by making licenses and agreements with them which are not in themselves unlawful, but the right to make regulations in the public interest under the police power of the States or in the exertion of the authority of Congress over maters within its consitutional power is controlled by general principles of law, and the patent right confers no privilege to make contracts in themselves illegal, and certainly not to make those directly violative of valid statutes of the United States. It was held by his court in *Standard Sanitary Manufacturing Company* v. *U. S.* (226 U. S. 20), that the rights secured by a patent do not protect the making of contracts in restraint of trade, or those which tend to monopolize trade or commerce in violation of the Sherman Act. That principle was followed with approval when applied to rights secured under the copyright laws of the United States. *Straus* v. *American Publishers' Association* (231 U. S. 222). The same conclusion was reached in a well considered opinion in the Supreme Judicial Court of Massachusetts involving a State enactment. Opinion of the Justices, 193 Mass. 605 * * * A patent grant does not limit the right of Congress to enact legislation not interfering with the legitimate rights secured by the patent but prohibiting the public interest the making of agreements which may lessen competition and build up monopoly."

These principles will be referred to at length in our discussion of the leading cases involving rights of patentees under patent licenses, cross licenses, and patent pools.

The case of *Bement* v. *National Harrow Company* (186 U. S. 88), is urged by the respondents as an authority for the legality of the pool of patents involved in this case; but in the *Bement case* there was nothing involved except the legality of a single license contract between the National Harrow Co. and Bement, and it does not appear from that case that there were restraints similar to the restraints involved in the contracts entered into by the respondents in this proceeding. The issue in the case did not require a determination by the Supreme Court of the legality of the combination. That the court was limiting its opinion as stated is emphasized in the last paragraph of the court's opinion, as follows:

"It must, however, be conceded that the escrow agreement above set forth looks to the signing by the parties mentioned therein of all contracts similar to those between the parties to this suit, designated A and B, and containing

Digitized by Google

like conditions relating to the patents respectively owned by such parties. But there is no finding by the reviewers that such contracts were, in fact, entered into by those other parties, nor that they constitute a combination of most, if not all, of the persons and corporations engaged in the business concerning which the agreements between the parties to this suit were made. If such similar agreements had been made, and if, when executed, they would have formed an illegal combination within the act of Congress, we cannot presume, for the purpose of reviewing this judgment, in the absence of any finding to that fact, that they were made and became effective as an illegal combination. As between these parties, we hold that the agreements A and B actually entered into were not a violation of the act. We are not called upon to express an opinion upon a state of facts not found. Upon the facts found, there is no error in the judgment of the court of appeals and it must, therefore, be affirmed." (186 U. S. 88.)

In *Standard Sanitary Manufacturing Company* v. *U. S.* (226 U. S. 48), in which the *Bement case* above mentioned was relied upon for the proposition that the owners of patents are exempt from provisions of the Sherman law, the court pointed out that the *Bement case* was not authority for the proposition. It said this:

"There was a contention in that case (the *Bement case*)[1] that the contract of the National Harrow Co. with Bement & Sons was part of a contract and combination with many other companies and constituted a violation of the Sherman law, but the fact was not established and the case was treated as one between the particular parties, the one granting and the other receiving a right to use a patented article with conditions suitable to protect such use and secure its benefits."

The combination known as the National Harrow Co. has been condemned in those cases in which the legality of the combination, as a combination, was attacked. A large amount of litigation arose out of the formation during 1890 and 1891 of the "Harrow Trust" through the medium of the National Harrow Co. of New York and New Jersey. This group of cases questioning the legality of the combination, as a combination, is clear authority for the proposition that a combination of competing patents falls within the prohibition of the Sherman law. A summary of the facts disclosed in the various Harrow cases hereinafter cited reveals the following:

Prior to September 1890, a large number of independent harrow manufacturers were operating in competition with each other, many of them under separate competing patents. There had been a considerable amount of litigation over the validity of some of these patents. In September 1890 (2 months after the passage of the Sherman Act), some of these manufacturers, owning separately most of the patents, organized the National Harrow Co. of New York and transferred to it their several patents, license contracts, and privileges. That corporation entered into various contracts with harrow manufacturers, which were held to be illegal on account of restraints contained in contracts extending their terms beyond the lifetime of the patents. *Strait* v. *National Harrow Company* (18 N. Y. Supp., 224) (discussed at length hereinafter). Thereafter, the scheme centering in the National Harrow Co. of New York was abandoned, and the National Harrow Co. of New Jersey was organized as its successor. This company was formed for the sole purpose, not of manufacturing harrows, but of acquiring assignments of all patents operated by competing harrow manufacturers. Its general scheme was thereafter to grant licenses back to each of the companies assigning patents to it, under which each licensee would be entitled to use the same patents which it had used before, i. e., to continue to operate under what had formerly been its own patents. The licensees were bound by agreement to make no other harrows except those which they were licensed to make, with one exception, which was this: They were also permitted to make harrows to be sold direct to other licensees of the National Harrow Co. If this was done, the company manufacturing could only sell harrows which the purchaser had been licensed by the National Harrow Co. to manufacture for itself. All licensees agreed not to contest the validity of any of the National Harrow Co.'s patents. A large majority (approximately 90 percent or more) of the harrow manufacturers of the United States entered into the scheme and assigned their patents to the National Harrow Co. That company, under the scheme, was to take

[1] Parenthesis ours.

Digitized by Google

charge of all patent litigation (since it was the owner of all patents), and was to fix the prices at which its several licensees should sell.

With this preliminary statement of the facts in mind, we may approach the cases in the order in which they arose.

Strait v. *National Harrow Co.* (Supreme Court of New York, special term, 1891) (18 N. Y. Supp. 224).

This was the case already mentioned, based upon the earlier combination which centered around the National Harrow Co. of New York. The plaintiff contracted to assign its patents to the defendant and not to manufacture or sell harrows thereafter for 50 years at any place in the United States except within the State of Montana. This agreement was to be signed by other manufacturers, all of whom were to receive licenses on similar terms. In this case the plaintiff sued for relief from the contract which it had signed, on the ground that the contract was illegal. After disposing of certain preliminary questions, the court pointed out that the harrows mentioned in the scheme (float springtooth harrows) were the only successful type then in use, and that the scheme constituted a perfect monopoly. Full relief was granted to the plaintiff from the consequences of his unlawful agreement, which remained executory.

The following quotation from the opinion is of particular importance with respect to the defense set up in this case that a combination of competing patents is lawful when its purpose is to settle litigation (18 N. Y. Supp., 224, 233):

"The defendant further contends that the purpose of the contract made is to prevent disastrous litigation. Such purpose is lawful. *But the combination effected has gone much further than such a purpose required. An unlawful combination cannot be cloaked by a lawful purpose, when that is associated with others which the law condemns.* * * * Nor is the defendant's contention that the monopoly formed is authorized by the Federal statutes a justification of these contracts. If these contracts were limited to the lifetime of these patents, the argument should not be dismissed without a serious consideration. But when the parties have assumed to contract for 50 years beyond the possible lifetime of any of these patents, it is clear that the Federal law has given no right to such monopoly." [Italics ours.]

National Harrow Co. v. *Quick* (C. C. D. Ind., 1895; 67 Fed. 130): This was a suit brought by the National Harrow Co. for infringement of one of its patents. The defense was, first, that the plaintiff constituted an unlawful trust or monopoly; second, that the patent sued upon was void for lack of invention; and third, that the defendant had not infringed. The district court held that the combination was clearly one which was illegal as in restraint of trade and that the plaintiff could not recover. This decision was affirmed, though upon another ground (namely, that the patent sued upon was void for for lack of invention) by the Seventh Circuit Court of Appeals (74 Fed. 236).

National Harrow Co. v. *Hench* (C. C. E. D. Pa. 1896; 76 Fed. 667; affirmed on appeal, 3d C. C. A.; 83 Fed. 36): In this case the National Harrow Co. sued to enjoin the defendant, which was one of its licensees, from selling harrows at prices less than those specified in its license contracts. The defense set up was that the contract sued upon was part of the illegal combination in restraint of trade. The court held that it was perfectly evident that the scheme was devised for the purpose of preventing competition, and refused to grant the plaintiff relief, saying (76 Fed. 667, 669):

"I am not able to concur in the view that the principle of these cases (State court decisions dealing with restraint of trade) is inapplicable here, because the agreement in question involves patents. It is true that a patentee has the exclusive control of his invention during the life of the patent. He may practice the invention or not, as he sees fit, and he may grant to others licenses upon his own terms, but where, as was the case here, a large number of independent manufacturing concerns are engaged in making and selling, under different patents and in various forms, an extensively used article, competition between them is the natural inevitable result, and thereby the public interest is promoted. Therefore, a combination between such manufacturers, which imposes a wide-spread restraint upon the trade, and destroys competition, *is as injurious to the community*, and as obnoxious to sound public policy, *as if the confederates were dealing in unpatented articles* * * *. By the united action of more than a score of different manufacturers, natural and salutary competition is destroyed. To sanction such a result, because accomplished by a combination of patentees, would be, I think, to pervert the patent laws." [Italics ours.]

Digitized by Google

This decision was affirmed by a unanimous opinion in the Third Circuit Court of Appeals (83 Fed. 36). That court pointed out that a restraint of trade was sometimes justifiable (as in the case of the sale of a business with a covenant by the seller not to engage in competition with the purchaser). But in this case it pointed out there were no circumstances which would justify the combination. The following quotation from the court's opinion well represents our contention on this point (83 Fed. 36, 38):

"The fact that the property involved is covered by letters patent is urged as a justification; but we do not see how any importance can be attributed to this fact. *Patents confer a monopoly as respects the property covered by them, but they confer no right upon the owners of several distinct patents to combine for the purpose of restraining competition and trade. Patented property does not differ in this respect from any other.* The fact that one patentee may possess himself of several patents, and thus increase his monopoly, affords no support for an argument in favor of a combination by several distinct owners of such property to restrain manufacture, control sales, and enhance prices. Such combinations are conspiracies against the public interests, and abuses of patent privileges. The object of these privileges is to promote the public benefit, as well as to reward inventors. *The suggestion that the contract is justified by the situation of the parties—their exposure to litigation—is entitled to no greater weight. Patentees may compose their differences, as the owners of other property may, but they cannot make the occasion an excuse or cloak for the creation of monopolies to the public disadvantage.* [Italics ours.]

National Harrow Co. v. *Hench* (C. C. N. D., N. Y., 1898; 84 Fed. 226): This was a suit between the same parties as in the Pennsylvania case just cited. In this case the plaintiff declared on the assignment of the patent to it by the defendant. In the Pennsylvania case the plaintiff had declared on the license. The court held that the result in either case was the same, and that both the license and the assignment were invalid as steps in the unlawful scheme.

We next come to *Blount Manufacturing Co.* v. *Yale Towne Manufacturing Co.* (C. C. D. Mass. 1909, 166 Fed. 555). Of this case, Gladney in his work on Restraints of Trade in Patented Articles (p. 365), states:

"The case entitled as above is vastly important. No decision that we have anywhere chanced upon, evinces more care and precision than the one here to be considered. The argument exhibits the sure and easy progress of complete mastery. It is unfolded without dogmatism and convinces without triumph. When the premises are fairly laid out we feel instantly the tightened grip of the conclusion. The preliminary propositions force the conclusion announced with all the inexorable certainty of an euclidean demonstration. The understanding is captivated and bound by the irregragable ligatures of ultimate thinking. Indeterminate prepossession, obstinate prejudices and undefined vagaries are squeezed out like liquid from a pulpy mass under hydraulic press."

This was a bill for an accounting under a contract, to which a demurrer was interposed on the ground of illegality. From the pleadings it appeared that a group of agreements had been made between the Blount Co., The Yale & Towne Co., and others (Corbin and The Russell & Erwin Co.), all of which were manufacturers, under competing patents, of liquid door checks—patented articles. The series of agreements, as the court found, constituted: "related parts of a general plan to regulate and control the business of dealing in liquid door checks. The plan comprehends the maintaining of prices, the pooling of profits, the elimination of competition, and the restraint of improvements." (166 Fed. 555, 556.)

The court pointed out that, apart from the patent features, such a combination would constitute a clear violation of the Sherman Act. The court then went on to say (166 Fed. 555, 557):

"It seems self-evident that a contract which is only coextensive with the monopoly conferred by letters patent, and which creates no additional restraint of trade or monopoly, does not conflict with the Sherman Act. The monopoly granted by letters patent is of a particular invention. Devices thus protected by patents are as a matter of fact in commercial competition with both patented and unpatented devices. *A contract whereby the manufacturers of two independent patented inventions agree not to compete in the same commercial fields deprives the public of the benefits of competition, and creates a restraint of trade which results, not from the granting of letters patent, but from agreement. While the monopoly of the patented articles is not increased, the monop-*

Digitized by Google

oly of the commercial field is increased by the 'unified tactics' as to prices." (Italics ours.)

After pointing out that the nonuse of an invention is fully within the rights of the owner of the patent (as the Supreme Court held in the *Paper Bag Patent case*, 210 U. S., 405), the court said that it did not necessarily follow that the owner of a patent could by agreement bind himself to nonuse. Nonuse ordinarily violates no law; but to contract with another, whereby that other is given the power to compel one not to use, is a combination in restraint of trade (166 Fed. 555, 562):

"Combinations between owners of independent patents whereby, as part of a plan to monopolize the commercial field, competition is eliminated, are within the Sherman Act, for the reason that the restraint of trade or monopoly arises from combination, and not from the exercise of rights granted by letters patent. As by the terms of the contract under consideration the owners of distinct patents each agreed to restrain its own interstate trade, I am of the opinion that the contracts are in these particulars obnoxious to the Sherman Antitrust Act."

The demurrer was therefore sustained.

Standard Sanitary Manufacturing Company v. *United States* (226 U. S. 20), affirming the decision of a three-judge circuit court in the District of Maryland (191 Fed. 172; commonly known as the *Bathtub case*): In this case the petition charged a violation of both section 1 and section 2 of the Sherman Act. The facts disclosed were briefly these. The Standard Sanitary Manufacturing Co. owned a patent (the Arrott patent) covering a mechanical dredger used in sifting enamel powder onto red-hot iron castings to produce enameled bathtubs and other articles. The validity of the Arrott patent had been specifically sustained in litigation. The Standard Co. manufactured 50 percent of the enamelware of the country. Some of the other manufacturers were infringers, and controversies existed. The defendant, Wayman, obtained options on the Arrott patent and on two others, owned respectively by the Mott and Wolff companies. After obtaining these options, Wayman proceeded to negotiate contracts with the other defendants. The contracts were finally executed soon after Wayman had obtained assignments of the patents. By these contracts, Wayman granted a license under all three patents to each corporate defendant. The circuit court found as a matter of fact that all the companies knew that the others would execute those agreements when their turn came, and that no company would have executed them without this knowledge.

To the defense that the agreements were lawful contracts made by the owner of a patent with his several licensees, the circuit court declared that the owner of a patent could not require his licensee to violate the law (191 Fed. 172, 189):

"A patentee may not require his licensee to sell a patented oil which flashes below the minimum temperature prescribed by the State law (*Patterson* v. *Kentucky*, 97 U. S. 501: 24 L. Ed. 1115). He may not authorize his licensee to prescribe and sell his patented medicine in a State which requires of all who write prescriptions that they shall have qualifications not possessed by the licensee (*Jordan* v. *Overseers of Dayton*, 4 Ohio 295). Selling oil with a low flashing point or prescribing patent medicine without having a State license to practice medicine would no more strike the average man as akin to murder or arson than would a combination to fix prices. In one respect they are like murder and arson. They are violations of law outside the patent laws. So is a combination in restraint of trade. What the court meant was what the court said—a patentee cannot require his licensee to violate a law outside of the patent law. Murder and arson are outside the patent law. Every obligation which a patentee attempts to impose upon his licensee to break any law outside of the patent law is in that respect like a requirement to commit murder or arson. In the nature of things such must be the law. A patentee is as much subject to the laws of the land as is any other man. From one special application of one class of laws he is exempt. At common law and by statute a man who invented a new and useful thing might be given a right which would enable him for a limited time effectually to monopolize it. The courts have said that this right to monopolize what he invented cannot be taken from a patentee by State laws. They say it has not been taken away by Congress. All men knew that Congress never intended, when it passed the Sherman Act, to change the patent law. It did not do so.

* * * * * * *

(191 Fed. 172, 190): "*The patentee may, in spite of that law, monopolize for the term of his patent the thing which he or his assignor invented. Neither*

Digitized by Google

at common law nor in this country by statute has he ever had a right to monopolize anything else. As to everything not validly claimed in his patent he is as other men. If by the common law or the statutes of the State or by the enactment of Congress men are forbidden to restrain trade or to monopolize it, a patentee may not restrain trade or attempt to monopolize it in anything except that which is covered by his patent." (Italics ours.)

In the Supreme Court (*Standard Sanitary Mfg. Co.* v. *United States*, 226 U. S. 20), the Government contended, as we contend here, that the patent situation was used as a cloak of legality to cover an otherwise illegal enterprise. With respect to this contention, the Supreme Court said (226 U. S. 20, 40): "The fact being in controversy, we place our consideration and decision on other elements." Accordingly, the court proceeded to decide the case accepting the defendant's own view of the situation. In answer to the contention that the scheme had been adopted as a means of benefiting the public through the "elimination of seconds", the court very properly said (226 U. S. 20, 41):

"But the scheme has other features and effects which counsel overlook or ignore. It is immediately open to the criticism that its parts have no natural or necessary relation. What relation has the fixing of a price of the ware to the production of 'seconds'? If the articles were made perfect their price in compensation of them and by unfettered competition would adjust itself. To say otherwise would be in defiance of the examples of the trading and industrial world. Nor was a combination of manufacturers necessary to the perfection of manufacture and to rivalry in its quality."

Similarly in the present case, the defendants advance as their motive the desire to settle patent infringement disputes (a factor which was also present in the *Standard Sanitary case;* see 226 U. S. 20, 36). In answer to this the Commission may well ask what relation to patent litigation or to the public good can be found in the territorial restrictions, and other restrictions contained in the cross licenses in this case. In the *Standard Sanitary case*, after pointing out that the agreements made by Wayman changed a competitive condition to one of cooperation, the court pointed out (226 U. S. 20, 48):

"The agreements clearly, therefore, transcended what was necessary to protect the use of the patent or the monopoly which the law conferred upon it. They passed to the purpose and accomplished a restraint of trade condemned by the Sherman law. It had therefore, a purpose and accomplished a result not shown in the *Bement case.* * * *" (226 U. S. 20, 49):

"*Rights conferred by patents are indeed very definite and extensive, but they do not give any more than other rights an universal license against positive prohibitions. The Sherman law is a limitation of rights, rights which may be pushed to evil consequences and therefore restrained.*" (Italics ours.)

In *Rubber Tire Wheel Co.* v. *Milwaukee Rubber Works* (154 Fed. 258) and *Indiana Manufacturing Co.* v. *J. I. Case Threshing Machine Co.* (154 Fed. 365), both cases being decided on the same day by the Circuit Court of Appeals for the Seventh Circuit, there was nothing involved except the aggregation of a vast number of patents. The opinions do not show restraints similar to, or in the degree, or for the term of the restraints in the cross licenses in this case. Neither of these cases was brought by the Government for the purpose of attacking the combination. Both cases were dismissed by stipulation in the Supreme Court, the *Rubber case* (210 U. S. 439) and the *Threshing Machine case* (207 U. S. 603). Of the dismissal by stipulation of the *Rubber case*, Gladney in his Restraints of Trade in Patented Articles, says:

"That was a wise pool, a wise stipulation, and a wise dismissal. The pool had no thought of pleading its miraculous justification by faith before the all-seeing eyes of that great tribunal. The pool knew, and its counsel knew, that there was no more chance of convincing the Supreme Court of the legality of its system of contracts, of its sandbagging commission, of its valient good faith, than there is of driving a 40-horsepower automobile through a finger ring. It will not be surprising if the courts of other circuits assume the same attitude towards this decision that the Court rendering it did towards the decision of the Court of Appeals for the Sixth Circuit adjudicating the tire patent void. In good faith they will regard the decision as erroneous" (p. 363).

Of the dismissal of the *Threshing Machine case* by stipulation, Gladney says (p. 365):

"The pool, when dragged to the front door of the Supreme Court always escapes dissolution and the hot branding iron of condemnation in some way, and as a last resort 'per stipulation'. But what would happen if the Government itself should start out after the pool? What recoures then could be had 'per stipulation'."

Digitized by Google

From all these authorities, it is apparent that since the license contracts contain conditions beyond the reward which the patentee by the grant of the patent is entitled to secure, and that since the contracts are in restraint of trade in violation of general law to which the patent laws are subject, the combination is an illegal restraint of trade.

THE COMMISSION HAS POWER TO ENTER AN ORDER TO CEASE AND DESIST IN THIS PROCEEDING

The respondents contend that if the combination attacked by the complaint is illegal, it violates the Sherman Antitrust Act and not the Federal Trade Commission Act; and that under the *Eastman Kodak case* (274 U. S. 619), the Commission is without power to enter an order against the respondents in this proceeding.

An examination of the cases, both in the Supreme Court and in various circuit courts of appeal, sustaining orders to cease and desist entered by the Commission, shows clearly that the Commission has authority to enjoin methods and practices which are violations of the Sherman Antitrust Act, as well. The principle upon which the Supreme Court affirmed (*Federal Trade Commission* v. *Eastman Kodak Co., et al.* (274 U. S. 619)) the decree of the Circuit Court of Appeals for the Second Circuit has no application to the present proceeding because the complaint here attacks contracts, restraints, and restrictions.

As to the contention of the respondents that the Commission has no jurisdiction over facts which constitute violations of the Sherman Antitrust Act, we point to a great number of cases in which orders of the Commission have been affirmed in cases in which the methods, acts, and practices were also without doubt violations of the Sherman Antitrust Act as well. Among these are *Southern Hardware Jobbers' Association* v. *Federal Trade Commission* (290 Fed. 773), *Western Sugar Refining Co.* v. *Federal Trade Commission* (275 Fed. 725), *Wholesale Grocers' Association of El Paso* v. *Federal Trade Commission* (277 Fed. 657), *National Harness Manufacturers' Association* v. *Federal Trade Commission* (261 Fed. 170; 268 Fed. 705), *Arkansas Wholesale Grocers' Association* v. *Federal Trade Commission* (18 Fed. (2d) 866), and *Pacific States Paper Trade Association* v. *Federal Trade Commission* (4 Fed. (2d) 457, 273, U. S. 52).

Indeed, in the *Kodak case* the Circuit Court of Appeals for the Second Circuit (7 Fed. (2d) 996) sustained a part of the Commission's order which prohibited the continuance of an agreement in restraint of trade clearly in violation of the Sherman Antitrust Act.

In the *Pacific States Paper Trade Association case* (273 U. S. 52), there was before the Supreme Court an order to cease and desist made by the Commission enjoining the fixing of uniform resale prices by an agreement among the members of an association. We realize that it is not necessary to cite to this Commission authorities holding that such agreements are in violation of the Sherman Antitrust Act. The Supreme Court, in the *Pacific States Paper Trade Association case*, in an opinion delivered by Mr. Justice Butler unanimously sustained the Commission in ordering the discontinuance of the price-fixing agreements entered into by the members of the *Pacific States Paper Trade Association case*. This case, therefore, is clear authority for the proposition that the Commission has the power to cancel agreements in restraint of trade, which agreements violate the Sherman Antitrust Act.

The Circuit Court of Appeals for the Second Circuit, in *American Tobacco Co.* v. *Federal Trade Commission* (9 Fed. (2d) 586), held, in effect, that the Commission did not have jurisdiction over restraints of trade which violated the Sherman law. Of the opinion of the Circuit Court of Appeals the Supreme Court, in *Federal Trade Commission* v. *American Tobacco Co.*, stated unanimously, in an opinion by Mr. Justice Butler, as follows (274 U. S. 544):

"The opinion of the circuit court of appeals is of uncertain intendment and is not satisfactory as an exposition of the law. What this Court has said in many opinions indicates clearly enough the general purpose of the statute, and the necessity of applying it with strict regard thereto."

In the *Tobacco case*, therefore, the Supreme Court, in effect, reiterated what it decided in *Pacific States Paper Trade Association case* hereinabove referred to, namely, that the Commission's jurisdiction extends to restraints which violate the Sherman Antitrust Act, and that because a restraint is in violation of the Sherman Antitrust Act, it is not, therefore, outside of the jurisdiction of the commission.

Digitized by Google

The Supreme Court, in the *Kodak case* (274 U. S. 624), was dealing with physical property, and physical property solely (see dissenting opinion of Mr. Justice Stone), that physical property being laboratories and other physical assets. The Court said:

"So here, the Commission had no authority to require that the company divest itself of the ownership of the laboratories which it had acquired prior to any action by the Commission. If the ownership or maintenance of these laboratories has produced any unlawful status, the remedy must be administered by the courts by appropriate proceedings therein instituted."

The complaint in this case attacks contracts, rights, restraints, and restrictions (see par. 30 of complaint, record, p. 27; and amendment thereto, record, p. 123). There is a distinct difference between physical property in the form of laboratories, on the one hand, and contracts, rights, restraints, and restrictions, on the other hand. Therefore, the language quoted from the opinion of the Supreme Court cannot be held to have any application to the power of the Commission in this case. Furthermore, the form or method of competition here involved, embodying contracts, agreements, restraints, and restrictions, has been held, as we have hereinabove pointed out, to be in violation of the Federal Trade Commission Act, even though in violation of the Sherman Antitrust Act as well.

CONCLUSION

Since the record discloses proof of facts in violation of section 5 of the Federal Trade Commission Act, we submit that the motion to dismiss should be denied.

Respectfully,

EWARD L. SMITH, *Attorney.*
ROBT. E. HEALY, *Chief Counsel.*

SUN OIL CO.,
Philadelphia, January 15, 1936.

The Hon. WM. I. SIROVICH,
Chairman, Committee on Patents,
24 Fifth Avenue, New York, N. Y.

DEAR SIR: Further to our letter of December 3, 1935, acknowledging receipt of your letter of November 6, 1935, the following is a list of patents, believed to be complete, owned by Sun Oil Co.:

Patent no.	Inventor	Date of issue	Patent no.	Inventor	Date of issue
1720346	A. E. Pew, Jr	July 9, 1929	1645969	A. E. Pew, Jr., et al	Oct. 18, 1927
1674918	do	June 26, 1928	1742933	do	Jan. 7, 1930
1700709	do	Jan. 29, 1929	1935953	do	Nov. 21, 1933
1669839	do	May 15, 1928	1719235	do	July 2, 1929
1753803	do	Apr. 8, 1930	1692786	do	Nov. 20, 1928
1778565	do	Oct. 14, 1930	1786315	do	Dec. 23, 1930
1761151	do	June 3, 1930	1714811	do	May 28, 1929
1787086	do	Dec. 30, 1930	1714812	do	Do.
1761152	do	June 3, 1930	1825976	do	Oct. 6, 1931
1761153	do	Do.	1825977	do	Do.
1833691	do	Nov. 24, 1931	1794200	do	Feb. 24, 1931
1675462	do	July 3, 1928	1831424	do	Nov. 10, 1931
1707448	do	Apr. 2, 1929	1742833	Henry Thomas	Jan. 7, 1930
1799640	do	Apr. 7, 1931	1863173	do	June 14, 1932
1833618	do	Nov. 24, 1931	1788213	do	Jan. 6, 1931
1937782	do	Dec. 5, 1933	1782885	do	Nov. 25, 1930
1903407	do	Apr. 4, 1933	1938406	do	Dec. 5, 1933
1879948	do	Sept. 27, 1932	1929907	do	Oct. 10, 1933
1833619	do	Nov. 24, 1931	1919672	Henry Thomas et al	July 25, 1933
1946329	do	Feb. 6, 1934	1425882	H. T. Maitland	Aug. 15, 1922
1910812	do	May 23, 1933	1425884	do	Do.
1839892	do	Jan. 5, 1932	1533325	do	Apr. 14, 1925
1924879	do	Aug. 29, 1933	1668920	do	May 8, 1928
2006407	do	July 2, 1935	1605046	do	Nov. 2, 1926
2021923	do	Nov. 26, 1935	1528884	do	Mar. 10, 1925
1723368	A. E. Pew, Jr., et al	Aug 6, 1929	1711504	do	May 7, 1929
1666300	do	Apr. 17, 1928	1577723	E. M. Hughes	Mar. 23, 1926
1666301	do	Do.	1877398	C. K. Hague	Sept. 13, 1932
1666302	do	Do.	1931880	H. F. Angstadt	Oct. 24, 1933
1668602	do	May 8, 1928	2013619	do	Sept. 3, 1935

Digitized by Google

Patent no.	Inventor	Date of issue	Patent no.	Inventor	Date of issue
1591006	G. Alleman	July 6, 1925	1471088	A. M. Ballard	Oct. 16, 1923
1694463	do	Dec. 11, 1928	1530879	do	Mar. 24, 1925
1637510	do	Aug. 2, 1927	1876401	V. M. Chatfield	Sept. 6, 1932
1694461	do	Dec. 11, 1928	1922882	do	Aug. 15, 1933
1781772	do	Nov. 18, 1930	1628117	A. L. Clayden	May 10, 1927
1694462	do	Dec. 11, 1928	1816470	W. A. Courtenay, Jr	July 28, 1931
1818778	do	Aug. 11, 1931	1876222	R. G. Guthrie	Sept. 6, 1932
1824977	do	Sept. 29, 1931	1982688	R. W. Pack	Dec. 4, 1934
1949948	do	Mar. 6, 1934	1969235	A. E. Pew, Jr., et al	Aug. 7, 1934
1940439	do	Dec. 19, 1933	1982828	do	Dec. 4, 1934
1949949	do	Mar. 6, 1934	1941222	do	Dec. 26, 1933
1805199	do	May 12, 1931	1744574	J. H. Pew	Jan. 21, 1930
1940440	do	Dec. 19, 1933	1666666	J. N. Pew, Jr	Apr. 17, 1928
1931855	do	Oct. 24, 1933	1666667	do	Do.
1969249	do	Aug. 7, 1934	1937247	J. A. Ritter	Nov. 28, 1933
1982620	G. Alleman et al	Dec. 4, 1934	1741206	T. H. Stackhouse	Dec. 31, 1929
1947821	do	Feb. 20, 1934	1997324	C. H. Thayer	Apr. 9, 1935
1529658	J. McKee et al	Mar. 17, 1925	1760095	J. F. Wait	May 27, 1930
1580386	do	Do.	1847542	do	Mar. 1, 1932
1619352	J. McKee	Mar. 1, 1927	1765038	do	June 17, 1930
1637703	do	Aug. 2, 1927	1845690	do	Feb. 16, 1932
1961903	do	June 5, 1934	1886436	do	Nov. 8, 1932
1327691	A. M. Ballard	Jan. 13, 1920			

Your letter does not define a patent pooling or cross-licensing agreement. Our understanding of the kind of agreement to which your questions are intended to be directed is one, more or less reciprocal in character, wherein two or more parties, engaged in the same business and actual or prospective competitors, license each other under their respective patents, the only or principal consideration received by each party being the license or licenses received by the other party or parties; the object being either to establish a monopoly, general or limited, that will suppress or limit competition, or to create a common ownership of competitive patents that will enable licenses to be granted to others on terms that will benefit both or all parties to the agreement. We have never been a party to any such agreement.

We might say that many, if not most, patent license agreements, wherein one party is the real licensor and the other the real licensee, and in which the main consideration is the payment by the licensee to the licensor or a substantial money consideration in the form of a prepaid license fee or a continuing royalty, contain the common provision that the licensor shall have the right to grant licenses under any improvements that the licensee may make upon the invention licensed by the licensor. It is also not uncommon where applications for patents for the same broad invention are filed by different parties and where the Patent Office declares interferences, between such applications, the outcome of which, if contested, would be uncertain, settlements are frequently made providing that each party shall have a nonexclusive license under any patent that may issue to the other party. The parties then determine, after investigation, which party is entitled to claim the subject matter common to the two applications. The broad patent then issues to such party and a specific patent may issue to the other party. We take it that your inquiries are not directed to licenses of the character of those above specified, wherein the cross-licensing provision is a mere incident of an ordinary patent license granted by one party to another.

With respect to any patent license agreement of the character above mentioned in which we are the real licensees, we are in most cases not informed of all the patents under which we are licensed, we being interested, usually, only in securing immunity from suit for infringement by the licensor—usually for infringement of some one or more patents which we are using or of which, if unlicensed, we might be charged with infringement. Nor can we undertake to say which of such patents we are using.

So far as concerns our own patents, we are commercially using a large proportion. The use of others has been abandoned, due to being superseded by better processes or apparatus. Still others cover processes or apparatus whose use, at the time of application for patent, was contemplated as possible or probable but which were never in fact used.

We have never entered into any agreement wherein we have not retained the right to use, and grant licenses under, our own patents.

Digitized by Google

A copy of the bylaws of Sun Oil Co. is herewith enclosed.

Since we are not parties to any patent-pooling agreement nor to any cross-licensing agreement of the kind to which we assume your inquiries are directed, and since we are not engaged in the business of granting licenses under our own patents (although in some instances we have granted licenses under certain of our patents), we have no "forms" for such agreements that we have ever used or which would be applicable to our business.

We cannot undertake to estimate the value of patents owned by us.

In most instances our patents were taken out by our officers and employees and assigned to the company in accordance with the terms of general contracts of employment made with our employees whereby inventions made by them relating only to our particular business while they are in our employ are assignable to the company. Those leaving our employ are under no obligation to assign inventions subsequently made. While the making of improvements, patentable or not, that contribute to the efficiency and economy of our refining processes is a material factor in determining an employee's compensation, it is impossible to apportion the part thereof that could be considered compensation for his inventions.

Patents, whether owned by us or licensed by us or under which we are licensed, have never formed a basis for corporation or charter franchises.

We believe that in many instances patent-pooling arrangements between competitors are entirely legitimate and may be practically compelled by the desirability, not to say the necessity, of avoiding damaging or even ruinous litigation. Where, however, an organized patent exploiting concern (which may be and usually is, created by a patent-pooling arrangement) devotes itself exclusively to securing patents covering not only useful inventions but also all possible expedients which competent engineers will, in the exercise of their expected skill, adopt when necessity arises, it creates a condition which forces everyone engaged in the business to which the patents of the exploiting concern relates to pay tribute to it or to run the risk of possible ruinous litigation. We do not know how to remedy this difficulty, because there is no yardstick by which the Patent Office or the courts can determine whether the disclosure of a patent involves invention or mechanical skill. Many patents have been sustained which, in the opinion of those skilled in the art, as well as in the opinion of disinterested patent lawyers, involve no invention and cover expedients the adoption of which in the natural evolution of the art, occurs as a matter of course. It is very difficult to suggest any amendment to the patent laws that would remedy the situation.

We have, however, one suggestion to make to cure a specific evil. It frequently happens that a process is used, or a machine, article, or composition made and sold, for years by the industry with knowledge that it is unpatented and with no suspicion that it is patentable. A patent covering such process, machine, article, or composition unexpectedly issued on an application which has been pending for years. In many instances the claims have been revised, during the pendency of the application, to cover the developed commercial art. The industry may have large capital invested, devoted to the use or manufacture of the patented subject matter and, although it believes it has a good defense against the patent, feels constrained to take licenses, if it can get them, on the best terms obtainable, since it cannot afford to take the risk of injunction and large recovery. We believe that this condition would be ameliorated by providing that the life of no patent shall extend beyond a period of 20 years from its date of application. Such a law would also greatly expedite the prosecution of applications. In some cases, as in interferences, there might be some injustice done in that a delay of more than 3 years in issue of his patent would not be the inventor's fault; but the interest of the inventor in an exceptional case should be subordinate to the interests of the public.

Another amendment to the patent law which would ameliorate the condition above outlined would be to provide that in the case of one who made, used, or sold an invention before the issue of a patent therefor, no damages or profits would be recoverable for infringement of such patent during the period prior to a decree of a court establishing the validity of the patent.

We have another suggestion to make. The presumption of validity that attaches to a patent is given, in our opinion, too great weight by the courts. In the case of a monopoly that is granted by a bureaucrat (who may or may not be experienced, competent, and have knowledge of the actual commercial art), in ex parte proceedings, to a single individual to whom 130,000,000 people

Digitized by Google

must pay tribute, no presumption of validity should attach. We believe that this condition would be remedied by allowing an applicant to have a patent even if the Patent Office, after due examination, find the claims, in its opinion, unpatentable. The burden would then be upon the courts to decide patentability, in an inter partes case, with no presumption one way or the other. If any burden should be assumed by either side, it should be assumed by the plaintiff. A patent monopoly is as apt as any other monopoly to be oppressive, unjust, and unlawful, and the public should not have the burden of convincing the courts that an individual is not entitled thereto. The burden should be upon the individual to convince the courts that he is entitled thereto.

Another suggestion we have to make is that the public shall have the right to proceed, in the Patent Office, within a limited time after its issue, to institute annulment proceedings, the Patent Office being given the right to annul the patent or to issue it with more restricted claims. The main objection to such an amendment would be that it would require an enlargement of the Patent Office, the expense of which, however, could be defrayed, in part at least, by requiring the payment of substantial fees. An analogous practice already exists in the Patent Office in the institution of opposition and cancelation proceedings in the case of trade marks and we are advised that it works satisfactorily.

Very truly yours,

SUN OIL CO.,
FRANK S. BUSSER,
Patent-Counsel.

BYLAWS OF SUN OIL CO.

ARTICLE I. DIRECTORS

SECTION 1. There shall be a board of directors consisting of eight members, who shall be elected annually at the annual meeting of the stockholders; they shall hold office for 1 year and until their successors are duly elected and qualify.

Such election shall be conducted by two inspectors appointed by the presiding officer of the meeting, which inspectors shall be duly sworn, and shall in writing certify to the returns; but no person who is candidate for the office of director shall act as inspector, judge, or clerk of such election.

If the office of any director becomes vacant, the remaining directors, by a majority vote, may elect a successor, who shall hold office for the unexpired term, and until his successor is elected, or if the number of directors is at any time increased, the existing directors may by majority vote elect the additional director or directors, who shall hold office until the next annual meeting of the stockholders and until his or their successors are elected.

ARTICLE II. OFFICERS

SECTION 1. The board of directors shall immediately after the adjournment of the annual meeting, or as soon thereafter as possible, meet for organization, and choose a president, one or more vice presidents, a treasurer and assistant treasurer, and a secretary and assistant secretary, and such subordinate officers as the board of directors may, from time to time, create; provided, however, that the offices of assistant treasurer and assistant secretary may or may not be filled, at the pleasure of the board of directors.

The offices of treasurer and secretary, and the offices of assistant treasurer and assistant secretary, may be held by the same person at the discretion of the board.

All of said officers shall hold their offices at the pleasure of the board.

ARTICLE III. PRESIDENT

SECTION 1. The president shall preside at all meetings of the board of directors and of the stockholders. He shall have, under the control of the directors, general supervision and direction of all department of the company's service; he shall sign all certificates of stock, and all contracts, and other instruments, unless otherwise ordered by the board; and shall perform all duties incidental to his office.

It shall be the duty of the president and in his absence, of the board of directors, to fix from time to time, the salaries of all the officers, managers, and heads of departments of the company.

Digitized by Google

ARTICLE IV. VICE PRESIDENTS

SECTION 1. The vice presidents shall (in order of their seniority) in the absence of the president perform the duties of the president, and perform such other duties as shall, from time to time, be imposed upon them by the board. The performance of any such duty by either of said vice presidents shall be conclusive evidence of his right to act.

ARTICLE V. SECRETARY

SECTION 1. The secretary shall keep minutes of all meetings of the board of directors and of the stockholders, and shall give all notices of meetings of the stockholders and of the board of directors. He shall have custody of all deeds, contracts, agreements, and other records, except as otherwise provided in these bylaws or by the board of directors, and shall attend to such correspondence of the company as the board of directors shall direct. He shall be the custodian of the seal of the company and shall affix it to any instrument requiring the same, except as otherwise provided herein or by the board of directors; and shall be sworn to the faithful discharge of his duties.

ARTICE VI. ASSISTANT SECRETARY

SECTION 1. The assistant secretary shall, during absence of the secretary, perform all of the duties of the secretary, and his performance thereof shall be conclusive evidence of his right to act.

ARTICLE VII. TREASURER

SECTION 1. The treasurer shall have charge of all receipts and disbursements of the company, and shall be the custodian of the company's funds. He shall have full authority to receive and give receipts for all moneys due and payable to the company from any source whatever, and to endorse checks, drafts, and warrants in its name and on its behalf, and full discharge for the same to give. He shall provide and arrange for the keeping of a regular set of books of account and be the custodian of all books and papers relating to the financial affairs of the company. He shall deposit the funds of the company in its name in such depositories as may be designated by the board of directors. The treasurer shall also sign all checks, notes, drafts, and certificates of stock. A report of the financial condition of the company shall be made by the treasurer to the president, whenever requested by the president. He shall give a bond for the faithful performance of his duties in such sum as the board of directors may by resolution specify.

ARTICLE VIII. ASSISTANT TREASURER

Section 1. The assistant treasurer shall, during the absence of the treasurer, perform all the duties of the treasurer, and he shall give a bond for the faithful performance of his duties in such sum as the board of directors may by resolution specify. His performance of any of the duties of the treasurer shall be conclusive evidence of his right to act.

ARTICLE IX. MEETINGS

SECTION 1. The annual meeting of the stockholders for the election of directors for the ensuing year and for the transaction of such other business as may be properly brought before the meeting, shall be held at the general office of the company in the city of Philadelphia, State of Pennsylvania, on the second Tuesday in March, at 11 o'clock a. m. in each and every year.

Each share of stock with voting power shall be entitled to one vote, except as otherwise provided in the certificate of incorporation, which vote may be give either in person or by proxy, but no proxy shall be voted on after 3 years from its date, nor shall any share of stock be voted on at any election which has been transferred on the books of the company within 20 days next preceding such election.

All elections for directors shall be by ballot, and the poll at every election shall remain open at least one hour, unless all of the stockholders with voting power are present in person or by proxy and have sooner voted, or unless all the stockholders with voting power waive this provision in writing.

Digitized by Google

SEC. 2. Special meetings of the stockholders may be called at any time by the president or vice presidents of the company, upon the order of the board of directors or upon the written request of the holders of 25 percent of the capital stock with voting power outstanding at the time.

Unless waived, 10 days' notice of all stockholders' meetings either annual or special, shall be given by the Secretary either personally or by mailing a notice addressed to each stockholder entitled to vote at his last postoffice address given on the books of the company.

SEC. 3. Immediately following their election at the annual meeting of the stockholders, the board of directors shall meet for the purpose of organization. Regular meetings of the board of directors thereafter may be held at such times and at such places as said directors may by resolution determine.

Special meetings of the directors may be called at any time by the president, or such meetings shall be called upon the written request of a majority of the directors.

No notice shall be required of the meeting of the board of directors for the purpose of organization or for the regular meetings fixed as aforesaid, but at least 48 hours' notice shall be given by mail or telegraph of all special meetings of the directors, but this notice may be waived at any time in writing or by telegraph. A meeting of the directors may be held without notice at any time when all of the directors are present.

At all meetings of the directors a majority of the directors in office shall constitute a quorum for the transaction of business.

ARTICLE X. COMMITTEES

SECTION 1. The board of directors may appoint such committees, and officers therefor, as it may deem proper, and may delegate to such committees any of the powers possessed by the board.

SEC. 2. Committees shall keep full records of their proceedings, and shall report the same to each regular meeting of the board, or when called upon by the board.

SEC. 3. A majority of any committee shall have power to act.

SEC. 4. The board of directors may appoint an executive committee who shall have and may exercise so far as permitted by law the powers of the board of directors in the management of the business and affairs of the corporation, and may authorize the seal of the corporation to be affixed to all papers which may require it.

ARTICLE XI. STOCK

SECTION 1. *Certificates.*—Certificates evidencing the ownership of the shares of stock of the company of any class shall be issued to those entitled to them by transfer and otherwise. Each certificate for preferred stock and common stock shall bear a distinguishing number, the signature of the president or vice president, and of the secretary or an assistant secretary or of the treasurer or an assistant treasurer, the seal of the company, and such recitals as may be required by law. The preferred- or common-stock certificates in any class or classes shall be issued in numerical order, and a full record of the issuance of each such certificate shall be made in the books usually kept for that purpose or required by law. The certificates for preferred stock and common stock shall be of such form and design as the board of directors may adopt, and the form and design thereof may from time to time be changed by the board.

SEC. 2. *Transfers.*—All shares of stock may be transferred on the proper books of the company by the registered holders thereof or by their attorneys legally constituted or their legal representatives by a surrender of the certificates therefor for cancelation and a written assignment of the shares evidenced thereby. The board of directors may from time to time appoint such transfer agent and registrars of stock as it may deem advisable and may define their powers and duties. There shall, however, always be a transfer agent which shall be a trust company or national bank with an office in the Borough of Manhattan, city of New York.

SEC. 3. *Closing of transfer books.*—The stock-transfer books of the company shall be closed for a period of 20 days next preceding, and also on the day of, any meeting of the stockholders for the election of directors. The stock-

Digitized by Google

transfer books shall be open to the inspection of the stockholders of the company as required by law.

SEC. 4. *List of stockholders.*—It shall be the duty of the treasurer or assistant treasurer of the company to prepare, at least 10 days before every election of directors, a true, full, and complete list of all the stockholders of the company entitled to vote at the ensuing election, with the residence of each, and with the number of shares held by each, which list shall be arranged in alphabetical order and shall at all times during the usual hours of business be open to the examination of any stockholder.

SEC. 5. *Dividends.*—If any date appointed for the payment of any dividend, or fixed for determining the stockholders of record, to whom the same is payable, shall in any year, fall upon a Sunday or legal holiday, then such dividend shall be payable, or such stockholder of record shall be determined on the next succeeding day not a Sunday or legal holiday.

ARTICLE XII. LOST CERTIFICATES OF STOCK

SECTION 1. Any person or persons applying for a certificate of stock to be issued in lieu of one alleged to be lost or destroyed, shall pursuant to the laws of the State of New Jersey relating to lost or destroyed certificates of stock, furnish to the company such information as the board of directors may require to ascertain whether a certificate of stock has been lost or destroyed.

ARTICLE XIII. SEAL

SECTION 1. The seal of the corporation shall be circular in form, and shall have inscribed thereon the following words and figures "Sun Oil Co., Incorporated 1901, New Jersey."

ARTICLE XIV. AMENDMENTS

SECTION 1. These bylaws may be altered or amended at any annual meeting of the stockholders, or at any special meeting called for that purpose, by a majority vote of all the stockholders; or at any meeting of the directors, by a majority vote of the directors. March 8, 1932.

INTERNATIONAL HARVESTER CO., INC.,
606 South Michigan Avenue,
Chicago, December 12, 1935.

Mr. WILLIAM I. SIROVICH,
Chairman, Committee on Patents of the House of Representatives,
244 Fifth Avenue, New York City.

SIR: We acknowledge receipt of your circular letter of November 9 and are pleased to assist your committee by supplying the information you request so far as the matters covered in the list of inquiries you submit apply to patents held by this company and are pertinent to the scope of House Resolution 196.

For convenient reference, your inquiries are answered in the order numbered:

1. International Harvester Co. holds title to 916 patents. It is also entitled to use the subject matter of certain six patents included in a cross-license agreement covering power-lift plow patents referred to in more detail below. It is also a party to the Automobile Manufacturers' Association cross-license agreement referred to below. A list of all patents used under cross-license agreement is given below. A list of the large number of patents owned by the company would merely represent a mass of numbers and dates serving no purpose. Patent ownerships are matters of public record. However, we have no objection to furnishing a complete list, other than the time and labor it involves.

2. Approximately two-thirds of the patents owned by this company are not in current use. The reason for nonuse in most cases is because the patent was based on an implement or detail of construction which has since become obsolete and gone out of manufacture, or on some experimental implement or construction which failed to prove commercially practicable and was dropped. In a relatively few cases the patents were taken out to record priority in a new conception which might be usable but for which no practicable commercial use has yet been found or developed.

Digitized by Google

3. The only cross-licensing agreement involving an association having a constitution and bylaws to which this company belongs is that of the Automobile Manufacturers' Association, 366 Madison Avenue, New York City. Your committee presumably has obtained from that association all information desired concerning its constitution and bylaws.

4. We attach hereto (1) a copy of the Automobile Manufacturers' Association cross-license agreement to which this company is a party, and (2) copy of a trust agreement effected April 27, 1920, under which certain patents covering power lift plow constructions were placed in trust by the LaCrosse Plow Co. and by this company with the provision that licenses on moderate terms were to be available to all others desiring same.

5. The preceding paragraph (4) answers this inquiry.

6. The names of inventors and numbers of the existing patents contributed by this company to the cross-license agreement of the Automobile Manufacturers' Association are as follows:

Inventor	Patent no.	Date of issue	Inventor	Patent no.	Date of issue
Howe	1295505	Feb. 19, 1919	Cox	1435281	Nov. 14, 1922
Do	1295506	Do.	Mott	1440930	Jan. 2, 1923
Sperry	1322640	Nov. 25, 1919	Kings	1443183	Jan. 23, 1923
Horthy	1334536	Mar. 23, 1920	Johnston	1464713	Aug. 14, 1923
Arnold	1376500	May 3, 1921	Burger	1543638	Jan. 23, 1925
Burger	1396387	Nov. 1, 1921	Burger, et al	1568134	Jan. 5, 1926
Howe	1400678	Dec. 20, 1921	Burger	1589360	June 22, 1926
Johnston	1409006	Mar. 7, 1922	Baker	1639449	Aug. 16, 1927
Howe	1413479	Apr. 18, 1922	Schoenrock	1639470	Do.
Arnold	1433060	Oct. 24, 1922	Derr	1667514	July 17, 1928

The names of inventors and numbers of existing patents contributed by this company to the power lift patent trust of April 27, 1920, are as follows:

Inventor	Patent no.	Date of issue	Inventor	Patent no.	Date of issue
W. S. Graham	1295479	Feb. 25, 1919	A. C. Lindgren	1440924	Jan. 2, 1923
C. W. Mott	1319483	Oct. 21, 1919	W. S. Graham and J. L. Hipple	1446118	Feb. 20, 1923
A. C. Lindgren	1387500	Aug. 16, 1921	A. C. Lindgren	1561611	Nov. 17, 1925
J. F. Steward	1388978	Aug. 30, 1921	W. S. Graham	1632128	June 14, 1927
A. C. Lindgren and R. B. Johnston	1394914	Oct. 25, 1921	Do	1755819	Apr. 22, 1930
C. W. Mott	1394930	Do.			

The applications resulting in the above patents included in the two cross-license agreements above referred to were assigned to International Harvester Co. as of the date of filing of such applications. The inventions were made by the company's own engineers or designers, who are under contract to assign their inventions. Accordingly, no payment was made for any individual patent in the above lists and no estimate can be placed on its value.

7. The answer to this inquiry is "No."

8. In every instance the inventor on the patents above listed was an employee of this company at the time of the assignment of his invention and, with one exception, is still an employee at this time. Employees such as these, who are employed as inventors or designers, are under contract to assign their inventions relating to the company's product without other compensation than is provided for in their employment agreements.

9. The patents used by this company as licensee under the power lift plow trust agreement above referred to are as follows:

Inventor	Patent no.	Date of issue	Inventor	Patent no.	Date of issue
Davis & Bebinger	1338550	Apr. 27, 1920	J. F. Steward	1388978	Aug. 30, 1921
C. G. Strandlund	1376787	May 3, 1921	A. C. Lindgren	1440924	Jan. 1, 1923
W. W. Cameron	1377057	Do.	Do	1561611	Nov. 17, 1925

Digitized by Google

We know of no patent in the Automobile Manufacturers' Association cross-license agreement which is in use by us. Any valuation to be placed on the six patents above listed as used by us would be purely a matter of conjecture, as no direct revenue is derived from them. Title to the six patents above listed is in Fred Gerlach and Arnold B. Kller, trustees.

10. Nonmembers of the Automobile Manufacturers' Association cross-license agreement are not entitled to a license thereunder. Under the power lift plow trust agreement any manufacturer may have a license at the terms stated therein; namely, 50 cents per plow bottom.

11. This inquiry is answered in the preceding paragraph (10).

12. We have no amendments to suggest to existing patent laws. Generally speaking, we are disposed to indorse the recommendations of the American Bar Association as to needed patent legislation.

Yours very truly,

INTERNATIONAL HARVESTER CO.,
By V. F. LASSAGNE, *Patent Attorney.*

THIRD EXTENSION CROSS-LICENSING AGREEMENT BETWEEN _____ AND AUTOMOBILE MANUFACTURERS ASSOCIATION, INC., DATED _____

Whereas it is for the individual interests of the manufacturing members of the Automobile Manufacturers Association, Inc., a Corporation duly organized under the laws of the State of New York (hereinafter called the "Association"), that the possibility of patent litigation between manufacturing members of the Association over patents on or relating to motor vehicles or the manufacture thereof should be reduced, and to that end that there should be an exchange of licenses between them under Letters Patent for inventions relating to motor vehicles, or to parts or accessories therefor, or to the manufacture thereof, to the extent hereinafter set forth, such licenses to be of the character and subject to the conditions and limitations hereinafter provided:—

Now, therefore, these presents witness:

(1) That _____, a corporation duly established under the laws of _____ (hereinafter called the "Grantor"), being a manufacturing member of said Association, in consideration of the covenants of the Association herein contained and of other good and valuable considerations, hereby grants unto the Association the right and license and full power and authority, for the term and subject to the exceptions, conditions, and limitations hereinafter set forth, to grant in writing personal licenses and shop rights under any and all Letters Patent of the United States, not hereinafter expressly excepted, now owned or controlled by the Grantor or under which it has the right to grant licenses, covering inventions capable of use in or in connection with motor vehicles, or parts or accessories therefor, or in, or in connection with the manufacture thereof (all of which are hereinafter referred to as "motor vehicle patents"), insofar as such Letters Patent were on January 1, 1930, owned or controlled by the Grantor or its predecessor or predecessors in the business of manufacturing motor vehicles or under which on January 1, 1930, the Grantor or its predecessor or predecessors in the business of manufacturing motor vehicles had the right to grant such licenses or shop rights; and the Grantor does hereby irrevocably authorize said Association to execute such licenses and shop rights in the name of the Grantor with the same force and effect as if executed directly by the Grantor.

(2) This instrument, and the right, power, and authority hereby granted and conferred shall not apply to or include: (*a*) design patents, which are hereby expressly excepted from the operation hereof, nor (*b*) any patents so far as the claims thereof cover inventions not applicable to or relating to motor vehicles as such, but relating to mechanism, devices, contrivances, or the manufacture thereof, specially employed to adapt motor vehicles to the carrying, handling, or storing of goods, wares, merchandise, materials, or freight of any kind, to use as fire apparatus, to use as tractors, to ambulance use, or to use as motor busses or for other public passenger service; and not applicable to or useful in any type of motor vehicle primarily intended or commonly used for private passenger use, or the manufacture thereof. Patents or claims for inventions relating or applicable both to one or more of the special adaptations of motor vehicles above enumerated, and also to any type or types of motor vehicles primarily intended or commonly used for private passenger use, or the manufacture thereof, are included within the operation of this instrument and not excepted.

Digitized by Google

It is understood and agreed, however, that there are excluded from the patents of the grantor licenses under which are granted or to be granted under this agreement (a) any and all patents owned or controlled by and (b) any and all patents whose inventions were developed in whole or in part by any existing corporation controlled by or related to the Grantor which corporation is not itself engaged in the business of manufacturing complete motor vehicles, as well as (c) any patent or patents whose inventions are utilized by and (d) any and all patents whose inventions were developed in whole or in part by the Grantor in a distinct Division engaged solely in continuing the business of a prior corporation which was itself not engaged in the business of manufacturing complete motor vehicles.

It is understood and agreed, however, that there are excluded from the patents of the Grantor, upon or under which licenses are granted or to be granted under this agreement, all patents except those patents owned or controlled or under which a right to grant licenses was had by the Grantor on the 1st day of January 1930, and which the Grantor under the terms of the Second Extension Cross-Licensing Agreement agreed should be licensed thereunder, if any such Agreement had ever been executed by the Grantor, and no patent whatsoever owned or controlled or under which a right to grant licenses was had by the Grantor and which it acquired or which was issued to it after January 1, 1930, shall be considered under any circumstances as coming within the terms of this agreement, nor shall any person whosoever have any right to a license thereunder or any other interest therein without the express consent in writing of the Grantor, notwithstanding anything to the contrary which may be contained in this agreement.

(3) The right, power, and authority hereby granted and conferred and the licenses granted hereunder shall apply to any patent only so far as the Grantor now has, or shall have at any time hereafter, the right to grant licenses or shop rights thereunder without violating the legal or equitable rights of any other person, whether secured to him by contract, license agreement, or otherwise, having priority over the rights granted to the Association by this instrument; and all licenses or shop rights granted hereunder shall be with such exceptions or such special restrictions, in the case of particular patents, as may be necessary to avoid the violation of such rights of third persons.

(4) If the Grantor does now or shall hereafter enjoy the use, in the conduct of its business, of any motor vehicle patent controlled by the Grantor either by contract, equitable ownership, exclusive license, or otherwise, so that the Grantor has the legal right and power to procure the grant of licenses or shop rights thereunder to others but is not empowered to grant such licenses or shop rights directly, the Grantor hereby covenants to procure the execution of such further instruments as may be necessary to empower the Association to grant licenses and shop rights under such patent as provided in this instrument and to make the licenses and shop rights granted hereunder effective.

(5) The Grantor hereby agrees to mail to the office of the Association in New York City, within thirty days from the date hereof, a list of all patents within the general description contained in paragraph (1) hereof and under which by the terms hereof licenses are to be granted (not including design patents) now owned or controlled by it or under which it now has the right to grant licenses or shop rights (including patents in which the Grantor has such an interest as is defined in paragraph (4) hereof). But the failure or neglect of the Grantor to list or report any patent as herein agreed, shall in no way affect the operation of this instrument upon such patent.

(6) The licenses and shop rights granted hereunder and the right, power, and authority of the Association hereunder to grant such licenses and shop rights shall exist and be exercised only in the case and for the benefit of such manufacturing members of the Association in good standing as shall execute with the Association this Agreement.

(7) The licenses and shop rights existing and granted by the Association hereunder shall in each case authorize the licensee therein named to manufacture in its regular manufacturing establishment within the United States, or to have manufactured for it within the United States, and to use and sell for others to use, motor vehicles and accessories and repair and replacement and other parts therefor, including the shipment thereof to foreign countries and the use and sale thereof in such foreign countries, free from any liability for infringement of the Letters Patent of the United States under which such licenses and shop rights are granted, so far as the Grantor has power to grant such authority. But it is expressly stipulated and agreed that neither this instrument nor any license or shop right granted hereunder shall be

Digitized by Google

construed to give any manufacturing rights whatever under foreign patents, whether or not owned by the Grantor, and all grants of licenses or shop rights hereunder shall expressly so state.

All licenses and shop rights granted by the Association hereunder shall be substantially uniform in tenor (except as provided in paragraph (8) hereof) and shall be in strict accordance with all the conditions and limitations specified in this instrument, and the covenants of the Association hereinafter set forth, all of which, so far as they relate to the grant of licenses or shop rights hereunder, shall be construed not merely as covenants by the Association, but also as defining and limiting the right, power and authority hereby granted and conferred.

(8) All the grants of licenses or shop rights issued by the Association hereunder must be executed in behalf of the Association by one of its officers thereunto duly authorized; must be indivisible, non-assignable, and personal to the licensee; and must contain a statement that such grant is executed in pursuance of the right, power, and authority given by this instrument. Such licenses and shop rights shall extend, and must be stated in the grant thereof to extend, only for so long as the licensee named therein shall remain a manufacturing member of the Association in good standing, and for six months thereafter, but in no event beyond the first day of January 1940. All such grants shall contain a provision reserving against the licensee the same rights with respect to a material breach of the terms of the instrument similar to this executed by the licensee, which are reserved against the Grantor in paragraph (15) hereof, in respect to a material breach of the terms of this instrument.

(9) If the control or interest or right of the Grantor in any patent coming within the operation of this instrument is subject to such conditions that the use of such patent by other members of the Association licensed hereunder would involve the payment to any person or persons other than the Grantor of additional royalties or additional consideration for the use thereof, the licenses and shop rights thereunder granted by the Association pursuant to the terms of this instrument shall stipulate for the payment by each licensee of the additional royalties or additional consideration payable by reason of the use of such patent by such licensee; but the Grantor shall not be entitled to receive to its own use and profit any royalty or other consideration from the grantee of any license or shop right granted by the Association under the terms of this instrument, except the reciprocal rights expressly provided for in this instrument. It is understood, however, that any member of the Association entitled to receive grants of licenses or shop rights hereunder may refuse to accept a license or shop right under any one or more patents, for the use of which any royalty or other special consideration must be paid under the terms of this paragraph, or, having accepted such license, or shop right, may at any time thereafter surrender the same, and upon such surrender and to the extent thereof shall be freed from the special obligations so imposed.

(10) In consideration of the foregoing, and of the further covenants on the part of the Grantor hereinafter contained, the Association hereby covenants and agrees as follows:

(*10–a*) That in exercising or attempting to exercise the right, power, and authority hereby granted and conferred it will conform strictly in all respects to the terms and provisions of this instrument and the limitations herein contained.

(*10–b*) That the Association will forthwith grant to the Grantor all licenses and shop rights which it is authorized to grant under the instruments substantially equivalent to this executed by other members of the Association, except so far as the Grantor may refuse to accept a license or shop right under a particular patent or patents, as provided in the pragraphs of said instruments executed by other members of the Association as aforesaid, corresponding to paragraph (9)hereof; it being understood that, subject to the same exception, the Association will at the same time grant to all other members thereto entitled, the licenses and shop rights which it is authorized to grant hereunder.

(*10–c*) That no manufacturing member who has not executed and delivered an agreement substantially equivalent to this on or before May 1, 1935, will be allowed to execute and deliver such an agreement, and thereby qualify to receive licenses or shop rights hereunder, except by special permission of the Association, granted in the following manner: Notice of the application of any

Digitized by Google

such member for such permission shall be mailed to all the Directors of the Association at least ten days before a regular meeting of said Directors, stating that such application will be presented for action at said regular meeting; and a quorum being present at said meeting, said application may be granted by a four-fifths vote of all the Directors present.

(*10–d*) Every applicant for admission to the Association, subsequent to January 1, 1935, and prior to January 2, 1940, as a manufacturing member thereof, will be required as a pre-requisite of such admission to execute and deliver to the Association an instrument substantially equivalent to this, except by special permission of the Association, granted in the manner provided in the preceding Clause 10–c.

(11) The right, license, power, and authority herein granted and conveyed to the Association are not transferable by it to any other body or successor, but shall be exercised by the Association alone, acting through its Board of Directors and its duly authorized officers.

(12) In case the Grantor ceases to be a manufacturing member of the Association in good standing, the right, power, and authority of the Association to grant licenses and shop rights hereunder shall not cease and determine, but shall thereafter remain in full force until January 1, 1940, and all licenses and shop rights granted by the Association in accordance with this instrument, whether before or after such termination of membership, shall be and remain in full effect and validity.

(13) On the termination of any license or shop right granted by the Association hereunder, the licensee shall be free to contest the validity of any patent included in such license exactly as if such license had not been granted.

(14) The Grantor covenants and agrees to waive and release, and does hereby waive and release, any claim it may now or hereafter have for damages or profits on account of the infringement of any patent covered by this instrument, by reason of the manufacture of any motor vehicles, parts, or accessories by or for any grantee of licenses or shop rights hereunder, before the granting thereof, or by reason of the use or sale by such licensee or by any other person of motor vehicles, parts, or accessories so manufactured; and the Grantor hereby authorizes the Association to incorporate in all grants of licenses or shop rights hereunder a statement confirming such waiver and release to the licensee, and to all persons who may have sold or used motor vehicles, parts, or accessories previously manufactured by or for such licensee.

(15) Any material breach by the Grantor of its agreements herein contained or its obligations hereby imposed shall be sufficient ground for the cancellation of any or all grants of licenses or shop rights to the Grantor, which may have been made under or pursuant to like Agreements executed by other Manufacturing Members of the Association under which the Grantor has enjoyed rights or licenses.

In witness whereof the Grantor and the Association have duly executed this instrument by their officers thereunto duly authorized and attached their corporate seals hereto on the dates appearing below.

_____

By _____ [SEAL]

Date_____

_____

_____

AUTOMOBILE MANUFACTURERS ASSOCIATION, INC.,

By _____ [SEAL]

Date_____

_____

_____

STATE OF _____,

County of _____, *ss:*

On this _____ day of _____, 19____, at _____, before me appeared _____, in person and to me known, who being by me duly sworn made oath that he is the _____ of _____, the corporation described in and which executed the foregoing instrument, and its agent for this purpose duly authorized, that he signed the same in behalf of said corporation, that the seal affixed to said instrument is the corporate seal of said corporation and was so affixed by authority of the Board of Directors; and he acknowledged the foregoing

Digitized by Google

instrument to be his free act and deed and the free act and deed of said corporation.

Witness my hand and official seal the day and year last above written.

_____,
Notary Public in and for _____.
[NOTARIAL SEAL]

(My Commission expires_____.)

STATE OF _____,
County of _____, *ss:*

On this _____ day of _____, 19____, at _____, before me appeared _____, in person and to me known, who being by me duly sworn made oath that he is the _____ of the Automobile Manufacturers Association, Inc., the corporation described in and which executed the foregoing instrument, and its agent for this purpose duly authorized, that the seal affixed to said instrument is the corporate seal of said corporation and was so affixed by authority of the Board of Directors thereof, and that he signed said instrument by like authority; and he acknowledged the foregoing instrument to be his free act and deed and the free act and deed of said corporation.

Witness my hand and official seal the day and year last above written.

_____,
Notary Public in and for _____.
[NOTARIAL SEAL]

(My Commission expires _____.)

CERTIFICATION OF AUTHORIZATION

(To be used when the Directors authorize before execution)

I, _____, do hereby certify that I am the _____ of the _____ and that at a meeting of
(Secretary or Clerk)
the Directors of said corporation duly called and held in the city of _____, on the _____ day of _____ 19____, at which a quorum was present, the within agreement was presented to the Directors, and thereupon it was duly voted that _____, the _____, be authorized and directed to execute the said agreement in the name of said corporation, and to cause its corporate seal to be affixed thereto.

In witness whereof, I have hereunto signed my name and affixed the seal of said corporation this _____ day of _____ 19____.

_____ [SEAL]

_____
(Secretary or Clerk)

CERTIFICATE OF RATIFICATION

(To be used when the Directors ratify after execution)

I, _____, do hereby certify that I am the _____ of the _____ and that at a meeting of
(Secretary or Clerk)
the Directors of said corporation duly called and held in the city of _____, on the _____ day of _____ 19____, at which a quorum was present, the within agreement was presented to the Directors, and it was duly voted that the action of _____, the _____, in executing the said agreement in the name of said corporation and in causing the corporate seal to be affixed thereto, be ratified, confirmed, and approved.

In witness whereof, I have hereunto signed my name and affixed the seal of said corporation this _____ day of _____ 19____.

_____ [SEAL]

_____
(Secretary or Clerk)

Digitized by Google

MEMORANDUM OF AGREEMENT

This agreement made and entered into as of the Twenty-seventh day of April, A. D., 1920, by and between La Crosse Plow Company (a Wisconsin corporation), of La Crosse, Wisconsin, party of the first part, and International Harvester Company, a corporation of New Jersey, having its principal office and place of business at Chicago, Illinois, party of the second part, witnesseth:

That whereas said parties have been engaged in the development and manufacture of certain inventions relating to power lift plows set forth in the letters patent and applications for letters patent hereinafter set forth; and whereas each of said parties has found it necessary to use some of the inventions of the other party in the manufacture and sale of power lift plows; desires to avoid litigation between the parties respecting the patent rights of either of the parties; desires to dispense with infringement suits against one another under their respective patents; and desires to encourage the use of said inventions by making it possible for other manufacturers to acquire licenses to use the aforesaid inventions without the necessity of negotiating separate licenses from each of the parties hereto;

Now, therefore, in consideration of the premises, the sum of One Dollar ($1.00) by each party to the other in hand paid, and the mutual promises and considerations hereinafter set forth the parties hereto have agreed and do hereby agree as follows:

I. Party of the first part agrees to convey or cause to be conveyed to the trustees hereinafter named, the following:

UNITED STATES PATENTS

Patent no.	Title	Date of issue	Inventor
1227745	Plow	May 29, 1917	Cameron.
1239559	Tractor Plows	Sept. 11, 1917	Biebinger.
1287874	do	Dec. 17, 1918	Cameron.
1308228	Plow	July 1, 1919	Davis and Cameron.
1338559	do	Apr. 27, 1920	Davis and Biebinger.

CANADIAN PATENTS

182740	Tractor Plow	Mar. 5, 1918	Cameron.

PENDING APPLICATIONS IN THE UNITED STATES

761928	Tractor Plows	Apr. 18, 1913	Davis and Cameron (allowed).
834312	do	Apr. 25, 1914	Cameron.
66195	Plow	Dec. 10, 1915	
151347	do	Feb. 27, 1917	
199068	do	Oct. 29, 1917	
230242	Clutch	Apr. 22, 1918	
231658	Plow	Apr. 21, 1919	
314664	do	Aug. 1, 1919	
315664	do	Aug. 6, 1919	
346754	Tractor Plow	Dec. 22, 1919	
346755	do	do	

It is also understood that this agreement and license (Exhibit A) attached includes any applications or patents for any of the inventions covered by the foregoing which have been, or may be, applied for or procured in the Dominion of Canada by party of the first part.

Digitized by Google

II. Party of the second part agrees to convey or cause to be conveyed to said trustees the following:

UNITED STATES PATENTS

Patent no.	Title	Date of issue	Inventor
1041227	Plow	Oct. 15, 1912	Anderson.
1319483	do	Oct. 21, 1919	Mott.
1084081	Engine Gang Plow	Jan. 13, 1914	Graham.
1119423	Gang Plow	Dec. 1, 1914	Do.
1163143	do	Dec. 7, 1915	Do.
1237505	do	Aug. 21, 1917	Do.
1295479	do	Feb. 25, 1919	Do.
1121844	Power Operated Plow	Dec. 22, 1914	Johnston and Mott.

HALF INTEREST ONLY

1055583	Wheeled Gang Plow	Mar. 11, 1913	Weller.
1019729	Gage Device for Plows	Mar. 5, 1912	Do.

PENDING APPLICATIONS IN THE UNITED STATES

Re.290089	Device for Raising a Gang of Plows.	Feb. 13, 1914	Steward.
202782	Power Lift Plow	Nov. 19, 1917	Lindgren and Johnston.
259959	Power Lift Disk Plow	Oct. 28, 1918	Lindgren.
293756	Power Lift Plow	Apr. 30, 1919	Do.

CANADIAN PATENTS

158163	Engine Gang Plow	Oct. 6, 1914	Graham.
160696	Gang Plow	Feb. 16, 1915	Do.
169032	do	Apr. 25, 1916	Do.
169033	do	do	Do.

PENDING APPLICATIONS IN CANADA

221977	Power Lift Plow	July 19, 1918	Lindgren and Johnston.
233149	Power Lift Disk Plow	Feb. 23, 1920	Lindgren.

It is also understood that this agreement and license (Exhibit A) attached includes any applications or patents for any of the inventions covered by the foregoing which have been, or may be, applied for or procured in the Dominion of Canada by party of the second part.

III. The parties hereto also agree to assign to said trustees all rights of recovery of damages or profits arising from past infringement of the patents herein enumerated.

IV. Said trustees jointly shall hold said patents and rights in trust for the benefit of the parties hereto and subject at all times to all the terms and conditions of, and for the purpose of executing, this agreement. No license respecting any of the aforesaid inventions shall be valid or binding unless and until reduced to writing and executed by both of the trustees.

V. Said trustees shall grant to the parties hereto a license in accordance with and upon the terms, conditions, and restrictions contained and set forth in Exhibit A, which is hereto attached and made a part hereof.

VI. Said trustees shall grant to any and all other party or parties desiring to acquire such rights, a license to manufacture and sell plows embodying one or more of the aforesaid inventions upon the terms and conditions which are set forth in Exhibit B, which is hereto attached and made a part hereof. The terms, considerations, and conditions set forth in said Exhibit B shall govern the grant of all licenses until altered or amended by agreement of the trustees.

It is the intention, and within the contemplation of the parties hereto, that licenses to make and sell plows embodying said inventions shall be granted and that the trustees shall be obligated to grant such licenses to any and all responsible concerns or manufacturers upon substantially equal terms and without restriction, other than that the licensees shall refrain from any unfair

Digitized by Google

competition or unlawful simulation in appearance or marking of the plows of any other licensee, and that the trustees shall do all things reasonably necessary to encourage the sale of such licenses.

VII. Each of the parties hereto shall designate one trustee and the two trustees so designated jointly shall have full power, right, and authority to grant licenses, institute and maintain suits for infringement and to exercise ownership over all of the aforesaid inventions and patents for the benefit of the parties, subject to the terms of this agreement.

VIII. All proceeds and moneys received by the trustees from licenses or in payment of royalties accruing after the date hereof shall be immediately, upon the receipt thereof, divided and distributed as follows:

Sixty per cent (60%) to party of the first part; and

Forty per cent (40%) to party of the second part.

IX. In event of any suit or litigation for infringement of any of the patents held by the trustees under this agreement, the cost of such suit or litigation shall be deducted from the recovery and the excess of the recovery over said cost shall be divided in the same ratio as royalties received and accruing subsequent to the date hereof. If the recovery shall be less than the cost of any such suit or litigation, the deficit shall be borne equally by the parties. During the pendency of any suit or suits, each of the parties shall advance one-half of the cost and expense of such suit or suits.

The cost of conducting any interference proceeding involving any patent or application, which by the terms of this agreement shall be or is to become vested in the trustees, shall be borne equally by the parties.

Each party shall pay its own trustee for such services as he may render in administration of this trust.

X. Party of the first part hereby designates and appoints Fred Gerlach, of Chicago, Illinois, to act as its trustee, and Harry J. Hirshheimer, of La Crosse, Wisconsin, as his successor-in-trust. Party of the second part hereby designates and appoints Arnold B. Keller, of Chicago, Illinois, to act as its trustee, and H. B. Utley, of Chicago, Illinois, as his successor-in-trust. Each of the parties hereto reserves solely unto itself, its successors, assigns, and legal representatives, the right to designate and appoint, at any time, a substitute for the trustee or successor-in-trust herein designated by it. Any substitute so designated and appointed shall have full power to act in lieu of the replaced trustee or successor-in-trust, and any substitution shall become effective upon written notice to the other party or the remaining trustee.

XI. Should either party hereto now own or before the twenty-first day of August 1934, develop or acquire from its employees who are, or may be, under contract with said party to assign their inventions, any improvement or invention in power lift mechanism for plows, said inventions and improvements, together with any patent or patents which may be procured thereon shall be conveyed by the party acquiring the same to the trustees to have and to hold the same subject to the terms and conditions of this agreement with the same force and effect as if such inventions and improvements had been included in Paragraphs I and II of this agreement.

XII. If either party hereto should, in the future, desire to purchase any improvement or invention in, or patent for, power-lift mechanism for plows, other than those specified in paragraph XI, it shall submit the same, with the proposed terms of purchase, to the other party, and such purchase shall then be made for the benefit of both parties, provided each party shall agree to pay one-half of the consideration for said purchase. The title to any improvement or invention or patent therefor, so purchased, shall be conveyed to the trustees, and be held subject to the terms of this agreement. If either party shall be unwilling to contribute one-half of the consideration for such purchase, the other party shall be at liberty to purchase said improvement or invention or patent solely for its own use and benefit, and without subjecting the same to the terms of this agreement.

If either party hereto should in the future desire to purchase or acquire a license to manufacture and sell any invention or improvements relating to power-lifts for plows, it shall submit the same, with the proposed terms of purchase, to the other party and shall require, as a condition to said purchase or acquisiton, that the licensor shall grant to the other party to this agreement like rights upon like terms and conditions, if the other party shall desire to acquire such license.

Digitized by Google

XIIA. It is further agreed and understood that if either party now owns any patent, application or invention relating to power lifts for plows, in addition to those specified in paragraphs I and II hereof, and any patent, application, or invention which is necessary, in the manufacture and sale, to the other party or any licensee, of plows embodying the power-lift mechanism set forth in patents and applications specified in paragraphs I and II, said additional applications, patents, or inventions shall be regarded as included in this agreement to the extent necessary to empower the parties hereto and all licensees to use the same in the licensed plows.

Neither party hereto shall be under any obligation to convey to the trustees any interest in, or right to make or sell, any invention or improvement that relates solely to, or is usable solely in, any implement other than a power lift plow. It is understood and agreed that if either party should acquire or become vested with any improvements or invention in any power-lift mechanism which is susceptible of use in plows and other agricultural implements, the party acquiring or becoming vested therewith shall convey to the trustees the exclusive right to make and sell said invention or improvements in power-lift plows, reserving unto itself all rights to make use and sell the same for all other implements, purposes, and uses.

XIII. All moneys which may be received by the trustees in payment of royalties for, or in settlement of, plows sold by the Janesville Machine Company or its successor, the Samson Tractor Company, prior to April 27, 1920, shall belong and be paid by the trustees to the La Crosse Plow Company. In making such settlement, the trustees shall act solely as the agents of, and under the direction of, the La Crosse Plow Company upon terms acceptable to said company.

XIV. All moneys which may be received by the trustees in payment for, or in settlement of, plows sold prior to April 27, 1920, by the Vulcan Plow Company, of Evansville, Indiana; Bucher and Gibbs Company, of Canton, Ohio; and Collins Plow Company, of Quincy, Illinois, shall belong and be paid by the trustees to the International Harvester Company. In making such settlement, the trustees shall act solely as the agents of, and under the direction of, the International Harvester Company upon terms acceptable to said company.

XV. All other royalties or moneys received by the trustees in payment for, or in settlement of, plows sold prior to the 27th day of April 1920, shall be divided between the parties in accordance with Paragraph VII of the agreement of April 27, 1920, it being understood by and between the parties hereto that the right of International Harvester Company to recover past damages and profits for infringement of those patents recited in the agreement of April 27, 1920, which were acquired by said Company from Parlin and Orendorff Company does not include the right to collect any damages or profits accruing for infringement of said patents prior to July 1, 1919.

XVI. All settlements for royalties due or infringements occurring prior to April 27, 1920, and referred to in Paragraph XV, shall be made upon terms that are acceptable to both of the trustees.

If, at any time, the trustees shall be unable to agree upon the terms of settlement for royalties due or infringements occurring prior to April 27, 1920, from any infringer, and said infringer shall agree to take a license and pay all royalties accruing since said date, upon the terms herein established, the trustee shall grant such license, if either of them shall request that such license be granted. In such license, the trustees shall specifically reserve unto themselves and exempt all rights of action accruing for infringement prior to said date.

Any offer in settlement for royalties due or infringements occurring prior to April 27, 1920, at the rate of Three Dollars ($3.00) per plow implement up to and including three thousand (3,000) implements, and One Dollar ($1.00) per plow bottom upon all implements in excess of the number of three thousand (3,000), but not to exceed Two and One-Half Dollars ($2.50) per implement shall be accepted by the trustees.

XVII. This agreement shall remain in force until the expiration of the patents which have been, or may be, conveyed or granted to the trustees under this agreemnt, and this agreement shall be binding upon and inure to the beenfit of the sucessors, assigns, and legal representatives of the parties of the first and second parts hereto.

Digitized by Google

In witness whereof, the parties have hereunto set their hands and seals the day and year first above written.

LA CROSSE PLOW COMPANY,
By (Signed) A. HIRSHHEIMER, *President.*

Attest:

(Signed) L. C. HIRSHHEIMER, *Secretary.*

INTERNATIONAL HARVESTER COMPANY,
By (Signed) H. F. PERKINS, *Vice-President.*

Attest:

(Signed) FRANKLIN HESS, *Ass. Secretary.*

EXHIBIT A

LICENSE AGREEMENT

Whereas, the undersigned (signed) Fred Gerlach, of Chicago, Ill., and (signed) Arnold B. Keller, of Chicago, Ill., are the owners in trust of the following:

(*a*) *Acquired from La Crosse Plow Company*

UNITED STATES PATENTS

Patent no.	Title	Date of issue	Inventor
1227745	Plow	May 29, 1917	Cameron.
1239559	Tractor Plows	Sept. 11, 1917	Biebinger.
1287874	do	Dec. 17, 1918	Cameron.
1306228	Plow	July 1, 1919	Davis and Cameron.
1338559	do	Apr. 27, 1920	Davis and Biebinger.

CANADIAN PATENTS

182740	Tractor Plow	Mar. 5, 1918	Cameron.

PENDING APPLICATIONS IN THE UNITED STATES

761928	Tractor Plows	Apr. 18, 1913	Davis and Cameron (allowed).
834312	do	Apr. 25, 1914	Cameron.
66195	Plow	Dec. 10, 1915	
151347	do	Feb. 27, 1917	
199068	do	Oct. 29, 1917	
230242	Clutch	Apr. 22, 1918	
291558	Plow	Apr. 21, 1919	
314064	do	Aug. 1, 1919	
315664	do	Aug. 6, 1919	
346784	Tractor Plow	Dec. 22, 1919	
346755	do	do	

(*b*) *Acquired from International Harvester Company*

UNITED STATES PATENTS

Patent no.	Title	Date of issue	Inventor
1041227	Plow	Oct. 15, 1912	Anderson.
1319483	do	Oct. 21, 1919	Mott.
1084081	Engine Gang Plow	Jan. 13, 1914	Graham.
1119423	Gang Plow	Dec. 1, 1914	Do.
1163143	do	Dec. 7, 1915	Do.
1237505	do	Aug. 21, 1917	Do.
1295479	do	Feb. 25, 1919	Do.
1121844	Power Operated Plow	Dec. 22, 1914	Johnston and Mott.

Digitized by Google

(b) Acquired from International Harvester Company—Continued

HALF-INTEREST ONLY

Patent no.	Title	Date of issue	Inventor
1055583	Wheeled Gang Plow	Mar. 11, 1913	Weller.
1019729	Gage Device for Plows	Mar. 5, 1912	Do.
PENDING APPLICATIONS IN THE UNITED STATES			
Re. 290089	Device for Raising a Gang of Plows.	Feb. 13, 1914	Steward.
202782	Power Lift Plow	Nov. 19, 1917	Lindgren and Johnston.
259959	Power Lift Disk Plow	Oct. 28, 1918	Lindgren.
293755	Power Lift Plow	Apr. 30, 1919	Do.
CANADIAN PATENTS			
158163	Engine Gang Plow	Oct. 6, 1914	Graham.
160698	Gang Plow	Feb. 16, 1915	Do.
169032	do	Apr. 25, 1916	Do.
169033	do	do	Do.
PENDING APPLICATIONS IN CANADA			
221977	Power Lift Plow	July 19, 1918	Lindgren and Johnston.
238149	Power Lift Disk Plow	Feb. 23, 1920	Lindgren.

in accordance with the terms of, and under an agreement made and entered into as of the 27th day of April, A. D. 1920, by and between La Crosse Plow Company (a Wisconsin corporation), of La Crosse, Wisconsin, party of the first part, and International Harvester Company (a New Jersey corporation), of Chicago, Illinois, party of the second part; and

Whereas said agreement provides that a license to manufacture and sell plows, embodying the improvements and inventions set forth in the aforesaid applications and letters patent, shall be granted to said companies;

Now, therefore, pursuant to, and under the terms of said agreement, and particularly Paragraph V thereof, and in consideration of the sum of One Dollar ($1.00) from each of the licensee parties, the receipt of which is hereby acknowledged:

I. The aforesaid (signed) Fred Gerlach and (signed) Arnold B. Keller, as trustees, do hereby license and empower:

(A) Said La Crosse Plow Company to make, use, and sell in the United States and Canada plows embodying all singular the improvements and inventions set forth in all and singular the aforesaid letters patent and applications for letters patent to the full end of the terms for which said letters patent have been, or for which letters patent may be granted therefor, or any reissues or extensions thereof, without the payment of royalty, except as hereinafter provided;

(B) Said International Harvester Company to make, use, and sell in the United States and Canada plows embodying all and singular the improvements and inventions set forth in all and singular the aforesaid letters patent and applications for letters patent, to the full end of the terms for which said letters patent have been, or for which letters patent may be granted therefor, or any reissues or extensions thereof, without the payment of royalty, except as hereinafter provided.

II. The foregoing license to the International Harvester Company shall be construed and understood to include the following subsidiary companies, to-wit:

(1) Chattanooga Plow Company, a corporation organized under the laws of the State of Tennessee, located at Chattanooga, Tennessee;

(2) International Harvester Company of Canada, Limited, a corporation organized under the laws of the Dominion of Canada, having its principal place of business at Chicago, Illinois; and

(3) International Plow Works of Canada, Limited, a corporation organized under the laws of the Dominion of Canada, having its general office located at Chicago, Illinois.

Digitized by Google

III. The exemption from the payment of royalties by the International Harvester Company for the right to use the licensed improvements and inventions shall extend to plows manufactured in the plants now owned by it and the aforesaid subsidiaries. If said International Harvester Company (a New Jersey corporation) shall hereafter acquire any other plant for the manufacture of plows or any other subsidiary than those aforesaid, it shall pay to the undersigned the established royalties upon all plows embodying the aforesaid inventions or any of them made in or by said hereafter-acquired plants or subsidiaries.

IV. The exemption from payment of royalties by the aforesaid La Crosse Plow Company for the right to use the licensed improvements and inventions shall extend to all plows manufactured in the plants now owned or controlled by it and any which it may hereafter acquire or by any subsidiaries it may hereafter acquire, provided that the aggregate number of plows made and sold during any calendar year by said company and its subsidiaries shall not exceed two-thirds (⅔rds) of the aggregate number of plows made and sold by the International Harvester Company and its subsidiaries during the same year. Said La Crosse Plow Company shall pay to the undersigned the established royalty upon all plows which may be made by it or its subsidiaries in excess of said two-thirds (⅔rds) of the aggregate number made by the International Harvester Company and its subsidiaries during the corresponding calendar year.

V. It is understood and agreed that the rights to make and sell plows embodying any and all improvements which the undersigned may acquire under and in accordance with paragraphs XI and XII of the aforesaid agreement of the 27th day of April, A. D. 1920, are included in the foregoing licenses to the said International Harvester Company and the La Crosse Plow Company.

V. The rights and license privileges aforesaid are not divisible and shall not be assignable by either party, except only in connection with its plow business in entirety, including all of its subsidiaries. If either party should separately dispose of any of its subsidiaries the transferee shall be obligated to pay royalties upon all plows embodying the aforesaid inventions and improvements aforesaid made and sold by it subsequent to the date of the transfer.

Done at Chicago, Illinois, this 28th day of July 1920.

(Signed) FRED GERLACH,
(Signed) ARNOLD B. KELLER,
Trustees.

Accepted and agreed to:

LA CROSSE PLOW COMPANY,
By (Signed) A. HIRSHHEIMER, *President.*
INTERNATIONAL HARVESTER COMPANY,
By (Signed) H. F. PERKINS, *Vice-President.*

EXHIBIT B

LICENSE

Agreement made and entered into this_____ day of_____, A. D. 1920, by and between (*trustee*) of (*location of trustee*) and (*trustee*) of (*location of trustee*), trustees, parties of the one part, hereinafter designated the "licensors" and (*name of licensee*) of (*location of licensee*), party of the other part, hereinafter designated the "licensee", witnesseth:

That whereas the licensors are the owners in trust of the following:

UNITED STATES PATENTS

Patent no.	Title	Date of issue	Inventor
1019729	Gage Device for Plow	Mar. 5, 1912	Weiler (half interest).
1041227	Plow	Oct. 15, 1912	Anderson.
1055583	Wheeler Gang Plow	Mar. 11, 1913	Weiler (half interest).
1084081	Engine Gang Plow	Jan. 13, 1914	Graham.
1119423	Gang Plow	Dec. 1, 1914	Do.
1121844	Power Operated Plow	Dec. 22, 1914	Johnston and Mott.
1168143	Gang Plow	Dec. 7, 1915	Graham.
1227745	Plow	May 29, 1917	Cameron.
1237505	Gang Plow	Aug. 21, 1917	Graham.
1239559	Tractor Plows	Sept. 11, 1917	Biebinger.
1287874	----do	Dec. 17, 1918	Cameron.
1295479	Gang Plow	Feb. 25, 1919	Graham.
1308228	Plow	July 1, 1919	Davis and Cameron.
1319483	----do	Oct. 21, 1919	Mott.
1338559	----do	Apr. 27, 1920	Davis and Biebinger.

Digitized by Google

PENDING APPLICATIONS IN THE UNITED STATES

Patent no.	Title	Date of issue	Inventor
761928	Tractor Plows	Apr. 18, 1913	Davis and Cameron (Allowed).
818458	Device for Raising a Gang of Plows.	Feb. 13, 1914	Steward.
Re. 290089	do	Apr. 14, 1919	Do.
834312	Tractor Plows	Apr. 25, 1914	Cameron.
66195	Plow	Dec. 10, 1915	
151347	do	Feb. 27, 1917	
199068	do	Oct. 29, 1917	
202782	Power Lift Plow	Nov. 19, 1917	Lindgren and Johnston.
230242	Clutch	Apr. 22, 1918	
259959	Power Lift Disk Plow	Oct. 28, 1918	Lindgren.
291658	Plow	Apr. 21, 1919	
293756	Power Lift Plow	Apr. 30, 1919	Do.
314664	Plow	Aug. 1, 1919	Cameron.
315664	do	Aug. 6, 1919	
346754	Tractor Plow	Dec. 22, 1919	
346755	do	do	

CANADIAN PATENTS

158163	Engine Gang Plow	Oct. 6, 1914	Graham.
160698	Gang Plow	Feb. 16, 1915	Do.
169032	do	Apr. 25, 1916	Do.
169033	do	do	Do.
182740	Tractor Plow	Mar. 5, 1918	Cameron.

PENDING APPLICATIONS IN CANADA

221977	Power Lift Plow	July 19, 1918	Lindgren and Johnston.
238149	Power Lift Disk Plow	Feb. 23, 1920	Lindgren.

And whereas the licensee is desirous of acquiring the right to manufacture, use, and sell plows embodying the inventions and improvements aforesaid under and by virtue of the aforesaid letters patent and those which may be granted upon the aforesaid applications or any reissues or extensions thereof, throughout the United States and the Dominion of Canada;

Now, therefore, in consideration of the premises, and the mutual considerations hereinafter set forth, it is hereby agreed as follows:

I. The licensors hereby license and empower the licensee to manufacture and sell plows embodying the inventions and improvements embodied in the aforesaid letters patent and applications throughout the United States and the Dominion of Canada, subject to the following terms and conditions and subject to the performance, well and truly to be made, by the licensee of all and singular the promises and obligations hereinafter made.

II. The licensee agrees—

(a) to pay the licensors a royalty on each and every plow manufactured and sold by said licensee and embodying any of the inventions or improvements at the rate of fifty cents (50¢) for each plow bottom on or adapted to be carried by the plow;

(b) to account on the 20th day of January and July of each year for the semi-annual periods ending on the first days of said months and to pay on said accounting days the royalties accruing during the immediately preceding semi-annual period;

(c) to keep full and true records of all business done in the manufacture and sale of the licensed plows, which shall be open to the inspection at all reasonable times of the licensors or an accountant duly authorized by them;

(d) to mark all licensed plows "patented", together with the dates of any and all patents which cover said plows.

III. It is understood and agreed that the licensee, in exercise of the license hereby acquired, shall no copy or simulate in appearance, dress, or design, licensed plows manufactured and sold by any other licensee, in order to avoid any confusion or unfair competition in trade between the goods of the various licensees.

IV. Upon failure to perform any of the obligations herein assumed, or in case of a breach by the licensee, the licensors shall have the right to terminate

Digitized by Google

this license, provided that the licensee shall not make good any default or remedy the breach within ten (10) days from a written notice thereof by the licensors. Such termination shall not release the licensee from payment of any royalties accruing prior to such termination.

V. Unless terminated as aforesaid, this agreement shall remain in force until the expiration of the patents under which license is hereby given.

VI. This license shall be transferable with the entire business and good will of the licensee, but not otherwise assignable, and is not divisible.

Done at Chicago, Illinois, the day and year first above written.

Trustees.

Licensee.

INTERNATIONAL BUSINESS MACHINES CORPORATION,
New York, December 31, 1935.

Hon. WILLIAM I. SIROVICH,
Chairman, Committee on Patents, House of Representatives,
Fifth Avenue Hotel, 24 Fifth Avenue, New York, N. Y.

SIR: In accordance with letter written in my absence under date of November 19, 1935, I submit the following data on patents as requested in your letter of November 6, 1935. The information given applies not only to International Business Machines Corporation and its divisions but to subsidiary predecessors and affiliated companies of such corporation and to a wholly owned existing subsidiary, Electromatic Typewriters, Inc.

The information is grouped under numbered headings corresponding to those of the questionnaire.

1. The attached list of patents marked (1) comprises (1*a*) a list of all patents directly owned by International Business Machines Corporation as of December 3, 1935; (1*b*) a list of all patents directly owned as of December 3, 1935, by Electromatic Typewriters, Inc., a wholly owned subsidiary; (1*c*) a list of all patents (as complete as now ascertained) under which International Business Machines Corporation or its predecessor subsidiaries (now merged in it) or its existing subsidiary, Electromatic Typewriters, Inc., have rights in patents acquired from others under simple license (not cross-licenses or under patent-pooling agreements). There are still other patents owned by others as to which this company may have license rights.

NOTE.—On the lists the symbols U, X, Y, and Z after the respective patents refer to question 8 of the questionnaire.

NOTE.—As to patents under cross-license or patent-pooling agreements see following answer to question no. 4.

2. We are making use of or have made use of all of our patents commercially or upon past, present, and impending development of our products. All of our inventors have access in making new improvements to all of our existing or previously made improvements.

3. Copy of articles of incorporation are herewith attached and marked "3."

4. The company is not a party to any existing cross-license or patent-pooling agreement.

5. See paragraph no. 4 supra.

6. See paragraph no. 4 supra.

7. No; see paragraph no. 4 supra.

8. See attached lists of patents. The symbols on the margin indicate the following:

U. Inventor was employed by assignee corporation or associated and/or subsidiary corporation at time of making invention and is still so employed.

X. Inventor was employed by assignee corporation or associated and/or subsidiary corporation at time of making invention, but is not now so employed.

Y. Inventor was not employed by assignee corporation or associated and/or subsidiary corporation at time of making invention, but is now so employed.

Z. Inventor was not employed by assignee corporation or associated and/or subsidiary corporation at time of making invention and is not now so employed.

As to the query, in paragraph 8, "If so, does assignee retain contract providing such invention shall belong to employer without additional cost?" the

Digitized by Google

following explanation is submitted as to inventions made by employee inventors: Such inventions are usually assigned to the corporation without special extra compensation, but in especially meritorious cases, special extra compensation has been paid to employee inventors.

9. See paragraph no. 4 supra.

10. See paragraph no. 4 supra.

11. See paragraph no. 4 supra.

12. We believe that the present patent laws are adequate and that the improvements to be made should be in the existing system and procedure in the Patent Office rather than by amendments or changes in the basic law. If procedure, which is already under control of the Commissioner of Patents, with respect to pending applications, were simplified and clarified; if more extensive and comprehensive searches be made in the Patent Office before allowance of patents, and if interference procedure in the Patent Office were expedited and simplified, better patents and (probably) a greater percentage of valid patents would be issued more expeditiously and with less technical complication. Better patents more quickly obtained would be of advantage to the general public and would afford adequate protection to meritorious inventions. Ultimately such changes, which might require enlargement of Patent Office personnel and direction and guidance of such personnel to the outlined ends, would effect greater justice to inventors and to the public and would diminish litigation and controversies as to patented inventions.

Your respectfully,

THOS. J. WATSON, *President.*

CERTIFICATE OF INCORPORATION OF COMPUTING-TABULATING-RECORDING-CO.

The undersigned, all of whom are natural persons of full age and citizens of the United States, and at least one a resident of the State of New York, being desirous of becoming a corporation, other than a monied corporation or a corporation provided for by the banking, the insurance, the railroad, and the transportation corporation laws, or an educational institution or corporation which may be incorporated as provided in the Education Law, pursuant to the provisions of the Business Corporations Law of the State of New York, do hereby make, sign, and acknowledge this certificate stating as follows:

First. The name of the proposed corporation is "Computing-Tabulating-Recording-Co."

Second. The purposes for which it is formed are:

To manufacture, use, buy, sell, lease, deal in, or in any way turn to account patented and unpatented machines, apparatus, appliances, products, and property.

To manufacture, use, buy, sell, lease, and deal in all materials and articles required in the manufacture and use of the aforesaid machines, apparatus, appliances, products, and property.

To manufacture, buy, sell, and deal in cards and stationery and other articles required in the use of or used in connection with the machines manufactured, sold, or leased by the Company or otherwise utilized.

To apply for, purchase, acquire, register, hold, own, use, sell, assign, lease, mortgage, or otherwise dispose of, as well as to grant licenses in respect of, or otherwise turn to account letters patent of the United States and of any foreign country, patents, patent rights, licenses, privileges, inventions, improvements, formulæ, and processes, trade marks and trade names, and pending applications for patents and trade marks, to use, work, and develop the same in the conduct of any business, manufacturing or otherwise, in any part of the United States or abroad.

In general to carry on any other manufacturing or distributing business in connection with the foregoing and to have and to exercise all the powers conferred by the laws of the State of New York upon corporations formed under the Business Corporations Law.

Third. The amount of the capital stock is Ten thousand Dollars ($10,000) all of which shall be of one class.

Fourth. The number of shares of which the capital stock shall consist is one hundred (100) of the par value of One hundred Dollars ($100) each.

The amount of capital with which said corporation will begin business is Five hundred Dollars ($500).

Fifth. The location of the principal business office is to be in the Town of Endicott, County of Broome, and State of New York.

Sixth. The duration of the corporation is to be perpetual.

Seventh. The number of the Directors of the corporation shall be five.

Digitized by Google

Eighth. The names and post office addresses of the Directors for the first year are as follows: Percy H. Brundage, 135 Broadway, Borough of Manhattan, New York City; Frederick H. Allen, 63 Wall Street, Borough of Manhattan, New York City; Walter Havlland, 60 Ann Street, Borough of Manhattan, New York City; William H. Wingate, 306 West Ninety-third Street, Borough of Manhattan, New York City; Reginald P. Walden, 26 Broadway, Borough of Manhattan, New York City.

Ninth. The names and post office addresses of the subscribers to the certificate and a statement of the number of shares of stock which each agrees to take in the corporation are as follows: Percy H. Brundage, 135 Broadway, Borough of Manhattan, New York City, 1; Frederick H. Allen, 63 Wall Street, Borough of Manhattan, New York City, 1; Walter Haviland, 60 Ann Street, Borough of Manhattan, New York City, 1; William H. Wingate, 306 West Ninety-third Street, Borough of Manhattan, New York City, 1; Reginald P. Walden, 26 Broadway, Borough of Manhattan, New York City, 1.

Tenth. Said corporation may purchase, acquire, hold and dispose of the stock, bonds and other evidences of indebtedness of any corporation, domestic or foreign, and issue in exchange therefor its stock, bonds or other obligations.

Eleventh. The Directors may designate from their number an Executive Committee which shall for the time being in the intervals between its meetings and to the extent provided by the By-Laws exercise the power of the Board of Directors so far as it may lawfully do so in the management of the affairs and business of the Company.

The Board of Directors shall from time to time decide whether and to what extent and at what times and under what conditions and requirements the accounts and books of the corporation, or any of them, except the stock book, shall be open to the inspection of the Stockholders, and no Stockholder shall have any right to inspect any books or documents of the corporation except as conferred by statute in New York or authorized by the Board of Directors.

The Directors of the corporation need not be Stockholders therein.

Twelfth. The Company may use and apply the surplus, property, earnings or accumulated profits in the absolute discretion of the Directors to the creation and maintenance of a surplus fund and to the purchase and acquisition of its own capital stock and it may take said capital stock in payment or satisfaction of any debt due to the Company from time to time and to such extent and manner and upon such terms as the Directors shall determine and may re-issue any stock so acquired.

Thirteenth. A director of this Company shall not be disqualified by his office from contracting with the Company, either as vendor, purchaser or otherwise, nor shall any such contract, or any contract or arrangement entered into by or on behalf of the Company, in which any Director shall be in any way interested, be avoided on that account, or by reason of the fact that any firm of which such Director is a member or any corporation in which such Director is a Shareholder or a Director shall be interested therein; Provided such contract shall have been adopted or authorized by a vote of at least a majority of the whole Board of Directors not interested in any way therein or shall have been ratified and approved by the affirmative vote of holders of a majority in amount of the capital stock of the Company; nor shall any Director so contracting or so interested be liable to account to the Company for any profit realized by him from or through any such contract or arrangement so adopted by the Board of Directors, or ratified and approved by the Stockholders in the manner aforesaid, by reason of such Director holding such office or the fiduciary relation thereby established, provided such Director shall have disclosed the fact of his interest in such contract or arrangement at the meeting of the Directors or Stockholders at which the contract or arrangement is so adopted and determined upon, or so ratified and approved by the Stockholders.

In witness whereof, we have made, signed and acknowledged this certificate this 14th day of June 1911.

In the presence of:

REGINALD P. WALDEN.
PERCY H. BRUNDAGE.
WALTER HAVILAND.
W. H. WINGATE.
FREDERICK H. ALLEN.
WM. REDFIELD PORTER.

Digitized by Google

STATE OF NEW YORK,
County of New York, ss:

On this 14th day of June 1911, before me personally came Percy H. Brundage, Frederick H. Allen, Walter Haviland, William H. Wingate, and Reginald P. Walden, to me known and known to me to be the individuals described in and who executed the foregoing instrument and severally duly acknowledged to me that they executed the same.

[SEAL]

WM. REDFIELD PORTER,
Notary Public, New York County.

STATE OF NEW YORK
Department of State, ss:

I certify that I have compared the preceding copy with the original Certificate of Incorporation of "Computing-Tabulating-Recording-Co.," filed in this department on the 16th day of June 1911, and that such copy is a correct transcript therefrom and of the whole of such original.

Witness my hand and the official seal of the Department of State at the City of Albany, this 21st day of July 1933.

FRANK S. SHARP,
Deputy Secretary of State.

No. 23738

STATE OF NEW YORK,
County of New York, ss:

I, William F. Schnelder, clerk of the County of New York, and also clerk of the Supreme Court for the said county, the same being a Court of Record, do hereby certify, that Wm. Redfield Porter, whose name is subscribed to the certificate of the proof or acknowledgment of the annexed instrument, and thereon written, was, at the time of taking such proof or acknowledgment, a notary public in and for the county of New York, dwelling in the said county, commissioned and sworn, and duly authorized to take the same. And further that I am well acquainted with the handwriting of such Notary, and verily believe that the signature to the said certificate of proof or acknowledgment is genuine.

In testimony whereof, I have hereunto set my hand and affixed the seal of the said court and county, the _____ day of _____ 191__.

[SEAL] WM. F. SCHNEIDER.

(Endorsement on back:) Book 350, page 27. Certificate of incorporation of Computing-Tabulating-Recording Co. Tax for privilege of organization of this corporation. $5, under section 180, chapter 62, laws of 1900, as amended, paid to State treasurer before filing. State of New York, Office of secretary of state. Filed and recorded June 16, 1911. Edward Lazansky, secretary of state.

The undersigned, being all of the Stockholders of Computing-Tabulating-Recording-Co., a stock corporation organized and existing under and by virtue of the laws of the State of New York, each of whom is the owner of one share of the Capital Stock of said Company amounting in the aggregate to the sum of Five hundred Dollars ($500), being the total amount of the issued and outstanding Capital Stock of said Company,

Do hereby consent, pursuant to the provisions of the stock Corporation Law of the State of New York, Section 63 thereof, that the present authorized Capital stock of said corporation, to wit: Ten thousand Dollars ($10,000) consisting of one hundred (100) shares of the par value of One hundred Dollars ($100) each be increased to Twelve million Dollars ($12,000,000) to consist of one hundred and twenty thousand (120,000) shares of the par value of One hundred Dollars ($100) each, being an increase of 119,900 shares of one hundred Dollars ($100) each, and we do hereby authorize such increase of stock and empower the officers of the corporation to do all acts and things necessary to effectuate such increase of Capital Stock, and we do hereby, pursuant to Section 64 of the Stock Corporation Law of the State of New York certify as follows:

The amount of the Capital Stock of said corporation heretofore authorized is Ten thousand Dollars ($10,000); the proportion thereof actually issued is Five hundred Dollars ($500); the amount of increased capital Stock is Twelve million Dollars ($12,000,000).

Digitized by Google

In witness whereof, we have caused a copy of this Consent to be entered on the Minutes of the corporation and have hereunto set our hands and seals in duplicate this fifth day of July, one thousand nine hundred and eleven.

	Shares owned
Percy H. Brundage	1
William H. Wingate	1
Walter Haviland	1
Frederick H. Allen	1
Reginald P. Walden	1

STATE OF NEW YORK,
County of New York, ss:

On this 5th day of July 1911, before me personally came Percy H. Brundage, Frederick H. Allen, Walter Havlland, William H. Wingate, and Reginald P. Walden, to me known and known to me to be the individuals described in and who executed the foregoing instrument and severally duly acknowledged to me that they executed the same.

[SEAL]

WM. REDFIELD PORTER,
Notary Public, New York County.

STATE OF NEW YORK,
County of New York, ss:

Walter Haviland being duly sworn, deposes and says that he is the Secretary of the Computing-Tabulating-Recording Co., the corporation named in the foregoing instrument; that he is the custodian of the Stock Book of said corporation; that Percy H. Brundage, Frederick H. Allen, Walter Haviland, William H. Wingate, and Reginald P. Walden, the persons who have signed the foregoing instrument are all the stockholders of said corporation and that they are the holders of one-third of the entire Capital Stock of said corporation issued and outstanding.

WALTER HAVILAND.

Sworn to before me this 5th day of July, 1911.

WM. REDFIELD PORTER,
Notary Public, New York City.

STATE OF NEW YORK,
Department of State, ss:

I certify that I have compared the preceding copy with the original Certificate to Increase the Capital Stock of Computing-Tabulating-Recording Co., filed in this department on the 10th day of July, 1911, and that such copy is a correct transcript therefrom and of the whole of such original.

Witness my hand and the official seal of the Department of State, at the City of Albany, this 20th day of July, one thousand nine hundred and thirty-three.

FRANK S. SHARP,
Deputy Secretary of State.

No. 25303.

STATE OF NEW YORK,
County of New York, ss:

I, William F. Schneider, clerk of the county of New York, and also Clerk of the Supreme Court for the said County, the same being a court of record, do hereby certify, That Wm. Redfield Porter, whose name is subscribed to the certificate of the proof or acknowledgment of the annexed instrument, and thereon written, was, at the time of taking such proof or acknowledgment, a notary public in and for the county of New York, dwelling in the said county, commissioned and sworn, and duly authorized to take the same. And further, that I am well acquainted with the handwriting of such notary, and verily believe that the signature to the said certificate of proof or acknowledgment is genuine.

In testimony whereof, I have hereunto set my hand and affixed the seal of the said said Court and County, the day of 191 .

WM. F. SCHNEIDER, *Clerk.*

(Endorsement on back:) Book 361, page 709. Computing-Tabulating-Recording-Co. Unanimous Consent of Stockholders to Increase of Capital Stock. Tax for privilege of increase of capital of this Corporation, $5,995.00, under

Digitized by Google

Section 180, Chapter 62, Laws of 1909, as amended, paid to State Treasurer before filing. State of New York, Office of Secretary of State. Filed and Recorded July 10, 1911. Edward Lazansky, Secretary of State.

We, the undersigned, being all of the stockholders and holders of record of the entire capital stock issued and outstanding of Computing-Tabulating-Recording-Co., a corporation duly organized and existing under the laws of the State of New York, do hereby, pursuant to the provisions of the Stock Corporation Law, Section 26, agree and consent that the Board of Directors of said corporation shall be increased from five, the present number thereof, to fifteen.

In witness whereof we, the above-mentioned stockholders and holders of record of the entire issued and outstanding capital stock of said Company, have made, signed, and executed this instrument in duplicate.

Dated the 13th day of July 1911.

FREDERICK H. ALLEN.
REGINALD P. WALDEN.
WILLIAM H. WINGATE.
PERCY H. BRUNDAGE.
WALTER HAVILAND.

STATE OF NEW YORK,
County of New York, ss:

On this 13th day of July 1911, before me personally came Percy H. Brundage, William H. Wingate, Frederick H. Allen, Walter Haviland, and Reginald P. Walden, to me known and known to me to be the individuals described in and who executed the foregoing instrument and they severally acknowledged to me that they executed the same.

WM. REDFIELD PORTER,
Notary Public, New York County.

STATE OF NEW YORK,
County of New York, ss: No. 25867

I, William F. Schneider, Clerk of the County of New York, and also Clerk of the Supreme Court for the said County the same being a Court of Record, do hereby certify, That W. Redfield Porter, whose name is subscribed to the Certificate of the proof or acknowledgment of the annexed instrument, and thereon written, was, at the time of taking such proof or acknowledgement, a Notary Public in and for the County of New York, dwelling in the said County, commissioned and sworn, and duly authorized to take the same. And further that I am well acquainted with the handwriting of such Notary, and verily believe that the signature to the said certificate of proof or acknowledgment is genuine.

In testimony whereof I have hereunto set my hand and affixed the seal of the said Court and County, the _____ day of July 191__.

W. F. SCHNEIDER, *Clerk.*

STATE OF NEW YORK,
County of New York, ss: No. 9615

I, William F. Schneider, Clerk of the County of New York, and also Clerk of the Supreme Court of said County, the same being a Court of Record, do hereby certify, That W. Redfield Porter, before whom the annexed deposition was taken, was, at the time of taking the same, a Notary Public of New York, dwelling in said County, duly appointed and sworn, and authorized to administer oaths to be used in my Court in said State, and for general purposes; that I am well acquainted with the handwriting of said Notary, and that his signature thereto is genuine, as I verily believe.

In testimony whereof, I have hereunto set my hand and affixed the seal of the said Court and County, the _____ day of July 191__.

W. F. SCHNEIDER, *Clerk.*

STATE OF NEW YORK,
County of New York, ss:

Walter Haviland, being duly sworn, deposes and says that he is the Secretary of Computing-Tabulating-Recording-Co., the corporation mentioned in the foregoing instrument; that he is the custodian of the Stock-Book containing

Digitized by Google

the names of the stockholders of said corporation; that Percy H. Brundage, William H. Wingate, Frederick H. Allen, Walter Haviland, and Reginald P. Walden, the persons who signed the foregoing instrument are all the stockholders of the said Computing-Tabulating-Recording-Co., and they are the holders of record of the entire capital stock of said corporation issued and outstanding.

[SEAL] WALTER HAVILAND.

Sworn to before me this 13th day of July 1911.

WM. REDFIELD PORTER,
Notary Public, New York County.

STATE OF NEW YORK,
Department of State, ss:

I certify that I have compared the preceding copy with the original Certificate to Increase the number of Directors of Computing-Tabulating-Recording-Co., filed in this department on the 15th day of July 1911, and that such copy is a correct transcript therefrom and of the whole of such original.

Witness my hand and the official seal of the Department of State at the City of Albany, this 20th day of July, one thousand nine hundred and thirty-three.

[SEAL] FRANK S. SHARP,
Deputy Secretary of State.

(Endorsement on back:) Book 362, Page 259. Computing-Tabulating-Recording Co. Certificate of increase of the number of directors. State of New York, Office of Secretary of State. Filed and Recorded July 15, 1911. Edward Layansky, Secretary of State.

We, the undersigned, a majority of the Directors of Computing-Tabulating-Recording-Co., a corporation formed under the provisions of the Business Corporations Law of the State of New York, do hereby certify:

That the amount of the capital stock of the said corporation is Twelve million Dollars ($12,000,000) and that one-half thereof, to wit, Six million Dollars ($6,000,000) was paid in within one year from its incorporation.

In witness whereof we have signed and acknowledged this certificate in duplicate this 15th day of July 1911.

PERCY H. BRUNDAGE.
WILLIAM H. WINGATE.
WALTER HAVILAND.

STATE OF NEW YORK,
County of New York, ss:

On this 15th day of July 1911, before me personally came Percy H. Brundage, William Watergate, and Walter Haviland, to me personally known and known to me to be the persons described in and who executed the foregoing certificate and severally acknowledged to me that they executed the same.

JAMES D. HURD.

No. 14068.

STATE OF NEW YORK,
County of New York, ss:

I, William F. Schneider, Clerk of the County of New York, and also Clerk of the Supreme Court for the said County, the same being a Court of Record, do hereby certify, That James D. Hurd has filed in the Clerk's Office of the County of New York a certified copy of his appointment and qualification as Notary Public for the County of Kings, with his autograph signature, and was at the time of taking the proof or acknowledgment of the annexed instrument duly authorized to take the same. And further, that I am well acquainted with the handwriting of such Notary, and believe the signature to the said certificate of proof or acknowledgment to be genuine.

In Testimony Whereof, I have hereunto set my hand and affixed the seal of the said Court and County, the 19th day of July 191__.

[SEAL] W. F. SCHNEIDER, *Clerk.*

Digitized by Google

STATE OF NEW YORK,
County of New York, ss:

Percy H. Brundage and Walter Haviland, being severally duly sworn, each for himself deposes and says, that he, the said Percy H. Brundage, is the President of Computing-Tabulating-Recording-Co., and that he, the said Walter Haviland, is the Secretary thereof, and that the statements contained in the foregoing certificate are true and that said certificate is signed by a majority of the Directors of said corporation.

PERCY H. BRUNDAGE,
WALTER HAVILAND.

Sworn to before me this 15th day of July, 1911.
[SEAL] JAMES D. HURD,
Notary Public, Kings County, No. 56, Registers No. 3984.

(Certificate filed in N. Y. County, Registers No. 2195. Commission Expires 30 March 1912.

STATE OF NEW YORK,
Department of State, ss:

I Certify That I have compared the preceding copy with the original Certificate of Payment of Capital Stock of Computing-Tabulating-Recording-Co., filed in this department on the 22nd day of July, 1911, and that such copy is a correct transcript therefrom and of the whole of such original.

Witness my hand and the official seal of the Department of State at the City of Albany, this 21st day of July, one thousand nine hundred and thirty-three.

[SEAL] FRANK S. SHARP,
Deputy Secretary of State.

(Endorsement on back:) Book 363, Page 73. Computing-Tabulating-Recording-Co. Certificate of payment of one-half of the capital stock. State of New York, Office of Secretary of State. Filed and Recorded July 22, 1911. Edward Lazansky, Secretary of State.

CERTIFICATE OF REORGANIZATION OF COMPUTING-TABULATING-RECORDING CO., PURSUANT TO SECTION 24 OF THE STOCK CORPORATION LAW

1. The name under which the Corporation was originally organized is Computing-Tabulating-Recording Co.

2. The law under which the Corporation was organized is Laws of 1909, Chapter 12, Article 2, as amended by Laws of 1909, Chapter 484.

3. The dates on which, and the public offices in which the Certificate of Incorporation of the Corporation was filed, are: June 16, 1911, in the office of the Secretary of State of New York; June 19, 1911, in the office of the County Clerk of Broome County, New York.

4. The amount of capital stock authorized by the Certificate of Incorporation was $10,000, which amount has been changed by consent authorizing such change, filed in the office of the Secretary of State of New York, on July 10, 1911, and in the office of the County Clerk of Broome County, New York, on July 10, 1911. The amount to which the capital stock was increased by such consent is $12,000,000.

5. The amount of each payment of taxes for the privilege of organizing or of increasing the capital stock of the Corporation is as follows:

(a) For the privilege of organizing the Corporation, $5.00.

(b) For the privilege of increasing the Capital stock of the Corporation, $5,995.00.

6. The number of shares into which the capital stock has been divided is 120,000, all of one class.

7. The number of shares issued and outstanding is 104,827.

8. The number of shares that may henceforth be issued by the Corporation is 200,000.

9. None of the new shares are to be preferred.

10. The amount of capital with which the Corporation will carry on business is $11,000,000.

11. The terms upon which the new shares of the reorganized Corporation shall be issued in place of the outstanding shares of stock are the issuance

Digitized by Google

of one share without nominal or par value for each share of outstanding stock of the par value of $100.

12. The Board of Directors may issue and sell its authorized shares from time to time for such consideration as shall be the fair market value of said shares.

In witness whereof this certificate is signed and acknowledged by the President and the Secretary of the Corporation, who have made and annexed the affidavit below set forth.

THOS. J. WATSON,
President.
JAMES S. OGSBURY,
Secretary.

STATE OF NEW YORK,
County of New York, ss:

On this 16th day of March 1920, before me personally came Thomas J. Watson and James S. Ogsbury, to me known and known to me to be the persons described in and who executed the foregoing instrument, as President and Secretary, respectively, of Computing-Tabulating-Recording Co., and they severally acknowledged to me that they executed the same.

[SEAL] W. RUSSELL ROOT,
Notary Public, Kings County.

Cert. filed in New York Co. New York County No. 331.

STATE OF NEW YORK,
County of New York, ss:

Thomas J. Watson and James S. Ogsbury, being severally duly sworn, did depose and say and each for himself deposes and says that the said Thomas J. Watson is the President of Computing-Tabulating-Recording Co., the Corporation mentioned in the foregoing instrument, and said James S. Ogsbury is the Secretary thereof; that they have been authorized and directed to execute and file the foregoing Certificate by the votes cast in person or by proxy of the holders of record of two-thirds or more of the outstanding shares of stock of said Corporation, all of said shares being of one class, at a meeting called and held upon written notice mailed to each stockholder at least two weeks before the date set for the meeting and published once a week for at least two successive weeks in a newspaper published and circulating in the county wherein the principal office of the Corporation is located, and that such notice did expressly state the purpose of the meeting to be that of re-organizing the Corporation pursuant to Section 24 of the Stock Corporation Law, so as to permit the issuance of shares without par value, and did state the terms upon which the outstanding shares of stock were to be exchanged for the new shares.

THOS. J. WATSON.
JAMES S. OGSBURY.

Sworn to before me this 16th day of March, 1920.

W. RUSSELL ROOT,
Notary Public, Kings County.

Cert. filed in New York Co. New York County No. 331.

STATE OF NEW YORK,
Department of State, ss:

I CERTIFY That I have compared the preceding copy with the original Certificate of Reorganization of Computing-Tabulating-Recording Co., filed in this department on the 20th day of March 1920, and that such copy is a correct transcript therefrom and of the whole of such original.

Witness my hand and the official seal of the Department of State at the City of Albany this 20th day of July, one thousand nine hundred and thirty-three.

[SEAL] FRANK S. SHARP,
Deputy Secretary of State.

(Endorsement on back:) Certificate of reorganization of Computing-Tabulating-Recording Co., Pursuant to Section 24 of the Stock Corporation Law. Fee for privilege of reorganization of this Corporation, $7,000, under Section 24E,

Digitized by Google

Chapter 484, Laws of 1917, paid to State Treasurer before filing. State of New York, Office of Secretary of State. Filed and recorded Mar. 20, 1920, Francis C. W. Humphey, Secretary of State.

CERTIFICATE OF MERGER OF INTERNATIONAL BUSINESS MACHINES CORPORATION INTO COMPUTING-TABULATING-RECORDING CO. AND CHANGE OF NAME OF COMPUTING-TABULATING-RECORDING CO. TO INTERNATIONAL BUSINESS MACHINES CORPORATION, PURSUANT TO SECTION 85 OF THE STOCK CORPORATION LAW

Computing-Tabulating-Recording Co., a New York stock corporation, pursuant to Section 85 of the Stock Corporation Law, certifies:

1. That Computing-Tabulating-Recording Co. owns all the stcok of International Business Machines Corporation, a domestic stock corporation organized for or engaged in business similar to that of Computing-Tabulating-Recording Co., the possessor corporation.

2. That at a meeting of the Board of Directors, of Computing-Tabulating-Recording Co., duly called and held on the 30th day of January, 1924, the following resolution was adopted, to wit:

Whereas Computing-Tabulating-Recording Co., a New York corporation, now owns all the stock of International Business Machines Corporation, a domestic corporation, organized for or engaged in business similar to that of this corporation.

It is hereby resolved by the Board of Directors of Computing-Tabulating-Recording Co. to merge such International Business Machines Corporation and to assume all of its obligations; and it is

Resolved, that the President or a Vice-President and the Secretary or Treasurer of Computing-Tabulating-Recording Co. are directed to sign in the name and under the corporate seal of Computing-Tabulating-Recording Co. a Certificate of such ownership and setting forth a copy of this resolution of this, its Board of Directors, to merge such other corporation and to assume all of its obligations and the date of the adoption thereof; and to file such certificate in the office of the Secretary of State of the State of New York.

Resolved, that the officers of Computing-Tabulating-Recording Co. be and they hereby are authorized and directed to do all other acts and things whatsoever which may be requisite or proper for the full and complete accomplishment of said merger;

Resolved, That Computing-Tabulating-Recording Co. hereby relinquishes its corporate name and assumes in place thereof the name of the merged corporation, to wit, the name International Business Machines Corporation.

3. That the date of the adoption of said resolution was January 30, 1924.

In witness whereof this certificate is signed in duplicate under the corporate seal and in the name of Computing-Tabulating-Recording Co. by its president and its secretary this 6th day of February, 1924.

[SEAL] COMPUTING-TABULATING-RECORDING CO.,
By THOS. J. WATSON, *President.*
JOHN G. PHILLIPS, *Secretary.*

STATE OF NEW YORK,
County of New York, ss:

On this 6th day of February 1924 before me personally came Thomas J. Watson and John G. Phillips, to me known, who being by me severally duly sworn, each for himself deposes and says, that he, the said Thomas J. Watson, resides in Short Hills, State of New Jersey, and is the president of Computing-Tabulating-Recording Co., the corporation which executed the foregoing certificate, and that he, the said John G. Phillips, resides in Hawthorne, in the State of New Jersey, and is the secretary thereof; that he knows the seal of said corporation; that the seal affixed to said certificate is such corporate seal; that it was so affixed by order of the board of directors of said corporation, and that he signed his name thereto by like order.

[SEAL] GRACE M. BRENNAN,
Notary Public, Kings County.

Digitized by Google

Certificate filed Kings County, register no. 4379. Kings County Clerk's no. 366. Certificate filed New York County, register no. 40429. New York County Clerk's no. 1088. My term expires March 30, 1924.

STATE OF NEW YORK,
Department of State, ss:

I certify that I have compared the preceding copy with the original certificate of merger of International Business Machines Corporation with Computing-Tabulating-Recording Co. and the adoption of the name of International Business Machines Corporation, filed in this department on the 14th day of February 1924, and that such copy is a correct transcript therefrom and of the whole of such original.

Witness my hand and the official seal of the department of state at the city of Albany, this 21st day of July 1933.

FRANK S. SHARP,
Deputy Secretary of State.

(Endorsement on back:) Certificate of merger of International Business Machines Corporation into Comupting-Tabulating-Recording Co. and change of name of Computing-Tabulating-Recording Co. to International Business Machines Corporation, pursuant to section 85 of the Stock Corporations Law, State of New York, Office of Secretary of State, Filed Feb. 14, 1924. James A. Hamilton, Secretary of State. (Original.)

CERTIFICATE OF CHANGE OF PROVISIONS WITH REGARD TO THE ISSUE AND SALE OF NO PAR VALUE STOCK OF CERTIFICATE OF INCORPORATION (AS AMENDED BY CERTIFICATE OF REORGANIZATION) OF INTERNATIONAL BUSINESS MACHINES CORPORATION PURSUANT TO SECTION THIRTY-FIVE OF THE STOCK CORPORATION LAW

We, the undersigned, President and Secretary respectively of the International Business Machines Corporation do hereby certify and state as follows:

1. The nome of the Corporation is International Business Machines Corporation; the name under which it was originally incorporated was Computing-Tabulating-Recording Co.

2. The date of filing of the Certificate of Incorporation in each State office where filed is:

In the office of the Secretary of State of the State of New York on June 16, 1911.

In the office of the Clerk of Broome County on June 19, 1911.

3. The provisions of the Certificate of Incorporation (as amended by Certificate of Reorganization heretofore filed) to be amended or eliminated are as follows:

"The Board of Directors may issue and sell its authorized shares from time to time for such consideration as shall be the fair market value of said shares."

The provisions to be substituted therefore are:

"The Corporation may issue and may sell its authorized shares without par value from time to time, for such consideration as, from time to time, may be fixed by the Board of Directors and authority is hereby confirmed upon such Board so to fix the consideration."

In witness whereof, we, the President and Secretary of said International Business Machines Corporation have subscribed and acknowledged this certificate in duplicate this 16th day of February 1926.

THOS. J. WATSON, *President.*
JOHN G. PHILLIPS, *Secretary.*

STATE OF NEW YORK,
County of New York, ss:

On this 16th day of February 1936 before me personally appeared Thomas J. Watson and John G. Phillips to me known and known to me to be the individuals described in and who executed the foregoing instrument and they

Digitized by Google

severally acknowledged to me that they executed the same as President and Secretary, respectively, of International Business Machines Corporation.

[SEAL] JOSEPH E. KAISER, *Notary Public.*

STATE OF NEW YORK,
County of New York, ss:

Thomas J. Watson and John G. Phillips being severally duly sworn, each for himself, deposes and says: that he, Thomas J. Watson is the President and he, John G. Phillips is the Secretary of International Business Machines Corporation, the Corporation above mentioned, that they have been authorized to execute and file the foregoing certificate by the votes cast in person or by proxy of the holders of record of two-thirds of the outstanding shares of the Corporation entitled to vote thereon, and that such votes were cast at a stockholders' meeting held on the 16th day of February 1926, being the date specified in the notice of said meeting, which notice was given pursuant to Section 45 of the Stock Corporation law.

THOS. J. WATSON.
JOHN G. PHILLIPS.

Severally subscribed and sworn to before me this 16th day of February 1926.

[SEAL] JOSEPH E. KAISER, *Notary Public.*

STATE OF NEW YORK,
Department of State, ss:

I certify That I have compared the pro——— copy with the original Certificate of Amendment of Certificate of Reorganization of International Business Machines Corporation filed in this department on the 19th day of February, 1926, and that —— copy is a correct transcript therefrom and of the whole of such original.

Witness my hand and the official seal of the Department of ——— at the City of Albany, this 21st —— of July, one thousand nine hundred and thirty-three.

FRANK S. SHARP,
Deputy Secretary of State.

(Endorsement on back:) Certificate of change of provisions with regard to the issue and sales of no par value stock of certificates of incorporation (as amended by certificate of incorporation) of International Business Machines Corporation, pursuant to section thirty-five of the Stock Corporation law. State of New York, office of Secretary of State. Filed Feb. 19, 1926. ——— ———. Filing fee, $20. Florence E. S. Knapp, Secretary of State. By ———

CERTIFICATE OF INCREASE OF NUMBER OF SHARES AND OF CHANGE OF THE STATEMENTS RESPECTING CAPITAL CONTAINED IN CERTIFICATE OF INCORPORATION (AS AMENDED BY CERTIFICATE OF REORGANIZATION) OF INTERNATIONAL BUSINESS MACHINES CORPORATION PURSUANT TO SECTION THIRTY-SIX OF THE STOCK CORPORATION LAW

WE, the undersigned, President and Secretary respectively of International Business Machines Corporation do hereby certify and state as follows:

1. The name of the Corporation is International Business Machines Corporation; the name under which it was originally incorporated was Computing-Tabulating-Recording Co.

2. The date of filing the Certificate of Incorporation in each State office where filed is:

In the office of the Secretary of State of the State of New York on June 16, 1911.

In the office of the Clerk of Broome County on June 19, 1911.

3. The total number of shares which it is already authorized to issue is Two hundred thousand (200,000); the number thereof which have a par value is none; and the number thereof which are without par value is Two hundred thousand (200,000).

Digitized by Google

4. None of the shares already authorized are classified.

5. The number of shares issued and outstanding is One hundred ninety-two thousand eight hundred eighty-one (192,881).

6. The statements respecting its capital contained in its Certificate of Reorganization filed pursuant to law are:

"The amount of capital with which the Corporation will carry on business is $11,000,000."

7. The total number of shares, including those previously authorized, which the Corporation may henceforth have is Seven hundred fifty thousand (750,000) shares; the number thereof which are to have a par value is none; and the number thereof which are to be without par value is Seven hundred fifty thousand (750,000).

8. None of the shares are to be classified.

9. The capital of the Corporation shall be at least equal to the sum of the aggregate par value of all issued shares having par value, plus the aggregate amount of consideration received by the Corporation for the issuance of shares without par value, plus such amounts as, from time to time, by resolution of the Board of Directors, may be transferred thereto.

In witness whereof, we, the President and Secretary of said International Business Machines Corporation have subscribed and acknowledged this certificate in duplicate this 16th day of February 1926.

[SEAL] THOS. J. WATSON, *President.*
JOHN G. PHILLIPS, *Secretary.*

STATE OF NEW YORK,
County of New York, ss:

On this 16 day of February 1926, before me personally appeared Thomas J. Watson and John G. Phillips to me known and known to me to be the individuals described in and who executed the foregoing instrument and they severally acknowledged to me that they executed the same as President and Secretary respectively of International Business Machines Corporation.

[SEAL] JOSEPH E. KAISER,
Notary Public, Queens Co.

STATE OF NEW YORK,
County of New York, ss:

Thomas J. Watson and John G. Phillips being severally duly sworn, each for himself, deposes and says: that he, Thomas J. Watson is the President and he, John G. Phillips is the Secretary of International Business Machines Corporation, the Corporation above mentioned, that they have been authorized to execute and file the foregoing certificate by the votes cast in person or by proxy of the holders of record of two-thirds of the outstanding shares of the Corporation entitled to vote thereon, and that such votes were cast at a stockholders' meeting held on the 16th day of February 1926, being the date specified in the notice of said meeting, which notice was given pursuant to Section 45 of the Stock Corporation law.

THOS. J. WATSON.
JOHN G. PHILLIPS.

Severally sworn to and subscribed before me this 16th day of February 1926.

[SEAL] JOSEPH E. KAISER,
Notary Public, Queens Co.

Certificate Filed Queens Co. Reg. No. 3148. Certificate Filed N. Y. Co. Reg. No. 7231. N. Y. Co. Clerks No. 243. My Term Expires March 30, 1927.

STATE OF NEW YORK,
Department of State, ss:

I Certify That I have compared the preceding copy with the original Certificate of Amendment of Certificate of Reorganization of International Business Machines Corporation, filed in this department on the 19th day of February 1926, and that such copy is a correct transcript therefrom and of the whole of such original.

Witness my hand and the official seal of the Department of State at the City of Albany, this 21st day of July, one thousand nine hundred and thirty-three.

FRANK S. SHARP,
Deputy Secretary of State.

Digitized by Google

(Endorsement on back.) Certificate of increase of number of shares and of change of the statements respecting capital contained in certificate of incorporation (as amended by certificate of reorganization) of International Business Machines Corporation, pursuant to section thirty-six of the Stock Corporation Law. State of New York, office of Secretary of State. Filed Feb. 19, 1926. Tax, $27,000; filing fee, $20. Florence E. S. Knapp, Secretary of State.

PATENTS OF INTERNATIONAL BUSINESS MACHINES CORPORATION 1a

Tabulating machine division patents

Patent no.	Inventor	Title	Expires	
Re16304	C. D. Lake	Printing Tabulator	May 24, 1938	U
Re18611	C. Campbell	Total Taking Devices	Oct. 4, 1949	U
1287558	J. E. Wright	Card Selectors	Dec. 10, 1935	Z
1292944	do	Reproducer	Jan. 28, 1936	Z
1295167	H. Hollerith	Registering and Recording Apparatus for Tabulating Systems.	Feb. 25, 1936	X
1296727	J. E. Wright	Tabulating Device	Mar. 11, 1936	Z
1298400	L. C. Reynolds	Machine Operating Mechanisms	Mar. 25, 1936	Y
1299060	J. E. Wright	Punched Card Controlled Mechanism	Apr. 1, 1936	Z
1307740	C. D. Lake	Relayless Counters	June 24, 1936	U
1316461	J. R. Peirce	Distributing Machines	Sept. 16, 1936	Z
1333890	J. E. Wright	Tabulating Machine	Mar. 16, 1937	Z
1333891	do	Card Sorter	do	Z
1335274	J. W. Bryce	Tabulating Machines	Mar. 30, 1937	U
1335285	A. Knistrom	Mechanical Tabulating Machines	do	X
1342819	C. D. Lake	Switch Plugs	June 8, 1937	U
1371893	M. J. Hoffman	Coupon Ticket Printing Machines	Mar. 15, 1938	Y
1372964	C. D. Lake	Universal Split for Tabulators	Mar. 29, 1938	U
1372965	do	Electric Transfer Device	do	U
1379268	do	Printing Tabulators	May 24, 1938	U
1389951	do	Attachment for Card Sorting Machines	Sept. 6, 1938	U
1397007	A. Knistrom	Card Punching Device	Nov. 15, 1938	X
1406066	G. W. Odell	Recording Machines for Mechanical Determined Calculations.	Feb. 7, 1939	Z
1414978	R. W. Bumstead	Computing Machines	May 2, 1939	Z
1424856	C. W. Spicer	Punching Machine	Aug. 8, 1939	Z
1426223	J. T. Schaaff	Verifying Punch	Aug. 15, 1939	Z
1426499	R. E. Page	Single Column Selectors for Card Sorting Machines.	Aug. 22, 1939	U
1437592	M. J. Hoffman	Coupon Ticket Printing Machine	Dec. 5, 1939	Y
1447871	C. D. Lake	Friction Drive Controls for Tabulating Machines.	Mar. 6, 1940	U
1447872	do	Friction Drives for Tabulating Machine Counters.	do	U
1455530	M. J. Hoffman	Production Recording Device	May 15, 1940	Y
1455588	do	Printing Device	do	Y
1472829	J. H. Gault	Card Perforating Machines	Nov. 6, 1940	Z
1473618	do	Card Punching Machines	Nov. 13, 1940	Z
1481507	H. C. Einstein	Selector Mechanism	Jan. 22, 1941	Z
1484137	E. M. LaBoiteaux	Sorting Machines	Feb. 19, 1941	Z
1486149	C. D. Lake	Single Brush Automatic Control for Tabulating Machines.	Mar. 11, 1941	U
1489530	M. J. Hoffman	Printing Device and Typeholder Therefor	Apr. 8, 1941	Y
1497893	D. C. Daubmeyer	Verifier Error Signals	June 17, 1941	Z
1501004	C. D. Lake	Hammer Control for Tabulating Machines	July 8, 1941	U
1502360	H. Tolle	Printing Tabulating Machines	July 22, 1941	X
1506381	J. R. Peirce	Method and Apparatus for Perforated Record Sheets.	Aug. 26, 1941	Z
1506382	do	Record Sheets and Apparatus Controlled Thereby.	do	Z
1506383	do	Perforation Reading Instrumentalities	do	Z
1513396	L. E. Hubbard	Improvement in Tabulating Machines	Oct. 28, 1941	U
1518857	M. J. Hoffman	Production Register	Nov. 18, 1941	Y
1516079	F. M. Carroll	Listing Machine	do	U
1516772	E. M. LaBoiteaux	Tabulating Machines	Nov. 25, 1941	Z
1517843	C. D. Lake	Printer Ribbon Control Mechanism	Dec. 2, 1941	U
1519054	L. C. Reynolds	Tabulating Mechanisms	Dec. 9, 1941	Y
1521772	M. J. Hoffman	Printing Device	Jan. 6, 1942	Y
1523527	W. Heidinger	Card Striping Devices	Jan. 20, 1942	U
1526467	C. Ehret	Improvement in Tabulating Cards	Feb. 17, 1942	U
1534531	C. D. Lake	Relayless Counter	Apr. 21, 1942	U
1534532	do	do	do	U
1539664	M. J. Hoffman	Printing Device	May 26, 1942	Y
1551931	F. M. Carroll	Method of Sensitizing Cylinders	Sept. 1, 1942	U
1563014	do	Tabulating Card Printer	Nov. 24, 1942	U
1570182	R. E. Page	Card Delivering Device	Jan. 19, 1943	U
1570264	C. D. Lake	Automatic Controlled Tabulating Machines	do	U
1578717	D. C. Daubmeyer	Error Indicators for Tabulation Cards	Mar. 30, 1943	Z
1587083	J. R. Peirce	Controlling Devices for Record Controlled Machines.	June 1, 1943	X
1595302	C. D. Lake	Card Controlled Counting Machines	Aug. 10, 1943	U

Digitized by Google

Tabulating machine division patents—Continued

Patent no.	Inventor	Title	Expires	
1600413	C. D. Lake	Automatic Controlled Printing Tabulators	Sept. 21, 1943	U
1600414	do	Resetting Devices for Counters, Accumulators, and the Like.	do	U
1602810	F. M Carroll	Powdering Machines	Oct. 12, 1943	U
1602874	G. H. Baillie	Mechanism for Recording by Simultaneous Printing and Perforating.	do	U
1606493	D. C. Daubmeyer	Verifiers	Nov. 30, 1943	Z
1608836	J. W. Bryce	Converting Punches	do	U
1608837	do	Tabulating Card Printer Devices	do	U
1617088	G. Tauschek	Tabulator, particularly for Calculating Wages	Feb. 8, 1944	Y
1620088	J. W. Bryce	Tabulating Card Printer Device	Mar. 8, 1944	U
1622279	do	Multiplying Machine	Mar. 29, 1944	U
1623163	F. M. Carroll	Card Controlled Printing Machines	Apr. 5, 1944	U
1623164	do	Sensing Means for Perforated Record Cards	do	U
1623204	J. R. Peirce	Improvement in Tabulating Apparatus, Model K Tabulator.	do	X
1626217	G. Tauschek	Punching Machine	Apr. 26, 1944	Y
1626871	J. R. Peirce	Accounting Machines	May 3, 1944	X
1633936	E. A. Ford	Perforation Reading Devices for Sorting Machines and the Like.	June 28, 1944	U
1633937	do	Card Feeding Apparatus	do	U
1636405	M. F. Brandt	Apparatus for Mechanical Copying Entries from Cards or Sheets or the Like on a Collective Sheet.	July 19, 1944	U
1639443	G. Tauschek	Arrangement for Sorting Perforated Cards used for Statistics, Bookkeeping, and the Like.	Aug. 16, 1944	Y
1650937	H. C. Einstein	Posting Mechanism	Nov. 29, 1944	Z
1651179	J. W. Bryce	Record Card Controlled Machines for Sorting and the Like.	do	U
1651180	do	Sorting Machines	do	U
1657654	E. A. Ford	Improvement Sorting Machines	Jan. 31, 1945	U
1658022	C. Campbell	Record Card Controlled Statistical Machines	do	U
1658023	J. W. Bryce	Current Inducing Devices for Record Controlled Machines.	do	U
1658024	do	Record Controlled Machines	do	U
1661560	F. M. Carroll	Machines for Printing on Cylinders	Mar. 6, 1945	U
1664533	H. A. Weinlich	Machine for Comparing Punched Cards	Apr. 3, 1945	U
1664539	J. W. Bryce	Brush Reading Devices for Combination Hole Records.	do	U
1667837	do	Sorting Machines	May 1, 1945	U
1667881	C. Campbell	Record Card Operated Statistical Machines	do	U
1669238	H. T. Goss	Alphabetical Sorters	May 8, 1945	Z
1674660	J. R. Peirce	Improvement in Sorting Machines	June 26, 1945	Z
1680740	C. D. Lake	Improvement in Printing Tabulations	Aug. 14, 1945	U
1680863	E. A. Ford	Card Feeding Devices	do	U
1681152	C. Campbell	Total Taking Device	do	U
1684389	E. A. Ford	Card Feeding and Handling Devices	Sept. 18, 1945	U
1691917	O. E. Braitmayer	Duplicating Machine	Nov. 20, 1945	U
1691919	F. M. Carroll	Record Feeding Machine	do	U
1698844	E. A. Ford	Improvement in Sorting Machines	Jan. 15, 1946	U
1701053	J. R. Peirce	Improvement in Accounting Machines	Feb. 5, 1946	Z
1702628	J. W. Bryce	Zero Printing Suppression Device for Accounting Machines.	Feb. 19, 1946	U
1702863	F. M. Carroll	Cipher Printing System for Accounting Machines.	do	U
1707755	J. W. Bryce	Record Card Controlled Machines for Sorting and the Like.	Apr. 2, 1946	U
1710691	F. M. Carroll	Combined Sorter and Tabulator	Apr. 30, 1946	U
1713007	J. T. Schaaff	Improvement in Striping Device	May 14, 1946	X
1723499	J. W. Bryce	Transfer Devices for Accounting Machines	Aug. 6, 1946	U
1726539	F. M. Carroll	Rotary Alphabet Printing Tabulator	Sept. 3, 1946	U
1729028	Bryce & Mills	Transposing Devices for Tabulating Machines	Sept. 24, 1946	U
1738103	Haman & Culver	Automatic Stop Devices	Dec. 3, 1946	U
1738186	L. J. Clairis	Counter Cut Out	Dec. 10, 1946	U
1741201	J. R. Peirce	Improvement in Accounting Machines	Dec. 31, 1946	X
1741965	E. A. Ford	Improvement in Sorting Machines	do	U
1741992	H. Kleckler	Quick Setting Device for Brush Holder	do	U
1742216	H. Rauber	Hand Punch	Jan. 7, 1947	U
1745388	G. Tauschek	Feeling Device for Machines for Interpreting Perforated Cards.	Feb. 4, 1947	Y
1745910	J. R. Peirce	Hand Punch	do	X
1750191	do	Perforated Card controlled Machines	Mar. 11, 1947	Z
1750216	B. K. F. Ewald	Drum Controlled Repeating Perforator	do	U
1750459	F. M. Carroll	Individually Resettable Accumulator Unit Tabulator.	do	U
1757112	J. M. Cunningham	Commutator	May 6, 1947	U
1757123	Lake & Page	Improvement in Tabulating Machines	do	U
1757133	A. W. Mills	Printing Mechanism	do	U
1757553	G. Tauschek	Machine for Shuffling Cards	do	Y
1760417	C. D. Lake	Detachable Record Cards	May 27, 1947	U
1761682	L. C. Reynolds	Improvement in Punches	June 3, 1947	U
1761741	J. R. Peirce	Record Comparing and Posting Machines	do	Z
1761774	F. M. Carroll	One Revolution Clutch	do	U

Digitized by Google

Tabulating machine division patents—Continued

Patent no.	Inventor	Title	Expires	
1762145	Daly & Page	Tabulating Machines	June 10, 1947	U
1762749	G. Tauschek	Paper Feeding Mechanism	do	Y
1763033	J. W. Bryce	Automatic Control System	do	U
1763039	E. A. Ford	Magazine Throat	do	U
1763067	J. T. Schaaff	Improvement in Punching Device	do	X
1763068	do	Ribbon Mechanism	do	X
1770342	B. L. Padgett	Means for and Methods of Producing Charts and Graphic Representations.	July 8, 1947	Z
1772180	E. A. Ford	Card Picker	Aug. 5, 1947	U
1772186	Lee & Phillips	Duplicating Punching Device	do	U
1772211	G. F. Daly	Commutator Controlling Device for Printing Tabulators.	do	U
1772492	C. D. Lake	Record Sheets for Tabulating Machines	Aug. 12, 1947	U
1774051	J. W. Bryce	Record Controlled Machines	Aug. 26, 1947	U
1775117	do	Stationary Commutator Type Tabulator	Sept. 9, 1947	U
1775132	Lake & Storey	Tabulating Machines	do	U
1775172	J. R. Peirce	Portable Perforating and Printing Machine	do	X
1777876	Daly & Page	Printing Mechanism	Oct. 7, 1947	U
1777882	A. E. Gray	Sorting Machines	do	U
1777890	R. E. Page	Automatic Speed Changing Device for Tabulating Machines.	do	U
1777892	J. R. Peirce	Sorting Machines	do	Z
1778483	F. M. Carroll	Machines for Operating upon Weblike Material	Oct. 14, 1947	U
1780036	B. L. Padgett	Graphic Representations	Oct. 28, 1947	Z
1780610	H. A. Weinlich	Typewriter Punch with Column Cut-out	Nov. 4, 1947	U
1780630	R. E. Page	Ribbon Supporting Mechanism	do	U
1780674	B. K. F. Ewald	Compound Typebar	do	U
1780685	J. R. Peirce	Printing Tabulator Machine	do	X
1781349	G. Tauschek	Pawl	Nov. 11, 1947	Y
1785999	J. W. Bryce	Record Controlled Printing Mechanism	Dec. 23, 1947	U
1787715	C. A. Berry	Listing and Checking Machine	Jan. 6, 1948	U
1787719	J. W. Bryce	Automatic Control System	do	U
1787721	F. M. Carroll	Printing Mechanisms for Accounting Machines	do	U
1791753	J. M. Cunningham	Interpreting Machine	Feb. 10, 1948	U
1791762	J. R. Peirce	Improvement in Tabulating Machine	do	X
1791883	F. M. Carroll	do	do	U
1791911	F. A. Storey	Control Devices for Tabulating Machines and the Like.	do	U
1791921	C. Campbell	Record Card Controlled Statistical Machines	do	U
1791950	J. W. Bryce	Improvement in Card Punching Devices	do	U
1791952	do	Group Indicating System for Tabulators	do	U
1791953	do	Translating Device for Accounting Machines	do	U
1800374	F. M. Carroll	Tabulating Card and Sales Slip Holder	Apr. 14, 1948	U
1800375	do	Cash Register Punch	do	U
1800392	C. D. Lake	Control Devices for Tabulating Machines	do	U
1800399	R. E. Page	Ribbon Shifting Mechanism	do	U
1800402	G. H. A. Perl	Perforating Machines	do	U
1800596	J. W. Bryce	Printing and Perforating Machines	do	U
1803954	H. A. Weinlich	Typewriter Controlled Perforating Machine	May 5, 1948	U
1803959	F. M. Carroll	Improvements in Tabulating Machines	do	U
1803961	Decker et al	Accounting Means	do	Z
1803977	E. F. W. Richter	Automatic Card Ejector	do	U
1803979	J. T. Schaaff	Key Punch	do	X
1808257	H. Rottke	Ruling Device	June 2, 1948	U
1808432	J. R. Peirce	Improvement in Accounting Machines	do	X
1812620	O. E. Braitmayer	Punching Device	June 30, 1948	U
1812659	A. C. Maby	Motor Driven Punches	do	U
1812838	J. W. Bryce	Printing Mechanism for Accounting Machines	do	U
1817434	do	Improvement in Tabulating Machines	Aug. 4, 1948	U
1817501	H. A. Weinlich	Printing Mechanism for Accounting Machines	do	U
1817511	E. A. Ford	Card Sorting Machine	do	U
1817631	Lake & Page	Improvement in Duplicate Gang Punch	do	U
1821046	J. E. Wright	Tabulating Machine	Sept. 1, 1948	Z
1821078	J. T. Schaaff	Punches and Typewriter Controlling Means Therefor.	do	X
1821088	F. M. Carroll	Group Indicating Flash Mechanism	do	U
1821089	do	Selective Column Tabulating Machine	do	U
1822594	C. D. Lake	Improvement in Tabulating Machines	Sept. 8, 1948	U
1824581	C. A. Tripp	Punched Card Accounting Machine	Sept. 22, 1948	Z
1826991	Carroll et al	Record Card Containers	Oct. 13, 1948	U
1826992	F. M. Carroll	Card Handling Device for Tabulating Machines	do	U
1827002	B. K. F. Ewald	Perforating Device	do	U
1827180	R. G. Williams	Punching Mechanisms and Mechanical Accounting Systems.	do	U
1827259	J. R. Peirce	Card Feeding Mechanisms	do	X
1830699	H. Hollerith	Automatic Control for Tabulating Machines	Nov. 3, 1948	X
1830756	E. A. Ford	Counting Attachment for Accounting Machines	Nov. 10, 1948	U
1830765	R. E. Page	Printing Head Reciprocator	do	U
1830811	J. T. Schaaff	Perforating Machine	do	X
1834561	T. J. Watson	Accounting Machines and Punching Mechanism Controlled Thereby.	Dec. 1, 1948	U
1834562	do	Accounting Machines with Punching Attachments.	do	U

Digitized by Google

Tabulating machine division patents—Continued

Patent no.	Inventor	Title	Expires	
1834767	J. W. Bryce	Tabulator with Individual Column Reset	Dec. 1, 1948	U
1835373	Bryce & Thomas	Time Controlled Accounting Machines	Dec. 8, 1948	U
1835382	J. M. Cunningham	Stop Mechanism for Sorters	do	U
1835390	A. E. Gray	Listing and Checking Machine	do	U
1835424	R. E. Page	Punch Die	do	U
1835466	F. M. Carroll	Printing Mechanisms for Card Controlled Accounting Machines.	do	U
1839372	J. W. Bryce	Tabulating Machine for Operating in Fractions	Jan. 5, 1949	U
1839377	G. F. Daly	Multi Contact Relay	do	U
1839398	F. L. Lee	Brush Block Assembly	do	U
1839402	R. Lorant	Apparatus for Transferring Data from Perforated Cards.	do	Y
1839409	R. E. Page	Quick Paper Inserting Device	do	U
1839415	D. F. Schumacher	Hand Punch	do	U
1843964	R. M. Wolff	Paper Folding Mechanism	Feb. 9, 1949	U
1843986	J. R. Peirce	Tabulating Machines	do	X
1845001	A. W. Mills	Punch Actions	Feb. 16, 1949	U
1845792	M. J. Hoffman	Payroll Printing Machine	do	Y
1848106	F. M. Carroll	Key Adding Device for Tabulating Machines	Mar. 8, 1949	U
1848159	do	Improvements in Perforating Machines	do	U
1850577	J. W. Bryce	Computing Machines	Mar. 22, 1949	U
1853211	W. A. Hoffman	Type Holding Appliance	Apr. 12, 1949	Y
1853215	R. Lorant	Punched Card Verifying Machines	do	Y
1853443	M. Maul	Record Cards with Printed Index Points	do	X
1856418	C. D. Lake	Accounting Machines	May 3, 1949	U
1856445	G. Tauschek	Tabulating Machine for Bookkeeping Purposes	do	Y
1861955	G. F. Daly	Total Taking Mechanism	June 7, 1949	U
1861975	R. E. Page	Paper Feeding Device for Tabulating Machines	do	U
1862004	F. M. Carroll	Subtracting Tabulator	do	U
1862032	J. R. Peirce	Record Analyzing and Posting Machine	do	Z
1866995	J. W. Bryce	Improvement in Tabulating Machines	July 12, 1949	U
1866996	do	Electrical Control Mechanism	do	U
1867007	W. Heidinger	Punching Machine	do	U
1867025	J. R. Peirce	Combination Hole Punch	do	X
1867026	do	Printing Mechanism	do	X
1867027	do	Accounting Machine	do	X
1870230	Bolt & Johnson	Distance Control Device	Aug. 9, 1949	U
1870234	J. W. Bryce	Improvement in Tabulating Machine	do	U
1871058	M. J. Hoffman	Coupon Ticket Printing Machine	do	Y
1871059	do	Printing Machine	do	Y
1871060	do	Printing Device	do	Y
1875849	F. M. Carroll	Improvement in Tabulating Machines	Sept. 6, 1949	U
1875850	do	Tabulating Machines having a Universal Split Unit Construction.	do	U
1876647	H. C. Einstein	Sorting Machines	Sept. 13, 1949	Z
1878125	F. L. Fuller	Accounting Machines	Sept. 20, 1949	Y
1878928	U. Kolm	Selector for Group Control System	do	U
1878930	C. D. Lake	Improvement in Electrical Key Punches	do	U
1878935	F. L. Lee	Duplicate Punching Machines	do	U
1879529	J. T. Schaaff	Perforated Card Controlled Machine	Sept. 27, 1949	X
1880408	J. W. Bryce	Alphabetical Code Punching Device	Oct. 4, 1949	U
1880409	do	Translating Device for Accounting Machines	do	U
1880410	do	Automatic Control System for Tabulators	do	U
1880413	C. Campbell	Controlling Mechanism for Record Card Controlled Statistical Machines.	do	U
1880416	F. M. Carroll	Printing Mechanisms for Accounting Machines	do	U
1880418	do	Stacking Mechanism for Printing Machines	do	U
1880422	Daly & Page	Electrical Transfer Mechanism	do	U
1880426	Ford & Storey	Counters for Tabulating Machines	do	U
1880427	E. A. Ford	Counting Devices	do	U
1880428	do	Sorting Machine for Record Cards	do	U
1880472	J. R. Peirce	Perforating Machines	do	X
1880523	G. Tauschek	Setting Devices for Tabulating Machines	do	Y
1882764	J. W. Bryce	Electrical Transfer for Tabulating Machines	Oct. 18, 1949	U
1882765	do	Automatic Control System	do	U
1882766	do	Printing Mechanisms for Tabulating Machines	do	U
1882796	E. A. Ford	Card Counter	do	U
1882797	do	Perforated Card Interpreter	do	U
1882850	A. W. Mills	Perforating Machine	do	U
1882964	J. T. Schaaff	Machine for Analyzing and Printing Upon Record Cards.	do	U
1883308	R. Lorant	Straight and Complement Punch	do	U
1896538	J. W. Bryce	Tabulating Machine	Feb. 7, 1950	U
1896540	Daly & Page	do	do	U
1896551	M. Maul	Accounting Machine for Punching Totals	do	X
1896554	J. R. Peirce	Accounting Machines	do	X
1896555	do	Rotary Printing Machine	do	X
1902013	J. W. Bryce	Controlling Device for Record Controlled Machines.	Mar. 21, 1950	U
1902017	Daly & Page	Tabulating Machine for Nondecimal System	do	U

Digitized by Google

Tabulating machine division patents—Continued

Patent no.	Inventor	Title	Expires	
1902035	O. D. Lake	Transfer Mechanism	Mar. 21, 1950	U
1902060	P. Dechene	Printing Mechanism	do	U
1902064	E. A. Ford	Improvements in Perforating Machines	do	U
1902085	Lee & Phillips	Circuit Closing Device	do	U
1905288	M. J. Hoffman	Key Controlled Printing Machinery	Apr. 25, 1950	U
1909548	J. R. Peirce	Perforated Card Controlled Machine	May 16, 1950	Z
1909549	do	Accounting Machine	do	X
1909550	do	Printing Devices	do	X
1909571	F. M. Carroll	Printing Mechanisms for Tabulating Machines	do	U
1909576	E. A. Ford	Sorting Machine	do	U
1914263	Lake & Daly	Card Reproducing Machine	June 13, 1950	U
1914272	R. J. McFall	Totalizing Mechanism	do	Z
1914275	A. W. Mills	Perforating Machine	do	U
1914285	J. R. Peirce	Accounting Machines	do	X
1914292	L. C. Reynolds	Tabulating Machine	do	U
1914293	do	Perforating Machine	do	U
1916961	J. W. Bryce	Group Indicating System	July 4, 1950	U
1916964	F. M. Carroll	Printing Mechanism	do	U
1916965	J. M. Cunningham	Improvements in Card Handling Machines	do	U
1916966	do	Gang Punch	do	U
1916969	Decker et al	Accounting Means	do	Z
1916985	Carroll et al	Printing Devices for Tabulating Machines	do	U
1916986	Page & Lake	Group Indicating System	do	U
1916987	J. R. Peirce	Accounting Machines	do	X
1916997	G. Tauschek	Machines for Calculatively Interpreting Perforated Cards.	do	Y
1916998	do	Improvements in Tabulating, Calculating, and Like Machines.	do	Y
1917002	H. A. Weinlich	Debit and Credit Tabulator	do	U
1919219	M. J. Hoffman	Card Printing and Punching Machine	July 25, 1950	U
1921408	W. F. Gutgesell	Record Controlled Machine	Aug. 8, 1950	U
1921412	J. T. Jones	Tabulating Machine	do	U
1921453	F. M. Carroll	Printing Mechanisms for Accounting Machines	do	U
1921454	G. F. Daly	Total Taking Mechanism	do	U
1926878	R. J. McFall	Totalizing Mechanism	Sept. 12, 1950	Z
1926881	J. R. Peirce	Accounting Machines	do	X
1926882	do	Perforated Card Reading and Analyzing Devices	do	X
1926883	do	Feed Head for Tabulator	do	X
1926890	J. W. Bryce	Tabulating Machine	do	U
1926891	do	Printing Mechanisms for Accounting Machines	do	U
1926892	do	Printing Mechanism	do	U
1926893	do	Electric Transfer for Tabulating Machines	do	U
1926896	E. A. Ford	Printing Counter for Sorting Machine	do	U
1928209	A. W. Mills	Perforated Record Cards	Sept. 26, 1950	U
1930252	L. C. Reynolds	Typewriter Accumulator	Oct. 10, 1950	U
1930253	Roberts et al	Accounting Means	do	Y
1930262	J. W. Bryce	Sorting Machine	do	U
1930266	E. A. Ford	Sorting Machines	do	U
1930283	J. R. Peirce	Improvement in Distributing Machines	do	Z
1933308	J. W. Bryce	Split Automatic Control Systems for Tabulators	Oct. 31, 1950	U
1933309	Bryce & Daly	Zero Printing Tabulator	do	U
1933328	C. Horsfield	Card Pairing Devices	do	U
1933331	C. D. Lake	Record Controlled Machines	do	U
1933335	J. R. Peirce	Tabulating Machines	do	X
1933349	A. F. Smith	Automatic Control System for Tabulators	do	U
1933352	G. Tauschek	Machine for Calculatively Interpreting Perforated Cards.	do	Y
1933353	do	Perforated Card Bookkeeping Machine	do	Y
1933357	Weinlich et al	Sorting Machine	do	U
1933714	J. M. Cunningham	Multiplying Machines for Cycle Controllers	Nov. 7, 1950	U
1935378	H. Ruscher	Token Device	Nov. 14, 1950	Y
1939040	F. M. Carroll	Split Automatic Control System	Dec. 12, 1950	U
1939049	W. F. Gutgesell	Record Controlled Machine	do	U
1939077	A. W. Mills	Accounting Machines	do	U
1939089	G. Tauschek	Tabulating Machine for Bookkeeping Purposes	do	Y
1940234	H. A. Weinlich	Line Spacing Device for Tabulating Machine	Dec. 19, 1950	U
1944657	H. C. Einstein	Control Device for Accounting Machines	Jan. 23, 1951	Z
1944659	E. A. Ford	Printing Counter	do	U
1944665	D. J. Oldenboom	Multiplying Machine with Improved Checking Features.	do	U
1944667	J. R. Peirce	Tabulating Machine	do	X
1944671	J. T. Schaaff	Card Perforating Machine	do	X
1944673	D. F. Schumacher	Improvement in Paper Feeding Mechanisms	do	U
1944675	G. Tauschek	Printing Mechanism for Tabulating Machines, etc.	do	Y
1944676	do	Card Controlled Calculating Machine	do	Y
1944677	H. A. Weinlich	Debit and Credit Tabulator	do	U
1944678	R. Zigueldo	Record Analyzer	do	X
1944680	C. Campbell	Improvement in Sorting Machines for Record Cards.	do	U
1944692	A. C. Maby	Perforated Card Sorting Machines	do	U
1946900	G. F. Daly	Electric Interpreter	Feb. 13, 1951	U
1946904	E. A. Ford	Combination Index Point Sorter	do	U

Digitized by Google

Tabulating machine division patents—Continued

Patent no.	Inventor	Title	Expires	
1946906	E. A. Ford	Brush Holder for Sorting Machines	Feb. 13, 1951	U
1946906	F. L. Fuller	Sorting Machines of the Manual Control Type	do	U
1946910	Lake & Shores	Card Handling Machines	do	U
1946913	M. Maul	Automatic Punching Machine	do	X
1946915	J. R. Pierce	Perforated Controlled Accounting Machines	do	Z
1947259	A. E. Gray	Printing Mechanism for Tabulator	do	U
1950475	J. W. Bryce	Tabulating Machine	Mar. 13, 1951	U
1950476	do	Improvement in Card Perforating Machines	do	U
1950479	F. M. Carroll	Stop Device for Tabulating Machines	do	U
1950480	do	Accounting Machine	do	U
1950485	G. F. Daly	Clutch Mechanism	do	U
1950496	U. Kolm	Tabulating Machines	do	U
1950504	J. P. Martin	Perforating Machine	do	U
1950527	G. Tauschek	Calculating Machines	do	Y
1954038	H. W. Bryce	Card Pairing Devices	Apr. 10, 1951	U
1954041	Daly & Dayger	Billing Machine	do	U
1954042	E. A. Ford	Punching Devices	do	U
1954053	H. H. Keen	Tabulating Machine	do	U
1954054	U. Kolm	Balance Printer Selecting Device	do	U
1954232	Weinlich et al	Punch	do	U
1954522	D. C. Daubmeyer	Verifying Machines	do	Z
1957167	M. J. Hoffman	Coupon Ticket Printing Machines	May 1, 1951	U
1957175	U. Kolm	Card Sorting Device	do	U
1957189	A. W. Wohlrab	Tabulating Machine	do	U
1962731	J. W. Bryce	Sorting Machines	June 12, 1951	U
1962732	Bryce et al	Record Controlled Punching Machine	do	U
1962735	E. A. Ford	Printer Mechanism for Sorting Machine	do	U
1962743	H. H. Keen	Record Card Controlled Statistical Machines	do	U
1962750	H. L. Read	Card Reproducing Machine	do	U
1964810	F. M. Carroll	Improvement in Prinitng Mechanism for Accounting Machines.	July 3, 1951	U
1965974	J. W. Bryce	Improvement in Counter Control	July 10, 1951	U
1965975	E. A. Ford	Gang Punch	do	U
1965978	H F. Kruger	Accounting Machine for Rejecting 1-Card Groups	do	U
1965979	Lake, Daly and Hamilton.	Tabulating Machine	do	U
1965980	C. D. Lake	Printing Mechanism	do	U
1965981	do	Printing Control Mechanism	do	U
1965982	A. H. Lewis	Statistical Machines	do	U
1966623	F. L. Fuller	Combined Sorting and Accounting Machines	July 17, 1951	U
1967741	J. W. Bryce	Tabulating Machines	July 24, 1951	U
1967742	do	do	do	U
1969834	G. Tauschek	Printing Devices for Tabulating Machines	Aug. 7, 1951	Y
1969362	E. A. Ford	Sorting Machine	do	U
1969377	R. Lorant	do	do	U
1969883	J. R. Peirce	Card Punch	do	X
1972977	Carroll et al	Tabulating Machines	Sept. 11, 1951	U
1972978	do	One Revolution Clutch	do	U
1972984	J. W. Galyon	Record Controlled Machine	do	U
1973026	G. Tauschek	Machines for Utilizing Registration Cards and the Like.	do	Y
1973246	J. W. Bryce	Adding and Sorting Machine	do	U
1976585	G. Tauschek	Money Delivering Machine	Oct. 9, 1951	Y
1976599	J. W. Bryce	Printing Devices	do	U
1976600	F. M. Carroll	Card Punching Machine	do	U
1976603	Richter et al	Paper Spacing Devices	do	U
1976606	F. L. Dunn	Card Punching Device	do	U
1976615	F. R. Jones	Electric Verifying Machine	do	U
1976617	Lake and Daly	Tabulating Machine	do	U
1976618	Lee and Daly	Improvement in Duplicating Machines	do	U
1978898	Carroll et al	Tabulating Machines	Oct. 30, 1951	U
1978898	E. A. Ford	Printing Device	do	U
1978900	W. Gutgesell	Punching Machine	do	U
1978901	M. J. Hoffman	Dual Production and Cost Control Recording	do	U
1978919	C. A. Tripp	Card Tabulating Machine, Case 3	do	Z
1978931	J. W. Bryce	Tabulating Machine	do	U
1978952	R. Lorant	Devices for Tabulating Machines	do	U
1981977	Weinlich et al	Subtracting Devices	Nov. 27, 1951	U
1981978	W. Worden	Tabulating Machine	do	U
1981987	J. W. Bryce	Word Printing Mechanism	do	U
1981990	F. M. Carroll	Printing Mechanism	do	U
1982008	M. J. Hoffman	Type Inserting Mechanism for Printing Machine.	do	U
1982013	L. Momon	Sorting Machine	do	X
1982020	H. L. Read	Tabulating Machine	do	U
1982216	G. Lowkrantz	Sorting Machine	do	U
1987310	J. R. Peirce	Accounting Machine	Jan. 8, 1952	X
1987322	C. Campbell	Record Card Controlled Statistical Machines	do	U
1987326	J. M. Cunningham	Tabulating Machine	do	U
1987342	I. Knutson	Accounting Machine for Punching Totals	do	U
1987343	Lake et al	Automatic Control System for Tabulators	do	U
1989049	W. K. Youngberg	Card Handling Mechanisms	Jan. 22, 1952	Z

Digitized by Google

Tabulating machine division patents—Continued

Patent no.	Inventor	Title	Expires	
1989840	J. W. Armbruster	Sorting Devices	Feb. 5, 1952	Y
1989844	J. W. Bryce	Punching Machines	do	U
1989848	G. F. Daly	Subtracting Tabulator	do	U
1989867	H. H. Keen	Record Card Controlled Machine	do	U
1989887	J. T. Schaaff	Combination Hole Punch	do	X
1989976	F. L. Fuller	Sorting and Printing Machines	do	U
1994524	C. D. Lake	Printing Devices	Mar. 19, 1952	U
1997156	G. Tauschek	Machine for Printing Tables	Apr. 9, 1952	Y
1997157	do	Process for Interpreting Cards	do	Y
1997167	J. W. Bryce	Printing Mechanism	do	U
1997178	R. B. Johnson	Electrical Examination Paper Scoring Device	do	Y
2000203	Weinlich et al	Card Verifier	May 7, 1952	U
2000214	C. Campbell	Apparatus for Sorting and Counting from Statistical Record Cards.	do	U
2000218	F. M. Carroll	Improvement in Tabulating Machines	do	U
2000233	E. Kirkegaard	Accounting Machine	do	U
2000236	C. D. Lake	Card Feeding and Handling Device	do	U
2000237	do	Sorting Machine	do	U
2000403	M. Maul	Tabulator for Operating Upon Printed Index Points.	do	X
2000404	do	Sorting Machines	do	X
2003783	F. L. Fuller	Accounting Machines	June 4, 1952	Y
2003790	P. Rieger	Sorting Machine	do	U
2007375	Lake and Daly	Printing Mechanism for Accounting Machine	July 9, 1952	U
2007379	A. W. Mills	Printing Mechanism for Tabulator	do	U
2007391	J. W. Bryce	Record Controlled Punch	do	U
2010642	J. R. Peirce	Accounting Machines	Aug. 6, 1952	X
2010652	G. Tauschek	Improvements in Printing Mechanisms	do	U
2010653	R. Warren	Record Controlled Statistical Machine	do	X
2010654	Kolm et al	Printing Control Mechanism	do	U
2010839	W. Ayres	Display Fixture	Aug. 13, 1952	U
2013530	G. S. Wells	Time Recording Punch	Sept. 3, 1952	U
2013533	E. Buhler	Printing Mechanism	do	U
2013534	C. Campbell	Verifying Machine	do	U
2013540	Kolm et al	Printing Punch	do	U
2013543	R. E. Page	Perforating Machine	do	U
2016681	A. W. Mills	Perforated Record Cards	Oct. 8, 1952	U
2016682	do	Printing Mechanism	do	U
2016684	E. J. Rabenda	do	do	U
2016686	I. B. Knutson	Punch	do	U
2016704	J. W. Bryce	Accounting Machine	do	U
2016705	do	Automatic Card Punch	do	U
2016706	Daly et al	Duplicating Punch	do	U
2016709	C. Eichenauer	Record Comparing and Posting Machine	do	Z
2016711	E. A. Ford	Devices for Feeding and Sensing Record Sheets	do	U
2019863	U. Kolm	Tabulating Machine	Nov. 5, 1952	U
2019869	R. E. Page	Perforated Record Controlled Machine	do	U
2019891	F. M. Carroll	Tabulating Machine	do	U
2019900	F. L. Fuller	Accounting Machines	do	Y
2019901	F. J. Furman	Printing Mechanism	do	U
2023376	C. O. Wellman	Card Punching Machines	Dec. 3, 1952	U

Time recording division patents

Patent no.	Inventor	Title	Expires	
1298000	J. W. Bryce	Time Indicating Systems	Mar. 25, 1936	Y
1299116	do	Clock Winding Mechanism	Apr. 1, 1936	Y
1299197	C. E. Larrabee	Counters	do	U
1310023	W. F. Krautter	Mechanical Motors	July 15, 1936	Z
1310779	J. W. Bryce	Synchronizing Clock Systems	July 22, 1936	U
1310780	do	Methods of Synchronizing Clocks	do	U
1310781	do	Synchronous Clock Systems	do	U
1310782	do	do	do	U
1310783	do	Synchronizing Clocks	do	U
1310784	do	Synchronizing Clock Systems	do	U
1310785	do	do	do	U
1310786	do	do	do	U
1310787	do	do	do	U
1310788	do	do	do	U
1310789	do	Clock Synchronizing Devices	do	U
1313305	C. E. Larrabee	Synchronizing Clock Systems	Aug. 19, 1936	U
1327334	do	Recorders for Registering Locks	Jan. 6, 1937	U
1330124	W. F. Krautter	Relays	Feb. 10, 1397	Z
1334956	C. E. Larrabee	Coaster Recorders	Mar. 30, 1937	U
1338309	do	Synchronizing Clocks	Apr. 27, 1937	U
1340435	J. W. Bryce	Cost Keeping Machines	May 18, 1937	U

Digitized by Google

Time recording division patents—Continued

Patent no.	Inventor	Title	Expires	
1344059	G. W. Odell	Time Card Clipping Mechanism	June 22, 1937	Z
1348217	Bryce et al	Recorders	Aug. 3, 1937	U
1348218	do	Time Recorders	do	U
1357461	C. E. Larrabee	Elimination Devices for Time Recorders	Nov. 2, 1937	U
1357715	do	Recording Locks	do	U
1358284	F. M. Carroll	Time and Wage Recording Machines	Nov. 9, 1937	U
1365814	J. W. Bryce	Recording Locks	Jan. 18, 1938	U
1367534	do	Self Winding Attachments for Secondary Clocks	Feb. 8, 1938	U
1374929	H. I. Larson	Synchronizer	Apr. 19, 1938	Z
1376796	J. W. Bryce	Recording Lock System	May 3, 1938	U
1377000	do	Synchronizing Clock Systems	do	U
1378652	do	Recording Locks	May 17, 1938	U
1378653	do	Secondary Clocks	do	U
1382622	do	Program Battery Charging Device	June 28, 1938	U
1385576	G. W. Odell	Time and Value Cards	July 26, 1938	Z
1388167	J. W. Bryce	Synchronizing Clock Systems	Aug. 23, 1938	U
1388177	F. B. Eels	Three Ribbon Recorder	do	X
1390017	J. W. Bryce	Recording Lock Systems	Sept. 6, 1938	U
1390018	do	Master Clocks	do	U
1403040	C. E. Larrabee	Time Recorders	Jan. 10, 1939	U
1406067	G. W. Odell	Computing Card Stamping Machines	Feb. 7, 1939	Z
1412839	J. W. Bryce	Time Recorders	Apr. 18, 1939	U
1413646	G. R. Wood	Recording Mechanism	Apr. 25, 1939	Y
1417715	J. W. Bryce	Recording Lock	May 30, 1929	U
1421824	G. W. Odell	Time Recorders	July 4, 1939	X
1447293	J. W. Bryce	Indicating Mechanism for Time Recorders	Mar. 6, 1940	U
1447299	E. C. Freeman	Spring Winding Machines	do	X
1464330	G. W. Odell	Time Cards	Aug. 7, 1940	X
1469988	Bryce et al	Recorder	Oct. 9, 1940	U
1481574	T. J. Watson	Time Recorder	Jan. 22, 1941	U
1513368	J. W. Bryce	do	Jan. 28, 1941	U
1515995	do	Electric Multiplying Machine	Nov. 18, 1941	U
1570685	C. E. Larrabee	Time Controlled Devices for Dampers, Valves, etc.	Jan. 26, 1943	U
1578007	J. W. Bryce	Interlocking Systems for Door Locks, etc	Mar. 23, 1943	U
1582333	do	Multiple Time Recorder	Apr. 27, 1943	U
1608888	C. D. Lake	Time Recorders	Nov. 30, 1943	U
1611579	L. C. Bush	Recording Door Locks	Dec. 21, 1943	U
1614711	do	Interlocking Devices for Doorlocks, etc	Jan. 18, 1944	U
1657105	J. W. Bryce	Wireless Synchronizing Clock System	Jan. 24, 1945	U
1664523	J. W. Miles	In and Out Machines	Apr. 3, 1945	U
1671968	Bryce et al	Time Recorders	June 5, 1945	U
1672009	S. E. Swick	do	do	X
1676075	J. W. Bryce	Alarm Devices for Clocks in Signalling Systems	July 3, 1945	U
1680686	S. Kellien	Controlling Systems for Motor Driven Clocks	Aug. 14, 1945	X
1680742	C. E. Larrabee	Driving Devices for Program Clocks	do	U
1684400	do	Multi-Colored Ribbon Control Device for Time Recorders.	Sept. 18, 1945	U
1687491	J. W. Bryce	Synchronizing Clocks	Oct. 16, 1945	U
1691928	Hutchinson et al	Nibbling Machine	Nov. 20, 1945	U
1695029	E. F. Geiger	Watchmen's Delinquency Alarms	Dec. 11, 1945	U
1713021	J. W. Bryce	Signal Apparatus	May 14, 1946	U
1730448	do	Pneumatic Clock Systems	Oct. 8, 1946	U
1730504	L. S. Harrison	Alternating Current Automatic Resetting Self-Synchronizing Clock System.	do	U
1734495	Larrabee et al	Automatic Oil Switch Time Recorder	Nov. 5, 1946	U
1740330	Bryce et al	Synchronizing Clock System	Dec. 17, 1946	U
1745924	E. F. Geiger	Self Regulating Control System	Feb. 4, 1947	U
1747021	V. Sturtevant	Combined Accident and Time Recorder	Feb. 11, 1947	U
1752939	J. W. Bryce	Secondary Clocks	Apr. 1, 1947	U
1760631	do	Self-Regulating Clock Systems	May 27, 1947	U
1773421	do	Time Recorders	Aug. 19, 1947	U
1777745	do	Synchronizing Clock Systems	Oct. 7, 1947	U
1777867	T. J. Watson	Time Recording Systems for Signals	do	U
1786979	J. W. Bryce	Time Recorders	Dec. 30, 1947	U
1791761	C. E. Larrabee	Paper Clamp for Dial Recorder	Feb. 10, 1948	U
1791917	C. S. Winsor	Cleaner for Sanding Machine	do	U
1791927	E. F. Geiger	Program Devices	do	U
1791946	G. R. Wood	Time Recorders	do	U
1798583	Bishop et al	Time Stamp	Mar. 31, 1948	U
1799752	C. E. Larrabee	Card Carrier for Recorders	Apr. 7, 1948	U
1800381	E. F. Geiger	Program Self-Regulating Control	Apr. 14, 1948	U
1807828	J. W. Bryce	Time Recorder	June 2, 1948	U
1812628	E. F. Geiger	Automatic Battery Charging System	June 30, 1948	U
1817490	C. E. Larrabee	Synchronizing Mechanisms for Secondary Clocks	Aug. 4, 1948	U
1819699	J. W. Bryce	Delinquency Signalling System	Aug. 18, 1948	U
1821100	C. E. Larrabee	Oscillating Armature Secondary Clock	Sept. 1, 1948	U
1825575	J. W. Bryce	Synchronizing Clocks	Sept. 29, 1948	U
1827036	J. S. Ogsbury	Printing Attachment for Payroll Recorder	Oct. 13, 1948	X
1830750	B. Chapman	Clock Resetting Device	Nov. 10, 1948	U
1830762	C. E. Larrabee	Secondary Clock	do	U
1835386	E. F. Geiger	Battery Charging Device	Dec. 8, 1948	U

Digitized by Google

Time recording division patents—Continued

Patent no.	Inventor	Title	Expires	
1866997	J. W. Bryce	Printing Payroll Clock	July 12, 1949	U
1875800	do	Synchronizing Clocks	Sept. 6, 1949	U
1875801	do	Synchronizing Clock Systems	do	U
1876201	do	Traffic Signals	do	U
1878562	W. A. Wood, Jr	Ruling Attachments for Time Recorders	Sept. 20, 1949	X
1878931	C. E. Larrabee	Master Clock	do	U
1882763	J. W. Bryce	Indicating Device	Oct. 18, 1949	U
1882863	H. Mutschler	Time Recorder	do	U
1887221	F. Thomas	Synchronizing Clock Systems and Secondary Clocks Therefor.	Nov. 8, 1949	Z
1902007	G. R. Wood	Printing Ribbons	Mar. 1, 1950	U
1902067	F. L. Fuller	Time Recorders	Mar. 21, 1950	U
1902156	Bishop et al	Card Rack	do	U
1908112	J. W. Bryce	Synchronizing Clock Control Systems	May 9, 1950	U
1909555	B. Townshend	Mercury Pendulum Contact	May 16, 1950	X
1926901	L. S. Harrison	Electric Time System	Sept. 12, 1950	U
1929237	J. W. Bryce	Synchronizing Clock Systems and Secondary Clocks Therefor.	Oct. 3, 1950	U
1930256	A. L. Sprecker	Self Regulating Clock System	Oct. 10, 1950	U
1930265	P. M. Farmer	Time Recorders	do	Z
1931019	S. H. Chamberlain, Jr.	Synchronizing Clock Systems and Secondary Clocks Therefor.	Oct. 17, 1950	U
1939066	C. E. Larrabee	Time Stamp	Dec. 12, 1950	U
1944592	J. W. Bryce	AC and DC Secondary Clock—with Individual Rectifier.	Jan. 23, 1951	U
1944695	B. H. Phillips	Time Stamps	do	U
1946896	J. W. Bryce	Time Recorder	Feb. 13, 1951	U
1954780	R. C. Allen	Synchronized Clocks	Apr. 17, 1951	U
1954781	do	Synchronized Clock Systems	do	U
1957178	G. Lowkrantz	Master Clock	May 1, 1951	U
1962744	C. E. Larrabee	Electric Clock Mechanism	June 12, 1951	U
1965969	V. O. Sturtevant	Time Recorders	July 10, 1951	U
1979208	C. M. F. Friden	Recording Device	Oct. 30, 1951	Z
1997155	A. L. Sprecker	Door Lock	Apr. 9, 1952	U
2003787	C. D. Lake	Time Stamp	June 4, 1952	U
2013350	G. S. Well	Time Recording Punch	Sept. 3, 1952	U
2016687	A. L. Sprecker	Lock	Oct. 8, 1952	U
2019301	C. M. F. Friden	Recorder	Oct. 29, 1952	U
2019897	M. Fiehl	Printing Machine	Nov. 5, 1952	U

DESIGNS

69950	C. D. Lake	Design for Time Recorders	Apr. 20, 1940	U
95205	L. S. Harrison	Design for World Clock	Apr. 16, 1949	U

Industrial scale division patents

Patent no.	Inventor	Title	Expires	
Re15834	C. Berger	Measuring Apparatus	Mar. 4, 1936	Z
1291890	J. Hopkinson	Scales	Jan. 21, 1936	U
1292085	E. M. Schantz	Computing Scales	do	X
1295406	E. E. Wolf	Weight Recording Apparatus	Feb. 25, 1936	
1299786	E. M. Schantz	Computing Recording Scales	Apr. 8, 1936	X
1313062	J. W. Bryce	Weighing Apparatus	Aug. 12, 1936	U
1314631	do	Computing Scales	Sept. 2, 1936	U
1316576	J. Hopkinson	Pendulum Scales	Sept. 23, 1936	U
1330593	B. W. King	Counting Scales	Feb. 10, 1937	X
1338282	Boyer et al	Value Printing and Indicating Devices for Scales.	Apr. 27, 1937	Z
1339759	J. Hopkinson	Scales	May 11, 1937	U
1348225	B. W. King	Thermostatic Devices for Scales	Aug. 3, 1937	X
1353997	King et al	Scales and Thermostat Therefor	Sept. 28, 1937	X
1355499	C. E. Riedel	Scales	Oct. 12, 1937	X
1366670	G. W. Kepler	Temperature Compensation Devices for Scales	Jan. 25, 1938	X
1367892	C. E. Riedel	Attachment for Scales	Feb. 8, 1938	X
1372707	E. H. J. Lorenz	Computing Mechanism	Mar. 29, 1938	Z
1376850	G. R. Wood	Computing Machines	May 3, 1938	Y
1379215	C. E. Riedel	Combined Computing and Counting Scale	May 24, 1938	X
1385791	L. A. Osgood	Scales	July 26, 1938	X
1392908	J. W. Bryce	Automatic Scales	Oct. 11, 1938	U
1402087	L. A. Osgood	Weighing Apparatus	Jan. 3, 1939	U
1411270	R. Craig	Rack and Pinion Devices for Scales	Apr. 4, 1939	X
1421825	L. A. Osgood	Thermostats for Portable Scales	July 4, 1939	X
1431966	Locke et al	Pivot Mountings for Weighing Scales	Oct. 17, 1939	X

Digitized by Google

Industrial scale division patents—Continued

Patent no.	Inventor	Title	Expires	
1444190	B. W. King	Platform Scales	Feb. 6, 1940	X
1447307	J. Hopkinson	Rack and Pinion Devices for Scales	Mar. 6, 1940	U
1449162	F. G. L. Boyer	Scales and Auxiliary Controllers	Mar. 20, 1940	Z
1450487	R. Craig	Scales	Apr. 3, 1940	X
1451403	L. A. Osgood	Counting Devices for Scales	Apr. 10, 1940	X
1455411	C. E. Riedel	Counting Scales	May 15, 1940	X
1458475	E. G. Freed	Attachments for Weighing Scales	June 12, 1940	X
1458480	W. N. Gilbert	Pendulum Counterbalance	do	U
1465252	R. Craig	Weighing Scale	Aug. 21, 1940	X
1469987	J. W. Bryce	do	Oct. 9, 1940	U
1470010	Hopkinson et al	Portable Scale with Thermostat	do	U
1470016	E. B. Locke	Weighing Scale	do	X
1470025	Osgood et al	Counting Devices for Scales	do	X
1470042	E. E. Wolf	Disc Bearings for Scales and Other Mechanism	do	X
1473232	J. Hopkinson	Counting Scale	Nov. 6, 1940	
1481151	Reddick et al	Scale	Jan. 15, 1941	Z
1486128	Diemer et al	On and Off Scale	Mar. 11, 1941	X
1487514	H. T. Goss	Reading Appliances for Scales	Mar. 18, 1941	Z
1494123	L. A. Osgood	Scales	May 13, 1941	X
1507419	do	do	Sept. 2, 1941	X
1516013	J. Hopkinson	Counting Scale	Nov. 18, 1941	U
1523511	J. W. Bryce	Scales	Jan. 20, 1942	U
1526433	Osgood et al	Tare Setting and Indicating Devices for Scales	Feb. 17, 1942	X
1526434	L. A. Osgood	Scales	do	X
1535416	J. Hopkinson	Weighing Scale	Apr. 28, 1942	U
1536206	W. N. Gilbert	Pendulum Scale	May 5, 1942	U
1558146	R. Craig	Scale	Oct. 20, 1942	X
1558843	do	Weight Indicating and Price Computing Scale	Oct. 27, 1942	Z
1563019	do	Damping Devices for Scales	Nov. 24, 1942	X
1602573	do	Last Slice Holder	Oct. 12, 1943	X
1611481	W. R. Mittendorf	Counting Scales	Dec. 21, 1943	Z
1614681	L. A. Osgood	Scales	Jan. 18, 1944	X
1614682	Osgood et al	do	do	X
1614710	J. W. Bryce	do	do	U
1614726	W. N. Gilbert	Pendulum Scales	do	U
1620125	Osgood et al	Weighing Scales	Mar. 8, 1944	X
1623134	W. J. Rouleau	Computing Scale	Apr. 5, 1944	Z
1625126	E. B. Locke	Counting Scales	Apr. 19, 1944	X
1626961	L. A. Osgood	Portable Scales	May 3, 1944	X
1626963	Osgood et al	Weighing Scales	do	X
1628110	J. W. Bryce	Scales	May 10, 1944	U
1635661	R. Craig	Scale Casings	July 12, 1944	X
1650204	W. N. Gilbert	Scales	Nov. 22, 1944	U
1650224	W. R. Mittendorf	Computing Scales	do	Z
1650225	do	do	do	Z
1650226	do	do	do	Z
1650227	do	Calculating Scales	do	Z
1650228	do	Computing Scales	do	Z
1655500	W. N. Gilbert	Scales	Jan. 10, 1945	U
1656267	R. Craig	do	Jan. 17, 1945	X
1661534	W. N. Gilbert	Pendulum Scales	Mar. 6, 1945	U
1661555	J. W. Bryce	Scale	do	U
1661556	do	do	do	U
1668950	T. Dantzig	Computing Scale	May 8, 1945	Z
1672950	W. R. Mittendorf	Charts for Counting and Computing Scales	June 12, 1945	Z
1672951	do	Computing Scales	do	Z
1672952	do	do	do	Z
1684212	C. Berger	Indicating Chart and Means for Viewing the Same.	Sept. 11, 1945	Z
1704200	E. B. Locke	Computing Mechanism	Mar. 5, 1946	X
1713774	W. R. Mittendorf	Computing Scales	May 21, 1946	Z
1717502	H. H. Folker	Scale	June 18, 1946	X
1729788	W. R. Mittendorf	Computing Scale	Oct. 1, 1946	Z
1730451	R. Craig	Scales	Oct. 8, 1946	X
1731586	W. R. Mittendorf	Calculating Device	Oct. 15, 1946	Z
1742229	G. R. Wood	Predetermined Weight Indicating Devices for Scales.	Jan. 7, 1947	U
1742819	E. B. Locke	Computing Scale	do	X
1747617	J. W. Bryce	Scale	Feb. 18, 1947	U
1749192	Osgood et al	Automatic Recording Scales	Mar. 4, 1947	X
1750207	G. R. Wood	Recording Scales	Mar. 11, 1947	U
1764274	W. R. Mittendorf	Balancing Device	June 17, 1947	Z
1764275	do	Counting Scale	do	Z
1768855	Moran et al	Automatic Scales	July 1, 1947	Z
1773570	J. W. Bryce	Scales	Aug. 19, 1947	U
1777873	do	Weighing Scales	Oct. 7, 1947	U
1784046	R. Craig	Metroscopic Force Measuring Instruments	Dec. 9, 1947	Z
1788020	W. N. Gilbert	Scale	Jan. 6, 1948	U
1792112	W. R. Mittendorf	Computing Scale	Feb. 10, 1948	Z
1800741	do	do	Apr. 14, 1948	Z
1800742	do	Indicator for Beam Scales	do	Z

Digitized by Google

Industrial scale division patents—Continued

Patent no.	Inventor	Title	Expires	
1813029	R. Craig	Machines for Indicating Weight and Functions of Weight.	July 7, 1948	Z
1821087	J. W. Bryce	Weighing Scales	Sept. 1, 1948	U
1831182	E. B. Locke	Computing Scale	Nov. 10, 1948	X
1839373	J. W. Bryce	Weighing Scales	Jan. 5, 1949	U
1848769	R. Craig	Weight Indicating and Computing Scale	Mar. 8, 1949	Z
1853198	C. E. Breaden	Scale Platform	Apr. 12, 1949	X
1853199	J. W. Bryce	Seal for Scale	do	U
1856409	do	Weighing Sealing Device	May 3, 1949	U
1856410	do	Scale Bearings	do	U
1862012	W. N. Gilbert	Weighing Scale	June 7, 1949	U
1870233	J. W. Bryce	do	Aug. 9, 1949	U
1878554	Townshend et al	Electrical Scale	Sept. 20, 1949	X
1879183	W. N. Gilbert	Weighing Scale Indicator Control	Sept. 27, 1949	U
1880435	C. B. Haskins	Weighing Scales	Oct. 4, 1949	X
1880436	do	Scale	do	X
1880437	do	Scale Lock	do	X
1880639	G. R. Wood	Scale	do	U
1896255	L. S. Smithers	do	Feb. 7, 1950	U
1896283	J. W. Bryce	Lock for Weighing Scales	do	U
1896284	do	Printing Attachment for Scale	do	U
1897027	W. Gumprich	Scale Attachment	do	U
1904446	do	Positioning Means for Poise Weights	Apr. 18, 1950	U
1904451	C. B. Haskins	Bearing	do	X
1904542	H. C. Schaper	Automatic Weight Indicating Scale	do	Z
1909580	W. Gumprich	Weighing Scale	May 16, 1950	U
1914388	Von Pein et al	Scale	June 20, 1950	U
1930273	G. Hutchinson	Gage	Oct. 10, 1950	U
1933259	W. Gumprich	Scale Bearing Member	Oct. 31, 1950	U
1939091	E. J. Von Pein	Scale Device	Dec. 12, 1950	U
1957198	J. W. Bryce	Scale	May 1, 1951	U
1969363	W. N. Gilbert	Scale Bearings	Aug. 7, 1951	U
1969364	do	Pivot Block	do	U
1969365	do	Attachment for Scale Platform	do	U
1994512	Gilbert et al	Counting Scale	Mar. 19, 1952	U
1994549	E. J. Von Pein	do	do	U
1994550	T. J. Watson	Scale	do	U
1987272	A. L. Sprecker	Weight Controlled Escalator	Jan. 8, 1952	U
1987286	Diesenberg et al	Equilibrium Device for Scale	do	U
1997176	C. Haskins	Scale	Apr. 9, 1952	X
2000156	G. R. Wood	Coin Scale	May 7, 1952	U
2000168	W. N. Gilbert	Scale Base System	do	U
2007394	W. Gumprich	Lever System	July 9, 1952	U
2010666	C. B. Haskins	Scale	Aug. 6, 1952	X
2013539	Gilbert et al	Scale Devices	Sept. 3, 1952	U
2016698	E. J. Von Pein	Printing Scale	Oct. 8, 1952	U
2016703	Breaden et al	Scale Lock	do	X
2016714	W. N. Gilbert	Scale	do	U
2022960	W. Gumprich	Spring Testing Scale	Dec. 3 1952	U
2022981	H. C. Schaper	Automatic Weight Indicating Scales	do	Z

Radiotype division patents

Patent no.	Inventor	Title	Expires	
1695518	G. W. Watson	Electric Lock	Dec. 18, 1945	Y
1847030	do	Communication System	Feb. 23, 1949	Y
1927077	do	do	Sept. 19, 1950	Y
1936900	V. M. Bugge	Means of Communication	Nov. 28, 1950	Y
1978828	G. W. Watson	Apparatus for Transmitting Music by Radio	Oct. 30, 1951	Y
2000764	Lemmon et al	Communication System	May 7, 1952	Y
2000765	W. S. Lemmon	do	do	Y
2019864	do	do	Nov. 5, 1952	Y

Digitized by Google

Electromatic Typewriters, Inc., Patents

[Wholly owned subsidiary company]

Patent no.	Inventor	Title	Expires	
1602756	F. F. Dorsey	Power Mechanism	Oct. 12, 1943	Z.
1602757	do	do	do	Z.
1602758	do	do	do	Z.
1628037	do	do	May 10, 1944	Z.
1643041	A. F. Williams	do	Sept. 20, 1944	Z.
1643057	C. W. Crumrine	do	do	Z.
1646465	Thompson, et al	do	Oct. 25, 1944	Z.
1661710	R. G. Thompson	do	Mar. 6, 1945	Z.
1670439	F. F. Dorsey	Motor Controllers	May 22, 1945	Z.
1674876	R. G. Thompson	Dynamo Electric Machine	June 26, 1945	Z.
1681267	do	Power Mechanism	Aug. 21, 1945	Z.
1688364	do	Automatic Typewriters	Oct. 23, 1945	Z.
1688380	F. F. Dorsey	Power Mechanism	do	Z.
1692962	R. G. Thompson	Motor Controllers	Nov. 27, 1945	Z.
1729800	F. Terbush	Methods of Forming Cams	Sept. 24, 1946	Y.
1753450	R. G. Thompson	Carriage Return Mechanism	Apr. 8, 1947	Z.
1753495	H. F. Bardwell	Typewriting Machines	do	Y.
1761758	R. G. Thompson	Typewriters	June 3, 1947	Z.
1773420	H. F. Bardwell	Motor Mountings	Aug. 19, 1947	Y.
1775057	R. G. Thompson	Power Operated Typewriters	Sept. 2, 1947	Z.
1777055	do	Power Mechanism	Sept. 30, 1947	Z.
1777056	do	do	do	Z.
1789808	F. F. Dorsey	do	Jan. 20, 1948	Z.
1804090	C. W. Crumrine	Power Mechanism for Sheet Punching Machines	May 5, 1948	Z.
1807969	do	Fractional Line Spacers for Typewriters	June 2, 1948	Z.
1809024	do	Paper Roller Mechanism	June 9, 1948	Z.
1818200	F. F. Dorsey	Typewriting Machines	Aug. 11, 1948	Z.
1837898	C. W. Crumrine	Typewriters	Dec. 22, 1948	Z.
1852202	do	Master Perforators	Apr. 5, 1949	Z.
1854454	do	Typewriting Machines	Apr. 19, 1949	Z.
1873510	Thompson, et al	do	Aug. 23, 1949	Z.
1873511	do	Perforating Machines	do	Z.
1873512	R. G. Thompson	Typewriting Machines	do	Z.
1873553	C. W. Crumrine	do	do	Z.
1873554	do	Perforating Machines	do	Z.
1873555	do	Paper Feed Rollers	do	Z.
1873556	do	Typewriting Machines	do	Z.
1884384	R. G. Thompson	do	Oct. 25, 1949	Z.
1913735	do	Remote Control Mechanism	June 13, 1950	Z.
1914705	do	Typewriting Machines	June 20, 1950	Z.
1922991	Thompson, et al	do	Aug. 15, 1950	Z.
1934338	R. G. Thompson	do	Nov. 7, 1950	Z.
1935436	C. W. Crumrine	do	Nov. 14, 1950	Z.
1936466	do	do	Nov. 21, 1950	Z.
1937047	R. G. Thompson	do	Nov. 28, 1950	Z.
1937048	Thompson, et al	do	do	Z.
1940155	R. G. Thompson	Power Driven Typewriting Machines	Dec. 19, 1950	Z.
1940156	Thompson, et al	Perforating Machines	do	Z.
1942305	J. L. Petz	Typewriting Machines	Jan. 2, 1951	Z.
1945097	Thompson, et al	do	Jan. 30, 1951	Z.
1945836	R. G. Thompson	do	Feb. 6, 1951	Z.
1945837	do	Remote Control Apparatus	do	Z.
1945847	C. W. Crumrine	Typewriting Machines	do	Z.
1950761	R. G. Thompson	do	Mar. 13, 1951	Z.
1950762	do	do	do	Z.
1955578	C. W. Crumrine	do	Apr. 17, 1951	Z.
1955614	Thompson, et al	do	do	Z.
1957322	C. W. Crumrine	do	May 1, 1951	Z.
1987276	R. G. Thompson	Method and Apparatus for Producing Typewritten Matter in Two Tones.	Jan. 8, 1952	Z.
1987283	C. W. Crumrine	Typewriting Machine	do	Z.
1994544	Thompson, et al	Typewriter	Mar. 19, 1952	Z.
1996013	R. G. Thompson	Apparatus for Remote Control	Mar. 26, 1952	Z.
2000201	do	Method and Apparatus for Writing Checks	May 7, 1952	Z.

DESIGN

86067	Thompson, et al	Design for a Typewriter	Jan. 19, 1946	Z.

Digitized by Google

PATENTS UNDER WHICH INTERNATIONAL BUSINESS MACHINES CORPORATION HAS LICENSES 1 (c)

Patent licenses

Licensor	Patent no.	Patent date
W. S. Gubelmann	1160071	Nov. 9, 1915
Do	1333307	Mar. 9, 1920
Do	1334533	Mar. 23, 1920
Do	1348942	Aug. 10, 1920
Do	1370499	Mar. 1, 1921
Do	1372748	Mar. 29, 1921
Do	1429201	Sept. 12, 1922
Do	1429202	Do.
Do	1579929	Apr. 6, 1926
Do	1590024	June 22, 1926
Do	1742521	Jan. 7, 1930
Do	1742522	Do.
Do	1742523	Do.
Do	1742524	Do.
Do	1742525	Do.
Do	1742526	Do.
Do	1742527	Do.
Do	1742528	Do.
Do	1742529	Do.
Do	1742530	Do.
Do	1742531	Do.
Do	1742532	Do.
Do	1742533	Do.
Do	1742534	Do.
Do	1742535	Do.
Do	1817451	Aug. 4, 1931
Do	1895848	Jan. 31, 1933
Do	1900103	Mar. 7, 1933
Do	1924653	Aug. 29, 1933
Do	1968386	July 31, 1934
Do	1968387	Do.
Do	1971680	Aug. 28, 1934
W. J. Pearson	1335067	Mar. 30, 1920
Do	1917511	July 11, 1933
Do	1944964	Jan. 30, 1934
Do	1944994	Do.
Do	1958925	May 15, 1934
Do	1963205	June 19, 1934
Do	1972163	Sept. 4, 1934
Do	1987742	Jan. 15, 1935
Do	1988625	Jan. 22, 1935
Do	2003218	May 28, 1935
Do	2003219	Do.
W. J. Pearson	2003220	May 28, 1935
Do	2003736	Do.
Do	2003927	Do.
Do	1520609	Dec. 23, 1924
Fultograph, Inc., and Otho Fulton.	1759303	May 20, 1930
Do	1897796	
Do	1902552	Mar. 21, 1933
Do	1985084	Dec. 18, 1934
R. E. Paris	1712901	May 14, 1929
Do	1916232	July 4, 1933
Do	1933996	Nov. 7, 1933
Do	1991515	Feb. 19, 1935
Do	1991516	Do.
J. V. Weckbaugh	1468185	Sept. 18, 1923
United Chromium, Inc.	1496845	
Do	1581188	
Do	1589088	
Do	1590170	
Do	Re16598	
Do	1709022	
Do	1720312	
Do	1802463	
Do	1809826	
Do	1813842	
Do	1720313	
Eastman Kodak Co	1396770	Nov. 15, 1921
C. Berger	1295842	Mar. 4, 1919
Do	1422527	July 11, 1922
Do	1684212	Sept. 11, 1928
Do	Re15834	May 13, 1924
H. S. Benjamin	1780165	Nov. 4, 1930
J. T. Schaaff	1300491	Apr. 15, 1919
O. Malcher	1815310	July 21, 1931
Electromatic Typewriters, Inc.	1227846	May 29, 1917
Do	1077005	Oct. 28, 1913
Do	1528704	Mar. 3, 1925
Do	1600252	Sept. 21, 1926
Royal Typewriter Co	1946363	Feb. 6, 1934
Do	1781720	Nov. 18, 1930
American Sales Book Co	2018052	Oct. 22, 1935

FADA RADIO & ELECTRIC CO.,
Thompson Avenue, Twenty-ninth and Thirtieth Streets,
Long Island City, N. Y., January 3, 1936.

HOUSE OF REPRESENTATIVES, UNITED STATES,
COMMITTEE ON PATENTS,
24 Fifth Avenue, New York City, N. Y.
(Attention Mr. William I. Sirovich, chairman.)

GENTLEMEN: We refer to your letter of the 9th ultimo pertaining to the question of patents, etc.

While our company has certain patents pending and certain patent grants on various phases of our industry, with the exception of our various trade-mark patents none of these are being employed at the present time in our merchandise.

Regarding patents under which we operate as licensees of the R. C. A. and Hazeltine patent groups, we are submitting hereunder the numbers of these respective patents:

R. C. A. PATENTS

1313094	1788035	1464104	1511015	Re18579
1537708	1896780	1531805	1297188	1507017
1702833	1403932	1618017	1795214	1734132
1957752	1558437	1811095	1520994	1574780
1508151	1868443	1931677	Re18916	1403475
1849651	1342885	1459412	1728879	1852068
1869323	1544081	1573374	1820809	1527703
1639713	1447773	1936162	1938256	1561892
1894197	Re17909	1507016	1465332	1740331
1530981	1707617	1734038	1631646	1869331
1596198				

Digitized by Google

HAZELTINE PATENTS

1382738	1755115	1855055	1904185	1908934
1572504	1810355	1879863	1813604	1920743
1697778	1833085	1892354	1836076	1931338
1655114	1857055	1535189	1934722	1943405
1798962	1767837	1648808	1958027	1962104
1828688	1886571	1751854	1991221	2001277
1855054	1447793	1763380	1908119	1910399
1877228	1614136	1823331	1915926	1921087
1881235	Re17531	1852710	1921088	1933402
1405523	1689948	1869894	1934940	1951685
Re16461	1823327	1878614	1960984	1987857
1710035	1845306	1893813	2000113	Re19170

We have no record of the names of the inventors, nor of the subjects of the patents, and it would take considerable work to obtain this information. In view of the fact that you will doubtless be receiving this information from other licensees of the R. C. A. and Hazeltine groups we trust our decision not to supply these details will not represent an inconvenience.

We sincerely hope the data presented in this letter will serve your purposes and if we may be of further service, kindly let us hear from you.

Very truly yours,

FADA RADIO & ELECTRIC CO.,
J. M. MARKS, *General Manager.*

CHESTER A. ADEE,
11 Broadway, New York, December 24, 1935.

Hon. WILLIAM I. SIROVICH,
Chairman, Committee on Patents,
Washington, D. C.

DEAR SIR: Your letter addressed to the president of Ingersoll-Rand Co. has been referred to me for reply inasmuch as I have charge of patent matters for that company.

We have not been accustomed to keep the requested information in the form desired, hence the delay in answering your letter. The following paragraphs are numbered to correspond to the items in your letter and answer the questions as well as we are able to do so.

1. Attached hereto is a photostat copy of a list of all patents issued to Ingersoll-Rand Co. since November 1, 1918. To comply with item 1 of your letter there should be added to this list Brewer Patent No. 1461379, under which we have a license from the owner by virtue of a cross-license agreement involving also Ingersoll-Rand Co.'s Patent No. 1899002.

2. We are not operating under the great majority of the patents in the list. It is impossible to state why without taking each patent separately. Our patent department files an application on practically everything which is developed at the shops and appears patentable. The engineers embody the inventions in the product if they consider it advantageous.

3. We belong to no patent-pooling organization or association and cannot therefore furnish any data for this item.

4. Ingersoll-Rand is cross-licensee in an agreement involving the Brewer and LeValley patents mentioned above. The license under the Brewer patent is the sole consideration for the license under the LeValley patent. Incidentally this cross-license is of little practical importance.

5. We have no form of cross-licensing or pooling agreement with others.

6. The Brewer-LeValley agreement referred to above is dated February 25, 1935. The LeValley patent was assigned to Ingersoll-Rand Co. The consideration in the assignment is $1. The value of the patent is very problematical and has always been so.

7. The answer to this item is "No."

8. Assuming that the inventors referred to are those found in the attached list of patents, substantially all of them were employees of the company at the time of the filing of the patent applications. A copy of the form of the employee's contract with regard to inventions is attached hereto.

9. The Brewer patent referred to above is owned by the DeVilbiss Co. of Toledo, Ohio. I do not know its value.

Digitized by Google

10. Naturally, in consideration of the license under the Brewer patent, we gave a license under the LeValley patent. There are no other cross-licenses that I can find.

11. None.

12. I have no comments or suggestions that have not been made elsewhere.

I am afraid that the answers to your questions may appear odd. Ingersoll-Rand Co. has studiously avoided granting licenses under its patents. When it has taken a license under a patent such license has almost always been exclusive in its nature. It would appear therefore that the company has very little to disclose that applies to your inquiry.

Respectfully yours,

C. A. ADEE.

LIST OF PATENTS ASSIGNED TO INGERSOLL-RAND CO., NOVEMBER 1, 1918, TO DATE

AGREEMENT FOR ASSIGNMENT OF INVENTIONS

In consideration of one dollar ($1) paid to me by Ingersoll-Rand Co., the receipt whereof by me is hereby acknowledged and of my employment by that company during such time as may be mutually agreeable to that company and myself, I agree to assign and hereby do assign to said company, its successors and assigns, all my rights to inventions which I have made or conceived or which I may hereafter make or conceive, either solely or jointly with others, in the course of such employment, or with the use of the time, material, or facilities of said company, or relating to any method, substance, machine, article of manufacture, or improvements therein within the scope of the business of that company; and I further agree that, without charge to said company, but at its expense, I will disclose such inventions to the said company as soon as practicable after they are made, and execute, acknowledge, and deliver at the request of the company all papers including patent applications which may be requisite for obtaining patents on said inventions in any and all countries and to vest title thereto in said Ingersoll-Rand Co., its successors or assigns, and do all other acts and things which may be necessary and proper to be done in furtherance of these ends, the inventions to remain the property of Ingersoll-Rand Co. whether patented or not.

In order that future disputes may not occur, all patents issued prior to the date of my employment with Ingersoll-Rand Co., are excluded from this agreement, and all other inventions which I wish to exclude therefrom are listed within.

Witness my hand and seal this _____ day of _____, 19____

_____ [SEAL]

Witnesses:

_____

_____

The men who are asked to sign this agreement are those who in the natural course of events may be brought in touch with the problems which are from time to time presented to Ingersoll-Rand Co. for solution and with the efforts which are being made by various engineers attached to the company to solve these problems. Without an agreement to assign inventions along the line of the company's activities it would be impossible to put these men in any such relations with the company's work and to bring them into free and open relations with those engineers who are regularly assigning inventions to the company.

While the company holds out no promise of additional compensation for assignment of inventions, its policy is to recognize all good service of whatever nature, by proper adjustment of the salaries of employees, by advancement in opportunity and responsibility, and otherwise, and inventive ability is in general recognized as an element of value just as designing ability, executive ability, and other similar traits are recognized.

As the employee is to assign inventions which he makes after he enters the employ of the company, then for his own protection as well as in the interests of the company it is desirable that records should be made of the inventions which he possesses at the time of employment and which he would therefore naturally wish to exclude from the operation of the contract and to take up specially with the company if they were such that the company would be likely to be interested in them.

Digitized by Google

CONFIDENTIAL INFORMATION

It is obvious that during this employment a man may acquire many records and data and much confidential information which under no circumstances should be used after the termination of the employment. There is also much that is marginal, or as to which doubt may arise. It is difficult exactly to draw the line in writing; a man's own sense of propriety is usually the safest guide in each particular case. The more experience he has the more careful he becomes in such matters. The company will in many cases be glad to have the employee use such information, but expects the employee to obtain permission in each case when doubt arises.

Chronological index

Patent no.	Patentee	Date	Title
1284815	Taylor, A. H	Nov. 12, 1918	Spike Holder for Spike Driving Machines.
1289285	Slater, F. M	Dec. 31, 1918	Valve for Percussive Tools.
1291854	Haight, H. V	Jan. 21, 1919	Unloader for Compressors.
1293792	Jimerson, F. A	Feb. 11, 1919	Crank Bearing for Close Corner Drills.
1297830	Gibson, A. H	Mar. 18, 1919	Connecting Rod Construction.
1297889	Miller, F	do	Core Drill.
1297925	Stage, H. I	do	Automatic Pneumatic Feed.
1299773	Peters, A. E	Apr. 8, 1919	Governing Mechanism for Steam Engines.
1299814	Bayles, L. C	do	Feeding Means for Drills.
1299815	do	do	Plate Valve.
1302019	Ditson, J	Apr. 29, 1919	Drill Sharpener.
1302084	Peters, A. E	do	Plate Valve.
1302268	Abrams, H. T	do	Apparatus for Elevating Fluids by Compressed Air.
1304442	Bayles, L. C., Slater, F. M	May 20, 1919	Cylinder and Guide Construction for Hammer Drills.
1304459	Ditson, J	do	Drill Sharpener.
1306106	do	June 10, 1919	Drill Steel Pinning Device.
Re14662	Haight, H. V	do	Unloader for Compressors.
1311897	Ihrmark, C. G	Aug. 5, 1919	Tool Holder.
1311922	Slater, F. M	do	Fluid Current Meter.
1311925	Smith, W. A	do	Percussive Tool.
1316184	Prellwitz, W	Sept. 16, 1919	Plate Valve.
1317874	Haight, H. V	Oct. 7, 1919	Fluid Operated Percussive Drill.
1317875	Hansen, C. C	do	Feeding Means for Core Drills.
1321565	Smith, W. A	Nov. 11, 1919	Mounting for Hammer Drills.
1324064	Peters, A. E	Dec. 9, 1919	Emergency Stop for Steam Engines.
1324078	Smith, W. A	do	Percussive Tool.
1328077	Boyer, L. E	Jan. 13, 1920	Method of and Apparatus for Forming Rifled Bores in Metal.
1336930	Stage, H. I	Apr. 13, 1920	Rock Drill Seating and Controlling Means.
1337670	Smith, W. A	Apr. 20, 1920	Pin Puller.
1338259	do	Apr. 27, 1920	Impact Engine.
1338732	Jimerson, F. A	May 4, 1920	Reversing Mechanism for Fluid Engines.
1343190	Abrams, H. T	June 15, 1920	Automatic Valve for Air List Pumps.
1343610	Bayles, L. C	do	Fluid Operated Percussive Tool.
1343649	Smith, W. A	do	Valve for Percussive Tools.
1344415	Longacre, F. V. D	June 22, 1920	Electric Welding Apparatus.
1345364	Hansen, C. C	July 6, 1920	Throttle Valve.
1345731	Ambrose, R. L	do	Mounting for Drills.
1346163	Bayles, L. C., Slater, F. M	July 13, 1920	Roller Bearing Construction.
1347185	Smith, W. A	July 20, 1920	Mounting for Rock Drills.
1347786	Longacre, F. V. D	July 27, 1920	Starting Means for Motor Driven Compressor Installations.
1349145	Breinl, J. C	Aug. 10, 1920	Valve.
1349146	Christmas, A. F	do	Governing Mechanism for Internal Combustion Engines.
1349330	Ditson, J	do	Fluid Operated Vise.
1350342	Smith, W. A	Aug. 24, 1920	Valve for Percussive Tools.
1350407	Haight, H. V	do	Throttle Valve for Percussive Tools.
1352025	Prellwitz, W	Sept. 7, 1920	Plate Valve.
1352036	Smith, W. A	do	Valve.
1352050	Christmas, F. A	do	Governing Fuel Pump.
1352060	Gibson, A. H	do	Centrifugal Brake for Power Trucks.
1352648	Beyer, H. E., Hall, W. G	Sept. 14, 1920	Rectifier and Condenser.
1353706	Bancel, P. A	Sept. 21, 1920	Regenerative Power Installation.
1353796	Stage, H. I	do	Fluid Operated Percussive Tool.
1354276	Bancel, P. A	Sept. 28, 1920	Surface Condenser.
1354318	Longacre, F. D	do	Valve.
1354348	Smith, W. A	do	Fluid Actuated Reciprocating Motor.
1355175	do	Oct. 12, 1920	Percussive Tool.
1355806	Bayles, L. C	Oct. 19, 1920	Drill Steel Retainer.
1358441	Hansen, C. C	Nov. 9, 1920	Core Drill.
1358486	Wilhelm, R. H	do	Handle for Percussive Tools.
1358889	Smith, W. A	Nov. 16, 1920	Mounting for Drills.
1359119	do	do	Percussive Tool.
1361329	Hansen, C. C	Dec. 7, 1920	Oil Burning Forge.

Digitized by Google

Chronological index—Continued

Patent no.	Patentee	Date	Title
1361632	Slater, F. M	Dec. 7, 1920	Feeding Means for Drills.
1361636	Stage, H. I	do	Regulating Valve for Drill Feeding Means.
1363586	Hansen, C. C	Dec. 28, 1920	Subaqueous Rock Drill.
1367343	Anderson, W. E	Feb. 1, 1921	Impeller-Vane for Water Pumps.
1367360	Ditson, J	do	Centering Device.
1368238	Carpenter, A. O	Feb. 15, 1921	Cooling Means for Compressors and Pumps.
1368248	Ditson, J	do	Capstan.
1370061	Smith, W. A	Mar. 1, 1921	Throttle-Valve for Drills.
1370251	Wilhelm, R. H	do	Pinning-Out Machine for Drill Steels.
1370923	Slater, F. M	Mar. 8, 1921	Independent Rotation for Percussive Tools.
1371293	Brackett, J. C	Mar. 15, 1921	Shoveling and Loading Machine.
1371344	do	do	Do.
1371345	do	do	Do.
1371701	Lundell, R. A	do	Piston and Connecting Rod Construction.
1371721	Bayles, L. C	do	Exhaust-Valve for Hammer Drills.
1372037	Parsons, F. W	Mar. 22, 1921	Cover-Retainer for Vacuum Pumps.
1372914	Smith, W. A	Mar. 29, 1921	Automatic valve for Independent Rotation Drills
1372915	do	do	Automatic Valve.
1373853	Bayles, L. C., Slater, F. M	Apr. 5, 1921	Throttle Valve for Drills.
1373866	Christmas, A. F	do	Governor for Steam Engines.
1375252	Huff, L. R	Apr. 19, 1921	Plate Valve.
1375433	Wilhelm, R. H	do	Tool Retainer for Hammer Drills.
1375443	Bayles, L. C	do	Rotating Construction for Percussive Tools.
1375444	do	do	Rotating Device for Percussive Tools.
1376409	Ditson, J	May 3, 1921	Adjustable Stop Member for Gaging Blocks.
1376484	Tuttle, G. G	do	Plate Valve.
1377479	Hansen, C. C	May 10, 1921	Liquid Fuel Burner.
1378028	Hart, T. J	May 17, 1921	Compressor Overload Regulator.
1378491	Stage, H. I	do	Unitary Regulating and Controlling Means for Drill Feed Mechanism.
1379225	Smith, W. A	May 24, 1921	Pinning-Out Machine for Drill Steels.
1379935	Peters, A. E	May 31, 1921	Centering Device.
1379955	Bancel, P. A	do	Jet Condenser.
1380460	do	June 7, 1921	Method and Apparatus for Devaporising and Cooling.
1381646	Kirgan, J. F	June 14, 1921	Spray Head.
1382325	Slater, F. M	June 21, 1921	Support for Rotating Stope Drills.
1383258	Hoffman, P	June 28, 1921	Constant Volume Regulator for Turbo Compressors.
1383373	Bayles, L. C	July 5, 1921	Valve.
1383404	Kirgan, J. F	do	Spray Head.
1383434	Smith, W. A	do	Drill Steel Retainer.
1383850	Pitts, C	do	Belt Drive.
1383939	Hansen, C. C	do	Double Core Barrel for Core Drills.
1384216	Smith, W. A	July 12, 1921	Rock Drill.
1384520	Ditson, J	do	Adapter for Saddle Clamps.
1384641	Smith, W. A	do	Blowing Device for Percussive Tools.
1384661	Guiley, H. A	do	Rotation Means for Percussive Tools.
1384686	Christmas, A. F	do	Vaporizer for Internal Combustion Engines.
1385115	Cone, J. D	July 19, 1921	Centrifugal Pump.
1385134	Jimerson, F. A	do	Fluid Actuated Rotary Tool.
1385147	Prellwitz, W	do	Plate Valve.
1385467	Parsons, F. W	July 26, 1921	Valve Seat Retainer.
1386769	Ditson, J	Aug. 9, 1921	Dolly-Return Device.
1390834	Stage, H. I	Sept. 13, 1921	Motor Rotation Impact Tool.
1391628	Haight, H. V	Sept. 20, 1921	Percussive Tool.
1391629	do	do	Hammer Drill.
1393072	Bayles, L. C	Oct. 11, 1921	Front Head for Rock Drills.
1393085	Carpenter, A. O	do	Compressor.
1393094	Ditson, J	do	Pin Puller.
1393403	Smith, W. A	do	Drill Sharpener.
1395082	Bayles, L. C	Oct. 25, 1921	Fluid Actuated Motor.
1395090	Carpenter, A. O	do	Compressor Unloader.
1395702	Ditson, J	Nov. 1, 1921	Shank and Bit Punch.
1395747	Smith, W. A	do	Do.
1397091	Douglass, R. W	Nov. 15, 1921	Heat Exchanger.
1401551	Parson, F. W	Dec. 27, 1921	Fluid Actuated Clutch Pulley.
1401858	Bayles, L. C	do	Pneumatic Column.
1403284	Beaver, C. P	Jan. 10, 1922	Front Head for Rock Drills.
1404179	Veasey, J. H	Jan. 17, 1922	Fluid Pressure Actuated, etc.
1406185	Hansen, C. C	Feb. 14, 1922	Shot Bit.
1406767	Slater, F. M	do	Handle for Stope Drills.
1406815	Bancel, P. A	do	Compartment Surface Condenser.
1406853	Hansen, C. C	do	Casing Cutting Tool.
1406906	Smith, W. A	do	Air Feed Control for Rock Drills.
1406907	do	do	Do.
1406908	do	do	Do.
1407589	Slater, F. M	Feb. 21, 1922	Front End Construction for Rotating Rock Drills.
1407590	do	do	Throttle Valve for Rock Drills.
1407591	do	do	Air Feed Control for Rock Drills.
1407599	Stage, H. I	do	Automatic Air Feed Control for Rock Drills.

Digitized by Google

Chronological index—Continued

Patent no.	Patentee	Date	Title
1408638	Prellwitz, W.	Mar. 7, 1922	Compressor.
1408660	Trumpler, W. E.	do	Constant Volume Regulator for Turbo Compressors.
1408684	Balyes, L. C., Slater, F. M.	do	Percussive Tool.
1408700	Hill, F. A.	do	Regulator for Turbo Compressors.
1408710	Nusim, M. J.	do	Constant Volume Regulator for Turbo Compressors.
1408935	Ditson, J., Peters, A. E.	do	Shank and Bit Punch.
1409020	Parsons, F. W.	do	Safety Stop for Power Engines.
1409904	Bayles, L. C.	Mar. 21, 1922	Side Bolt Construction for Percussive Tools.
1409905	do	do	Pneumatic Column.
1411253	do	Apr. 4, 1922	Percussive Tool.
1411701	Huff, L. R.	do	Constant Volume Regulator for Turbo Compressors.
1411795	Metzgar, C. W.	do	Valve Seat Retainer.
1412469	Jimerson, F. A.	Apr. 11, 1922	Bit Chuck Retainer.
1413499	Smith, W. A.	Apr. 18, 1922	Automatic Air Feed Control for Rock Drills.
1414168	Bayles, L. C., Slater, F. M.	Apr. 25, 1922	Automatic Regulating Valve for Fluid Operated Motors.
1414222	Slater, F. M.	do	Regulating Valve for Rock Drills.
1414224	Smith, W. A.	do	Rock Drill.
1414225	do	do	Do.
1414234	Tuttle, G. G.	do	Drill Steel Retainer.
1414665	Parsons, F. W.	May 2, 1922	Valve Seat Retainers.
1415047	do	May 9, 1922	Portable Compressor Unit.
1415553	Hansen, C. C.	do	Oil Burning Forge.
1415647	Huff, L. R.	do	Pressure Regulator for Turbo Compressors.
1415957	Smith, W. A.	May 16, 1922	Rock Drill.
1415958	do	do	Automatic Air Feed Control for Rock Drills.
1416515	Saunders, W. L.	do	Method of and Apparatus for Loading.
1416637	Hart, T. J.	do	Plate Valve.
1417041	Ditson, J.	May 23, 1922	Double Drum Hoist.
1418202	Parsons, F. W.	May 30, 1922	Vertical Compressor Unit.
1418333	Smith, W. A.	June 6, 1922	Rock Drill.
1418336	Stage, H. I.	do	Pneumatic Drill Column.
1421183	Ditson, J.	June 27, 1922	Hoist.
1421309	Redfield, S. B.	do	Compressor Unloader.
1422476	Prellwitz, W.	July 11, 1922	Clearance Valve for Compressors.
1422573	Hoffman, P., Reed, F. C.	do	Gas Booster Regulator.
1423343	Lundell, R. A.	July 18, 1922	Piston and Connecting Rod Construction.
1423344	do	do	Do.
1423595	Bayles, L. C.	July 25, 1922	Pin Retainer for Tool Holders.
1425613	Stage, H. I.	Aug. 15, 1922	Feeding Means for Drills.
1425949	Ditson, J.	do	Guard for Valve Handles.
1427835	Metzgar, C. W.	Sept. 5, 1922	Fluid Compressor.
1428745	Bayles, L. C.	Sept. 12, 1922	Valve Spindle Retaining Device.
1428847	Jimerson, F. A.	do	Built-up Crank Shaft.
1428981	Redfield, S. B.	do	Compressor Unloader.
1429786	Smith, W. A.	Sept. 19, 1922	Rock Drill.
1429808	Tuttle, G. G.	do	Drill Steel Retainer.
1429809	do	do	Do.
1429810	do	do	Do.
1430558	Jimerson, F. A.	Oct. 3, 1922	Pneumatic Hose Coupling.
1430577	Metzgar, C. W.	do	Fluid Compressor.
1430578	do	do	Compressor Regulator.
1430581	Parsons, F. W.	do	High Pressure Compressor Unit.
1430764	Smith, W. A.	do	Rock Drill.
1431415	Parsons, F. W., Jimerson, F. A.	Oct. 10, 1922	Built-up Crank Shaft.
1431416	do	do	Do.
1433094	Parsons, F. W.	Oct. 24, 1922	Plate Valve.
1436638	Bayles, L. C.	Nov. 28, 1922	Air Feed Control for Rock Drills.
1436699	Ditson, J.	do	Oiler for Drill Sharpener Cylinders.
1437609	Nusim, M. J.	Dec. 5, 1922	Impeller.
1437610	do	do	Do.
1437632	Bayles, L. C.	do	Manual Air Feed Control for Rock Drills.
1441431	Kirgan, J. F.	Jan. 9, 1923	Tube Cleaner.
1441638	Slater, F. M.	do	Oil and Air Separator for Rotary Motors.
1441700	Middlemiss, B. A.	do	Loading Machine.
1442852	Brackett, J. C.	Jan. 23, 1923	Do.
1443128	Hansen, C. C.	do	Rock Drill.
1448506	Prellwitz, Wm.	Mar. 13, 1923	Shaft Coupling.
1448925	Fulton, J. S., McIntyre, J. K.	Mar. 20, 1923	Impellor Mounting for Centrifugal Pumps.
1450709	Bayles, L. C.	Apr. 3, 1923	Column or Support for Rock Drills.
1451362	Hansen, C. C.	Apr. 10, 1923	Independent Rotation for Percussive Tools.
1451363	do	do	Lug Chuck for Rock Drills.
1452140	Bayles, L. C.	Apr. 17, 1923	Air Feed Control for Rock Drills.
1452154	Hansen, C. C.	do	Rotation Release for Rock Drills.
1452155	do	do	Automatic Liquid Valve.
1453518	Price, W. T.	May 1, 1923	Main Bearing.
1453681	Jones, J. W.	do	Oil Governor for Compressor Engines.
1454402	Parsons, F. W.	May 8, 1923	Centrifugal Unloader for Compressors.

Digitized by Google

Chronological index—Continued

Patent no.	Patentee	Date	Title
1455553	Slater, F. M	May 15, 1923	Motor Rotation for Rock Drills.
1456234	Hansen, C. C	May 22, 1923	Hand Regulating Valve for Rotation Motors.
1456972	Christmas, A. F	May 29, 1923	Governing Fuel Pump.
1456983	Hansen, C. C	do	Soil Coring Tool.
1457777	Kirgan, J. F	June 5, 1923	Jet Augmentor or Ejector.
1458328	Ditson, J., Peters, A. E	June 12, 1923	Pedestal Punch.
1458625	Metzgar, C. W	do	Plate Valve Lifter.
1460824	Parsons, F. W	July 3, 1923	Compressor Valve.
1462301	do	July 17, 1923	Plate Valve Unloader.
1462874	Slater, F. M	July 24, 1923	Rotary Cylinder Motor.
1463134	Haight, H. V	do	Shank and Bit Punch.
1464666	Slater, F. M	Aug. 14, 1923	Anti-Friction Bearing.
1464755	Ditson, J., Parkhill, M. S	do	Forging Machine.
1464930	Gulley, H. A	do	Rotation for Rock Drills.
1465568	Taylor, A. H	Aug. 21, 1923	Reducing Valve for Rock Drills.
1467066	Prellwitz, Wm	Sept. 4, 1923	Compressor.
1470022	McIntrye, J. K	Oct. 9, 1923	Centrifugal Pump.
1470077	Haight, H. V	do	Plate Valve Unloader.
1470622	Jimerson, F. A	Oct. 16, 1923	Fluid Actuated Tie Tamper.
1470625	Jones, J. W	do	Plate Valve.
1472040	Bayles, L. C	Oct. 30, 1923	Automatic Air Feed and Rotation, Motor Control for Rock Drills.
1472382	Bayles, L. C., Slater, F. M	do	Locking Device for Independent Rotation Motors.
1472424	Bayles, L. C	do	Oiling Device for Rock Drills.
1474159	Morrow, H. W	Nov. 13, 1923	Pin Puller.
1475939	Ditson, J	Dec. 4, 1923	Apparatus for Forging Five Point Rock Drill Bits.
1476814	Gulley, H. A	Dec 11, 1923	Rotation Release for Rock Drills.
1477259	Hansen, C. C	do	Pneumatic Coal Pick.
1478220	do	Dec. 18, 1923	Oiling Device for Rock Drills.
1479356	Bayles, L. C	Jan. 1, 1924	Spool Valve for Rock Drills.
1479357	Bayles, L. C., Morrow, H. W.	do	Pin Puller.
1479395	Metzgar, C. W	do	Plate Valve Lifter.
1480552	Hansen, C. C	Jan. 15, 1924	Independent Rotation for Percussive Tools.
1480566	Parsons, F. W	do	Gear Drive.
1481334	Allen, R. O	Jan. 22, 1924	Connecting Rod Construction.
1481641	Jimerson, F. A	do	Tie Tamper Front End Construction.
1481642	do	do	Combination Riveter.
1481643	do	do	Percussive Tool Front End Construction.
1482396	Hansen, C. C	Feb. 5, 1924	Apparatus for Channelling Rock.
1482397	do	do	Core Breaker.
1483111	Price, W. T	Feb. 12, 1924	Filter.
1484643	Hansen, C. C	Feb. 26, 1924	Hand Regulating Valve for Rotation Motors.
1484673	Redfield, S. B	do	Compressor Unloader.
1484674	do	do	Pilot Valve for Compressors.
1484678	Slater, F. M	do	Fluid Actuated Inlet Valve for Rock Drills.
1484679	do	do	Do.
1484763	Ditson, J., Peters, A. E	do	Hoist.
1484944	Hansen, C. C	do	Road Surfacing Machine.
1484960	Peck, C. H	do	Rotary Cylinder Motor.
Re 15780	Ditson, J	Mar. 4, 1924	Hoist.
1486120	Bayles, L. C	Mar. 11, 1924	Mounting for Rock Drill.
1487005	do	Mar. 18, 1924	Oiling Device for Rock Drills.
1487051	Ditson, J	do	Rotary Gear Motor Hoist.
1487160	Hentzell, A. A	do	Die for Drill Sharpening Machines.
1487769	Tuttle, G. G	Mar. 25, 1924	Piston Valve for Compressors.
1487770	do	do	Do.
1488525	Bayles, L. C	Apr. 1, 1924	Rock Drill Centralizer.
1488529	Carpenter, A. O	do	Power Unit.
1488538	Hansen, C. C	do	Rotation Motor for Rock Drills.
1488552	Parkhill, M. S	do	Mounting.
1488554	Plumb, C. V	do	Rock Drill Centralizer.
1488796	Parsons, F. W	do	Piston and Connecting Rod Construction.
1490976	Huff, L. R	Apr. 22, 1924	Regulator for Turbo Compressors.
183440	Trademark	Apr. 29, 1924	Hammer.
1493951	Bayles, L. C	May 13, 1924	Blowing Device for Drill Steels.
1494030	Slater, F. M	do	Impulse-Actuated Rock Drill.
1494917	Kirgan, J. F	May 20, 1924	Low Level Multi-Jet Condenser.
1494944	Bancel, P. A	do	Double Multi-Jet Condenser.
1495150	Kirgan, J. F., Bancel, P. A	May 27, 1924	Jet Augmentor or Ejector.
1495151	Bancel, P. A	do	Vacuum Pan Unit.
1495185	Kirgan, J. F	do	Jet Augmentor or Ejector.
1495214	Wickersham, N. R	do	Governor Oil Leg.
1495299	Hansen, C. C	do	Chuck for Preventing Dust with Rock Drills.
184620	Trademark	do	"10".
1496512	Bancel, P. A	June 3, 1924	Condenser Tube Sheet Cleaner.
1497226	Pitts, C	June 10, 1924	Short Belt Drive.
1498170	Jimerson, F. A	June 17, 1924	Connecting Rod Bearing.
1501917	Peters, A. E	July 22, 1924	Oiling Device for Drill Sharpeners.
1501918	Peters, A. E., Parkhill, M. S	do	Sharpeners for Drill Steels.

Digitized by Google

Chronological index—Continued

Patent no.	Patentee	Date	Title
1502339	Jimerson, F. A	July 22, 1924	Bonding Drill.
1502648	Smith, W. A	do	Shank and Bit Punch.
1503490	Ditson, J., Peters, A. E	Aug. 5, 1924	Do.
1503895	Hansen, C. C	do	Wagon Drill.
1503922	Slater, F. M	do	Fluid Pressure Impulse System.
1503932	Wilhelm, R. H., Rudlin, F. W.	do	Steel Retainer.
1504341	Hansen, C. C	Aug. 12, 1924	Air Line Oiler.
188010	Trademark	do	"10."
1505195	Hansen, C. C	Aug. 19, 1924	Trench Digger.
1505283	Nusim, M. J	do	Combined Gas Exhauster and Tar Extractor.
1505604	Redfield, S. B	do	Compressor Unloader.
1505727	Prellwitz, Wm	do	Handle for Percussve Tools.
1505779	Hansen, C. C	do	Soil Sampling Tool.
1505780	do	do	Do.
1506119	do	Aug. 26, 1924	Core Drill Bit.
1506805	Bancel, P. A	Sept. 2, 1924	Augmenter Cooler.
1506862	Parsons, F. W	do	Governor for Fluid Actuated Rotary Tools.
1506908	Kirgan, J. F	do	Jet Augmenter or Ejector.
1506943	Reed, F. C	do	Volume Regulator Guide.
1508004	Bancel, P. A	Sept. 9, 1924	Expansion Joints for Condensers.
1508722	Price, W. T	Sept. 16, 1924	Engine Fuel Regulation.
1509220	Bayles, L. C., Peters, A. E	Sept. 23, 1924	Shank and Bit Punch.
1517015	Price, W. T	Nov. 25, 1924	Oil Engine.
1517457	Reed, R. H	Dec. 2, 1924	Combined Tar Extractor and Gas Exhauster.
1517470	Slater, F. M	do	Air Feed Lock for Rock Drills.
1517478	Wilhelm, R. H	do	Steel Retainer.
1517479	do	do	Do.
1517488	Bancel, P. A	do	Augmenter Cooler.
1517490	Bayles, L. C., Abrams, H. T	do	Regulator for Air Lift Pumps.
1517491	Bayles, L. C	do	Forming Tool for Channeler Bits.
1517497	Ditson, J	do	Blowgun for Drill Sharpeners.
1517503	Hansen, C. C	do	Regulating Valve for Rotation Motors.
1517504	do	do	Drill Rod Packing.
1519134	do	Dec. 16, 1924	Hammer Type Channeling Machine.
1519135	do	do	Composite Bit.
1519136	do	do	Drill Rod Packing.
1519171	Slater, F. M	do	Air Feed Lock for Rock Drills.
1519182	Zimmermann, W. F	do	Hollow Butt Welded Piston for Sand Rammers.
1519705	Redfield, S. B	do	Unloader.
1520023	Haight, H. V	Dec. 23, 1924	Air Line Oiler.
1520390	Carpenter, A. O., Le Valley, J.	do	Oiling Device.
1520728	Slater, F. M	Dec. 30, 1924	Fluid Actuated Inlet Valve for Rock Drills.
1521721	Smickle, R. H	Jan. 6, 1925	Retainer for Rock Drill Steels.
1521761	Ditson, J	do	Drill Sharpener.
1522239	Hansen, C. C	do	Packing Device for Drill Rods.
1522240	do	do	Rock Drill Mounting.
1522336	Slater, F. M	do	Air Feed Brake for Rock Drills.
1523844	Smith, W. A	Jan. 20, 1925	Steel Retainer.
1523873	Hansen, C. C	do	Fluid Actuated Inlet Valve for Rock Drills.
1524251	Jimerson, F. A	Jan. 27, 1925	Retainer for Percussive Tools.
1524280	Bancel, P. A	do	Condenser Tube Terminal.
1524281	do	do	Multi-Jet Condenser Casing.
1524301	Haight, H. V	do	Anvil Block Lug Chuck.
1524807	Bancel, P. A	Feb. 3, 1925	Twin Multi-Jet Condenser.
1525020	Bayles, L. C., Tuttle, G. G	do	Water Tube for Rock Drills.
1525235	Hansen, C. C	do	Soil Sampling Tool.
1526022	Stage, H. L	Feb. 10, 1925	Shoveling and Loading Machine.
1526040	Bancel, P. A	do	Steam Jet Vacuum Pump.
1526041	do	do	Low Level Multi-Jet Condenser.
1526055	Ditson, J	do	Device for Forming Shanks and Collars on Drill Steels.
1528781	Peck, C. H	Mar. 10, 1925	Pneumatic Hammer.
1530059	Rathbun, G. J	Mar. 17, 1925	Distributor for Combustion Engine.
1530492	Haight, H. V	Mar. 24, 1925	Motor Mounting.
1531315	Slater, F. M	Mar. 31, 1925	Air and Water Tube for Rock Drills.
1532118	Bayles, L. C	Apr. 7, 1925	Tar Extractor.
1532205	Slater, F. M	do	Feeding Mechanism for Rock Drill.
1535143	Wilhelm, R. H	Apr. 28, 1925	Mounting for Rock Drills.
1535198	Bayles, L. C	do	Rotation for Rock Drills.
1535221	Hansen, C. C	do	Swivel Mounting for Hoists.
1535381	Stage, H. L	do	Shoveling Machine.
1535411	Hansen, C. C	do	Pavement Breaker.
1535417	Huff, L. R	do	Open Impeller.
1535704	Wilhelm, R. H	do	Spike Holding Device.
1536282	Brackett, J. C	May 5, 1925	Shoveling and Loading Machine.
1536306	Nusim, M. J	do	Radial Impeller.
1537058	Bancel, P. A., Kirgan, J. F	May 12, 1925	Condenser Unit.
1537083	Hansen, C. C	do	Combined Centralizer and Retainer for Rock Drill Steels.

Digitized by Google

Chronological index—Continued

Patent no.	Patentee	Date	Title
1537084	Hansen, C. C	May 12, 1925	Roller Guide for Channeler Steels.
1537089	Jimerson, F. A	do	Track Wrench.
1538935	Haight, H. V	May 26, 1925	Feeding Mechanism for Rock Drills.
1540882	Hansen, C. C	June 9, 1925	Solid Shot Bit.
1540886	Huff, L. R	do	Hydraulic Pressure Controlling Device.
1540910	Smith, W. A	do	Rock Drill.
1542596	Bancel, P. A	June 16, 1925	Condensing Unit.
1543674	Lear, E. B	June 30, 1925	Double Drum Hoist.
1543675	do	do	Do.
1543680	Redfield, S. B	do	Centrifugal Unloader.
1543684	Slater, F. M	do	Hoist.
1543815	Bayles, L. C., Abrams, H. T	do	Fluid Pressure Pumping Apparatus.
1543816	Bayles, L. C	do	Valve for Rock Drills.
1543817	do	do	Pressure Regulating Device.
1543845	Hansen, C. C	do	Double Drum Hoist.
1543846	do	do	Do.
1543856	Lear, E. B	do	Do.
1543871	Prellwitz, Wm	do	Water Tube Back Head Connection for Rock Drills.
1543883	Slater, F. M	do	Automatic Air Feed Regulator for Rock Drills.
1544644	Jimerson, F. A	July 7, 1925	Fluid Actuated Rotary Tool.
1545050	Hansen, C. C	do	Clutch for Hoists.
1545118	Bayles, L. C	do	Rock Drill.
1546466	do	July 21, 1925	Fluid Pressure Regulating Valve.
1547774	Prellwitz, W	July 28, 1925	Handle for Percussive Tools.
1548946	Haight, H. V	Aug. 11, 1925	Air Line Oiler.
1549974	Hansen, C. C	Aug. 18, 1925	Coal Pick Mounting.
1550332	Bancel, P. A	do	Surface Condenser.
1550368	Kirgen, J. F	do	Do.
1550376	Longacre, F. D	do	Valve.
1550402	Taylor, N. E	do	Surface Condenser.
1550875	Carpenter, A. O	Aug. 25, 1925	Automatic Speed Regulator.
1550876	do	do	Governor Controller for Internal Combustion Engines.
1550902	Hansen, C. C	do	Regenerative Heater for Compressed Air in Oil Furnace.
1550964	Jones, J. W	do	Automatic Speed Regulator.
1551062	Slater, F. M	do	Rock Drill.
1552534	Bancel, P. A	Sept. 8, 1925	Multiple Effect Evaporating Apparatus.
1552562	Kirgan, J. F	do	Do.
1553961	Pryne, L	Sept. 15, 1925	Diameter Gauge.
1554003	Hansen, C. C	do	Valve Chest for Rock Drills.
1554004	do	do	Valve Bushing.
1554726	Hoffman, P	Sept. 22, 1925	Combined Exhauster and Tar Extractor.
1554755	Parsons, F. W	do	Clutch Coupling.
1554756	Peters, A. E	do	Engine.
1554766	Slater, F. M	do	Air Feed Brake for Rock Drills.
1554776	Bayles, L. C	do	Cushioning Device for Rock Drills.
1554777	Bayles, L. C., Slater, F. M	do	Rock Drill.
1554799	Ditson, J	do	Shank and Bit Punch.
1554819	Haight, H. V	do	Double Drum Hoist.
1554820	Hansen, C. C	do	Air Feed Control for Stopers.
1554984	Bayles, L. C	Sept. 29, 1925	Fluid Actuated Distributing Valve for Rock Drills.
1554985	do	do	Water Head.
1555248	Hansen, C. C	do	Double Drum Hoist.
1555709	Huff, L. R	do	Hydraulic Pressure Controlling Device.
1555793	Stage, H. I	do	Shoveling and Loading Machine.
1555967	Hansen, C. C	Oct. 6, 1925	Slip Drum Hoist.
1557399	Bancel, P. A	Oct. 13, 1925	Multi-Jet Condenser.
1557416	Carpenter, A. O	do	Car Lifting Device.
1558221	Bayles, L. C., Slater, F. M	Oct. 20, 1925	Lubricator for Rock Drills.
1558303	Smickle, R. H	do	Double Tube Connection.
1558573	Bancel, P. A	Oct. 27, 1925	Condenser Unit.
1558630	Reed, R. H	do	Hydraulic Seal for Rotary Engine.
1561072	Hansen, C. C	Nov. 10, 1925	Hoist.
1561091	Lear, E. B	do	Double Drum Hoist.
1561722	Jimerson, F. A	Nov. 17, 1925	Motor.
1561738	Miller, R	do	Apparatus for Feeding Fuel in Injection Engines.
1561745	Redfield, S. B	do	Main Bearing.
1561773	Carpenter, A. O	do	Governor Controller for Internal Combustion Engines.
1563742	Hansen, C. C	Dec. 1, 1925	Clutch Mechanism for Double Drum Hoists.
1563802	Smith, W. A	do	Water Tube Connection.
1563951	Bancel, P. A	do	Surface Condenser.
1564780	Hansen, C. C	Dec. 8, 1925	Dustless Rock Drill.
1564781	do	do	Double Drum Hoist.
1564793	Hulshizer, G. W	do	Water Tube Guide.
1564893	Prellwitz, W	do	Mounting for Concrete Breaker.
1564954	Goodwillie, J. E	do	Surface Condenser.
1564956	Hansen, C. C	do	Pile Driver Attachment for R. D.
1564963	Kirgan, J. F	do	Self Cleaning Spray Head.

Digitized by Google

Chronological index—Continued

Patent no.	Patentee	Date	Title
1564975	Prellwitz, Wm	Dec. 8, 1925	Steel Retainer.
1566095	Jimerson, F. A	Dec. 15, 1925	Fluid Actuated Rotary Machine.
1566096	do	do	Reversible Throttle Handle.
1566308	Carpenter, A. O	Dec. 22, 1925	Vertical Compressor.
1566825	Hansen, C. C	do	Mortar Projector.
1566849	Slater, F. M	do	Double Drum Hoist.
1569635	do	Jan. 12, 1926	Do.
1569671	Parsons, F. W	do	Compressor Valve Lifter.
1570964	Hansen, C. C	Jan. 26, 1926	Air Feed Control for Stopers.
1571496	Smith, W. A	Feb. 2, 1926	Air Line Lubricator.
1571992	Bayles, L. C	Feb. 9, 1926	Throttle Valve.
1571993	do	do	Valve for Rock Drill.
1572009	Hansen, C. C	do	Shoveling and Loading Machine.
1572498	McClay and Haight	do	Paper Making Machine.
1572529	Haight, H. V	do	Chuck Assembly for Rock Drills.
1572557	Peters, A. E	do	Clutch Mechanism for Hoist Control.
1573457	Slater, F. M	Feb. 16, 1926	Valve for Rock Drills.
1573458	Smith, W. A	do	Cushion Handle.
1573474	Bayles, L. C	do	Removable Water Tube Connection for Stope Drills.
1573491	Hansen, C. C	do	Double Drum Hoist.
1574016	Bayles, L. C	Feb. 23, 1926	Rock Drill Front End.
1574085	Hansen, C. C	do	Double Drum Hoist.
1574128	Slater, F. M	do	Water Guard for Rock Drills.
1574756	Redfield, S. B	Mar. 2, 1926	Water Valve for Compressors.
1574768	Tuttle, G. G	do	Handle for Rock Drills.
1574814	Hansen, C. C	do	Mounting for Concrete Breakers.
1574910	Lear, E. B	do	Double Drum Hoist.
1574911	do	do	Do.
1574912	do	do	Do.
1574945	Slater, F. M	do	Fluid Pressure Pumping Apparatus.
1575310	Bancel, P. A	do	Surface Condenser.
1575531	Brackett, J. C	do	Coal Cutting Machine.
1575792	Prellwitz, W	Mar. 9, 1926	Steel Retainer.
1575798	Slater, F. M	do	Double Drum Hoist.
1575810	Bancel, P. A	do	Surface Condenser.
1575914	Hansen, C. C	do	Double Drum Hoist.
1576465	Pryce, L	do	Testing Hammer Rock Drill.
1576466	do	do	Straining Fluid in Fluid Transmission System.
1577590	Rathbun, J. G	Mar. 23, 1926	Oil Pump for Comb. Engine.
1577596	Smith, W. A	do	Steel Retainer for Rock Drills.
1578379	Armstrong, W. H	Mar. 30, 1926	Mechanical Tie Tamper.
1578380	do	do	Do.
1578383	Bayles, L. C., Slater, F. M	do	Throttle Valve for Rock Drills.
1578433	Hansen, C. C	do	Oiling Device for Flat Piston Motors.
1578434	do	do	Spring Sinker Handles for Drifters.
1578440	Hoffman, P	do	Volume Regultor Gauge.
1578441	Huff, L. B	do	Constant Volume Regulator.
1578500	Ditson, J	do	Forging Machine for Coal Cutter Picks.
1578997	Hulshizer, G. W	do	Air Feed Brake.
1579010	Levine, H	do	Engine.
1579041	Tuttle, G. G	do	Water Tube Connection.
1579063	Bayles, L. C	do	Steering Apparatus.
1581668	do	Apr. 20, 1926	Rock Drill.
1581699	Sturrock, J	do	Surfacing Machine.
1582075	Page, R. F	Apr. 27, 1926	Hoist Driving Gear.
1582076	do	do	Hoist.
1582120	Carpenter, A. O	do	Oiling Device.
1582464	Hansen, C. C	do	Valve for Square Piston Engine.
Re16346	Ditson, J	May 4, 1926	Shank and Bit Punch.
1584715	Bayles, L. C	May 18, 1926	Spool Valve for Rock Drills.
1584767	Hansen, C. C	do	Steel Retainer.
1584792	Mock, J. F	do	Double Tube.
1584799	Page, R. F	do	Handle for Percussive Ramming Tool.
1584800	do	do	Valve for Percussive Ramming Tool.
1584817	Slater, F. M	do	Graduated Air Feed Relief for Rock Drills.
1584859	Huff, L. R	do	Volume Regulator Gauge.
1584860	do	do	Do.
1585428	Slater, F. M	do	Rock Drill.
1585639	Bancel, P. A	May 25, 1926	Surface Condenser.
1585640	do	do	Do.
1585641	Bayles and Slater	do	Rotation and Feed Regulator.
1585668	Hansen, C. C	do	Drill Steel Guide.
1585700	Sturrock, J	do	Oil Trap for Rotary Engines.
1585821	Bayles, L. C	do	Hand Rotated Rock Drill.
1585822	do	do	Air and Water Tube.
1586205	Levine, H	do	Shank and Bit Punch.
1586234	Bancel, P. A	do	Surface Condenser.
1586269	Smith, W. A	do	Air Feed Lock.
1586635	Metzgar, O. W	June 1, 1926	Valve Opener.
1587013	Longacre, F. V. D	do	Multiple Clearance Control.
1587014	do	do	Series Clearance Control.

Digitized by Google

Chronological index—Continued

Patent no.	Patentee	Date	Title
1587015	Longacre, F. V. D	June 1, 1926	Clearance Unloader.
1587949	Hansen, C. C	June 8, 1926	Road Surfacing Machine.
1588256	Metzgar, C. W	do	Compressor Unloader.
1588257	do	do	Do.
1589150	Hansen, C. C	June 15, 1926	Automatic Air and Water Connection for Water Tubes.
1589209	Mock, J. F	do	Water Tube Connection.
1589255	Smith, W. A	do	Rock Drill Spool Valve.
1589264	Sturrock, J	do	Oil Trap for Rotary Engines.
1589295	Jimerson, F. A	do	Reciprocatory Hammer Tools.
1590222	Bayles and Slater	June 29, 1926	Lug Chuck for Rock Drill.
1590223	do	do	Do.
1590243	Hulshizer, G. W	do	Air Feed Control for Rock Drill.
1590247	Le Valley, J	do	Heat Exchanger.
1590253	Parsons, F. W	do	Crosshead and Guide.
1590261	Smith, W. A	do	Rock Drill Valve.
1590268	Tuttle, G. G	do	Randle for Rock Drills.
1591343	Redfield, S. B	July 6, 1926	Sealing Device for Wrist Pins.
1591348	Veasey, J. H	do	Clamp.
1591353	Armstrong, L. V. H	do	Pneumatic Control for Marine Steering Apparatus.
1591361	Church, W. H	do	Oiling Device for Bearings.
1591375	Hansen, C. C	do	Air Feed Controlling Device.
1591376	do	do	Hole Guide for Drill Steels.
1591377	do	do	Broaching Attachment for Rock Drill.
1591378	do	do	Pneumatic Conveyor for Molding Sand.
1591379	do	do	Pile Driver Attachment for Rock Drill.
1591393	McAlister, R. C	do	Centrifugal Unloader.
1591408	Slater, F. M	do	Shank and Bit Punch.
1591620	Haight, H. V	do	Dolly Retainer.
1591621	do	do	Gravity Air Brake.
1591884	Peters, A. E	do	Hoist.
1591930	Smith, W. A	do	Balanced Anvil Block.
1592845	Goodwillie, J. E	July 20, 1926	Surface Condenser.
1592849	Hansen, C. C	do	Rock Drill Valve.
1592850	do	do	Water Tube.
1592851	do	do	Steel Retainer for Rock Drills.
1592855	Hulshizer, G. W	do	Valve for Rock Drills.
1592856	Jimerson, F. A	do	Pneumatic Hammer Tool.
1592858	Lear, E. B	do	Side Bolt Construction.
1593561	Bayles, L. C	July 27, 1926	Dustless Rock Drill.
1593595	Peters, A. E	do	Double Drum Hoist.
1593606	Slater, F. M	do	Rock Drill.
1593615	Zimmermann, W. F	do	Cooling Device for Pneumatic Tools.
1593629	Hansen, C. C	do	Equalizer for Rock Drills.
1593914	Redfield, S. B	do	Plate Valve.
1594169	Goodwillie, J. E	do	Surface Condenser.
1594172	Hansen, C. C	do	Double Drum Hoist.
1594173	do	do	Do.
1594217	Smith, W. A., Jr	do	Blowing Device.
1594228	Tuttle, G. G	do	Dustless Anvil Block.
1594232	Zimmermann, W. F	do	Exhaust Deflector.
1595011	Taylor, N. E	Aug. 3, 1926	Surface Condenser.
1594920	Bancel, P. A	do	Do.
1594922	Bayles et al	do	Dustless Rock Drill.
1594931	Ditson, J	do	Shank and Bit Punch.
1594944	Hansen, C. C	do	Air Line Lubricator.
1594945	do	do	Double Drum Hoist.
1594959	Huff, L. R	do	Constant Pressure Regulator.
1594964	Jimerson, F. A	do	Reversible Throttle Valve.
1594976	Parsons, F. W	do	Cooler for Air Compressors.
1594986	Longacre, F. V. D	do	Compressor Regulator.
1595004	Haight, H. V	do	Pneumatically Operated Chair for Hoist Cages.
1596252	Hansen, C. C	Aug. 17, 1926	Cushion Handle.
1596269	Jimerson et al	do	Hoist Driving Gear.
1596303	Redfield, S. B	do	Deep Well Displacement Pump.
1597192	Hansen, C. C	Aug. 24, 1926	Rotation Device.
1597245	Prellwitz, Wm	do	Handle for Percussive Tool.
1597248	Rathbun, E	do	Internal Combustion Engine.
1597394	Slater, F. M	do	Rock Drill Valve.
1597412	Lear, E. B	do	Air Feed Control.
1597413	Lee, Gordon	do	Rock Drill.
1597415	Markley, E. H	do	Surface Condenser.
1598426	Ditson, J	Aug. 31, 1926	Shank and Bit Punch.
1598439	Hansen, C. C	do	Submarine Hammer Drill Unit.
1598440	do	do	Oscillating Valve for Rock Drill.
1598472	Zimmermann, W. F	do	Fluid Actuated Percussive Machine.
1598589	Smith, W. A	do	Rock Drill Oiling Device.
1598637	Bayles, L. C	Sept. 7, 1926	Compressor Unloader.
1598645	Hansen, C. C	do	Rotation Mechanism for Rock Drill.
1598649	Kirgan, J. F	do	Steam Condenser.
1598650	Levine, H	do	Shank and Bit Punch.

Digitized by Google

Chronological index—Continued

Patent no.	Patentee	Date	Title
1598652	Peters, A. E	Sept. 7, 1926	Square Piston Engine.
1598654	do	do	Shank and Bit Punch.
1599197	Barnett, W. J	do	Rock Drill.
1599199	Bayles, L. C	do	Shank and Bit Punch.
1599232	Haight, H. V	do	Reversing Switch.
1599281	Longacre, F. V. D	do	Plate Valve.
1599364	Jimerson, F. A	do	Close Quarter Drill.
1599367	Lear, E. B	do	Double Drum Hoist.
1599414	Huff, L. R	Sept. 14, 1926	Compressor Valve.
1599816	Hansen, C. C	do	Rectangular Slide Valve for Rock Drills.
1599823	Lear, E. B	do	Spool Valve.
1600003	Kirgan, J. F	do	Steam Condenser.
1601211	Haight, H. V	Sept. 28, 1926	Compressor Unloader.
1601713	Bayles, L. C	Oct. 5, 1926	Blowing Device.
1602208	Price, Wm. T	do	Fuel Regulator for Injection Type Engines.
1602210	Rathbun, G. J., et al	do	Internal Combustion Engine.
1602901	Hansen, C. C	Oct. 12, 1926	Shank and Bit Punch.
1604011	Zimmermann, W. F	Oct. 19, 1926	Pneumatic Chipping Hammer.
1604043	Hansen, C. C	do	Rock Drill.
1604080	Smickle, R. H	do	Broaching attachment for Rock Drill.
1604081	Smith, W. A	do	Rock Drill.
1604957	Bayles, L. C	Nov. 2, 1926	Rock Drill Shell Oiler.
1604958	do	do	Hammer Type Extractor.
1605148	Smith, W. A	do	Chuck for Rock Drills.
1605157	Bancel, P. A	do	Surface Condenser.
1605434	Hansen, C. C	do	Oiling Device.
1605435	do	do	Steel Retainer.
1605941	do	Nov. 9, 1926	Do.
1605980	Peck, C. H	do	Pneumatic Hammer Back Head.
1605986	Redfield, S. B	do	Removable Crank Counterbalance.
1606823	Bayles, L. C	Nov. 16, 1926	Flat Valve.
1606835	Hansen, C. C	do	Rock Drill Valve.
1606844	Redfield, S. B	do	Locking Device.
1606847	Smith, W. A	do	Blowing Device.
1607531	Haight, H. V	Nov. 2, 1926	Starting Unloader.
1608559	Hansen, C. C	Nov. 30, 1926	Compression Relief Valve.
1608616	Prellwitz, Wm	do	Cushion Valve.
1609117	Hansen, C. C	do	Cushioning Device for Handles.
1609496	Reed, R. M	Dec. 7, 1926	Oiling Device for Bearings.
1609502	Thomas, F. H	do	Fluid Actuated Hammer tool.
1610372	Hansen, C. C	Dec. 14, 1926	Submarine Hammer Drill Unit.
1611027	do	do	Double Drum Hoist.
1611678	Redfield, S. B	Dec. 21, 1926	Sealing Device.
1612638	Metzgar, C. W	Dec. 28, 1926	Dual Pressure Clearance Unloader.
1612639	do	do	Compressor Inter-Cooler Regulator.
1612933	do	Jan. 4, 1927	Compressor Unloader.
1614123	Hansen, C. C	Jan. 11, 1927	Drill Steel Centralizer.
1614124	do	do	Gas Compressor Valve.
1614130	Jimerson, F. A	do	Handle for Pneumatically Operated Tools.
1614138	Longacre, F. V. D	do	Compressor Unloader.
1614143	Metzgar, C. W	do	Do.
1614158	Slater, F. M	do	Hoist.
1614182	Brackett, J. C	do	Coal Cutter.
1614969	Rudlin, F. W	Jan. 18, 1927	Distributing Valve for Rock Drills.
1616146	Smickle, R. H	Feb. 1, 1927	Double Tube Connection.
1616450	Huff, L. R	Feb. 8, 1927	Constant Volume Regulator.
1616470	Smith, W. A	do	Rock Drill.
1616986	Prellwitz, W	do	Balanced Chamber Clearance Unloader.
1616987	do	do	Three Step Clearance Control.
1616988	Redfield, S. B	do	Two Chamber Clearance Unloader.
1616989	do	do	By Pass Clearance Uuloader.
1616990	do	do	Single End Clearance Uhloader.
1616991	do	do	Three Chamber Clearance Unloader.
1617518	Hansen, C. C	Feb. 15, 1927	Rock Drill.
1619098	Bancel, P. A., Kirgan, J. F	Mar. 1, 1927	Pump Controller.
1621250	Hansen, C. C	Mar. 15, 1927	Rock Drill.
1621254	Hulshizer, G. W	do	Valve for Rock Drills.
1621913	Longacre, F. V. D	Mar. 22, 1936	Clearance Unloader.
1622374	Goodwillie, J. E	Mar. 29, 1927	Surface Condenser.
1623411	Hulshizer, G. W	Apr. 5, 1927	Friction Head for Rifle Bars.
1623419	Lee, G	do	Rock Drill.
1623489	Naab, J	do	Compressor Unloader.
1623494	Redfield, S. B	do	Centralized Interlocking Control for Multi-Stage Compressors.
1625654	Hansen, C. C	Apr. 19, 1927	Engine.
1625681	Prellwitz, W	do	Single Chamber Clearance Unloader.

Digitized by Google

Chronological index—Continued

Patent no.	Patentee	Date	Title
1627265	Bancel, P. A	May 3, 1927	Surface Condenser.
1627737	Hansen, C. C	May 10, 1927	Broaching Attachment.
1627744	Lear, E. B	do	Rock Drill.
1628487	Bancel, P. A	do	Surface Condenser.
1629175	Peters, A. E	May 17, 1927	Drill Sharpener.
1629179	Slater, F. M	do	Rock Drill.
1630953	Levine, H	May 31, 1927	Fluid Actuated Engine.
1630957	Lundstrom, A. G	do	Fuel Distributor for Internal Combustion Engines.
1632349	Rathbun, E	June 14, 1927	Governor Regulation.
1632373	Hansen, C. C	do	Steel Retainer.
1632621	Peters, A. E	do	Drill Sharpener.
1632837	Hansen, C. C	June 21, 1927	Steel Retainer.
1632841	LeValley, J	do	Unloading Valve.
1633471	Bayles, L. C., Slater, F. M	do	Disk Valve for Rock Drills.
1633526	Hansen, C. C	do	Rotation Mechanism for Rock Drills.
1634949	LeValley, J	July 5, 1927	Air Compressor Valve.
1635887	Hansen, C. C	July 12, 1927	Hoist.
1636604	do	July 19, 1927	Channeler Steel.
1636605	do	do	Rock Drill.
1636614	Prellwitz, W	do	Piston Assembly.
1636632	Hansen, C. C	do	Valve for Rock Drill.
1636651	Smith, W. A., Jr	do	Valve for Pneumatic Tools.
1637185	Hansen, C. C	July 26, 1927	Disk Valve for Rock Drills.
1637186	do	do	Feed Screw Motor for Rock Drills.
1637192	Jimerson, F. A	do	Percussive Tool.
1637203	Slater, F. M	do	Blowing Device.
1637204	do	do	Tube Connection for Rock Drills.
1637875	Redfield, S. B	Aug. 2, 1927	Discharge Unloader.
1639255	Brackett, J. C	Aug. 16, 1927	Coal Cutting Machine.
1641357	Slater, F. M	Sept. 6, 1927	Pneumatic Tool.
1642083	Page, R. F	Sept. 13, 1927	Vented Motor Casing.
1642113	Kirgan, J. F	do	Surface Condenser.
1643069	Hansen, C. C	Sept. 20, 1927	Air Line Oiler.
1644016	Haight, H. V	Oct. 4, 1927	Pneumatically Controlled Rheostat.
1644026	Mock, J. F	do	Centralizer for Drill Steels.
1644030	Prellwitz, W	do	Handle for Rock Drills.
1645989	Hansen, C. C	Oct. 18, 1927	Mud Guard for Submarine Drills.
1646090	do	do	Broaching Attachment.
1646091	do	do	Steel Retainer.
1646773	Slater, F. M	Oct. 25, 1927	Do.
1647201	Smickle, R. H	Nov. 1, 1927	Broaching Attachment.
1647230	Jimerson, F. A	do	Crank Shaft.
1648886	Allen, R. O	Nov. 15, 1927	Locking Device.
1649076	Prellwitz, W	do	Compressor.
1649651	Bayles, L. C	do	Chuck for Rock Drills.
1649730	Prellwitz, W	do	Spring Handle.
1651066	Morrison, W. A	Nov. 29, 1927	Safety Device for Oil Injection Engines.
1651082	Bayles, L. C., Morrow, H. W	do	Dies for Forging Calking and Yarning Irons.
1653071	Smith, W. A	Dec. 20, 1927	Water and Air Tube Connection.
1653080	Zimmermann, W. F	do	Tie Tamper Piston.
1653110	LeValley, J	do	Free Air Unloader for Compressors.
1653968	Peters, A. E	Dec. 27, 1927	Dolly Retainer.
1655107	Prellwitz, W	Jan. 3, 1928	Air Receiver for Compressors.
1655112	Taylor, N. E	do	Steam Condenser.
1655418	Haight, H. V	Jan. 10, 1928	Back Pressure Valve.
1656540	Smith, W. A	Jan. 17, 1928	Blowing Device.
1656541	do	do	Valve for Rock Drills.
1656546	Tuttle, G. G	do	Mounting for Percussive Tools.
1656707	Hansen, C. C	do	Steel Retainer for Submarine Hammer Drills.
1656708	do	do	Air Line Oiler.
1657165	Lear, E. B	Jan. 24, 1928	Double Drum Hoist.
1657177	Rathbun, G. J	do	Gas Engine Driven Air Compressor.
1657930	Jimerson, F. A	Jan. 31, 1928	Close Quarter Drill.
1658941	Redfield, S. B	Feb. 14, 1928	Lock for Self Packing Pistons.
1658984	Hansen, C. C	do	Air Line Oiler.
1660507	do	Feb. 28, 1928	Broaching Tool.
1660509	Hulshizer, G. W	do	Rock Drill Oscillating Valve.
1660528	Rudlin, F. W	do	Rock Drill.
1662918	Haight, H. V	Mar. 20, 1928	Unloading System.
1663530	Metzgar, C. W	do	Compressor Regulator and Unloader.
1664623	Hansen, C. C	Apr. 3, 1928	Broaching Tool.
1664625	Hulshizer, G. W	do	Rotation Mechanism for Rock Drills.
1665071	Prellwitz, W	do	Steel Retainer.
1665269	Lear, E. B	Apr. 10, 1928	Mounting for Rock Drills.
1665279	Redfield, S. B	do	Multi-Pressure Regulator.
1665496	Hansen, C. C	do	Guide for Broaching Tools.
1665497	do	do	Air Line Oiler.
1666176	Lear, E. B	Apr. 17, 1928	Steel Retainer for Rock Drills.
1666425	Mock, J. F	do	Steel Retainer.
1666427	Smith, W. A., Jr	do	Valve for Rock Drills.
1668559	Hansen, C. C	May 8, 1928	Steel Guide for Submarine Drills.

Digitized by Google

Chronological index—Continued

Patent no.	Patentee	Date	Title
1668919	Lundstrom, A. G	May 8, 1928	Fuel Oil Pump.
1669661	Tuttle, G. G	do	Plate Valve.
1669875	Ihrmark, G	do	Air Line Oiler.
1669896	Rathbun, G. J	do	Distributor for Combustion Engines.
1669466	Hansen, C. C	May 15, 1928	Mounting for Rock Drills.
1670867	Lear, E. B	May 22, 1928	Valve for Rock Drills.
1670562	Bancel, P. A	do	Surface Condenser.
1670808	Hansen, C. C	do	Rotary Drill.
1671133	Slater, F. M	May 29, 1928	Steel Retainer.
1671431	Lear, E. B	do	Valve for Rock Drills.
1674816	Bayles, L. C	June 26, 1928	Shell for Rock Drills.
1677530	Prellwitz, W	July 17, 1928	Steel Retainer.
1677717	Huff, L. R	do	Plate Valve.
1680057	McIntyre, J. K	Aug. 7, 1928	Centrifugal Pump.
1681198	Slater, F. M	Aug. 21, 1928	Rock Drill.
1681536	Hansen, C. C	do	Trench Digger.
1684752	Wilhelm, R. H	Sept. 18, 1928	Blowing Device.
1688533	Hulshizer, G. W	Oct. 23, 1928	Valve for Rock Drills.
1689275	Bayles, L. C	Oct. 30, 1928	Cleansing Fuild Conveying Tube for Rock Drills.
1689750	Redfield, S. B	do	Adjustable Support for Stationary Shafts.
1689778	Hansen, C. C	do	Pneumatic Charging Device.
1689780	Hulshizer, G. W	do	Air Line Oiler.
1690810	Bayles, L. C., Slater, F. M	Nov. 6, 1928	Shifting Fulcrum Valve for Rock Drills.
1690836	Redfield, S. B	do	Plate Valve.
1691372	Bayles, L. C	Nov. 13, 1928	Penumatic Tool.
1691570	Hansen, C. C	do	Rock Drill.
1691599	Zimmermann, W. F	do	Locking Device.
1691694	do	do	Support for Implement Retainers.
1691715	Hansen, C. C	do	Steel Guide for Submarine Drills.
1691720	Jimerson, F. A	do	Handle for Pneumatic Tools.
1692440	Hansen, C. C	Nov. 20, 1928	Mud Guard for Submarine Drills.
1692937	Hulshizer, G. W	Nov. 27, 1928	Percussive Tool.
1694380	Hansen, C. C	Dec. 11, 1928	Chuck for Crank Handles.
1694882	Lear, E. B	do	Valve for Rock Drills.
1695069	Tuttle, G. G	do	Plate Valve.
1695978	Redfield, S. B	Dec. 18, 1928	Damper for Check Valves.
1696311	Lee, G	Dec. 25, 1928	Valve for Percussive Tools.
1696485	Ihrmark, G	do	Air Line Oiler.
1697648	Hansen, C. C	Jan. 1, 1929	Guide for Working Implements.
1697649	do	do	Sand Pipe for Rock Drills.
1698783	Ditson, J	Jan. 15, 1929	Shank and Bit Punch.
1699636	Smith, W. A	Jan. 22, 1929	Adjustable Guide Shell.
1701631	Slater, F. M	Feb. 12, 1929	Locking Device for Steel Retainers.
1702604	Hansen, C. C	Feb. 19, 1929	Lubricator.
1704364	Markley, E. H	Mar. 5, 1929	Tube Cleaning Apparatus.
1704493	Wilhelm, R. H	do	Water Tube Connection.
1707661	Hansen, C. C	Apr. 2, 1929	Air Line Oiler.
1708116	Bayles, L. C., Tuttle, G. G	Apr. 9, 1929	Steel Retainer.
1708173	Hansen, C. C	do	Submarine Drill.
1708606	Haight, H. V	do	Electric Switch.
1711811	Rudlin, F. W	May 7, 1929	Valve for Rock Drills.
1712229	Peters, A. E	do	Air Line Oiler.
1712239	Wilhelm, R. H	do	Front Head for Rock Drills.
1712277	McIntyre, J. K	do	Thrust Bearing.
1712436	Jimerson, F. A	do	Percussive Tool.
1712437	do	do	Locking Device for Handles.
1713534	Kirgan, J. F	May 21, 1929	Surface Condenser.
1713545	Miller, R	do	Starting and Stopping Apparatus for Internal Combustion Engines.
1713784	Slater, F. M	do	Pneumatic Tool.
1713859	Wilhelm, R. H	do	Rock Drill.
1713967	Kirgan, J. F	do	Surface Condenser.
1714051	Slater, F. M	do	Fluid Actuated Percussive Tool.
1715359	Hansen, C. C	June 4, 1929	Chuck Mechanism for Rock Drills.
1715675	Perers, A. E	do	Air Line Oiler.
1716443	Hulshizer, G. W	June 11, 1929	Chuck for Rock Drills.
1716469	Smith, W. A	do	Penumatic Tool.
1716533	Redfield, S. B	do	Air or Gas Compressing System.
1717818	Thomas, F. H	June 18, 1929	Pneumatic Tool.
1718070	Peters, A. E	do	Engine.
1718466	Kirgan, J. F	June 25, 1929	Surface Condenser.
1719143	Slater, F. M	July 2, 1929	Percussive Tool.
1719155	Wilhelm, R. H	do	Water Tube Connection.
1719183	Kirgan, J. F	do	Surface Condenser.
1719468	Hansen, C. C	do	Guide for Drill Steels.
1719998	Prellwitz, W	July 9, 1929	Compressor.
1720435	Peters, A. E., and Ditson, J	do	Shank and Bit Punch.
1721279	Peck, C. H	July 16, 1929	Squeeze Riveter.
1721674	Smith, W. A	July 23, 1929	Blowing Device.
1723730	Haight, H. V	Aug. 6, 1929	Foot Control for Shank and Bit Punches.
1724138	Kirgan, J. F	Aug. 13, 1929	Surface Condenser.
1724737	Smith, W. A., Jr	do	Valve Mechanism for Rock Drills.

Digitized by Google

Chronological index—Continued

Patent no.	Patentee	Date	Title
1726334	Bayles, L. C	Aug. 27, 1929	Valve for Rock Drills.
1726352	Hulshizer, G. W	do	Percussive Tool.
1728601	Ditson, J	Sept. 17, 1929	Support for Implement Retainers.
1729668	Slater, F. M	Oct. 1, 1929	Steel Retainer.
1730013	Rathbun, G. J	do	Governor for Internal Combustion Engines.
1732887	Hansen, C. C	Oct. 22, 1929	Mud Guard for Submarine Drills.
1734984	Smith, W. A., Sr., Smith, W. A., Jr.	Nov. 12, 1929	Valve for Rock Drills.
1734985	Smith, W. A., Jr	do	Do.
1735354	do	Nov. 26, 1929	Blowing Device for Rock Drills.
1737312	Jimerson, F. A	do	Valve for Pnuematic Tools.
1738050	Hansen, C. C	Dec. 3, 1929	Quenching Device for Drill Steels.
1739000	Jordso, Jr., A	Dec. 10, 1929	Pumping Unit.
1739117	Bayles, L. C	do	Water Tube for Rock Drills.
1739141	Hansen, C. C	do	Liquid Feeding Device for Rock Drills.
1739143	Hulshizer, G. W	do	Valve for Rock Drills.
1740122	Slater, F. M	Dec. 17, 1929	Rock Drill.
1740259	Morrison, W. A	do	Safety Device for Oil Injection Engines.
1742725	Peters, A. E	Jan. 7, 1930	Engine.
1742765	Hansen, C. C	do	Guide for Broaching Tools.
1743090	Bayles, L. C	Jan. 14, 1930	Air Feed Controlling Device.
1743806	Buckley, E. L., McAllister, R.	do	Compressor Regulating Apparatus.
1744964	Hansen, C. C	Jan. 28, 1930	Retracting Device for Rock Drills.
1744971	Kirgan, J	do	Pump Seal.
1745142	Bancel, P. A	do	Surface Condenser.
1745166	Hansen, C. C	do	Chuck Mechanism for Rock Drills.
1747164	Ditson, J., Peters, A. E	Feb. 18, 1930	Air Return Dolly.
1747869	Hansen, C. C	do	Mounting for Rock Drills.
1747876	Metzgar, C. W	do	Muffler.
1747878	Parkhill, M. S	do	Water Connection.
1747888	Cousins, G. T	do	Forging Mechanism.
1748145	Rathburn, G. J	Feb. 25, 1930	Internal Combustion Engine.
1748639	Ditson, J	do	Shank and Bit Punch.
1749141	Kirgan, J	Mar. 4, 1930	Steam Condenser.
1749439	Neafie, A. J	do	Fastener Holding Device.
1750070	Tuttle, G. G	Mar. 11, 1930	Air Line Oiler.
1750276	McAllister, R. C	do	Compressor Unloader.
1750323	Lear, E. B	do	Valve for Rock Drills.
1750340	Zimmermann, W. F	do	Locking Device.
1751230	Briggs, A. J	Mar. 18, 1930	Compressor Valve.
1751714	Peters, A. E	Mar. 25, 1930	Air Line Oiler.
1753007	Hansen, C. C	Apr. 1, 1930	Drill Feeding Device.
1753034	Thomas, F. H	do	Steel Retainer.
1753039	Armstrong, L. V. H	do	Steering Gear.
1754331	Metzgar, C. W	Apr. 15, 1930	Dual Pressure Unloader.
1755702	Murphy, T. L	Apr. 22, 1930	Valve Mechanism for Rock Drills.
1756466	Mack, A. R	Apr. 29, 1930	Valve for Rock Drills.
1757082	Haight, H. V	May 6, 1930	Piston Rod.
1757084	Hansen, C. C	do	Air Line Oiler.
1757576	Kirgan, J	do	Centrifugal Pump.
1758316	Hansen, C. C	May 13, 1930	Portable Universal Drill Mounting.
1758492	Bayles, L. C	do	Blowing Device for Rock Drills.
1758493	do	do	Bit Punch.
1758538	Redfield, S. B	do	Water Cooling Device for Compressors.
1758921	Bayles, L. C	May 20, 1930	Valve for Pneumatic-Displacement Pumps.
1759562	Allen, R. O	do	Implement Retainer for Pneumatic Tools.
1759573	Hansen, C. C	do	Driving Device for Pipes.
1760985	Jimerson, F. A	June 3, 1930	Spring Handle for Percussive Tools.
1761134	Lear, E. B	do	Valve for Rock Drills.
1761578	Metzgar, C. W	do	Starting Device for Compressors.
1762178	Lear, E. B	June 10, 1930	Air Feed Controlling Device.
1763683	Bayles, L. C	June 17, 1930	Oiling Device.
1763701	Hansen, C. C	do	Feeding Device for Rock Drills.
1764259	do	do	Portable Pumping Unit.
1769921	do	July 8, 1930	Centralizer for Drill Steels.
1770142	Miller, R	do	Oil Scraper.
1770676	Smith, W. A., Jr	July 15, 1930	Valve Mechanism for Rock Drills.
1770680	Tuttle, G. G	do	Steel Retainer.
1770746	Bayles, L. C	do	Shank and Bit Punch.
1770873	do	do	Do.
1771181	Lear, E. B	July 22, 1930	Valve for Rock Drills.
1771712	Jimerson, F. A	July 29, 1930	Spike Extractor.
1771868	Wilhelm, R. H	do	Valve for Rock Drills.
1773366	Lear, E. B	Aug. 19, 1930	Rotation Mechanism for Rock Drills.
1773803	Bancel, P. A	Aug. 26, 1930	Condensate Reheater.
1774570	Smith, W. A., Sr	Sept. 2, 1930	Feeding Device for Rock Drills.
1774571	Smith, W. A., Jr	do	Valve for Rock Drills.
1774572	do	do	Do.
1774884	Hansen, C. C	do	Drive Head for Driving Pipes.
1775917	Rudlin, F. W	Sept. 16, 1930	Driving Device.
1776273	Smith, W. A., Jr	Sept. 23, 1930	Valve Mechanism for Rock Drills.

Digitized by Google

Chronological index—Continued

Patent no.	Patentee	Date	Title
1776509	Hulshizer, G. W.	Sept. 23, 1930	Rotation Mechanism for Rock Drills.
1776521	Smith, W. A., Sr., and Smith, W. A., Jr.	do	Pile Driver Attachment for Rock Drills.
1776594	Mock, J. F.	do	Centralizer for Drill Steels.
1776604	Smith, W. A., Sr., and Curtis, J. C.	do	Rock Drill Blowing Device.
1777280	Bancel, P. A., and Kirgan, J. F.	Oct. 7, 1930	Steam Condensing Apparatus.
1777305	Hansen, C. C.	do	Cushioning Device for Rock Drills.
1777306	Hart, D. W.	do	Shank and Bit Punch.
1777324	Mock, J. F.	do	Locking Device for Throttle Valves.
1777334	Smith, W. A., Jr.	do	Valve for Rock Drills.
1777335	do	do	Do.
1777336	do	do	Do.
1777340	Wallden, O. K. A.	do	Oiling Device.
1777775	Smith, W. A., Jr.	do	Valve Mechanism for Rock Drills.
1778320	Hansen, C. C.	Oct. 14, 1930	Locating Device for Submarine Drills.
1779251	Redfield, S. B.	Oct. 21, 1930	Motor Driven Timing Device for Well Pumps.
1779252	Simmons, C. W.	do	Control Mechanism for Pressure Fluid Supply Lines.
1779645	Smith, W. A., Sr., Hulshizer, J. I., and Fuehrer, G. H.	Oct. 28, 1930	Percussive Tool.
1780524	Huff, L. R.	Nov. 4, 1930	Plate Valve.
1780538	Redfield, S. B., Naab, J.	do	Accumulator Timing Element for Pressure Fluid Supply Valves.
1780725	Smith, W. A., Sr., Smith, W. A., Jr.	do	Valve Mechanism for Rock Drills.
1781021	Lear, E. B.	Nov. 11, 1930	Valve for Rock Drills.
1781032	Redfield, S. B.	do	Connection for Drill Rods.
1782102	Smith, W. A., Jr.	Nov. 18, 1930	Valve for Rock Drills.
1783290	Hulshizer, G. W.	Dec. 2, 1930	Anchor for Drilling Mechanism.
1783787	Hansen, C. C.	do	Excavating Machine.
1783829	Curtis, J. C.	do	Valve for Rock Drills.
1784009	Huff, L. R.	Dec. 9, 1930	Constant Volume Regulator.
1784012	Jowett, J. H.	do	Front Head for Pneumatic Tools.
1785344	Hansen, C. C.	Dec. 16, 1930	Charging Device.
1785550	do	do	Hose Clamp.
1786135	Smith, W. A., Sr.	Dec. 23, 1930	Feeding Device for Percussive Motors.
1786175	Smith, W. A., Sr., Hulshizer, J. I.	do	Do.
1787229	Zimmermann, W. F.	Dec. 30, 1930	Tool Retainer for Pneumatic Tools.
1787960	Slater, F. M.	Jan. 6, 1931	Pneumatic Tool.
1788032	Rathbun, G. J.	do	Safety Overspeed Governor.
1788033	Slater, F. M.	do	Air Line Oiler.
1788034	Smith, W. A., Sr.	do	Feeding Device.
1788524	Jimerson, F. A.	Jan. 13, 1931	Engine.
1788972	Bayles, L. C.	do	Chuck Bushing for Block Drills.
1789101	Hansen, C. C.	do	Wearing Block for Steel Retainers.
1789117	Smith, W. A.	do	Rock Drill.
1789118	Smith, W. A., Jr.	do	Valve for Rock Drills.
1789698	Curtis, J. C.	Jan. 20, 1931	Do.
1789816	Hansen, C. C.	do	Charging Device.
1789859	Bayles, L. C.	do	Centralizer for Drill Steels.
1791028	Huff, L. R.	Feb. 3, 1931	Hydraulic Speed Governor.
1791034	Lear, E. B.	do	Blower Valve for Rock Drills.
1791036	Murphy, T. L.	do	Valve Chest for Rock Drills.
1791974	Prellwitz, W., Wilhelm, R. H.	Feb. 10, 1931	Drill Feeding device.
1792060	Bancel, P. A.	do	Surface Condenser.
1792221	Hansen, C. C.	do	Hose Clamp.
1792881	Williams, P. A.	Feb. 17, 1931	Blowing Device.
1793000	Metzgar, C. W.	do	Inlet Unloader Valve.
1793119	Moore, R. P.	do	Condensing Apparatus.
1794135	Bancel, P. A.	Feb. 24, 1931	Condenser.
1795306	Jimerson, F. A.	Mar. 10, 1931	Implement Retainer.
1796457	Hansen, C. C.	Mar. 17, 1931	Water Head for Rock Drills.
1796784	do	do	Locating Device for Drill Mountings.
1796796	LeValley, J.	do	Compressor Unloader.
1797688	do	Mar. 24, 1931	Cooling Water Regulator.
1798257	Hansen, C. C.	Mar. 31, 1931	Front Head for Rock Drills.
1798746	Markley, E. H.	do	Packing Ring Retainer.
1798748	Murphy, T. L.	do	Blowing Device for Fluid Actuated Tools.
1799762	Rathbun, G. J.	Apr. 7, 1931	Pipe Coupling.
1800231	Slater, F. M.	Apr. 14, 1931	Locking Device for Throttle Valves.
1800242	Baker, C. S.	do	Compressor Valve Lifter.
1800998	Hansen, C. C.	do	Drill Steel Coupling.
1802983	Prellwitz, W.	Apr. 28, 1931	Drill Steel Retainer.
1802987	Shook, J. F.	do	Rock Drill.
1804584	Bancel, P. A.	May 12, 1931	Condenser.
1804892	Parsons, F. W.	do	Clearance Valve Assembly.
1805521	Hansen, C. C.	May 19, 1931	Feeding Device for Rock Drills.
1805670	Miller, R.	do	Internal Combustion Engine.

Digitized by Google

Chronological index—Continued

Patent no.	Patentee	Date	Title
1805695	Hansen, C. C	May 19, 1931	Valve for Rock Drills.
1806301	LeValley, J	do	Pressure Controlled Valve.
1806315	Smith, W. A., Sr	do	Chuck for Rock Drills.
1806799	Hansen, C. C	May 26, 1931	Steel Retainer.
1807787	Jimerson, F. A	June 2, 1931	Fluid Actuated Percussive Tool.
1807799	Slater, F. M	do	Steel Retainer.
1807800	Smith, W. A., Sr., Smith, W. A., Jr.	do	Valve for Rock Drills.
1808452	Cousins, G. T	do	Holding Device.
1808481	Slater, F. M	do	Pneumatic Tool.
1808482	Smith, W. A., Jr	do	Valve Mechanism for Rock Drills.
1809141	Mock, J. F	June 9, 1931	Handle for Rock Drills.
1810988	Slater, F. M	June 23, 1931	Valve Mechanism for Rock Drills.
1811626	Hansen, C. C	do	Pile Driver Attachment for Rock Drills.
1811850	Huff, L. R	June 30, 1931	Centrifugal Hydraulic Speed Governor.
1812304	Peters, A. E	do	Drill Sharpener.
1812309	Sherzer, A. F	do	Centrifugal Pump.
1813747	Kirgan, J	July 7, 1931	Do.
1813754	Metzgar, C. W	do	Heat Exchanger.
1813773	Smith, W. A., Jr	do	Valve for Rock Drills.
1813774	Smith, W. A., Jr., Fuehrer, G. H.	do	Blowing Device for Rock Drills.
1814516	Larson, C	July 14, 1931	Dolly for Drill Sharpeners.
1814858	Rutter, J. A	do	Locking Device for Bolts.
1815166	Smith, W. A., Jr	July 21, 1931	Valve for Rock Drills.
1816324	Hansen, C. C	July 28, 1931	Cleansing Device for Rock Drills.
1816481	do	do	Drilling Apparatus.
1817188	Haight, H. V	Aug. 4, 1931	Bolt and Locking Sleeve.
1817308	Hansen, C. C	do	Steel Support for Rock Drills.
1818393	do	Aug. 11, 1931	Feeding Device for Rock Drills.
1820727	Bayles, L. C	Aug. 25, 1931	Drill Column.
1821677	Smith, W. A	Sept. 1, 1931	Protective Device.
1822092	Hansen, C. C	Sept. 8, 1931	Oiling Device.
1822100	Lear, E. B	do	Air Line Oiler.
1822115	Shepherd, B. F	do	Chucukor Rock Drills.
1823446	Hansen, C. C	Sept. 15, 1931	Mounting for Rock Drills.
1823455	Kirgan, J	do	Centrifugal Pump.
1827195	Hansen, C. C	Oct. 13, 1931	Clamp.
1827725	Baker, C. S	Oct. 20, 1931	Clearance Valve Assembly.
1828185	Hansen, C. C	do	Air Line Oiler.
1828206	Simmons, C. W	do	Device for Pressure Fluid Control Valves.
1828491	Curtis, J. C	do	Valve for Rock Drills.
1828862	Hansen, C. C	Oct. 27, 1931	Chuck for Broaching Steel.
1829245	Smith, W. A., Jr	do	Blowing Device for Rock Drills.
1829246	Smith, W. A., Sr., Smith, W. A., Jr.	do	Percussive Tool.
1830185	Bancel, P. A	Nov. 3, 1931	Condenser.
1831445	Hansen, C. C	Nov. 10, 1931	Shell for Rock Drills.
1831446	do	do	Feeding Device for Rock Drills.
1831454	Kirgan, J	do	Condenser.
1831601	LeValley, J	do	Valve Mechanism.
1831961	Lemp, H	Nov. 17, 1931	Thermostatic Control for Radiator Fan Motors.
1832630	Hansen, C. C	do	Motor Drive.
1832637	Kirgan, J	do	Condenser.
1832811	Jowett, J. H	do	Handle for Ballast Tampers.
1833611	Kirgan, J	Nov. 24, 1931	By-Pass Condenser.
1834953	do	Dec. 8, 1931	Condensing System.
1835066	Lear, E. B	do	Piston for Rock Drills.
1835662	McAllister, R. C	do	Floating Plunger.
1835675	Smith, W. A., Sr., Smith, W. A., Jr.	do	Feeding Device.
1836688	Smith, W. A., Jr	Dec. 15, 1931	Valve for Rock Drills.
1836715	Hulshizer, G. W	do	Water Tube Connection.
1836929	Metzgar, C. W	do	Drain Valve for Coolers.
1837735	Terry, E. F	Dec. 22, 1931	Valve for Rock Drills.
1838419	Lemp, H	Dec. 29, 1931	Speed Control Apparatus for Locomotives.
1838459	Smith, W. A., Sr., Thomas, F. H.	do	Feeding Device.
1842026	Hulshizer, G. W	Jan. 19, 1932	Clamp.
1843958	Smith, W. A., Jr	Feb. 9, 1932	Valve for Rock Drills.
1844873	Smith, W. A., Sr	do	Feeding Device for Rock Drills.
1844874	Smith, W. A., Sr., Fuehrer, G. H.	do	Feeding Device for Percussive Motors.
1846372	Thomas, F. H	Feb. 23, 1932	Pneumatic Tool.
1846804	Hansen, C. C	do	Fluid Actuated Percussive Tool.
1846817	Smith, W. A., Jr	do	Rotation Mechanism for Rock Drills.
1846818	do	do	Valve for Rock Drills.
1846819	do	do	Rock Drill.
1846828	Baker, C. S	do	Cooling Device.
1846832	Bayles, L. C	do	Control Valve.
1846837	Burdette, C. E	do	Vented Motor Casing.
1850690	Redfield, S. B	Mar. 22, 1932	Retaining Device for Plate Valves.

Digitized by Google

Chronological index—Continued

Patent no.	Patentee	Date	Title
1851599	Smith, W. A., Sr	Mar. 29, 1932	Puller for Working Implements.
1851602	Terry, E. F	do	Air Line Oiler.
1851620	Ditson, J., Hart, D. W	do	Shank and Bit Punch.
1852582	Longacre, F. V. D	Apr. 5, 1932	Valve.
1852591	Smith, W. A., Sr., Smith, W. A., Jr.	do	Rock Drill.
1852592	Smith, W. A., Sr	do	Feeding Device.
1852598	do	do	Valve for Rock Drills.
1853189	Bancel, P. A	Apr. 12, 1932	Condenser.
1854288	Bancel, P. A., Kirgan, J	Apr. 19, 1932	Condensing System.
1855206	Smith, W. A., Jr	Apr. 26, 1932	Valve for Rock Drills.
1855240	Hulshizer, G. W	do	Do.
1855266	Van Eps, W. P	do	Feeding Device.
1856460	Blank, C. E	May 3, 1932	Variable Clearance Pocket for Compressors.
1856584	Parkhill, M. S	do	Safety Device for Internal Combustion Engines.
1856617	Bebbington, W. E	do	Plate Valve.
1857496	Trumpler, W. E	May 10, 1932	Centrifugal Blower.
1858774	Hansen, C. C	May 17, 1932	Feeding Device for Rock Drills.
1858992	do	do	Hose Coupling.
1859876	Koplin, P. F	May 24, 1932	Valve for Fluid Actuated Hammers.
1859879	Longacre, F. V. D	do	Valve Mechanism.
1860628	Slater, F. M	May 31, 1932	Pneumatic Tool.
1861966	Lear, E. B	June 7, 1932	Blowing Device for Rock Drills.
1861984	Slater, F. M	do	Valve for Rock Drills.
1865010	Hulshizer, G. W	June 28, 1932	Cleansing Device for Rock Drills.
1865609	Bayles, L. C	July 5, 1932	Blowing Device for Rock Drills.
1865624	Frelin, F	do	Fuel Pump.
1865637	Lear, E. B	do	Steel Retainer.
1867929	Smith, W. A., Sr	July 19, 1932	Feeding Device.
1868294	Smith, W. A., Sr., Smith, W. A., Jr.	do	Feeding Device for Rock Drills.
1868622	Bancel, P. A	July 26, 1932	Condenser.
1868639	Metzgar, C. W	do	Heat Exchanger.
1868650	Wilhelm, R. H	do	Mounting for Rock Drills.
1868684	Bayles, L. C	do	Cleansing Fluid Conveying Tube.
1868685	do	do	Safety Device for Rock Drills.
1870389	Smith, W. A., Jr	Aug. 9, 1932	Feeding Device for Percusive Motors.
1870956	McAllister, R. C	do	Clearance Unloader for Compressors.
1871265	Frelin, F	do	Fuel Distributor for Internal Combustion Engines.
1871429	Smith, W. A., Sr	do	Oiling Device.
1874130	Smickle, R. H	Aug. 30, 1932	Rock Drill.
1874133	Smith, W. A., Jr	do	Valve Mechanism for Rock Drills.
1874135	Spoor, W. M	do	Clearance Valve Construction.
1874372	Slater, F. M	do	Percussive Tool.
1875798	Baker, C. S	Sept. 6, 1932	Motor Connection.
1877771	Lear, E. B	Sept. 20, 1932	Handle for Percussive Tools.
1878905	Smith, W. A., Sr	do	Rock Drill.
1879030	Bayles, L. C	Sept. 27, 1932	Drill Column.
1879370	McAllister, R. C	do	Compressor Cylinder.
1880338	Benson, I. N	Oct. 4, 1932	Carriage for Spike Drivers.
1880623	Williams, P. A	do	Broaching Tool.
1881258	Bayles, L. C	do	Percussive Tool.
1881274	Hart, D. W	do	Locating Device.
1885516	Bancel, P. A	Nov. 8, 1932	Condenser.
1888333	Terry, E. F	Nov. 22, 1932	Handle for Rock Drills.
1889409	Lear, E. B	Nov. 29, 1932	Safety Device for Rock Drills.
1889422	Shook, J. F	do	Dustless Rock Drill.
1889423	Smith, W. A., Sr	do	Valve for Rock Drills.
1890914	Parsons, F. W., Sr	Dec. 13, 1932	Engine.
1891936	Lemp, H	Dec. 27, 1932	Controlling Device for Locomotives.
1891953	Sellars, O. H	do	Guide for Drill Steels.
1893203	Hansen, C. C	Jan. 3, 1933	Percussive Drill Unit.
1893209	Parkhill, M. S	do	Valve Cage.
1894799	Smith, W. A., Jr	Jan. 17, 1933	Distributing Valve.
1894801	Terry, E. F	do	Water Connection.
1896621	Hentzell, A. A	Feb. 7, 1933	Forging Mechanism.
1896633	Lemp, H	do	Speed Control Apparatus for Locomotives.
1897595	Terry, E. F	Feb. 14, 1933	Valve for Rock Drills.
1898639	Mosher, W. H	Feb. 21, 1933	Rock Drill.
1898645	Slater, F. M	do	Air Feed Mounting for Rock Drills.
1898655	Hulshizer, G. W	do	Valve for Rock Drills.
1898909	do	Feb. 28, 1933	Feeding Device for Rock Drills.
1899002	LeValley, J	do	Unloader for Compressors.
1900504	Kirgan, J	Mar. 7, 1933	Condensing Apparatus.
1900924	Firth, R. V. D	Mar. 14, 1933	Oiling Device for Bearings.
1902038	McAllister, R. C	Mar. 21, 1933	Connecter.
1902065	Frelin, F	do	Pump.
1902530	Terry, E. F	do	Handle for Rock Drills.
1902536	Bayles, L. C	do	Blowing Device for Rock Drills.
1902562	Lear, E. B	do	Blowing Device for Pneumatic Tools.
1904062	Prellwitz, W	Apr. 18, 1933	Portable Compressor.
1904875	Metzgar, C. W	do	Heat Exchanger.

Digitized by Google

Chronological index—Continued

Patent no.	Patentee	Date	Title
1905474	Lear, E. B.	Apr. 25, 1933	Safety Device for Rock Drills.
1905497	Peters, A. E.	do.	Working Implement for Percussive Tools.
1905698	Fulton, J. S.	do.	Sand Blast Nozzle.
1905747	Peters, A. E.	do.	Compressor.
1907045	Curtis, J. C.	May 2, 1933	Air Line Oiler.
1907464	Terry, E. F.	May 9, 1933	Oiling Device.
1907465	do.	do.	Lubricator.
1908299	Armstrong, W. H.	do.	Supporting Device.
1908370	Lear, E. B.	do.	Gear Motor.
1909004	Parsons, F. W., Sr.	May 16, 1933	Piston and Rod Connection.
1909021	Slater, F. M.	do.	Oiling Device.
1909972	LeValley, J.	May 23, 1933	Start Stop Unloader for Multiple Stage Compressors.
1909974	Longacre, F. V. D.	do.	Valve Mechanism.
1909977	Miller, R.	do.	Bearing.
1911946	Fuehrer, G. H.	May 30, 1933	Water Tube Connection.
1911947	do.	do.	Cleansing Device for Rock Drills.
1911951	Haight, H. V.	do.	Dual Unloading System.
1911975	Smith, W. A., Sr., Smith, W. W. A., Jr.	do.	Mounting for Rock Drills.
1911978	Uhler, A. S., Smith, W. A., Sr.	do.	Rock Drill.
1914891	McAllister, R. C.	June 20, 1933	Sealing Device.
1917316	Naab, J.	July 11, 1933	Control Valve.
1917335	Smith, W. A., Sr., Smith, W. A., Jr.	do.	Rock Drilling Mechanism.
1918060	Sickels, C. C.	do.	Method of Forging Hollow Working Implements.
1918065	Terry, E. F.	do.	Rock Drill.
1918787	Smith, W. A., Sr.	July 18, 1933	Blowing Device.
1919190	Bancel, P. A.	July 25, 1933	Condenser.
1919717	Fuehrer, G. H.	do.	Rock Drill.
1921059	Weil, J. M., Wilson, L.	Aug. 8, 1933	Fuel Burner.
1922705	McAllister, R. C.	Aug. 15, 1933	Pressure Actuated Governor Trip.
1922707	Newcomb, W. K.	do.	Oiling Device.
1923717	Frelin, F.	Aug. 22, 1933	Do.
1924930	Huff, L. R.	Aug. 29, 1933	Automatic Regulator for Pumps.
1925826	Terry, E. F., Slater, F. M.	Sept. 5, 1933	Lubricator.
1925837	Jones, H. T., McElroy, R.	do.	Broaching Apparatus.
1925839	Lemp, H.	do.	Controlling Apparatus for Locomotives.
1925846	Parkhill, M. S.	do.	Safety Device for Internal Combustion Engines.
1926684	Miller, R.	Sept. 12, 1933	Cylinder.
1927543	Doyle, F. B.	Sept. 19, 1933	Sealing Device.
1931050	Almquist, K.	Oct. 17, 1933	Bearing Construction.
1932214	Hornschuch, H.	Oct. 24, 1933	Sealing Device.
1934201	Miller, F.	Nov. 7, 1933	Load Ascertaining Device.
1935372	Parkhill, M. S.	Nov. 14, 1933	Starting Apparatus for Internal Combustion Engines.
1935376	Prellwitz, W.	do.	Valve Mechanism.
1935397	Hart, D. W.	do.	Pressure Actuated Punching Mechanism.
1938338	Jimerson, F. A.	Dec. 5, 1933	Controlling Device.
1940226	Parkhill, M. S., Fingar, R. M.	Dec. 19, 1933	Carburetor.
1941205	Fuehrer, G. H.	Dec. 26, 1933	Water Valve.
1941217	McKinless, F. V., Jr.	do.	Broaching Tool.
1941977	Evans, H. G.	Jan. 2, 1934	Grinding Device.
1942014	Wilhelm, R. H.	do.	Drilling Mechanism.
1944247	Lear, E. B.	Jan. 23, 1934	Safety Device for Rock Drills.
1944708	Frelin, F.	do.	Piston.
1946062	Cramp, D. L.	Feb. 6, 1934	Clutch Mechanism.
1946989	Smith, W. A., Sr.	Feb. 13, 1934	Valve for Rock Drills.
1946993	Trumpler, W. E.	do.	Bearing.
1947009	Jimerson, F. A., Allen, F. V.	do.	Governor.
1947017	McHugh, A. L.	do.	Sealing Device.
1948157	Bancel, P. A.	Feb. 20, 1934	Centrifugal Pump.
1949961	Hansen, C. C.	Mar. 6, 1934	Coupling.
1953130	Prellwitz, W.	Apr. 3, 1934	Valve.
1954957	Smith, W. A., Sr.	Apr. 17, 1934	Drill Mounting.
1955007	McClay, G. F.	do.	Valve Assembly.
1955448	Baker, C. S.	do.	Stop Device.
1957073	Miller, F.	May 1, 1934	Drilling Apparatus.
1958041	Hansen, C. C.	May 8, 1934	Submarine Drill Unit.
1959919	Jones, H. T.	May 22, 1934	Drilling Tool.
1962072	Haight, H. V.	June 5, 1934	Unloader for Compressors.
1962790	Slater, F. M.	June 12, 1934	Steel Retainer.
1965264	Smith, W. A., Jr.	July 3, 1934	Valve Mechanism for Rock Drills.
1967837	Naab, J.	July 24, 1934	Heat Exchanger.
1968892	Jowett, J. H., Smith, W. A., Jr.	Aug. 7, 1934	Mounting for Rock Drills.
1969368	Hansen, C. C.	do.	Rotation Mechanism for Percussive Tools.
1970614	Miller, R.	Aug. 21, 1934	Governing Device for Internal Combustion Engines.
1971171	Bebbington, W. E.	do.	Plate Valve.

Digitized by Google

Chronological index—Continued

Patent no.	Patentee	Date	Title
1971998	Valentine, B. G.	Aug. 28, 1934	Locomotive.
1972017	Hulshizer, G. W.	do	Rock Drilling Mechanism.
1972617	Baker, C. S., Fingar, R. M.	Sept. 4, 1934	Speed and Pressure Responsive Regulator.
1975229	Hulshizer, G. W.	Oct. 2, 1934	Valve for Rock Drills.
1975845	Hansen, C. C.	Oct. 9, 1934	Valve for Compressors.
1975872	Smith, W. A., Sr.	do	Valve for Fluid Actuated Tools.
1975873	Smith, W. A., Sr., Smith, W. A., Jr.	do	Mounting for Drilling Mechanism.
1978903	Jimerson, F. A.	Oct. 30, 1934	Clutch Mechanism.
1978964	Slater, F. M.	do	Dustless Rock Drill.
1981475	Smith, W. A., Sr.	Nov. 20, 1934	Drilling Mechanism.
1981500	Frelin, F.	do	Locking Device.
1982264	Naab, J.	Nov. 27, 1934	Compressor Controlling Device.
1982278	Allen, R. O.	do	Implement Retainer.
1984171	Baker, C. S.	Dec. 11, 1934	Compressor Unloader.
1986810	Haight, H. V.	Jan. 8, 1935	Valve Assembly.
1986831	LeValley, J.	do	Valve Mechanism.
1988138	Peck, C. H.	Jan. 15, 1935	Rail Grinder.
1988163	Church, W. H.	do	Centrifugal Pump.
1988945	Hansen, C. C.	Jan. 22, 1935	Controlling Device for Valves.
1989762	McClay, G. F.	Feb. 5, 1935	Compressor Unloader.
1991761	McHugh, A. L.	Feb. 19, 1935	Pumping Mechanism.
1997418	Hornschuch, H., McHugh, A. L.	Apr. 9, 1935	Do.
1999690	Fuehrer, G. H.	Apr. 30, 1935	Valve Mechanism for Rock Drills.
1999967	Miller, R., Newcomb, W. K.	do	Valve Mechanism.
2000959	Jimerson, F. A.	May 14, 1935	Braking Mechanism.
2000970	McAllister, R. C.	do	Piston Assembly.
2000979	Parkhill, M. S., Taylor, C. W.	do	Water Jacket Construction for Engines.
2006829	Hansen, C. C.	July 2, 1935	Sand Pipe for Rock Drills.
2006845	Smith, W. A., Sr.	do	Rock Drill.
2010129	Baker, C. A.	Aug. 6, 1935	Valve Assembly.
2010496	Peters, A. E., Slater, F. M.	do	Feeding Device for Percussive Motors.
2010507	Church, W. H., Kidney, C. B., Hoffman, P., Trumpler, W. E.	do	Gas Mixing Device.
2010525	McHugh, A. L.	do	Locking Device for Pump Impellers.
2011424	Smith, W. A., Sr.	Aug. 13, 1935	Controlling Device.
2012136	Nickel, W. F.	Aug. 20, 1935	Controlling Device for Refrigerating Apparatus.
2015490	McAllister, R. C.	Sept. 24, 1935	Separator for Heat Exchangers.
2015502	Trumpler, W. E.	do	Blower.
2015525	Jones, J. W., Cowles, E. C.	do	Portable Compressor.
2016124	Smith, W. A., Sr.	Oct. 1, 1935	Valve Mechanism for Rock Drills.
2017544	McHugh, A. L.	Sept. 15, 1935	Sealing Device for Centrifugal Pumps.
2019163	Slater, F. M.	Oct. 29, 1935	Rock Drill
2020806	Smith, W. A., Sr.	Nov. 12, 1935	Guide Member for Rock Drills.

HERCULES POWDER CO., INC.,
Wilmington, Del., November 29, 1935.

WILLIAM I. SIROVICH,
Chairman, Committee on Patents,
House of Representatives.

DEAR SIR: Your letter dated November 6, 1935, directed to Mr. R. H. Dunham, president of Hercules Powder Co., has been handed to us for reply.

The information which is requested, and which you list in items numbered 1 to 12, inclusive, in your communication dated November 6, 1935, is sent herewith. We refer below to each item by the number given in your said letter.

1. A list of all of the patents owned by Hercules Powder Co., as of November 12, 1935, is sent herewith, marked "No. 1." We also attach another list marked "No. 1–A" which includes the patents now being used by Hercules Powder Co. through cross-license agreements, or otherwise. Hercules Powder Co. is not using any patents through a pooling agreement, and has not made no pooling agreements of any kind with anyone.

2. Some of our patents are now used by us at the present time, for the reason that we can find no use for such patents.

3. We send herewith a copy of the certificate of incorporation of Hercules Powder Co., with all amendments to date, and we also forward a copy of the bylaws of Hercules Powder Co.

4. Photostat copies of all cross-license agreements which Hercules Powder Co. has made are sent herewith, these papers being marked "No. 4".

Digitized by Google

5. The photostat copies of cross-licenses under no. 4 above are the only forms of cross-licensing agreements made between Hercules Powder Co. and others to date.

6. The information called for in your question 6 is supplied by the list sent herewith marked "No. 6". The estimated value of the patents at the date of purchase, and at the present time, is not given because we have no means of placing an estimate thereon.

7. Our answer to your question 7 is "No."

8. The questions asked in item no. 8 are answered in the paper sent herewith marked "No. 8."

9. The list sent herewith marked "No. 9" supplies the information called for by question 9, except that relative to the valuation of existing patents which, as above stated, we are unable to give as we have no means of valuing the patents.

10. As above stated, we have no patent pool, and have made no patent pooling agreement with anyone.

11. As above stated, we have no patent pool.

12. We have no suggestions to offer.

Kindly acknowledge receipt of the enclosed papers. We regret the delay in furnishing the above, but it was unavoidable in view of the amount of work involved.

Very truly yours,

JOHN A. GRAVES,
Assistant General Counsel.

No. 1.—*Complete list of all patents owned by Hercules Powder Co.*

Patent no.	Date of issue	Title
1289016	Dec. 24, 1918	Process of Producing Sodium Sulfid.
1293515	Feb. 4, 1919	Process of Recovering Solvent from Colloided Nitrocellulose.
1295262	Feb. 25, 1919	Process of Producing Ammonia from Alkali Cyanid.
1295293	-----do-----	Process of Producing Ammonia from Alkali Ferrocyanid.
1296647	Mar. 11, 1919	Cutting Off Machine for Taffy or the Like.
1297524	Mar. 18, 1919	Process of Purifying Nitro-Aromatic Compounds.
1301105	Apr. 22, 1919	Explosive and Process of Producing the Same.
1307032	June 17, 1919	Nitroglycols.
1307033	-----do-----	Do.
1307034	-----do-----	Do.
1309623	July 15, 1919	Catalyzer.
1311158	July 29, 1919	Process of Concentrating Acetic Anhydrid.
1312842	Aug. 12, 1919	Process of Making Cyanogen Compounds.
1332195	Mar. 2, 1920	Process for Producing Nitric Acid.
1339242	May 4, 1920	Process of Making Manganates.
1343317	June 15, 1920	Process of Stabilizing Nitrostarch.
1347158	July 20, 1920	Process of Oxidizing Ammonia to Nitric Acid.
1347159	-----do-----	Do.
1347160	-----do-----	Process of Catalytically Combining Gases.
1367608	Feb. 8, 1921	Explosive Powder.
1404687	Jan. 24, 1922	Primary Detonating Compositions.
1406565	Mar. 7, 1922	High Liquid Pressure Detonator.
1428011	Sept. 5, 1922	Process of Increasing the Sensitiveness and Power of Explosive Compositions and Products Thereof.
1437223	Nov. 28, 1922	Pocket Magneto.
1444594	Feb. 6, 1923	Process of Impregnating Plant Tissues with Ammonium Nitrate for Explosive Purposes.
1447248	Mar. 6, 1923	Smokeless Powder Dynamite.
1458925	June 19, 1923	Detonator.
1460708	July 3, 1923	Processes of Manufacturing Diazodinitrophenol.
1463864	Aug. 7, 1923	Process of Making Storage Battery Elements.
1466147	Aug. 28, 1923	Explosive.
1472791	Nov. 6, 1923	Processes for the Manufacture of Ammonium Picrimate.
1478588	Dec. 25, 1923	Explosive.
1480795	Jan. 15, 1924	Blasting Cap.
1503956	Aug. 5, 1924	Explosive and Process of Making Same.
1505438	Aug. 19, 1924	Process of Extracting Turpentine and Rosin from Resinous Wood.
1509935	Sept. 30, 1924	Explosive and Process of Its Manufacture.
1520093	Dec. 23, 1924	Process of Making Sulphuric Acid.
1523802	Jan. 20, 1925	Process of Restoring Used Decolorizing and Clarifying Agents.
1568324	Jan. 5, 1926	Process of Manufacture Adhesive Blends of Sodium Nitrate and Ammonium Nitrate for Explosive Purposes.
1575894	Mar. 9, 1926	Machine for Making Paper Shells.
1605004	Nov. 2, 1926	Process for Manufacture of Oleum.
1608006	Nov. 23, 1926	Process of Absorbing Sulphur Trioxide from Gases Containing Same.
1613334	Jan. 4, 1927	Granular Ammonium Nitrate and Process of Making Same.
1613335	-----do-----	Ammonium Nitrate Explosive.
1625491	Apr. 19, 1927	Transportable Dynamite Magazine.
1626362	Apr. 26, 1927	Oxidized Pine Oil for Pigments.

Digitized by Google

No. 1.—*Complete list of all patents owned by Hercules Powder Co.*—Continued

Patent no.	Date of issue	Title
1650186	Nov. 22, 1927	Explosive.
1650689	Nov. 29, 1927	Method of Removing Diphenylamine from Smokeless Powder.
1653008	Dec. 20, 1927	Nitrocellulose Lacquer and Process of Making Same.
1653009	....do....	Pine Oil Product and Process of Making Same.
1653010	....do....	Nitrocellulose Lacquer.
1653023	....do....	Process of Making Nitric Acid.
1653519	....do....	Method of Obtaining Nitrocellulose from Smokeless Powder.
1661278	Mar. 6, 1928	Method of Preparing Progressive Burning Smokeless Powder.
1663277	Mar. 20, 1928	Apparatus for Harvesting Stumps.
1665834	Apr. 10, 1928	Mechanism for Cutting Paper Shell Blanks from Continuous Rolls of Paper.
1667083	Apr. 24, 1928	Gelatin-Dynamite Explosive.
1671792	May 29, 1928	Method of Impregnating Absorptive Material for Use in Explosive.
1671793	....do....	Blasting Explosive.
1681181	Aug. 21, 1928	Method and Apparatus for Packing Cartridges.
1682280	Aug. 28, 1928	Process of Preparing Alkyl Esters of Abietic Acid.
1685344	Sept. 25, 1928	Machine for Securing Bridge Wires to Lead Wires of Electric Blasting Caps.
1685382	....do....	Method of Bridging the Connecting Wires of Electric Blasting Caps.
1691065	Nov. 13, 1928	Process of Making Dipolymer.
1691066	....do....	Dehydration Products of Pine Oil and Process of Producing Same.
1691067	....do....	Process of Making Dipolymer.
1691068	....do....	Do.
1691069	....do....	Do.
1691573	....do....	Do.
1694179	Dec. 4, 1928	Process of Refining Wood Rosin.
1696337	Dec. 25, 1928	Method of Producing Abietic Acid Esters of Polyglycerol.
1696696	....do....	Process of Extracting Rosin and Turpentine from Wood.
1697530	Jan. 1, 1929	Method of Producing Glycol Esters of Abietic Acid.
1706517	Mar. 26, 1929	Blasting Explosive.
1715083	May 28, 1929	Method of Refining Rosin.
1715084	....do....	Process of Recovering High-Grade Wood Rosin.
1715085	....do....	High-Grade Wood Rosin.
1715086	....do....	Method of Refining Rosin.
1715087	....do....	Do.
1715088	....do....	Do.
1719431	July 2, 1929	Process of Refining Wood Rosin.
1722765	July 30, 1929	Process of Recovering Terpene Products from Gasoline Terpene Mixtures.
1737763	Dec. 3, 1929	Process of Refining Wood Rosin.
1737775	....do....	Method of Reclaiming Rubber from Scrap.
1738595	Dec. 10, 1929	Method for Firing Explosives.
1741146	Dec. 31, 1929	Explosive.
1743403	Jan. 14, 1930	Method for the Separation of Alpha Terpineol from Pine Oil.
1746532	Feb. 11, 1930	Method of Producing Cymene.
1746895	....do....	Lacquer.
1749482	Mar. 4, 1930	Method of Producing Alkyl Esters of Abietic Acid.
1749483	....do....	Do.
1753860	Apr. 8, 1930	Apparatus for Producing Canals or the Like.
1759565	May 20, 1930	Charge for Blasting Caps.
1771044	July 22, 1930	Method of Producing Resin Esters.
1772546	Aug. 12, 1930	Method of Separating Certain Components from Pine Oil.
1772895	....do....	Process of Producing a Turpentine Substitute from Pine Oil.
1776089	Sept. 16, 1930	Apparatus for Pulling Stumps.
1776857	Sept. 30, 1930	Rubber Composition.
1777704	Oct. 7, 1930	Method of Separating Anethol from Pine Oil.
1777710	....do....	Method for Producing Low-Density Pulp.
1779710	Oct. 28, 1930	Diethylene Glycol Esters of Abietic Acid and Method of Producing the Same.
1779825	....do....	Manufacture of Nitrostarch.
1780962	Nov. 11, 1930	Viscosimeter.
1782401	Nov. 25, 1930	Method of Producing Rosin Oil.
1788438	Jan. 13, 1931	Smokeless Powder.
1791558	Feb. 10, 1931	Method of Treating Rosin.
1793220	Feb. 17, 1931	Drying Oil and Method of Producing the Same.
1793807	Feb. 24, 1931	Viscosimeter.
1795440	Mar. 10, 1931	Blasting Cap.
1800834	Apr. 14, 1931	Method of Refining Rosin.
1800862	....do....	Method of Separating Secondary Alcohols from Pine Oil.
1800954	....do....	Blasting Cap.
1805883	May 19, 1931	Method of Producing Building Board.
1806973	May 26, 1931	Method of Producing High-Grade Rosin.
1811663	June 23, 1931	Method of Producing Explosives.
1816146	July 28, 1931	Solubilized Nitrocellulose.
1817561	Aug. 4, 1931	Lacquer.
1818733	Aug. 11, 1931	Method for the Digestion of Nitrocellulose.
1820265	Aug. 25, 1931	Ester Gum and Method of Producing.
1820298	....do....	Process for Purifying Rosin.
1824020	Sept. 22, 1931	Method of Producing Resin Esters.
1828788	Oct. 27, 1931	Explosives.
1832853	Nov. 24, 1931	Method and Apparatus for Denitrating Acid Mixtures and Concentrating Acid Mixtures.
1832864	....do....	Method of Removing Color Bodies from Rosin.
1833454	....do....	Method for Producing Explosive.
1835063	Dec. 8, 1931	Process of Refining Rosin.
1835753	....do....	Blasting Cap.

Digitized by Google

No. 1.—*Complete list of all patents owned by Hercules Powder Co.*—Continued

Patent no.	Date of issue	Title
1839529	Jan. 5, 1932	Quick Drying Lacquer.
1840395	Jan. 12, 1932	Method for Producing Resin Acid Esters.
1840431	----do----	Charge for High Explosive Shells.
1840969	----do----	Impregnating Compound.
1843284	Feb. 2, 1932	Resin Acid Ester and Method of Producing.
1844862	----do----	Method of Producing Hydrated Metal Nitrates.
1847520	Mar. 1, 1932	Method of Loading High Explosive Shells.
1849537	Mar. 15, 1932	Method of Purifying Rosin.
1850224	Mar. 22, 1932	Composition of Matter.
1850225	----do----	Do.
1850983	----do----	Method of Producing Fenchone.
1852041	Apr. 5, 1932	Method of Purifying Nitrated Polyhydric Alcohols.
1852054	----do----	Percussion Cap.
1852244	----do----	Method of Producing Rosin Oils.
1852245	----do----	Method of Refining Rosin.
1854165	Apr. 12, 1932	Method of Refining Turpentine.
1855464	Apr. 26, 1932	Method of Producing Fermentable Sugars and Alcohol from Wood.
1856103	May 3, 1932	Blasting Cap.
1856453	----do----	Method of Treating Fibrous Material.
1876454	Sept. 6, 1932	Method of Producing Fenchone.
1877179	Sept. 13, 1932	Hydrogenated Resin Esters and Method of Producing.
1882298	Oct. 11, 1932	Safety Glass.
1886586	Nov. 8, 1932	Drying Oil.
1886587	----do----	Method of Preparing Xanthates of Terpene Alcohols.
1887097	----do----	Method of Refining Rosin.
1887122	----do----	Connector for Cordeau Bickford.
1887157	----do----	Method of Refining Rosin.
1887171	----do----	Crystalline Fenchyl Alcohol and Method of Separating the Same from Pine Oil.
1887290	----do----	Blasting Cap.
1888025	Nov. 15, 1932	Method of Extracting Resinous Material from Plant Tissue.
1888581	Nov. 22, 1932	Process of Recovering Rosin from Rosin-Containing Soap Produced in the Manufacture of Paper Pulp from Rosin-Containing Wood.
1890086	Dec. 6, 1932	Method of Refining Rosin.
1890112	----do----	Igniter Charge for Blasting Caps.
1890128	----do----	Floor Covering.
1893802	Jan. 10, 1933	Method of Producing Para-Cymene.
1894975	Jan. 24, 1933	Method of Refining Rosin.
1895144	----do----	Explosive.
1895488	Jan. 31, 1933	Blasting Cap.
1895492	----do----	Method and Apparatus for Concentrating Nitric Acid.
1896793	Feb. 7, 1933	Method of Separating Terpene Compounds from Gasoline Used for Extracting Rosin from Wood.
1897379	Feb. 14, 1933	Method of Refining Rosin.
1901469	Mar. 14, 1933	Blasting Cap.
1901561	----do----	Method of Dehydrating Nitrocellulose and the Product Thereof.
1901626	----do----	Method of Refining Rosin.
1901680	----do----	Method of Hydrogenating Abietic Acid Ester.
1903302	Apr. 14, 1933	Package for Blasting Caps.
1905173	Apr. 25, 1933	Method of Refining Rosin.
1908500	May 9, 1933	Method of Purifying Nitrated Cellulose.
1908569	----do----	Impregnated Material and Method of Impregnation.
1908754	May 16, 1933	Method of Refining Rosin.
1908857	----do----	Nitrostarch and Method of Producing.
1910487	May 23, 1933	Blasting Caps.
1910564	----do----	Drying Oils and Method of Producing the Same.
1910799	----do----	Core Oil.
1910807	----do----	Method of Producing Hydrated Nitrate Double Salt.
1911201	May 30, 1933	Apparatus for the Digestion of Nitrocellulose.
1912399	June 6, 1933	Method of Purifying Aliphatic Organic Nitrates.
1912423	----do----	Blasting Cap.
1915388	June 27 1933	Method of Separating Borneol from Pine Oil.
1922123	June 15, 1933	Inulin Nitrate and Method of Producing.
1924342	Aug. 29, 1933	Delay Cap.
1924912	----do----	Explosive.
1924934	----do----	Method of Producing Esters of Resin Acids.
1926213	Sept. 12, 1933	Resistance Wire.
1928020	Sept. 26, 1933	Method of Treating Pine Oil for the Separation of Components Therefrom.
1929911	Oct. 10, 1933	Blasting Cap.
1931226	Oct. 17, 1933	Rosin Compounds.
1932183	Oct. 24, 1933	Method of Separating Certain Components from Pine Oil.
Re. 19989	Nov. 7, 1933	Smokeless Powder.
1933939	----do----	Preparation of Tenebone.
1935917	Nov. 21, 1933	Composition of Matter and Method of Making.
1936989	Nov. 28, 1933	Nitrated Carbohydrate Solution.
1939365	Dec. 12, 1933	Paraphenylenediamine Dipicrate and Process of Preparing Same.
1943231	Jan. 9, 1934	Nitro-Mixed Fatty Acid Esters of Cellulose and Method for Producing.
1944241	Jan. 23, 1934	Hydrogenated Methyl Abietate and Method of Producing.
1945344	Jan. 30, 1934	Blasting Explosive.
1945501	----do----	Method of Separating Borneol from Pine Oil.
1946322	Feb. 6, 1934	Composition for the Impregnation of Cable Insulation.
1946338	----do----	Tracing Paper and Method of Producing.

Digitized by Google

No. 1.—*Complete list of all patents owned by Hercules Powder Co.*—Continued

Patent no.	Date of issue	Title
1949841	Mar. 6, 1934	Fuse for Shells.
1950869	Mar. 13, 1934	Centrifugal.
1950894	....do.....	Coating Composition.
1951595	Mar. 20, 1934	Blasting Cap.
1951708	....do.....	Ozonation Products of Terpene Alcohol.
1952591	Mar. 27, 1934	Method for Producing Diazodinitrophenol.
1952633	....do.....	Method of Producing Nitric Acid.
1957180	May 1, 1934	Method for Digesting Nitrocellulose.
1957786	May 8, 1934	Coating Composition.
1957788	....do.....	Method of Refining Rosin.
1958860	May 15, 1934	Wetting-Out Agent.
1958870	....do.....	Method and Machine for Bunching Lead Wires.
1959564	May 22, 1934	Method of Refining Rosin.
1959590	....do.....	Fatty Acids Esters of Carbohydrates and Method for Producing.
1960591	May 29, 1934	Composition for Fuse, Igniter Charges and the Like.
1961398	June 5, 1934	Method of Separating Components of Pine Oil.
1961931	....do.....	Coating Composition.
1964077	June 26, 1934	Flash Composition.
1964390	....do.....	Delay Cap.
1965362	July 3, 1934	Method of Producing Smokeless Powder.
1966806	July 17, 1934	Do.
1969900	Aug. 14, 1934	Towel.
[1] 19288	Aug. 28, 1934	Method of Treating Fibrous Materials.
1971502	....do.....	Fuse Powder for Metal Delays.
1973693	Sept. 18, 1934	New Composition of Matter and Method of Producing.
1973865	....do.....	Method for Hydrogenating Resinous Compounds.
1975211	Oct. 2, 1934	Drying Oil and Method of Producing It.
1977064	Oct. 16, 1934	Method of Separating Anethol from Pine Oil.
1978135	Oct. 23, 1934	Method of Refining Rosin.
1978598	Oct. 30, 1934	Synthetic Resin and Method of Producing.
1978948	....do.....	Binding Composition.
1979671	Nov. 6, 1934	Method for the Production of Rosin Esters.
1988532	Jan. 22, 1935	Method of Producing Mixed Esters of Cellulose.
1989729	Feb. 5, 1935	Ignition Composition.
1990367	....do.....	Method of Refining Rosin.
1993025	Mar. 5, 1935	Alpha-Terpinene-Maleic Anhydride Reaction Product and Method of Producing It.
1993026	....do.....	Composition of Matter and Method of Making the Same.
1993027	....do.....	Composition of Matter and Method of Production.
1993028	....do.....	Composition of Matter and Method of Producing.
1993029	....do.....	Do.
1993030	....do.....	Do.
1993031	....do.....	Terpene-Maleic Anhydride Reaction Products and Method of Producing.
1993032	....do.....	Synthetic Resin and Method of Producing the Same.
1993033	....do.....	Do.
1993034	....do.....	Do.
1993035	....do.....	Method of Producing a Pinene-Maleic Anhydride Reaction Product.
1993036	....do.....	Synthetic Resin and Method of Producing.
1993037	....do.....	Reaction Product of Cineol and Maleic Anhydride and Process of Making It.
1993415	....do.....	Sulphonated Polymerized Terpene and Method of Producing Same.
1993434	....do.....	Method for Impregnating Carbonaceous Material.
1994131	Mar. 12, 1935	Process for the Production of Cineol.
1995600	Mar. 26, 1935	Method of Treating Rosin and Rosin Product.
1996146	Apr. 2, 1935	Method for Graining Explosive Compositions.
1996846	Apr. 9, 1935	Printing Lacquer.
[1] 19525	....do.....	Coating Composition.
1998099	Apr. 16, 1935	Surface Coating.
1999572	Apr. 30, 1935	Nitrated Cellulose and Method of Producing.
1999812	....do.....	Coating Composition.
1999820	....do.....	Delay Cap.
1999828	....do.....	Nitrated Polyhydric Alcohol Emulsion and Process of Producing.
2001070	May 14, 1935	Nitrocellulose Gelatin and Method of Producing.
2001102	....do.....	Method for the Production of Aralkyl Ethers of Cellulose.
2002583	May 28, 1935	Ozonization products of Terpene Alcohols and Method of Producing.
2003458	June 4, 1935	Method of Dehydrating Pine Oil.
2003471	....do.....	Sulphonated Terpene Product and Method of Producing Same.
[1] 19612	June 18, 1935	Coating Compositions.
[1] 19645	July 16, 1935	Method for Producing Diazodinitrophenol and the Product Thereof.
2008366	....do.....	Igniter Powder.
2008641	....do.....	Lacquer Enamel, Base Solution, and the Like.
[1] 19661	July 30, 1935	Composition for Fuse, Igniter Charges, and the Like.
2011707	Aug. 20, 1935	Preparation of Terpene Esters of Dicarboxylic Acids.
2012621	Aug. 27, 1935	Method of Producing Anhydrous Ammonia.
2012622	....do.....	Heterocyclic-Esters of Resin Acids.
2012827	....do.....	Blasting Cap.
2018634	Oct. 22, 1935	Method of Refining Rosin.
1839161	Dec. 29, 1931	Method of Producing Glycol Esters of Abietic Acid.

[1] Reissue.

Digitized by Google

No. 1A.—*Patents now being used by Hercules Powder Co. by cross-license or otherwise, and Hercules Powder Co. licenses now being used*

Patent no.	Date of issue	Title
1365739	Jan. 18, 1921	Preparation of Ammonia.
[1] 16267	Feb. 16, 1926	Process of Separating Butyl Alcohol and Water.
1589328	June 15, 1926	Aqueous Emulsions of Electrodepositable Cellulosic Compounds and Coalescing Agents Therefor.
1594861	Aug. 3, 1926	Dynamite Composition.
1600143	Sept. 14, 1926	Process of Improving Steam Distilled Wood Turpentine.
1603164	Oct. 12, 1926	Low-Density Dynamite.
1609221	Nov. 30, 1926	High-Explosive Compound.
1639906	Aug. 23, 1927	Safety Blasting Cap.
1708685	Apr. 9, 1929	Absorption Apparatus.
1721610	July 23, 1929	Method of Depilating Carcasses.
1735342	Nov. 12, 1929	Process and Apparatus for the Manufacture of Nitric Acid.
1749082	Feb. 25, 1930	Carcass Treating Method.
1788406	Jan. 13, 1931	Soluble Nitrocellulose and Coating Composition Containing the Same.
1793983	Feb. 24, 1931	Colloidal Emulsion and Process.
1814597	July 14, 1931	Gauze or Screen Catalyst Holder or Support.
1840404	Jan. 12, 1932	Process for the Production of Cellulose Acetate Free from Haze.
1879064	Sept. 27, 1932	Gelatinous Explosive Composition.
1840063	Jan. 5, 1932	Nitric Acid Process.
1918370	July 18, 1933	Plant for Manufacturing Chlorination Products of Caoutchouc.
1919216	July 25, 1933	Process of Ammonia Oxidation.
1927963	Sept. 26, 1933	Catalyst for Ammonia Oxidation.
2013928	Sept. 10, 1935	Chill-Hardening Adhesive.

[1] Reissue.

QUESTION No. 6

Hercules Powder Co. cross-licenses

Patent no.	Date	Inventor	Date assigned to Hercules	Amount paid ot inventor	Value at date of purchase	Present value
1879064	Sept. 27, 1932	L. O. Bryan	[1]	Unknown	Unknown	Unknown.
1613334	Jan. 4, 1927	E. M. Symmes*	Nov. 5, 1924	Nothing	do	Do.
1831537	Nov. 10, 1931	J. F. McCune	[1]	Unknown	od	Do.
1613335	Jan. 4, 1927	E. M. Symmes*	Nov. 5, 1924	Nothing	do	Do.
1743172	Jan. 14, 1930	W. H. Ward	[1]	Unknown	do	Do.
1895144	Jan. 24, 1933	H. W. Botts** and H. H. Champney.*	Jan. 21, 1930	Nothing	do	Do.
1877179	Sept. 13, 1932	I. W. Humphrey*	Jan. 3, 1929	do	do	Do.
1901630	Mar. 14, 1933	R. J. Byrkit*	Mar. 3, 1932	do	do	Do.
1746782	Feb. 11, 1930	W. A. Lazier	[1]	Unknown	do	Do.
1746783	do	do	[1]	do	do	Do.
1829046	Oct. 27, 1931	do	[1]	do	do	Do.
1839974	Jan. 5, 1932	do	[1]	do	do	Do.
1964000	June 26, 1934	do	[1]	do	do	Do.
1964001	do	do	[1]	do	do	Do.
1984884	Dec. 18, 1934	do	[1]	do	do	Do.
2001102	May 14, 1935	E. J. Lorand*	July 6, 1934	Nothing	do	Do.
1751685	Mar. 25, 1930	E. Dörr	Sept. 18, 1934	Unknown	do	Do.
1771529	July 29, 1930	do	do	do	do	Do.
1814208	July 14, 1931	E. Dörr, O. Leuchs, L. Rosenthal.	do	Nothing	do	Do.
1844983	Feb. 16, 1932	H. Schladebach and H. Hähle.	do	Unknown	do	Do.
1913478	June 13, 1933	E. Dörr and O. Leuchs, and L. Rosenthal.	do	do	do	Do.
2020934	Nov. 12, 1935	E. Dörr	do	do	do	Do.
1694127	Dec. 4, 1928	O. Leuchs and E. Dörr.	[1]	do	do	Do.
1746663	Feb. 11, 1930	O. Leuchs	[1]	do	do	Do.
1767382	June 24, 1930	do	[1]	do	do	Do.
1805365	May 12, 1931	E. Huber	[1]	do	do	Do.
1823847	Sept. 15, 1931	G. Balle, H. Lange, and K. Ost.	[1]	do	do	Do.
1833270	Nov. 24, 1931	E. Teupel	[1]	do	do	Do.
1858731	May 17, 1932	O. Ernst and K. Sponsel.	[1]	do	do	Do.
1863745	June 21, 1932	O. Ernst, K. Sponsel, and G. Balle.	[1]	do	do	Do.
1867050	July 12, 1932	G. Balle and K. Ost.	[1]	do	do	Do.
1877779	Sept. 20, 1932	E. Teupel	[1]	do	do	Do.
1877856	do	M. Hagedorn and E. Rossbach.	[1]	do	do	Do.

[1] Not assigned

Digitized by Google

Hercules Powder Co. cross-licenses—Continued

Patent no.	Date	Inventor	Date assigned to Hercules	Amount paid ot inventor	Value at date of purchase	Present value
1885475	Nov. 1, 1932	H. Persiel, G. Balle, and K. Sponsel.	(1)	Unknown...	Unknown...	Unknown.
1902280	Mar. 21, 1933	M. Hagedorn, O. Reichert, and E. Gühring.	(1)	...do...	...do...	Do.
1880116	Sept. 27, 1932	R. H. Stratton...	(1)	...do...	...do...	Do.
1650186	Nov. 22, 1927	H. H. Champney*..	May 2, 1925	Nothing...	...do...	Do.
1832853	Nov. 24, 1931	J. L. Bennett*...	Oct. 22, 1928	...do...	...do...	Do.
1895492	Jan. 31, 1933	J. H. Shapleigh*...	Oct. 9, 1929	...do...	...do...	Do.
1952633	Mar. 27, 1934	...do*...	May 22, 1933	...do...	...do...	Do.
1696528	Dec. 25, 1928	C. W. Davis and G. B. Taylor.	(1)	Unknown...	...do...	Do.
1708685	Apr. 9, 1929	G. B. Taylor...	(1)	...do...	...do...	Do.
1735342	Nov. 12, 1929	G. B. Taylor and F. C. Zeisberg.	(1)	...do...	...do...	Do.
1814597	July 14, 1931	S. L. Handforth...	(1)	...do...	...do...	Do.
1840063	Jan. 5, 1932	G. B. Taylor...	(1)	...do...	...do...	Do.
1915126	June 20, 1933	S. L. Handforth...	(1)	...do...	...do...	Do.
1919216	July 25, 1933	S. L. Handforth and W. E. Kirst.	(1)	...do...	...do...	Do.
1923865	Aug. 22, 1933	S. L. Handforth...	(1)	...do...	...do...	Do.
1927963	Sept. 26, 1933	E. A. Taylor...	(1)	...do...	...do...	Do.
1946632	Feb. 13, 1934	C. J. Malm...	(1)	...do...	...do...	Do.
1958683	May 15, 1934	C. J. Staud...	(1)	...do...	...do...	Do.
1958706	...do...	N. S. Kocher...	(1)	...do...	...do...	Do.
1958711	...do...	T. F. Murray...	(1)	...do...	...do...	Do.
1958714	...do...	E. E. Richardson and C. J. Staud.	(1)	...do...	...do...	Do.
1958715	...do...	E. E. Richardson...	(1)	...do...	...do...	Do.
1969473	Aug. 7, 1934	T. F. Murray, Jr....	(1)	...do...	...do...	Do.
1973488	Sept. 11, 1934	N. S. Kocher...	(1)	...do...	...do...	Do.
1976359	Oct. 9, 1934	T. F. Murray, Jr....	(1)	...do...	...do...	Do.
1994596	Mar. 19, 1935	C. J. Staud and T. F. Murray, Jr.	(1)	...do...	...do...	Do.
1997337	Apr. 9, 1935	C. J. Malm and C. E. Waring.	(1)	...do...	...do...	Do.
1309980	July 15, 1919	H. T. Clarke...	(1)	...do...	...do...	Do.
1370879	Mar. 8, 1921	...do...	(1)	...do...	...do...	Do.
1398939	Nov. 29, 1921	...do...	(1)	...do...	...do...	Do.
1809234	June 9, 1931	...do...	(1)	...do...	...do...	Do.
1813660	July 7, 1931	S. J. Carroll...	(1)	...do...	...do...	Do.
1813661	...do...	...do...	(1)	...do...	...do...	Do.
1813662	...do...	...do...	(1)	...do...	...do...	Do.
1826667	Oct. 6, 1931	T. F. Murray, Jr....	(1)	...do...	...do...	Do.
1826668	...do...	...do...	(1)	...do...	...do...	Do.
1826681	...do...	A. F. Sulzer...	(1)	...do...	...do...	Do.
1826687	...do...	S. J. Carroll...	(1)	...do...	...do...	Do.
1826688	...do...	...do...	(1)	...do...	...do...	Do.
1826689	...do...	...do...	(1)	...do...	...do...	Do.
1826690	...do...	...do...	(1)	...do...	...do...	Do.
1826691	...do...	...do...	(1)	...do...	...do...	Do.
1826692	...do...	...do...	(1)	...do...	...do...	Do.
1826693	...do...	...do...	(1)	...do...	...do...	Do.
1933827	Nov. 7, 1933	H. B. Smith...	(1)	...do...	...do...	Do.
1836701	Dec. 15, 1931	S. J. Carroll...	(1)	...do...	...do...	Do.
1844714	Feb. 9, 1932	S. J. Carroll and H. B. Smith.	(1)	...do...	...do...	Do.
1880464	Oct. 4, 1932	T. F. Murray, Jr., and C. J. Staud.	(1)	...do...	...do...	Do.
1880465	...do...	...do...	(1)	...do...	...do...	Do.
1880506	...do...	H. B. Smith...	(1)	...do...	...do...	Do.
1880507	...do...	...do...	(1)	...do...	...do...	Do.
1880508	...do...	...do...	(1)	...do...	...do...	Do.
1880514	...do...	C. J. Staud and C. S. Webber.	(1)	...do...	...do...	Do.
1884318	Oct. 25, 1932	H. B. Smith...	(1)	...do...	...do...	Do.
1884337	...do...	C. J. Staud...	(1)	...do...	...do...	Do.
1899213	Feb. 28, 1933	H. B. Smith...	(1)	...do...	...do...	Do.
1899214	...do...	...do...	(1)	...do...	...do...	Do.
1899215	...do...	H. B. Smith and S. J. Carroll.	(1)	...do...	...do...	Do.
1901129	Mar. 14, 1933	...do...	(1)	...do...	...do...	Do.
1910130	...do...	H. B. Smith...	(1)	...do...	...do...	Do.
1905516	Apr. 25, 1933	...do...	(1)	...do...	...do...	Do.
1905517	...do...	...do...	(1)	...do...	...do...	Do.
1905518	...do...	...do...	(1)	...do...	...do...	Do.
1912718	June 6, 1933	T. F. Murray, Jr., and C. J. Staud.	(1)	...do...	...do...	Do.
1917405	July 11, 1933	E. R. Taylor...	(1)	...do...	...do...	Do.
1930134	Oct. 10, 1933	H. B. Smith...	(1)	...do...	...do...	Do.
1930135	...do...	H. B. Smith and S. J. Carroll.	(1)	...do...	...do...	Do.

Not assigned.

Digitized by Google

Hercules Powder Co. cross-licenses—Continued

Patent no.	Date	Inventor	Date assigned to Hercules	Amount paid ot inventor	Value at date of purchase	Present value
1930136	Oct. 10, 1933	H. B. Smith	(1)	Unknown	Unknown	Unknown.
1930142	do	H. T. Clarke and C. E. Waring.	(1)	do	do	Do.
1933794	Nov. 7, 1933	L. W. Eberlin and J. J. Schmitt.	(1)	do	do	Do.
1933822	do	T. F. Murray, Jr., and C. J. Staud.	(1)	do	do	Do.
1933826	do	H. B. Smith	(1)	do	do	Do.
1942843	Jan. 9, 1934	do	(1)	do	do	Do.
1942844	do	do	(1)	do	do	Do.
1946635	Feb. 13, 1934	T. F. Murray, Jr., and W. O. Kenyon.	(1)	do	do	Do.
1946643	do	H. B. Smith	(1)	do	do	Do.
1950907	Mar. 13, 1934	C. J. Staud and T. F. Murray, Jr.	(1)	do	do	Do.
1954336	Apr. 10, 1934	C. J. Staud and C. S. Webber.	(1)	do	do	Do.
1957861	May 8, 1934	E. R. Taylor	(1)	do	do	Do.
1957878	do	S. J. Carroll	(1)	do	do	Do.
1960185	May 22, 1934	C. J. Malm	(1)	do	do	Do.
1966317	July 10, 1934	H. B. Smith	(1)	do	do	Do.
1969482	Aug. 7, 1934	do	(1)	do	do	Do.
1981398	Nov. 20, 1934	E. R. Taylor and H. B. Smith.	(1)	do	do	Do.
1991109	Feb. 12, 1935	J. G. McNally and J. J. Schmitt.	(1)	do	do	Do.
1997319	Apr. 9, 1935	H. B. Smith	(1)	do	do	Do.
2006362	July 2, 1935	C. J. Malm	(1)	do	do	Do.
1973693	Sept. 18, 1934	W. M. Billing* and J. S. Tinsley.*	Sept. 2, 1930	Nothing	do	Do.

[1] Not assigned.

QUESTION NO. 8

The inventors, employees of Hercules at the time of making the invention, are marked by an asterisk on the tabulation answering question no. 6. All such inventors still retain contract providing that such invention belongs to employer without additional cost.

Those inventors marked with a double asterisk are no longer employed by Hercules Powder Co.

No. 9.—*U. S. patents now being used by Hercules Powder Co. by cross-license*

Patent no.	Title	Ownership	Valuation
1708685	Absorption Apparatus	E. I. du Pont de Nemours & Co	?
1735342	Process and Apparatus for the Manufacture of Nitric Acid.	do	?
1814597	Gauze or Screen Catalyst Holder or Support	do	?
1879064	Gelantinous Explosive Composition	do	?
1840063	Nitric Acid Process	do	?
1919216	Process of Ammonia Oxidation	do	?
1927963	Catalyst for Ammonia Oxidation	The Grasselli Chemical Co	?

AGREEMENT

This agreement made this 6th day of September 1933, by and between E. I. du Pont de Nemours & Company, a corporation organized and existing under the laws of the State of Delaware, with its principal place of business at Wilmington, Delaware, (hereinafter referred to as du Pont) and the Hercules Powder Company, a corporation organized and existing under the laws of the State of Delaware, with its principal place of business at Wilmington, Delaware (hereinafter referred to as Hercules),

Witnesseth, that:

1. Whereas, du Pont represents that it is the owner of the entire right, title, and interest in and to United States Letters Patent No. 1831537, issued November 10, 1931, to John F. McCune, and in and to the inventions described in said Letters Patent;

Digitized by Google

2. Whereas Hercules represents that it is the owner of the entire right, title, and interest in and to United States Letters Patent 1613335, issued January 4, 1927, to Ernest M. Symmes, and to the inventions described in said Letters Patent;

3. Whereas, Hercules desires to obtain and du Pont is willing to grant to Hercules a non-exclusive, non-assignablel license to practice the invention, to manufacture, use and/or sell the products covered by the aforesaid U. S. Letters Patent 1831537 throughout the United States of America, its territories and dependencies; and

4. Whereas, du Pont desires to obtain and Hercules is willing to grant to du Pont a non-exclusive, non-assignable license to practice the invention, and manufacture, use and/or sell the product covered by the aforesaid U. S. Letters Patent 1613335 throughout the United States of America, its territories and dependencies;

5. Now, therefore, in view of the premises and in consideration of Five Dollars ($5.00) paid by each party to the other party, receipts of which are hereby acknowledged, it is hereby mutually agreed as follows:

LICENSE

6. Du Pont hereby grants to Hercules a non-exclusive, non-assignable license under said patent 1831537 to make, use and/or sell throughout the United States of America, its territories and dependencies, the products described and claimed in said patent or any reissue thereof. No right to sub-license is given.

7. Hercules hereby grants to du Pont a non-exclusive, non-assignable license under said patent 1613335 to make, use and/or sell throughout the United States of America, its territories and dependencies, the products described and claimed in said patent or any reissue thereof. No right to sub-license is given.

DURATION

8. The license granted herein to Hercules by du Pont shall extend from July 7, 1933, for the full term of the said U. S. patent 1831537.

9. The license granted herein to du Pont by Hercules shall extend from July 7, 1933, for the full term of said U. S. patent 1613335.

PAST INFRINGEMENT

10. Neither of the parties to this agreement shall be liable to the other for any past infringement or contributory infringement of the patents which constitute the subject matter of this agreement, and each party is hereby released from all liability for infringement preceding this agreement.

SUITS

11. Neither party shall be under any obligation to institute suits or prosecute infringers under the aforesaid patents, nor shall either party be in any way responsible or liable to the other for failure to prosecute infringers. If either party elects to prosecute any infringers the conduct of such suit and any recoveries therein shall belong entirely to the party bringing the suit.

12. This written license contract embodies all of the understandings and agreements between the parties concerning the license herein granted, there being no other previous or contemporaneous understanding or agreements, oral or written, between the parties on the foregoing subject.

In witness whereof the parties hereto have caused these presents to be signed by their respective proper officers and their respective corporate seals to be hereto affixed as of the day and year first above written.

E. I. DU PONT DE NEMOURS & COMPANY.
By J. THOMPSON BROWN, *Vice President.*

Attest:

M. D. FISHER, *Asst. Secretary.*

HERCULES POWDER COMPANY.
By T. W. BACCHUS, *Vice President.*

Attest:

E. B. MORROW, *Secretary.*

Digitized by Google

AGREEMENT

This agreement made this 6th day of September 1933, by and between E. I. du Pont de Nemours & Company, a corporation organized and existing under the laws of the State of Delaware, with its principal place of business at Wilmington, Delaware, (hereinafter referred to as du Pont) and the Hercules Powder Company, a corporation organized and existing under the laws of the State of Delaware, with its principal place of business at Wilmington, Delaware, (hereinafter referred to as Hercules),

Witnesseth, that:

1. Whereas, du Pont represents that it is the owner of the entire right, title, and interest in and to United States Letters Patent No. 1743172, issued January 14, 1930, to William H. Ward, and in and to the invention described in said Letters Patent; and

2. Whereas, Hercules represents that it is the owner of the entire right, title, and interest in and to United States Letters Patent 1895144, issued January 24, 1933 to Henry W. Botts and Hubert H. Champney, and to the inventions described in said Letters Patent; and

3. Whereas, Hercules desires to obtain and du Pont is willing to grant to Hercules a non-exclusive, non-assignable license to practice the invention, to manufacture, use and/or sell the products covered by the aforesaid U. S. Letters Patent 1743172 throughout the United States of America, its territories and dependencies; and

4. Whereas, du Pont desires to obtain and Hercules is willing to grant to du Pont a non-exclusive, non-assignable license to practice the invention, and manufacture, use, and/or sell the product covered by the aforesaid U. S. Letters Patent 1895144 throughout the United States of America, its territories and dependencies;

5. Now, therefore, in view of the premises and in consideration of Five Dollars ($5.00) paid by each party to the other party, receipts of which are hereby acknowledged, it is hereby mutually agreed as follows:

LICENSE

6. Du Pont hereby grants to Hercules a non-exclusive, non-assignable license under said patent 1743172 to make, use and/or sell throughout the United States of America, its territories and dependencies, the products described and claimed in said patent or any reissue thereof. No right to sub-license is given.

7. Hercules hereby grants to du Pont a non-exclusive, non-assignable license under said patent 1895144 to make, use, and/or sell throughout the United States of America, its territories and dependencies, the products described and claimed in said patent or any reissue thereof. No right to sub-license is given.

DURATION

8. The license granted herein to Hercules by du Pont shall extend from July 7, 1933, for the full term of the said U. S. patent 1743172.

9. The license granted herein to du Pont by Hercules shall extend from July 7, 1933, for the full term of said U. S. patent 1895144.

PAST INFRINGEMENT

10. Neither of the parties to this agreement shall be liable to the other for any past infringement or contributory infringement of the patents which constitute the subject matter of this agreement, and each party is hereby released from all liability for infringement preceding this agreement.

SUITS

11. Neither party shall be under any obligation to institute suits or prosecute infringers under the aforesaid patents, nor shall either party be in any way responsible or liable to the other for failure to prosecute infringers. If either party elects to prosecute any infringers the conduct of such suit and any recoveries therein shall belong entirely to the party bringing the suit.

12. This written license contract embodies all of the understandings and agreements between the parties concerning the license herein granted, there being no other previous or contemporaneous understandings or agreements, oral or written, between the parties on the foregoing subject.

Digitized by Google

In witness whereof the parties hereto have caused these presents to be signed by their respective proper officers and their respective corporate seals to be hereto affixed as of the day and year first above written.

E. I. Du Pont de Nemours & Company.
By J. Thompson Brown, *Vice President.*

Attest:

M. D. Fisher, *Asst. Secretary.*

Hercules Powder Company.
By T. W. Bacchus, *Vice President.*

Attest:

E. B. Morrow, *Secretary.*

This Agreement made this 10th day of October 1935, by and between Hercules Powder Company, a corporation organized and existing under the laws of the State of Delaware, having its principal place of business at Wilmington, Delaware (hereinafter called Hercules), and E. I. du Pont de Nemours & Company, a corporation organized and existing under the laws of the State of Delaware, and having its principal place of business at Wilmington, Delaware (hereinafter called du Pont).

Witnesseth: Whereas, certain United States Patent applications and United States patents belonging to Hercules and du Pont are involved in certain interferences, to wit;

Interference no.	Patent number and date or application serial number and date	
	Assigned to Hercules	Assigned to du Pont
66357	Irvin W. Humphrey, Patent No. 1877179, Sept. 13, 1932.	Roger Adams, Serial No. 599362, Mar. 16, 1932.
68330	Irvin W. Humphrey, Serial No. 411201, Renewal filed Sept. 22, 1932.	Do.
68331	Irvin W. Humphrey, Serial No. 605457, Apr. 15, 1932.	Do.
68332	Irvin W. Humphrey, Serial No. 636015, Oct. 3, 1932.	Do.
69220	Alfred L. Rummelsburg, Serial No. 715941, Mar. 16, 1934.	Claude O. Henke and Milton A. Prahl, Serial No. 690230, Sept. 20, 1933.
69894	Irvin W. Humphrey, Serial No. 687481, Aug. 30, 1933.	Claude O. Henke and Milton A. Prahl, Serial No. 690231, Sept. 20, 1933.
70599	Rollin J. Byrkit, Patent No. 1901630, Mar. 14, 1933.	Wilbur A. Lazier, Serial No. 584573, Jan. 2, 1932.
	Irvin W. Humphrey, Serial No. 727443, May 25, 1934.	Wilbur A. Lazier, Serial No. 10794, Mar. 13, 1935.
70593	Irvin W. Humphrey, Serial No. 687481, Aug. 30, 1933.	Harold J. Barrett and Wilbur A. Lazier, Serial No. 749070, Oct. 19, 1934.
	Irvin W. Humphrey, Serial No. 22264, May 18, 1935.	

and Whereas, Hercules and du Pont desire to settle said interferences amicably by the filing of concessions of priority, and the granting of licenses by each to the other, under patents involved in said interferences or patents which may issue on the applications involved in said interferences and under certain other patents as provided for hereinafter, to practice the inventions within the field of the agreement as hereinafter defined, and

Whereas du Pont is the owner by assignment of each of the patents listed in Schedule A attached hereto and forming a part hereof, relating to metal chromite catalysts and their use in hydrogenation, and

Whereas du Pont and Hercules may have or may later obtain rights under other patents relating to metal chromite catalysts and their use in hydrogenation, and

Whereas both parties wish to be free to manufacture and use such metal chromite catalysts in the preparation of certain compounds,

Now, therefore, in consideration of the provisions hereof and of other good and valuable consideration, the receipt of which is hereby acknowledged, it is agreed as follows:

1. The parties hereto and each of them, shall use their best efforts to terminate the Interferences Nos. 66357, 68330, 68331, 68332, 69220, 69894, 70593, and

Digitized by Google

70599, and any other interferences hereafter declared as a result of motions heretofore made in any of the said interferences, a reasonable time before the earliest date set for testimony in chief of the junior party to close, by filing a concession of priority with respect to each issue of said interferences in favor of the party which he or they shall deem to be entitled to the award in accordance with the rules employed by the Patent Office tribunals for determining priority in such cases or by such other action as may be mutually agreed to be best in the premises.

2. The filing of said concession of priority or the taking of said other action, as the case may be, shall be in accordance with agreements of the parties as to which party is entitled to the award of priority of each of the issues involved in said interferences, said agreements being based upon disclosures and records submitted by each party to the other of the facts which it considers necessary to establish the merits of its case, provided, however, that a concession of priority may be filed by either party without disclosing the facts upon which his claim of priority is based.

3. For the purpose of agreeing on said issues, each of the parties hereto shall promptly present to the other a full showing of the evidence upon which it relies to establish its alleged dates of invention, and the parties shall determine from such evidence which of the respective parties to the interferences is the first inventor as to each count in accordance with the rules employed by the Patent Office tribunals for determining priority; provided, however, that a concession of priority may be filed in lieu of submitting said evidence. For the purpose of arriving at prompt decisions as to concessions of priority, each of the parties hereto shall promptly designate to the other the name of its representative having power to decide on concession of priority in the interferences hereunder.

4. In the event that no concession of priority shall have been filed as to an issue or issues in said interferences, and Hercules and du Pont are unable to agree upon an award of priority as to said issue or issues within a reasonable time as hereinbefore provided, then in that event the issue or issues as to which no agreement was reached may be contested by the parties as if no steps with a view to settlement in accordance with this agreement had been taken; provided, however, that no appeal shall be taken from any decision of the Examiner of Interferences awarding priority to one of the parties with respect thereto.

5. The license rights created in accordance with this contract shall not be affected by any act of either party hereto, or by a failure to act on the part of either party hereto, with respect to the settlement of the aforesaid interferences as provided for herein.

6. Each party shall grant, and does hereby grant, to the other a non-exclusive license throughout the United States, its territories, and possessions, under the claims of any patent controlled by it now involved in the aforesaid interferences, and any patent hereafter controlled by it and granted on the aforesaid applications or any division, renewal, or reissue thereof; provided, however, that said license shall be limited within the scope of said claims to the right to make, use, and sell abietyl alcohol, hydroabietyl alcohols, natural resin acid alcohols, hydrogenated natural resin acid alcohols, esters of the above named alcohols, hydrogenated esters of abietic acid, hydrogenated esters of rosin, hydrogenated esters of resin acids, and products or compositions of matter containing said esters and/or alcohols, and to practice processes of making or using any of said esters, alcohols, and/or products; provided, however, that the license provided for in this paragraph shall be royalty free except as provided in paragraph 8 hereof, and provided, also, that said license shall extend to no other patent or patents than those hereinabove indentified except as otherwise provided for in paragraph 7 hereof.

7. Each party shall grant, and does hereby grant, to the other, a nonexclusive license under the claims of any United States patent or patents controlled by it, or licensed to it by a third party with a right to grant sublicenses, hereafter or heretofore issued upon an application based upon an invention reduced to practice actually or constructively prior to March 26, 1935 (including the United States patents enumerated in Schedule A hereof), for a metal chromite hydrogenation catalyst, a process of making said catalyst, or a process of hydrogenation which employs said catalyst; provided, however, (1) that said license shall extend only to the use of said catalyst and its preparation for use in the manufacture for use or sale of abietyl alcohol, hydroabietyl alcohols, rosin acid alcohols, hydrogenated rosin acid alcohols, esters of the alcohols above named in this paragraph, hydrogenated esters of abietic acid, hydrogenated esters of rosin, and hydrogenated esters of resin acids; (2) that said license shall in no case extend to

Digitized by Google

the use or preparation for use of said catalyst in the manufacture of non-cyclic alcohols; and (3) that said license shall be royalty-free except as provided in paragraph 8 hereof.

8. In the event that either party hereto by reason of the operation of paragraphs 6 and/or 7 hereof becomes a licensee under a patent or license of the other party hereto and the licensor is obligated to pay royalty to a third party with respect to operations of said licensee, the licensor shall notify the licensee of such royalty obligation and the licensee shall thereafter pay the full amount of any royalty which comes due from time to time to said third party as the consequence of licensee's operations, said licensee rendering at the same time a full statement of the operations with respect to which the royalty is payable, and each such payment and statement being made in such form and at such time and place as will enable the licensor to discharge its obligations to said third party with respect to licensee's operations; and to this end each party agrees to permit its records and books of account to be examined by the other party from time to time during business hours to the extent required to verify the statements and payments provided for in this paragraph.

9. In the event that any of the patents or applications involved in the aforesaid interferences, or a patent resulting therefrom, are or shall become involved in an interference or interferences with a third party on a subject matter of invention within the field of this agreement, and in the disposition of said interference a settlement is made, the party hereto who is involved in said interference shall use his best offices to obtain rights enabling him to practice the interfering invention, and also rights enabling the other party hereto to practice said invention upon terms which are at least as favorable as those which he obtains for himself.

10. The licenses granted in accordance with this agreement shall inure to the benefit of and be binding upon the parties hereto and their subsidiaries as defined in paragraph 11 hereof, and the successors and assigns of their entire business of making, using, and/or selling the alcohols, esters, and/or products enumerated in paragraph 6 hereof, throughout the United States and its territories and possessions, but otherwise the licenses shall not be assignable and licensee shall have no right to grant any sublicense to any third party under any license granted to it and created by this agreement; and in case the entire interest in any or all of the Letters Patent or applications covered by this agreement shall be assigned, the assignment shall be expressly subject to the provisions of this agreement, including the licenses and immunities herein provided for.

11. For the purpose of this agreement, a subsidiary company shall be defined as any corporation or organization more than 50 percent of the voting shares of which are owned directly or indirectly, or the voting rights of which are controlled, by the party concerned.

12. Any license or sublicense provided for herein under any patent may be surrendered by the licensee or sublicensee as the case may be, by giving 60 days' notice to the other party hereto, provided the licensee is not in default thereunder and provided that said surrender shall not impair the rights of the said other party hereunder, and that such surrender of any license or sublicense shall not impair the validity of licenses under other patents granted hereunder.

13. The parties hereto mutually release each other from any and all claims on account of any act of infringement or contributory infringement of any patents under which the parties hereto are respectively licensed hereunder, which act was committed prior to the execution of this agreement and which act if committed during the life of this agreement would be licensed hereunder, provided, however, that the release provided in this paragraph shall not extend to any patent as to which either party has prior obligations inconsistent with said release.

14. It is agreed that every license granted or to be granted by this agreement shall be irrevocable and shall extend for the life of the respective patent specified under which the license is granted or to be granted, unless said license is surrendered as provided in paragraph 12.

15. Any notice or document required to be served hereunder by either party on the other may be served by enclosing the same in a postpaid wrapper, addressed to Hercules at Delaware Trust Building, Wilmington, Delaware, and to Du Pont at duPont Building, Wilmington, Delaware, and dispatching the same by registered mail in any United States Post Office.

16. This written contract embodies all of the understandings and agreements between the parties concerning the settlement of the above enumerated interferences, there being no other previous or contemporaneous understandings or agreements, oral or written, between the present parties on the foregoing subject.

Digitized by Google

In witness whereof the parties hereto have caused these presents to be signed by their respective proper officers and their respective corporate seals to be hereunto affixed the day and year first above written.

E. I. DU PONT DE NEMOURS & Co.,
By W. F. HARRINGTON, *Vice President.*

Attest:
M. D. FISHER,
Assistant Secretary.

HERCULES POWDER CO.,
By L. N. BENT, *Vice President.*

Attest:
E. B. MORROW,
Secretary.

SCHEDULE A

U. S. Patent No. 1746782 issued Feb. 11, 1930.
U. S. Patent No. 1746783 issued Feb. 11, 1930.
U. S. Patent No. 1829046 issued Oct. 27, 1931.
U. S. Patent No. 1839974 issued Jan. 5, 1932.
U. S. Patent No. 1964000 issued June 26, 1934.
U. S. Patent No. 1964001 issued June 26, 1934.
U. S. Patent No. 1984884 issued Dec. 18, 1934.

STATE OF DELAWARE,
County of Newcastle, ss:

On this 24th day of September 1935, before me personally came L. N. Bent, to me known, who, being by me duly sworn, did depose and say that he resides at Wilmington, Delaware; that he is the vice president of Hercules Powder Company, one of the corporations described in and which executed the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by authority of the Board of Directors of said corporation; and that he signed his name thereto by like authority.

JAMES A. LEE,
[SEAL.] *Notary Public.*

STATE OF DELAWARE,
County of New Castle, ss:

On this 10th day of Oct. 1935, before me personally came W. F. Harrington, to me known, who being by me duly sworn, did depose and say that he resides at Wilmington, Del., that he is the Vice President of E. I. Du Pont de Nemours and Company, one of the corporations described in and which executed the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by authority of the board of directors of said corporation; and that he signed his name thereto by like authority.

P. G. STRICKLAND,
Notary Public.

This Agreement, made and entered into this 19th day of June, 1934, by and between Hercules Powder Company, a corporation organized under the laws of the State of Delaware and hereinafter referred to as "Hercules", and I. G. Farbenindustrie Aktiengesellschaft, a corporation organized under the laws of Germany and hereinafter referred to as "I. G.";

Witnesseth that: Whereas, I. G. has developed methods for the large scale manufacture of ethyl and benzyl celluloses, is now and has been for many years engaged in the commercial exploitation of these products and is the sole owner of the entire right, title, and interest in and to numerous United States letters patent and applications for United States letters patent relating to the manufacture and use of these products, against which there is no outstanding assignment, grant, license, mortgage, option, or agreement, express or implied, which may or could in any manner abridge, modify, or lessen the rights hereby granted and intended to be granted, except as herein pointed out; and

Whereas, Hercules now plans to undertake the large scale manufacture and commercial exploitation of ethyl and benzyl celluloses, and desires to acquire

Digitized by Google

the knowledge and experience possessed by I. G. in relation to the manufacture, use, and sale of these products and to acquire the I. G.'s present United States patent rights and applications therefor, or to obtain exclusive licenses thereunder for the life thereof, insofar as they relate to the manufacture and use of ethyl and/or benzyl celluloses and/or their derivatives, together with all claims of I. G. in law or in equity arising out of past infringement thereof in the premises, and the right to sue for and collect the same for its own use; and

Whereas, both parties desire to bring about a mutual exchange of technical information and patent rights relating to the manufacture and use of ethyl and/or benzyl celluloses and/or their derivatives for a limited period, to the end that duplication of effort may be avoided and the commercial exploitation of such cellulose products thereby promoted:

Now, therefore, for and in consideration of the sum of Five (5) Dollars, by each party to the other in hand paid, receipt whereof is hereby acknowledged, and of other good and valuable considerations, the parties hereto mutually agree as follows:

I. It is understood and agreed that wherever in this agreement the expression "ethyl and/or benzyl celluloses and/or their derivatives" is employed, this expression is limited to include only such cellulose compounds which contain at least one unsubstituted ethyl or benzyl group which is attached to the cellulose molecule by means of an ether linkage, and which cellulose compounds are soluble in neither water nor alkali.

It is understood and agreed that wherever in this agreement the "use" of ethyl and/or benzyl celluloses and/or their derivatives is referred to, only those uses are meant which do not conflict with the uses concerning which I. G. has already obligated itself to transfer its inventions to someone else in the United States of America, its territories and/or its possessions. (Generally speaking, the fields of use which are to be excluded from this agreement by the above definition are those uses in the dyestuff, pharmaceutical, and photographic fields).

II. I. G. agrees that it will, on request, fully disclose to any duly accredited agent or agents of Hercules all information of which I. G. is now possessed, relating to the present and past manufacture, use and/or sale of ethyl and/or benzyl celluloses and/or their derivatives. To this end, I. G. will permit such duly accredited agent or agents of Hercules to have free access to the I. G.'s plants in which the said products are manufactured, its laboratories in which said products and uses therefor are developed and its sales departments which are entrusted with the sale of said products, during all regular business hours within one year from the date of this agreement, and at the same time will instruct its employes and technical experts having knowledge to fully inform any duly accredited agent or agents of Hercules in the premises. The traveling expenses and salaries of any such duly accredited agent or agents of Hercules will be paid by Hercules.

III. I. G. agrees to assign, by an instrument in writing, in form for recording in the United States Patent Office, to Hercules, its successors and assigns, the entire right, title, and interest in and to the United States letters patent, and applications for United States letters patent enumerated in the attached schedule "A", the inventions disclosed by said applications, and each of them, and the patents to be issued thereon, and each of them, and the entire present interest of I. G. as such may appear in and to any and all other now existing United States letters patent or applications for United States Letters patent, which relate entirely to the manufacture, use and/or sale of ethyl and/or benzyl celluloses and/or their derivatives, the inventions disclosed by any such applications and the patents to be issued thereon, together with all claims of I. G. in law or in equity, arising out of past infringement of any such United States letters patent in the premises, and the right to sue for and collect the same.

Hercules agrees to grant to I. G. an indivisible, transferable, royalty-free, non-exclusive license under any United States letters patent which may be assigned to it by virtue of this Article III, said license to take effect five years after the date of this agreement and to continue to the ends of the terms for which the respective patents are granted.

IV. I. G. will, without any consideration other than that expressed herein, grant to Hercules and Hercules subsidiaries an exclusive license under the United States letters patent and any and all United States letters patent which may be granted on the applications for United States letters patent listed in the attached schedule B, and an exclusive license under any and all other now existing United States letters patent or applications for United States letters patent, which relate only partly to the manufacture, use, and/or sale of ethyl and/or

Digitized by Google

benzyl celluloses and/or their derivatives, the inventions disclosed by any such applications and the patents to be issued thereon, in which I. G. may at present have any interest, for the full terms of the respective patents, said license, however, to be limited to the manufacture, use and/or sale of ethyl and/or benzyl celluloses and/or their derivatives.

I. G. grants to Hercules the sole right to bring suit for its own sole use on account of any past or future infringement of any United States letters patent so exclusively licensed, where the infringement thereof has arisen or arises on account of the manufacture, use, and sale of ethyl or benzyl celluloses or their derivatives.

Hercules agrees that the exclusive licenses to be granted to it in accordance with this article IV shall after a period of five years from the date of this agreement become non-exclusive to the extent that I. G. shall after five years from the date of this agreement be entitled to grant one indivisible, transferable, royalty-free, non-exclusive license under each of the United States letters patent referred to in this article IV, said non-exclusive licenses to continue for the full terms for which said United States letters patent are granted.

V. In return for the information and patent rights to be furnished to it by I. G. in accordance with Articles II, III, and IV above, Hercules agrees to pay to I. G. the following amounts:

A. $8,000 (Eight Thousand Dollars) upon execution and delivery of this agreement;

B. $8,000 (Eight Thousand Dollars) if and when Hercules shall enlarge the capacity of its plant or plants for the manufacture of ethyl and bensyl cellulose and their derivatives to such an extent that the combined daily capacity for the production of said products shall exceed 700 pounds (seven hundred pounds);

C. $9,000 (Nine Thousand Dollars) if and when Hercules shall enlarge the capacity of its plant or plants for the manufacture of ethyl and bensyl cellulose and their derivatives to such an extent that the combined daily capacity for the production of said products shall exceed 2,000 pounds (two thousand pounds).

VI. Both parties agree that for a period of five (5) years from the date of this agreement, they will freely exchange all information possessed or acquired by them relating to the manufacture and/or use of ethyl and/or benzyl celluloses and/or their derivatives, including full information concerning any new inventions or discoveries made or acquired by either of them relative to such manufacture and or use. To this end, each party will grant to any duly accredited agent or agents of the other free access to its plant or plants for the manufacture of ethyl and/or benzyl celluloses and/or their derivatives, and its laboratories engaged in the testing of said products and research in connection with their manufacture and use, and will instruct its employes and technical experts having knowledge of the manufacture and use of said products and of research in connection with their manufacture and use, to fully inform any duly accredited agent or agents of the other party in the premises. The traveling expenses and salaries of such duly accredited agent or agents shall be paid by the party whom said agent or agents represent.

VII. Both parties agree that they will not disclose to anyone else any confidential information received from the other in accordance with the provisions of Articles II and VI above, and will scrupulously refrain from any acts which would tend to lessen the chances which the party divulging to the other such information regarding any new invention or discovery may have, to obtain adequate patent protection therefor.

VIII. I. G. agrees that it will grant to Hercules and Hercules subsidiaries a royalty-free license limited to the manufacture, use, and/or sale of ethyl and/or benzyl celluloses and/or their derivatives under any and all United States letters patent which I. G. may own or control covering inventions made or acquired by I. G. within five (5) years after the date of this agreement. It is agreed that any license granted in accordance with the provisions of this paragraph shall be exclusive for the period from the date of grant of such United States letters patent or patents so licensed until five (5) years from the date of this agreement, and thereafter shall continue as a non-exclusive license for the full term of any such letters patent or patents, and any reissue thereof.

IX. Hercules agrees that it will grant to I. G. a royalty-free license limited to the manufacture, use, and/or sale of ethyl and/or benzyl celluloses and/or their derivatives under any and all German patents which Hercules may own or control covering inventions made or acquired by Hercules within five (5) years after the date of this agreement. It is agreed that any license granted in accordance with the provisions of this paragraph shall be exclusive for the period from

Digitized by Google

the date of grant of such German letters patent or patents so licensed until five (5) years from the date of this agreement, and thereafter shall continue as a non-exclusive license for the life of any such letters patent or patents, and any reissue thereof.

I. G. agrees that in the case of any application for a German patent specifically relating to the manufacture and/or use of ethyl and/or benzyl celluloses and/or their derivatives, which it may file in the German patent office or acquire within five (5) years from the date of this agreement, it shall forward to Hercules a copy of such German application within six (6) months from the filing date thereof, or upon its acquisition thereof, and at the same time notify Hercules whether or not I. G. will file a corresponding application for United States Letters patent. If I. G. notifies Hercules that it will not file such a corresponding United States application, Hercules shall be subrogated to I. G.'s right, if any, to file such a corresponding United States application at its own expense, provided that Hercules, within three (3) months from the receipt of the copy of the German application, shall notify I. G. of its intention to file such corresponding United States application. I. G. agrees that upon receipt of such notification from Hercules, it will promptly forward to Hercules all papers, duly executed, necessary for the filing of such corresponding United States application, including an assignment to Hercules of the invention, application, and any patent that may issue upon such application, to enable Hercules to file such corresponding United States application within one year from the filing date of the German application, and further agrees to execute, on request by Hercules, any documents deemed necessary by Hercules for the prosecution of any such application or for the filing and prosecution of any division of continuation thereof, or for the reissue of any United States patent issued on any such application. Hercules agrees that, five (5) years after the date of this agreement, it will grant to I. G. an indivisible, transferable, royalty-free, nonexclusive license under any United States letters patent which may be granted to it on any such corresponding United States application thus acquired by Hercules within five (5) years after the date of this agreement, said nonexclusive license to continue for the life of the respective United States letters patent.

XI. Hercules agrees that in the case of any application for United States letters patent specifically relating to the manufacture and/or use of ethyl and/or benzyl celluloses and/or their derivatives, which it may acquire or file in the United States Patent Office at any time within five (5) years from the date of this agreement, it shall forward to I. G. a copy of such application for United States letters patent within six (6) months from the filing date thereof or upon its acquisition thereof, and at the same time notify I. G. whether or not Hercules will file a corresponding application for a German patent. If Hercules notifies I. G. that it will not file such a corresponding application for a German patent, I. G. shall be subrogated to Hercules' right, if any, to file such a corresponding application for a German patent at its own expense, provided that I. G., within three (3) months from the receipt of the copy of the application for United States letters patent, shall notify Hercules of its intention to file such a corresponding application for a German patent. Hercules agrees that upon receipt of such notification from I. G., it will promptly forward to I. G. all papers, duly executed, necessary for the filing of such corresponding application for a German patent, including an assignment to I. G. of the invention, application, and any patent that may issue upon such application, to enable I. G. to file such corresponding application for a German patent within one year from the filing date of the application for United States letters patent and further agrees to execute, on request by I. G., any documents deemed necessary by I. G. for the prosecution of any such application or for the filing and prosecution of any division or continuation thereof, or for the resissue of any German patent issued on any such application. I. G. agrees that, five (5) years after the date of this agreement, it will grant to Hercules an indivisible, transferable, royalty-free, nonexclusive license under any German patent which may be granted to it on any such corresponding application for a German patent thus acquired by I. G. within five (5) years after the date of this agreement, said nonexclusive license to continue for the full life of the respective German patent.

XII. I. G. agrees that it will not abandon any application for United States letters patent which is to be licensed to Hercules in accordance with this agreement, without first notifying Hercules and enabling Hercules to continue the prosecution of such application for United States letters patent at the expense of Hercules. In the event that I. G. wishes to abandon, and Hercules intends to continue the prosecution thereof, I. G. will promptly execute and deliver to

Digitized by Google

Hercules such documents as are necessary in order to allow Hercules so to do, including an assignment to Hercules of the invention, application, and any patent that may issue upon such application, and in event any patent issues upon any such application, Hercules shall, five years after the date of this agreement, execute and deliver to I. G. an indivisible, transferable, royalty-free, non-exclusive license under any United States letters patent granted upon any such application.

XIII. Hercules agrees that it will not abandon any application for a German patent which is to be licensed to I. G. in accordance with this agreement without first notifying I. G. and enabling I. G. to continue the prosecution of such application for a German patent at the expense of I. G. In the event that Hercules wishes to abandon, and I. G. intends to continue the prosecution thereof, Hercules will promptly execute and deliver to I. G. such documents as are necessary in order to allow I. G. so to do, including an assignment to I. G. of the invention, application and any patent that may issue upon such application, and in event any patent issues upon any such application, I. G. shall, five (5) years after date of this agreement, execute and deliver to Hercules an indivisible, transferable, royalty-free, non-exclusive license under any German patent granted upon any such application.

XIV. If either party hereto desires to abandon any German patent owned by it under which the other party has, or is entitled to, a license hereunder, it shall notify the other party of its intention so to do, and shall offer to duly assign to such other party, without cost, such party's entire right, title, and interest in and to such German patent, and if such transfer is made, such assignee shall promptly, without cost, deliver to the party assigning such German patent an indivisible, transferable, royalty-free, nonexclusive license under the said German patent. If such offer is not accepted within three months from the date thereof, the said abandonment may be forthwith effected, notwithstanding the license held by the other party under the said German patent.

XV. The licenses under United States letters patent granted herein shall extend for the term and terms of each and all of said United States patents, or any reissues thereof, and shall cover the United States, and the territories and possessions of the United States.

XVI. The benefits (with the exception of the transferable, non-exclusive licenses which are hereinabove provided for) accruing to and/or the obligations incurred by either party by virtue of this agreement, shall be assignable by that party only to the successors or assigns of substantially the entire business of that party relating to the manufacture and/or use of ethyl and/or benzyl cellulose and/or their derivatives.

XVII. Any notice required under this agreement shall be deemed properly given, if deposited in the United States or German registered mail, duly addressed to Hercules as "Hercules Powder Company, Delaware Trust Building, Wilmington, Delaware, United States of America," or to I. G. as "I. G. Farbenindustrie Aktiengesellschaft, Leverkusen-I. G. Werk, Germany," as the case may be.

In testimony whereof, the parties hereto have cuased this agreement to be signed by their duly authorized officers.

HERCULES POWDER COMPANY,
By A. B. NIXON, *Gen. Manager.*

Executed this 19th day of June 1934.

Attest:

E. B. MORROW, *Secretary.*

I. G. FARBENINDUSTRIE AKTIENGESELLSCHAFT,
By KUHNS BURGENHEM.

Executed this 9th day of July 1934.

Schedule A

U. S. Patent No.	Date	Title
1751685	Mar. 25, 1930	Isolation of Benzyl Cellulose.
1771529	July 29, 1930	Do.
1814208	July 14, 1931	Process of Purifying Cellulose Ethers.
1844983	Feb. 16, 1932	Lacquer for Coatings on Metal Surfaces.
1913478	June 13, 1933	Process of Working up Ethyl Cellulose into Homogeneous Plastic masses.

U. S. Application, Serial No. 618810, filed June 22, 1932, "Manufacture of Benzyl Cellulose" (U. S. P. 2020934).

Digitized by Google

Schedule B

U. S. Patent No.	Date	Title
1694127	Dec. 4, 1928	Process for the manufacture of Cellulose Ethers.
1746663	Feb. 11, 1930	Process for the Etherification of Carbohydrates.
1767382	June 24, 1930	Process for the Conversion of Difficultly Soluble or Insoluble Carbohydrate Ethers into a Soluble State.
1805365	May 12, 1931	Process of Etherifying Cellulose.
1823847	Sept. 15, 1931	Formic Acid Ester of Diethyl Ether of Cellulose and the Process of Preparing the Same.
1833270	Nov. 24, 1931	Alkyl-Aralkyl-Cellulose Esters and Process of Making them.
1858731	May 17, 1932	Process of Preparing Ethers of Carbohydrates.
1863745	June 21, 1932	Process of Preparing Cellulose Derivatives from Alkali Cellulose in the Form of Pulp Boards by Means of Esterifying and Etherifying Agents in the Gaseous State.
1867050	July 12, 1932	Cellulose Ethers and Process of Preparing Them.
1877779	Sept. 20, 1932	Alkyl Cellulose Esters.
1877856	----do----	Manufacture of Mixed Cellulose Ethers.
1885475	Nov. 1, 1932	Artificial Products from Cellulose Derivatives and Process of Preparing the Same.
1902280	Mar. 21, 1933	Process of Making Mixed Cellulose Esters and Cellulose Ether Esters.

U. S. Application Serial No.	Filed	Title
493911	Nov. 6, 1930	Hydroxyalkylcellulose Esters.
401975	Oct. 23, 1929	Cellulose Derivatives Containing an Inorganic Substituent.
427423	Feb. 10, 1930	Solvents for preparing Cellulose Ether Lacquer.

AGREEMENT

This agreement, made this 29th day of December, 1933, by and between Atlas Powder Company, a corporation organized and existing under the laws of the State of Delaware, with its principal place of business at Wilmington, Delaware (hereinafter referred to as "Atlas"), and Hercules Powder Company, a corporation organized and existing under the laws of the State of Delaware, with its principal place of business at Wilmington, Delaware (hereinafter referred to as "Hercules"); witnesseth that:

1. Whereas, Atlas represents that it is the owner of the entire right, title, and interest in and to United States Letters Patent No. 1880116, issued September 27, 1932, to Richard H. Stratton, and in and to the inventions described in said Letters Patent;

2. Whereas, Hercules represents that it is the owner of the entire right, title, and interest in and to United States Letters Patent No. 1650186, issued November 22, 1927, to Hubert H. Champney, and to the inventions described in said Letters Patent;

3. Whereas, Hercules desires to obtain, and Atlas is willing to grant to Hercules, a non-exclusive, non-assignable license to practice the invention, to manufacture, use and/or sell the products covered by the aforesaid United States Letters Patent No. 1880116, throughout the United States of America, its territories and dependencies; and

4. Whereas, Atlas desires to obtain, and Hercules is willing to grant to Atlas, a non-exclusive, non-assignable license to practice the invention, and manufacture, use, and/or sell the product covered by the aforesaid United States Letters Patent No. 1650186, throughout the United States of America, its territories and dependencies:

5. Now, therefore, in view of the premises and in consideration of Five Dollars ($5) paid by each party to the other party, receipts of which are hereby acknowledged, it is hereby mutually agreed as follows:

LICENSE

6. Atlas hereby grants to Hercules a non-exclusive, non-assignable license under said patent No. 1880116, to make, use, and/or sell throughout the United States of America, its territories and dependencies, the products described and claimed in said patent, or any reissue thereof. No right to sub-license is given.

7. Hercules hereby grants to Atlas a non-exclusive, non-assignable license under said patent No. 1650186, to make, use, and/or sell throughout the United

Digitized by Google

States of America, its territories and dependencies, the products described and claimed in said patent, or any reissue thereof. No right to sub-license is given.

DURATION

8. The license granted herein to Hercules by Atlas shall extend from January 1, 1934, for the full term of the said United States Patent No. 1880116.

9. The license granted herein to Atlas by Hercules shall extend from January 1, 1934, for the full term of said United States patent No. 1650186.

PAST INFRINGEMENT

10. Neither of the parties to this agreement shall be liable to the other for any past infringement or contributory infringement of the patents which constitute the subject matter of this agreement, and each party is hereby released from all liability for infringement preceding this agreement.

SUITS

11. Neither party shall be under any obligation to institute suits or prosecute infringers under the aforesaid patents, nor shall either party be in any way responsible or liable to the other for failure to prosecute infringers. If either party elects to prosecute any infringers the conduct of such suit and any recoveries therein shall belong entirely to the party bringing the suit.

12. This written license contract embodies all of the understandings and agreements between the parties concerning the license herein granted, there being no other previous or contemporaneous understandings or agreements, oral or written, between the parties on the foregoing subject.

In witness whereof, the parties hereto have caused these presents to be signed by their respective proper officers and their respective corporate seals to be hereto affixed as of the day and year first above written.

ATLAS POWDER COMPANY,
By W. G. PENNIMAN, *Vice President.*

Attest:

H. B. HYGATE, *Secretary.*

HERCULES POWDER COMPANY,
By T. W. BACCHUS, *Vice President.*

Attest:

E. B. MONOW, *Secretary.*

Approved as to form—

THOMAS J. LAFFEY, *General Counsel*

AGREEMENT

This agreement made as of this 18th day of October 1935, by and between Eastman Kodak Company, a New York Corporation, having a place of business at Rochester, New York, hereinafter called Kodak, which term shall, where the context permits, refer to and include any company allied to Eastman Kodak Company as a subsidiary company or by common ownership or control; and Hercules Powder Company, a Delaware Corporation, having a place of business at Wilmington, Delaware, herein called Hercules, which term shall, where the context permits, refer to and include any company subsidiary to Hercules Powder Company,

Witnesseth that:

Whereas Kodak manufactures and is equipped to manufacture cellulose esters known as cellulose acetate propionate and cellulose acetate butyrate;

Whereas Hercules is equipped to distribute large quantities of cellulose acetate propionate and cellulose acetate butyrate and is willing to use its best efforts to sell those esters throughout the United States in the protective coating field;

Whereas Kodak has a number of patents and applications covering cellulose acetate propionate and cellulose acetate butyrate hereinafter called "Kodak's cellulose ester patents and applications", and their use in the protective coating field as herein defined, hereinafter called "Kodak's protective coating patents and applications", and Hercules is desirous of obtaining a license under those patents and applications to sell those cellulose esters in that field; and

Digitized by Google

Whereas for the periods and within the limitations herein designated Kodak is willing to supply Hercules' requirements for cellulose acetate propionate and cellulose acetate butyrate and Hercules is willing to purchase all of its requirements exclusively from Kodak;

Now, therefore, in consideration of the covenants and promises herein contained and of the payment of One Dollar ($1.00) and other good and valuable considerations by each party to the other, receipt whereof is hereby acknowledged, the parties hereto hereby mutually agree each with the other as follows:

ARTICLE 1. DEFINITIONS

The "protective coating field" is hereby defined as that field in which solutions or compositions of cellulose esters, including but not limited to lacquers and/or varnishes in the ordinary commonly accepted meaning of the terms, are applied to articles, such as textiles, paper, fabrics, wood, metal, and any other articles not hereinafter especially excepted, for the purpose of water-proofing, protecting, insulating, or beautifying such articles, but said field shall not include the covering of articles by molding or with molding compositions, nor the coating of yarns, textiles, or fabrics for use in wearing apparel, nor the coating of thin colloidized cellulose or cellulose derivative sheeting for any purpose whatsoever, nor the manufacture of sensitized photographic goods.

"Protective coatings" are hereby defined as solutions or compositions containing cellulose acetate propionate and/or cellulose acetate butyrate, which are adapted for use in the protective coating field.

"Cellulose acetate propionate" is hereby defined as any cellulose ester containing both acetyl and propionyl radicals and the acyl content of which substantially all consists of acyl radicals contained in the group consisting of acetyl, propionyl, and butyryl radicals.

"Cellulose acetate butyrate" is hereby defined as any cellulose ester containing both acetyl and butyryl radicals and the acyl content of which substantially all consists of acyl radicals contained in the group consisting of acetyl, propionyl, or butyryl radicals.

Kodak's cellulose ester patents and applications are those set forth in Schedule A attached hereto; it is intended that this term shall include all patents and applications now or hereafter owned or controlled by Kodak and under which Kodak has the right to grant licenses during the continuance of this agreement which contain claims to cellulose acetate propionate or cellulose acetate butyrate.

Kodak's protective coating patents and applications are those set forth in Schedule B attached hereto; it is intended that this term shall include all patents and applications now or hereafter owned or controlled by Kodak and under which Kodak has the right to grant licenses during the continuance of this agreement which contain claims covering protective coatings as above defined, coated articles, or compositions useful as such protective coatings.

ARTICLE 2. LICENSE TO HERCULES

Kodak hereby grants to Hercules for the term of this agreement the exclusive, royalty-free right and license, throughout the United States, under Kodak's cellulose ester patents and applications to use and to sell for use in the protective coating field only, cellulose acetate propionate and cellulose acetate butyrate purchased from Kodak, and Hercules agrees that it will not during the continuance of this agreement use cellulose acetate propionate or cellulose acetate butyrate in any other field, nor sell cellulose acetate propionate or cellulose acetate butyrate to others for use in any other field.

Kodak further grants to Hercules for the term of this agreement the exclusive, royalty-free right and license, throughout the United States, under Kodak's protective coating patents and applications to make, use, and sell protective coatings containing cellulose acetate propionate and/or cellulose acetate butyrate purchased by Hercules from Kodak, together with the right to grant to others the non-exclusive sublicense to make, use, and sell protective coatings containing cellulose acetate propionate and/or cellulose acetate butyrate purchased by Hercules from Kodak, and Hercules agrees that it will not during the continuance of this agreement use or sell, or license others to use or sell, solutions or compositions containing cellulose acetate propionate and/or cellulose acetate butyrate, outside the protective coating field.

Digitized by Google

Any rights and licenses granted by this Article 2 under any patents under which Kodak shall have the right to grant licenses during the continuance of this agreement shall be subject to the same terms and conditions as those to which Kodak is subject in exercising its right to grant said rights and licenses.

Promptly after the execution of this agreement, Kodak will furnish to Hercules so much of the information contained in the applications for Letters Patent which are set forth in Schedules A and B attached hereto as shall in Kodak's opinion pertain to the protective coating field.

ARTICLE 3. LICENSE TO KODAK

Hercules hereby grants to Kodak the non-exclusive, royalty-free right and license throughout the United States to make, use, and sell the inventions disclosed in its Billing & Tinsley U. S. patent No. 1973693 granted September 18, 1934, such right and license to be and become irrevocable when and after this agreement shall have been in force for a period of twenty-six months.

Hercules further grants to Kodak during the continuance of this agreement the exclusive, royalty-free right and license, throughout the United States, under its U. S. patent no. 1973693 and any other U. S. patents or applications which it now or hereafter during the continuance of this agreement owns or controls, to make, use, and sell cellulose acetate propionate and/or cellulose acetate butyrate.

Hercules further grants to Kodak during the continuance of this agreement the non-exclusive, royalty-free right and license throughout the United States to make, use and sell any of the inventions which it now or hereafter during the continuance of this agreement owns or controls which relate in any way to the manufacture and/or to the use of cellulose acetate propionate and/or cellulose acetate butyrate and which right and license is not granted to Kodak under either of the preceding paragraphs of this Article 3

ARTICLE 4. RESERVATION BY KODAK

Kodak will not, during the continuance of this agreement, sell cellulose acetate propionate and/or cellulose acetate butyrate or protective coatings or compositions containing those cellulose esters or either of them to anyone for use in the protective coating field, but Kodak reserves and shall have the absolute right at all times to make and use cellulose acetate propionate and/or cellulose acetate butyrate and/or protective coatings and/or compositions containing those cellulose esters or either of them in any manner that it may see fit and for any and every purpose whatsoever and to make, use, and sell articles coated with such protective coatings and to make, use, and sell cellulose acetate propionate and/or cellulose acetate butyrate and/or compositions and articles containing those cellulose esters or either of them in the yarn, textile, and/or fabric fields and in any and every field other than the protective coating field, and to license or sublicense others to make, use, and sell compositions and articles containing cellulose acetate propionate and/or cellulose acetate butyrate in the yarn, textile, and/or fabric fields and in any and every field other than the protective coating field.

ARTICLE 5. HERCULES' PURCHASES

During the continuance of this agreement, Hercules agrees that it will use its best efforts to promote the use and sale of cellulose acetate propionate and cellulose acetate butyrate in the protective coating field and that it will use its best efforts to supply the reasonable market demand therefor in the United States and that it will purchase from Kodak its entire requirements for cellulose acetate propionate and cellulose acetate butyrate at the prices and upon the terms hereinafter set forth.

Kodak agrees that, during the continuance of this agreement, it will furnish to Hercules at the prices and upon the terms hereinafter set forth, Hercules' entire requirements for cellulose acetate propionate and cellulose acetate butyrate for the purposes herein set forth; provided, however, that Kodak shall not be required to furnish to Hercules cellulose acetate propionate and/or cellulose acetate butyrate in quantities in excess of the following:

Fifty thousand (50,000) pounds during the 1st year of this agreement,

Seventy-two thousand (72,000) pounds during the 2nd year of this agreement,

One hundred and eighty thousand (180,000) pounds during each of the 3rd, 4th, and 5th years of this agreement,

Digitized by Google

Three hundred and sixty thousand (360,000) pounds during the 6th year of this agreement and a like quantity during each year thereafter;

provided, further, that Kodak shall not be required to ship to Hercules in any one calendar month more than one-tenth (1/10) of the maximum quantity which Kodak is required to furnish to Hercules in the year of this agreement in which that month occurs; and provided, further, that in the event Hercules' requirements for cellulose acetate propionate and/or cellulose acetate butyrate in any one calendar month exceed the maximum quantity which Kodak has agreed to furnish to Hercules during that month, Hercules will request Kodak in writing to furnish such excess requirements at the prices and upon the terms herein provided, and Kodak will advise Hercules within ten (10) days after receipt of such request if Kodak shall be unable to furnish such excess requirements within the time provided in Article 6 hereof. If Kodak notifies Hercules that it will be unable to furnish such excess requirements, then Hercules may produce or purchase such excess requirements elsewhere and the license granted to Hercules by Article 2 hereof shall apply and extend to such excess requirements.

If at any time during the continuance of this agreement, Kodak fails to make shipment of any quantity of cellulose acetate propionate and/or cellulose acetate butyrate within the maximum quantities above provided in this Article 5 and within the time provided in Article 6 hereof, and Hercules gives Kodak writen notice of such failure to make shipment and Kodak fails within ten (10) days after receipt of such written notice to make shipment of the quantities in question and to advise Hercules of such shipment, then Hercules may produce or purchase elsewhere the quantities in question and the licenses granted to Hercules by Article 2 hereof shall apply and extden to such quantities in question.

ARTICLE 6. PRICES AND TERMS

The prices for cellulose acetate propionate and cellulose acetate butyrate under this agreement shall be as follows:

Cellulose Acetate Propionate

Acetyl content	Propionyl content	Viscosity	Yearly basis	Price per pound f. o. b. cars or motor truck at Kingsport, Tenn.
26–31 percent	15–18 percent	0.5–10 sec	First 50,000 pounds	$0.460
			50,000–100,000 pounds	.440
			100,000–200,000 pounds	.425
28–31 percent	15–18 percent	10–50 sec	First 50,000 pounds	.475
			50,000–100,000 pounds	.455
			100,000–200,000 pounds	.440

Cellulose Acetate Butyrate

Acetyl content	Butyryl content	Viscosity	Yearly basis	Price per pound f. o. b. cars or motor truck at Kingsport, Tenn.
30–33 percent	15–18 percent	0.5–50 sec	First 50,000 pounds	$0.510
			50,000–100,000 pounds	.490
			100,000–200,000 pounds	.475

These prices shall be subject to revision by Kodak from time to time, upon sixty (60) days written notice to Hercules of such revision. Kodak shall have the right to set the price at which it is willing to supply any cellulose acetate propionate or cellulose acetate butyrate not listed above and such prices shall likewise be subject to revision by Kodak from time to time, upon sixty (60) days written notice to Hercules of such revision.

Digitized by Google

Prices are F. O. B. cars or motor truck at Kingsport, Tennessee. Terms of payment shall be thirty (30) days net from date of invoice, with one percent (1%) discount for payment within ten (10) days.

There shall be added to the price herein specified the amount of any Federal, State, or Municipal tax, excise, or other governmental charge upon materials hereby sold, upon the manufacture or transportation thereof or upon any materials used by Kodak in the manufacture of said materials, other than such taxes, excises, or charges as are imposed at the date of this contract; and there shall also be added the amount of any increase in those taxes, excises, or charges imposed at the date of this contract.

With respect to types of cellulose acetate propionate and cellulose acetate butyrate above designated, and with respect to any types of cellulose acetate propionate and cellulose acetate butyrate upon which Kodak has within the previous six (6) months quoted a price to Hercules or which Kodak has within the previous six (6) months supplied to Hercules in quantities of six hundred pounds or more, Hercules will give to Kodak written notice not less than thirty (30) days prior to the first day of each month of the quantity of cellulose acetate propionate, and not less than forty (40) days prior to the first day of each month of the quantity of cellulose acetate butyrate, which Hercules will purchase in each month. With respect to all other types of cellulose acetate propionate and cellulose acetate butyrate which Hercules requires, it will give to Kodak written notice not less than sixty (60) days prior to the first day of the month of the quantity of such other types of cellulose acetate propionate and cellulose acetate butyrate which Hercules will purchase in such month.

Kodak shall not be obligated to supply cellulose acetate propionate and cellulose acetate butyrate to Hercules in quantities less than six hundred (600) pounds upon any single purchase order.

Viscosity, acetyl content, propionyl content, and butyryl content of cellulose acetate propionate and cellulose acetate butyrate covered by this agreement shall be determined in accordance with the methods set forth in the attached Schedule C.

Invoices shall be based on seller's or railroad weights, f. o. b. shipping point, and seller's weights, in case of shipment by truck and railroad's weights in case of shipment by rail shall govern in case of disagreement as to weight, packing list showing gross, tare and net weight to accompany each invoice. Kodak's liability for loss or damage in transportation shall cease on making delivery in good condition to carrier at shipping point.

Kodak shall not be held liable or responsible in any respect for failure to ship or for delay in shipping, nor shall Hercules be held liable or responsible in any respect for failure to accept material hereunder if any such failure or delay is due to war, fire, strike, accident, or other contingencies beyond the absolute control of the party so in default; provided, however, that any shipments made by Kodak before receipt of written notice from Hercules that the latter cannot accept shipments because of any such contingency shall be accepted and paid for by Hercules. In the event of any such excused interference with any shipment, the quantity requirements provided for in this agreement shall be reduced accordingly.

Kodak reserves the right to discontinue deliveries hereunder of any material the manufacture, sale, or use of which by Kodak would, in its opinion, infringe any Letters Patent now or hereafter issued and under which Kodak is not licensed.

Hercules will make an examination and test on arrival and any and all claims against Kodak on account of the materials sold hereunder shall be considered as waived by Hercules unless made in writing within fifteen (15) days after arrival thereof at destination. Liability of Kodak, if any, for inferior quality or defective condition of any materials sold by it hereunder shall be limited to the purchase price of that part of said materials which is so inferior in quality or otherwise defective, and such liability shall be limited to the actual loss or damage to Hercules, if such actual loss or damage is less than said purchase price.

Hercules assumes all risks and liability for results of use by Hercules of the material covered by this contract, including use by Hercules of such material in combination with other substances, and Kodak shall not be liable in any way for results of use by either Hercules or its sublicensees or customers of the material covered by this contract, including use by Hercules and/or its sublicensees or customers of such material in combination with other substances.

ARTICLE 7. TERMINATION

If, during the continuance of this agreement, Hercules shall fail to purchase from Kodak cellylose acetate propionate and/or cellylose acetate butyrate in at least the following quantities with the following specified periods:

Digitized by Google

Twenty-four thousand (24,000) pounds during the 2nd year of this agreement.
Sixty thousand (60,000) pounds during each of the 3rd, 4th, and 5th years of this agreement.
One hundred and twenty thousand (120,000) pounds during the 6th year of this agreement and a like quantity during each year thereafter.
The Kodak may give to Hercules notice in writing within sixty (60) days after the end of any such year of this agreement in which Hercules shall fail to purchase such specified quantities, that the licenses granted by Article 2 hereof shall become non-exclusive within thirty (30) days thereafter and, unless Hercules shall, during said thirty (30) days, place with Kodak firm orders for an amount of cellulose acetate propionate and/or cellulose acetate butyrate sufficient to bring Hercules' purchases up to the foregoing requirements of this Article 7, for the year of this agreement immediately preceding said written notice, the license granted by Article 2 hereof forthwith shall become non-exclusive.
Either party hereto may, at any time after two years from the date hereof, upon three (3) months' written notice to the other of its intention so to do, cancel this agreement except that Hercules shall not, after this agreement shall have been in force for a period of twenty-six months, cancel the license granted to Kodak by the first paragraph of Article 3 hereof.
This agreement shall terminate, in any event, twenty (20) years from the date hereof.
The cancellation by either party or the termination of this agreement shall not relieve Hercules from its obligation to accept and pay for, nor Kodak from its obligation to manufacture and sell, any materials hereunder for which Hercules shall have placed and Kodak shall have accepted an order or orders, or which Hercules has obligated itself to purchase from Kodak, prior to the notice of such cancellation or prior to such termination.

ARTICLE 8. PATENT MARKING

Hercules will mark all products sold and/or manufactured and sold by it under any of the provisions of this agreement in accordance with the United States Statutes governing patent marking and will use its best efforts to cause its sub-licensees under this agreement to mark all articles and products manufactured and sold by them under any of the provisions of this agreement in accordance with the United States Statutes governing patent marking. Hercules will also place on its invoices of products sold and/or manufactured and sold by it under any of the provisions of this agreement a notice that the products so sold are licensed under the Kodak cellulose ester and/or protective coating patents applicable thereto; and Hercules will use its best efforts to cause its sublicensees under this agreement to place on all their invoices of products sold and/or manufactured and sold by them under any of the provisions of this agreement a notice that the products so sold are licensed under the Kodak cellulose ester and/or protective coating patents applicable thereto.

ARTICLE 9. NOTICES

Any notice or communication herein provided for shall be in writing and it shall be deemed to be served if tendered in person to a responsible office of Kodak or of Hercules, or mailed to such party at its last known address by prepaid registered mail.

ARTICLE 10. ASSIGNABILITY OF RIGHTS

This agreement shall not be subject to transfer or assignment by either party hereto except to the successors to its business. The obligations and benefits imposed by this agreement shall be binding upon and inure to the benefit of the parties hereto and any such successor.

ARTICLE 11. TITLES OF ARTICLES

The titles of the Articles of this agreement are no part of the text thereof, are to affect the construction of the Article in no way whatsoever, and are inserted for convenience only.

ARTICLE 12. CONSTRUCTION OF AGREEMENT

This agreement shall be construed according to the Laws of the State of New York, except as to any provisions thereof which are governed, or governed primarily, by the laws of the United States of America.

Digitized by Google

This instrument sets forth the entire agreement between the parties hereto upon the date first above mentioned, there are no understandings, representations or warranties, either oral or written, of any kind whatsoever not expressly set forth herein and this agreement shall not be modified except by an instrument in writing executed in the same manner as this agreement is executed.

In witness whereof, each of the parties hereto have caused the execution of this agreement in duplicate by its proper officer as of the day and year first above written.

EASTMAN KODAK COMPANY,
By THOMAS J. HARGRAVE, *Vice President.*

Attest:

MILTON K. ROBINSON, *Ass't Secretary.*

HERCULES POWDER COMPANY,
By L. N. BENT, *Vice President.*

Attest:

E. B. MORROW, *Secretary.*

SCHEDULE A

Letters Patent of the United States

Number	Date	Title
1946632	Feb. 13, 1934	Manufacture of Mixed Esters of Cellulose.

Applications for Letters Patent of the United States

Serial No.	Date	Title
9024	Mar. 2, 1935	Moisture resistant Cellulose Esters.
18215	Apr. 25, 1935	Haze-Free Cellulose Acetate And Its Preparation.
23070	May 23, 1935	Preparation of Low-Viscosity Esters of Cellulose.
520149	Mar. 4, 1931	Process of Making Cellulose Esters and Products Resulting Therefrom.
551546	July 17, 1931	Process of Changing the Solubility of Mixed Esters of Cellulose and the Products Resulting Therefrom.
742782	Sept. 5, 1934	High Viscosity Organic Esters of Cellulose and Process of Preparing Them.
754680	Nov. 24, 1934	Method of Analyzing Mixed Organic Acid Esters of Cellulose.

SCHEDULE B

Coatings

Letters Patent of the United States

Number	Date	Title
1958683	May 15, 1934	Protective Overcoating.
1958706	-----do-------	Protective Coating.
1958711	-----do-------	Protective Overcoating.
1958714	-----do-------	Do.
1958715	-----do-------	Do.
1969473	Aug. 7, 1934	Light-Filtering Overcoating.
1973488	Sept. 11, 1934	Lacquer.
1976359	Oct. 9, 1934	Light-Filtering Overcoating.
1994596	Mar. 19, 1935	Do.
1997337	Apr. 9, 1935	Cellulose Higher Acyl Radical Lacquers.

APPLICATIONS FOR LETTERS PATENT OF THE UNITED STATES

Serial No.	Date	Title
410708	Nov. 30, 1929	Cellulose Acetate Protective Coating.
587163	Jan. 16, 1932	Light Filtering Overcoating Containing Diphenylene Oxide.

Digitized by Google

Compositions

LETTERS PATENT OF THE UNITED STATES

Number	Date	Title
1309980	July 15, 1919	Cellulose-Ester Composition.
1370879	Mar. 8, 1921	Do.
1398939	Nov. 29, 1921	Do.
1809234	June 9, 1931	Do.
1813660	July 7, 1931	Cellulosic Composition of Matter Containing Acetoxime.
1813661	-----do------	Cellulosic Composition of Matter Containing Iso-Propyl-Bromide.
1813662	-----do------	Cellulosic Composition of Matter Containing Iodo-Benzene.
1826667	Oct. 6, 1931	Cellulosic Composition of Matter Containing Piperidine.
1826668	-----do------	Cellulosic Composition of Matter Containing Anisidine.
1826681	-----do------	Cellulose Acetate Composition.
1826687	-----do------	Cellulosic Composition of Matter Containing Acetyl Phenyl Glycine.
1826688	-----do------	Cellulosic Composition of Matter Containing a Bromo Compound.
1826689	-----do------	Cellulosic Composition of Matter Containing Chloro-Cyclohexane.
1826690	-----do------	Cellulosic Composition of Matter Containing Ethyl Chloro-Carbonate.
1826691	-----do------	Cellulosic Composition of Matter Containing Ethyl-a-Bromo-Propionate.
1826692	-----do------	Cellulosic Composition of Matter Containing Methyl Anisate.
1826693	-----do------	Cellulosic Composition of Matter Containing Tripropionin.
1933827	Nov. 7, 1933	Cellulose Organic Ester Composition Containing Ethyl Gamma-Phenoxy Butyrate.
1836701	Dec. 15, 1931	Cellulose Composition of Matter Containing Trimethylene Glycol Di-Butyrate.
1844714	Feb. 9, 1932	Cellulosic Composition of Matter Containing an Amide or Derivative Thereof.
1880464	Oct. 4, 1932	Cellulosic Composition of Matter Containing Ethyl Cyclopentanone Carboxylate.
1880465	-----do------	Cellulosic Composition of Matter Containing Benzyl Aniline.
1880506	-----do------	Cellulosic Composition of Matter Containing Dibenzyl Succinate.
1880507	-----do------	Cellulosic Composition of Matter Containing a Lower Alkyl Ester of Malonic Acid.
1880508	-----do------	Cellulose Organic Ester Composition of Matter Containing an Ester of a Brominated Malonic Acid.
1880514	-----do------	Cellulose Derivative Products.
1884318	Oct. 25, 1932	Cellulose Organic Derivative Composition of Matter Containing B-Ethoxy Ethyl Lactate.
1884337	-----do------	Cellulosic Composition of Matter Containing Diethyl Phthalate and o-Cresyl Para-Toluene Sulphonate.
1899213	Feb. 28, 1933	Cellulose Acetate Compositions Containing Oximes.
1899214	-----do------	Cellulose Organic Ester Composition Containing Phenyl Ethyl Benzoate.
1899215	-----do------	Cellulose Acetate Composition Containing a Brominated Diphenyl Ether.
1901129	Mar. 14, 1933	Cellulose Composition of Matter Containing Phenyl Stearate.
1901130	-----do------	Cellulose Organic Derivative Composition of Matter Containing a BB'-a Dialkoxy-Diethyl Adipate.
1905516	Apr. 25, 1933	Cellulosic Composition of Matter Containing a Dialkyl Hydrophthalate.
1905517	-----do------	Cellulose Ester Composition of Matter Containing the tetra-ethyl Ester of a Tetracarboxyl Derivative of a Saturated Aliphatic Hydrocarbon.
1905518	-----do------	Cellulose Organic Derivative Composition of Matter Containing a BB'-Dialkoxy Ethyl Carbonate.
1912718	June 6, 1933	Cellulose Acetate Compositions Containing Dibenzyl Aniline.
1917405	July 11, 1933	Cellulose Ester Composition.
1930134	Oct. 10, 1933	Cellulose Organic Ester Composition Containing Propylene Chloride.
1930135	-----do------	Cellulose Organic Ester Composition Containing a Lower Alkyl Ester of a Substituted Benzoic Acid.
1930136	-----do------	Cellulose Organic Ester Composition Containing a Cyclic Acetate.
1930142	-----do------	Cellulose Ester Composition.
1933794	Nov. 7, 1933	Cellulose Organic Ester Composition of Matter Containing a Benzyl Ether of a Hydrobenzene.
1933822	-----do------	Cellulose Acetate Compositions Containing Biphenyl Benzoate.
1933826	-----do------	Cellulose Ester Composition Containing an Ethyl Ether of the Ethylene Glycol Mono-Ester of a Hydroxy Aliphatic Acid.
1942843	Jan. 9, 1934	Cellulose Organic Ester Composition Containing Dibutyl Malate.
1842844	-----do------	Cellulose Organic Ester Composition Containing an Ester of Dibromo Succinic Acid.
1946635	Feb. 13, 1934	Cellulose Organic Ester Composition Containing Derivatives of Diethylene Glycol.
1946643	-----do------	Cellulose Organic Ester Composition Containing an Ester of Trichloro Tertiary-Butyl Alcohol.
1950907	Mar. 13, 1934	Cellulose Organic Ester Composition Comprising a Phthalic Acid Ester of a Monoether of Hydroquinone.
1954336	Apr. 10, 1934	Cellulose Derivative Solvent and Composition.
1957861	May 8, 1934	Cellulose Acetate Composition Containing a Mixture of Isomeric Cresyl Toluene Sulphonates.
1957878	-----do------	Cellulose Organic Ester Composition of Matter Containing a Benzyl Ether of Diethylene Glycol.
1960185	May 22, 1934	Highly Flexible Sheeting and Process of Preparing the same.
1966317	July 10, 1934	Cellulose Organic Ester Composition Containing an Alkyl Ester of an Aryl-Substituted Malonic Acid.
1969482	Aug. 7, 1934	Cellulose Organic Ester Composition Containing an Ester of Maleic Acid.
1981398	Nov. 20, 1934	Cellulose Organic Ester Composition Containing an Ester of Tetra-hydro-furfuryl Alcohol.
1991109	Feb. 12, 1935	Cellulose Ester Molding Composition Containing a Diacyl Derivative of 1:4-Dioxane.
1997319	Apr. 9, 1935	Cellulose Organic Ester Composition Containing Pinacol.
2006362	July 2, 1935	Colloidizing of the Mixed Esters of Cellulose with the Alkylene Halides.

Digitized by Google

Compositions—Continued

APPLICATIONS FOR LETTERS PATENT OF THE UNITED STATES

Serial No.	Date	Title
258	Jan. 3, 1935	Colloidizing Mixed Esters of Cellulose.
400434	Oct. 17, 1929	Cellulosic Composition of Matter Containing a Carbamate.
501667	Dec. 11, 1930	Cellulosic Composition of Matter Containing an Alkyl Phosphate.
638998	Oct. 21, 1932	Cellulose Mixed and Higher Ester Compositions Containing Trialkyl Phosphate.
528966	Apr. 9, 1931	Cellulose Mixed Ester Composition.
665335	Apr. 10, 1933	Cellulose Organic Ester Composition Containing a Propionyl Ester of Glycerol.
700567	Dec. 1, 1933	Cellulose Acetate-Propionate Compositions Containing Alcohols.
725955	May 16, 1934	Cellulose Mixed Ester Compositions Containing Higher Fatty Acid Esters.
727754	May 26, 1934	Cellulose Acetate Compositions Containing Para-Phenyl Acetophenone.
728389	May 31, 1934	Cellulose Organic Ester Composition Containing an Alpha-Substituted Phenylethyl Alcohol.
734009	July 6, 1934	Cellulose Organic Ester Composition Containing the Ethyl Ether of Ethylene Glycol Mono-Iso-Caproate.
734010	-----do-----	Cellulose Organic Ester Composition Containing Fenchyl Alcohol.
735829	July 18, 1934	Cellulose Organic Ester Composition Containing Phenyl Propionate.
739166	Aug. 9, 1934	Cellulose Organic Ester Composition Containing Derivatives of Diethylene Glycols.
742956	Sept. 6, 1934	Cellulose Organic Ester Composition Containing Tetraethylene Glycol.
758063	Dec. 18, 1934	Highly Flexible Sheeting and Process of Preparing the Same.

SCHEDULE C

PROCEDURE FOR THE DETERMINATION OF THE VISCOSITY OF CELLULOSE ACETATE PROPIONATE AND CELLULOSE ACETATE BUTYRATE

The acetone viscosities of cellulose acetate propionate and cellulose acetate butyrate are determined by the following procedure.

The sample of cellulose acetate propionate or cellulose acetate butyrate to be tested is dried for 15 hours (overnight) at 65° C. Seventy-five grams of this dry sample is weighed into a clean, dry 32-oz. bottle and 300 g. of pure dry acetone is added, giving a 4:1 liquid-solid ratio. The bottle is closed with a tightly fitting ground-in glass stopper and is tumbled end over end in a mechanical tumbling machine for 12 hours. (Seven RPM is a satisfactory rate of tumbling.)

After the cellulose ester is completely dissolved, the solution is brought to about 20° C. and is poured into a glass cylinder 14 inches high and with an inside diameter of one and one-half inch. This cylinder has two graduation marks ten inches apart, the upper being two inches from the top and the lower two inches from the bottom. It is then placed in a water bath maintained at 20° C. until the temperature of the solution has become constant and uniform, and all bubbles have risen to the surface. It is then placed in such a position that a ball falling through the solution will be visible throughout the passage down the column.

The balls used are standard steel 5/16-inch ball bearings of 7.93–7.97 mm diameter and weighing between 2.033 and 2.035 g. (These may be obtained from the Auburn Ball Bearing Company, 28 Industrial Street, Rochester, New York.) One of these standard balls is placed on the center of the top surface of the solution in the cylinder and is allowed to fall through the solution. The time in seconds required for the steel ball to fall through the ten-inch column of solution between the two graduations is measured by a stop-watch. The average of three such determinations is taken as the viscosity of the cellulose ester which is being tested.

ANALYTICAL PROCEDURE FOR THE DETERMINATION OF ACETYL, PROPIONYL, AND BUTYRYL IN CELLULOSE ESTERS

The method consists of an analysis to determine the total acyl content of the ester, isolation of a mixture of the combined acids, and a determination of the molar ratios of the acids in the mixture. From these data the composition of the ester can be calculated by means of simultaneous equations.

Determination of total acyl.—The total combined acyl is determined by a modified Eberstadt method essentially as described in Murray, Staud and Gray (J. Ind. Eng. Chem., Anal. Ed., *3*, 269 (1931)).

The ester is dried in a 100° C. oven for at least one hour and is cooled in a desiccator. Duplicate 1,000 gram samples are placed in stoppered 250 cc Erlenmeyer flasks and to each sample 40 cc of 75% (by volume) ethyl alcohol is added.

Digitized by Google

These samples are heated for one-half hour at about 55° C. to swell the fibers. (A jacketed bath containing methyl alcohol is easily held at this temperature.) Forty cc of standard half-normal sodium hydroxide is then added, the flasks are loosely stoppered and are heated at 55° C. for 15 minutes, after which they are allowed to stand tightly stoppered for two days at room temperature.

The excess alkali is back titrated using standard half-normal hydrochloric acid with phenolphthalein indicator. After reaching a temporary end point the flask is allowed to stand at least a half hour so the alkali can diffuse from the fibers. Additions of standard acid are made until all the free alkali has been neutralized. Unless care is taken at this stage poor check values will be obtained.

Total acyl is calculated as apparent acetyl thus:

$$(\text{cc NaOH} - \text{cc HCl} \times \frac{\text{HCl norm.}}{\text{NaOH norm}} \times \frac{\text{NaOH norm.}}{1000} \times \frac{43.0 \times 100}{\text{sample wt.}} = \% \text{ Apparent}$$

Acetyl. In practice, graphs are used whereby the acetyl value, corresponding to the volume of acid added, can be read directly. If duplicate determinations differ by more than 0.5% acetyl, the analysis is repeated.

Isolation of the mixed acids.—Duplicate 2.0 g. samples (not especially dried) are heated with 80 cc of half normal sodium hydroxide in 500 cc round-bottomed Pyrex flasks. After 48 hours in a 40° C. water bath, enough one-molar phosphoric acid is added to each flask to form mono-sodium-phosphate, which liberates the organic acids from their sodium salts. The flasks are fitted with stoppers containing very small capillary inlet tubes and Kjeldahl distilling heads. (The Jennings type Kjeldahl connecting bulb—Will Corp. Catalog #13172—is more satisfactory than any other type tried. The outlet tube in the head is bent to prevent bumping into the outlet.) These Kjeldahl bulbs are connected to vertical condensers, which have outlet tubes long enough to reach within three inches of the bottoms of the 500 cc distilling flasks used as receivers.

The acid solutions are vacuum distilled to dryness, 25 cc of distilled water is added to each flask, and is again distilled to dryness. The inlets to the capillary tubes are kept closed until the residues in the flasks are nearly dry. Then a small stream of air bubbles is allowed to enter to avoid bumping. The distilling flasks are heated at almost 100° C and the receivers are cooled in ice and salt.

In this operation it is not necessary to work with quantitative accuracy at all stages, but it is necessary to obtain water solutions of the acids in the same ratios as they occur in the esters. The volume of the distillate and rinsings is usually 200-225 cc, which in the majority of cases automatically adjusts the acidity of the distillate to 0.06 to 0.1 normal, the range desired for subsequent extractions.

Determination of the molar ratios of the acids.—The following procedure was adapted from the method described by C. H. Workman (Iowa State J. Sci. Vol. 4, July 1930) and J. Ind. Engr. Chem., Anal. Ed. *3* 264, (1931)). It is based on the distribution ratios of the various acids between water and n-butyl acetate. The ratios are determined for the individual acids using samples of known high purity. From these values and the distribution ratios of the mixtures the molar ratios can be calculated, as described in the next section.

A 25 cc portion of the distillate is titrated against 0.05 normal sodium hydroxide using phenolphthalein indicator. The volume of alkali consumed is designated as M. 30 cc of the distillate is shaken in a small separatory funnel with 15 cc of n-butyl acetate. These volumes are measured accurately using pipettes or burettes. After shaking the mixture thoroughly, the aqueous (lower) layer is drawn off. A dry 25 cc pipette is rinsed with 2 or 3 cc of this solution and then a 25 cc portion is measured out and titrated against the 0.05 normal alkali. The volume of alkali taken is designated M_1. In the same way a second 30 cc portion of the distillate is extracted, this time using 60 cc of the extractant. Again 25 cc of the aqueous layer is titrated, and the volume of alkali is termed M_2. The following ratios are then calculated:

$$\frac{M_1 \times 100}{M} = K_1 \qquad \frac{M_2 \times 100}{M} = K_2$$

K_1 and K_2 are termed the percentage partition coefficients of the acids in the distillate. They represent the percentage of acid remaining in the aqueous phase after extraction.

In a similar manner the distribution ratios are determined for acetic, propionic, and butyric acids. A sample of each acid of tested purity is diluted with distilled water to give 200–300 cc of approximately 0.07 normal solution. Twenty-five

Digitized by Google

cc portions are titrated and 30 cc portions are extracted and titrated as just described. The following partition coefficients are thus determined. In this case, however, the values are left as decimal fractions rather than as percentages. Thus

$$\frac{M_1}{M}=k_1$$

k_1=partition coefficient of acetic acid with 15 cc n-butyl acetate
k_2=partition coefficient of propionic acid with 15 cc n-butyl acetate
k_3=partition coefficient of butyric acid with 15 cc n-butyl acetate
k_4=partition coefficient of acetic acid with 60 cc n-butyl acetate
k_5=partition coefficient of propionic acid with 60 cc n-butyl acetate
k_6=partition coefficient of butyric acid with 60 cc n-butyl acetate

These constants should be checked occasionally and must be redetermined for each new supply of butyl acetate. Blanks should be run on the butyl acetate, for it develops acidity on standing. All measurements should be made with good pipettes or burettes, and extreme care and cleanliness should be observed during this whole operation. The accuracy of the procedure should be checked occasionally using a solution of a known mixture of the three acids.

Calculations.—In order to evaluate three unknowns one must have three simultaneous algebraic equations involving the three unknown quantities. In the case of a ternary acid mixture the sum of the mol percentages of the acids present represents the total acidity, or 100%. If A, P, and B represent mol percentages of acetic, propionic, and butyric acids respectively, the first equation becomes:

(1) $$A+P+B=100$$

The second and third equations are:

(2) $$Ak_1+Pk_2+Bk_3=K_1$$

(3) $$Ak_4+Pk_5+Bk_6=K_2$$

Note that k_1, k_2, k_3, k_4, k_5, and k_6 are known and refer to the pure individual acids, whereas K_1 and K_2 refer to the ternary mixture. By solving these equations for P, the following expressions may be derived:

(4) $$P=\frac{\frac{K_1-100\,k_1}{k_3-k_1}-\frac{K_2-100\,k_4}{k_6-k_4}}{\frac{k_2-k_1}{k_3-k_1}-\frac{k_5-k_4}{k_6-k_4}}$$

(5) $$B=\frac{K_2-100\,k_4-P(k_5-k_4)}{k_6-k_4}$$

Typical values for the partition coefficients of the acids are:

$k_1=0.820$ $k_4=0.521$
$k_2=0.546$ $k_5=0.221$
$k_3=0.255$ $k_6=0.0759$

When these values are substituted in the preceding equations, they simplify to the following forms:

(6) $P=11.9\,(52.1-K_2)-9.36\,(82.0-K_1)$.
(7) $B=2.25\,(52.1-K_2)-0.674\,P$.
(8) $A=100-P-B$.

NOTE.—The above constants and simplified equations are typical, but the exact values should be determined by each analyst, using his own reagents and the best pure acids available. As previously mentioned, these constants must be checked from time to time and particularly when new reagent solutions are put into use.

The results obtained by this method are illustrated by the following analyses of solutions of known composition:

Digitized by Google

	Found (percent)	Taken (percent)
Mixture No. 1:		
Acetic	56.9	57.0
Propionic	30.1	29.8
Butyric	13.0	13.2
Mixture No. 2:		
Acetic	51.1	50.7
Propionic	24.6	24.3
Butyric	24.3	25.0
Mixture No. 3:		
Acetic	56.1	57.0
Propionic	30.8	29.3
Butyric	13.1	13.7

The mol percentages of acid are converted into weight percent acyl of the ester thus:

A × % apparent acetyl = Wt. % Acetyl.

$$P \times \% \text{ apparent acetyl} \times \frac{57}{43} = \text{Wt. \% Propionyl.}$$

$$B \times \% \text{ apparent acetyl} \times \frac{71}{43} = \text{Wt. \% Butyryl.}$$

Agreement

This agreement made this 26th day of June, 1934, by and between Hercules Powder Company, a corporation of Delaware having its principal place of business at 900 Market Street, Wilmington, Delaware, hereinafter referred to as "Hercules"; Foote Mineral Company, Inc., a corporation of Pennsylvania having its principal place of business at 1609 Summer Street, Philadelphia, Pennsylvania, hereinafter referred to as "Foote"; Oscar A. Pickett, of Wilmington, Delaware, hereinafter referred to as "Pickett" and Gordon H. Chambers, of Philadelphia, Pennsylvania, hereinafter referred to as "Chambers", witnesseth that:

Whereas Hercules is the owner by assignment from Pickett of the entire right, title, and interest in and to a certain application for patent for Improvements in Igniter Powder, filed by said Pickett November 12, 1931, Serial No. 574678, and in and to the invention disclosed therein, and United States Letters Patent to be obtained therefor; and

Whereas Foote is the owner by assignment from Chambers of a certain application for patent for Improvements in Ammunition Primer and Detonator Caps and Primer Compositions Therefor, filed September 23, 1931, Serial No. 564725; and in and to the invention disclosed therein and United States Letters Patent to be obtained therefor; and

Whereas the said applications for patents filed by Pickett and Chambers, respectively, are involved in an interference declared by the Commissioner of Patents January 30, 1934, No. 67759; and

Whereas the parties hereto are desirous of settling the issues involved in the said interference.

Now, therefore, for and in consideration of Five Dollars ($5.00) and other good and valuable considerations each to the other paid, the receipt of which is hereby acknowledged, the parties hereto do agree as follows:

1. The parties hereto agree forthwith to fully disclose to each other their patent applications aforesaid and all evidence which they may have relative to the issue of priority between Pickett and Chambers involved in the said Interference No. 67759, and within thirty days from the date hereof to submit all such evidence to counsel for Pickett and Chambers with instructions to determine the issue of priority involved in said interference in accordance therewith.

2. The parties hereto agree to abide by the decision of counsel on the issue of priority in view of the evidence submitted to them. If counsel cannot agree on a decision, then the issue shall be referred to an arbiter agreed to by the parties whose decision shall be final.

3. Pickett and Chambers respectively agree to concede priority in said interference one to the other as priority may be decided by the action of counsel under

Digitized by Google

Paragraph 2 hereof, and Hercules and Foote respectively agree to acquiesce in such concession.

4. Hercules and Foote agree that when the issue of priority has been settled in accordance with Paragraphs 1, 2, and 3 hereof, Hercules will promptly execute and deliver to Foote and Foote will execute and simultaneously deliver to Hercules a free and exclusive license or licenses set forth in Paragraph 5 hereof under any United States patent or patents that may issue on their respective applications, or on any division or continuation thereof, for the full term thereof, and under and for the full term of any reissue or reissues of any such patent or patents; and Hercules and Foote further agree to thereafter promptly prosecute said application(s) to allowance and to promptly issue the patent(s) thereon.

5. The license or licenses executed and delivered under Paragraph 4 hereof shall carry the right to grant sublicenses, and shall be such as may be necessary, in view of the disclosures of said applications of Pickett and of Chambers, of the evidence submitted on their behalf, and of the determination of priority in accordance with Paragraphs 1, 2, and 3 hereof, to effect the following:

(A) To vest in Hercules the exclusive right to make, use, and sell, throughout the United States and its possessions, compositions and devices in accordance with the invention(s) described in said applications of Pickett and Chambers for firing an explosive by detonation (as distinguished from firing explosive by ignition), and compositions and devices for firing black powder when used for blasting purposes, or for firing fuse when used for blasting purposes; but always excepting and excluding compositions and devices which are themselves fired by percussion or by friction, for whatever purpose used, and compositions and devices (however themselves fired) for firing (whether by ignition, detonation, or otherwise) explosive comprised in projectiles, or explosive contained in fixed ammunition, or explosive otherwise used as a propellant, and any other compositions and devices for which Foote is to have exclusive rights under Clause (B) of this paragraph 5 of this agreement; and

(B) To vest in Foote the exclusive right to make, use, and sell, throughout the United States and its possessions, compositions and devices in accordance with the invention(s) described in said applications of Pickett and Chambers which fall into any of the following categories:

Compositions and devices which are themselves fired by percussion or by friction, for whatever purpose used;

Compositions and devices (however themselves fired) for firing an explosive by ignition (as distinguished from firing explosive by detonation); with the exception of compositions and devices for firing black powder when used for blasting purposes or for firing fuse when used for blasting purposes;

Compositions and devices (however themselves fired) for firing (whether by ignition, detonation, or otherwise) explosive comprised in projectiles, or explosive contained in fixed ammunition or otherwise used as a propellant.

(C) To vest in Hercules and Foote respectively nonexclusive licenses to make, use, and sell throughout the United States and its possessions any and all other compositions and devices, in accordance with the invention(s) described in said applications of Pickett and Chambers, for firing or igniting explosives or the like; always and only exceptiong those for which Hercules is to have exclusive rights under Clause (A) and those for which Foote is to have exclusive rights under Clause (B) of this paragraph 5 of this agreement.

In witness whereof, the parties Picket and Chambers have hereunto set their hands and seals and the parties Hercules and Foote have caused these presents to be signed by their proper officers and their corporate seals affixed on the date first above written.

HERCULES POWDER COMPANY.
By T. W. BACCHUS, *Vice President.*

Attest:

C. L. MORROW, *Secretary.*
FOOTE MINERAL, INC.,
By H. C. MEYER, *Vice President.*

Attest:

GORDON H. CHAMBERS, *Secretary.*
OSCAR O. PICKETT.

Witnesses:

ERNEST M. SYMMNS.
GEORGE J. HARDING.
GORDON H. CHAMBERS.

Witnesses:

CAROLYN M. CRICHTON.
NORMAN WOODWARD.

Digitized by Google

Memorandum of agreement, entered into on the 22nd day of November 1927, by and between E. I. du Pont de Nemours & Company, a corporation of the State of Delaware, hereinafter referred to as du Pont Company, and Hercules Powder Company, a corporation of the State of Delaware, hereinafter referred to as Hercules Company;

Witnesseth:

Whereas du Pont Company represents that by reason of its experience and that of its subsidiary and affiliated companies in the design, contruction, and operation of ammonia oxidation and weak nitric acid plants, it has acquired and accumulated and has at its command information, data, and knowledge pertaining to such design, construction, and operation which will be of value to Hercules Company; and

Whereas Hercules Company has determined that it will erect an ammonia oxidation and weak nitric acid plant or plants and desires to avail itself of the knowledge, data, and information possessed by the du Pont Company and by its subsidiary and affiliated companies hereinbefore referred to upon the terms and conditions hereinafter set forth:

Now, therefore, the parties hereto have agreed and by these presents do agree with each other as follows:

1. Promptly upon the execution hereof, du Pont Company shall place at the disposal of Hercules Company all of the aforesaid knowledge, data, information, etc., pertaining to the design, construction, and operation of such ammonia oxidation and weak nitric acid plants, or pertaining to the manufacture of weak nitric acid from ammonia, and copies of its designs for such oxidation plants, and shall serve Hercules Company in an advisory capacity on all such matters, and du Pont Company, or its affiliated or subsidiary companies, shall grant to Hercules Company a nonexclusive right and license to use and employ, for the full term of any patents now or hereafter granted, any and all of the inventions, whether patented or unpatented, which the du Pont Company, or its affiliated or subsidiary companies, at this date has made or owns, relating to or capable of use in or in connection with any plant designed for ammonia oxidation, it being the intention hereof that Hercules Company, so far as such knowledge, data, and information are concerned, shall have the same advantages in connection with the design, construction, and operation of its said ammonia oxidation and weak nitric acid plants that du Pont Company would have in any of its own plants.

2. In consideration of the performance by du Pont Company of the conditions set forth in the preceding paragraph, Hercules Company agrees to pay to du Pont Company the sum of Ten Dollars ($10.00) per ton of rated capacity of any such ammonia oxidation plants so designed, constructed and operated by Hercules Company, which sum of Ten Dollars ($10.00) per ton of rated yearly capacity shall apply and be payable upon any and all extensions or enlargements of said plant and on all separate and independent ammonia oxidation plants designed, constructed, and operated by Hercules Company in the future, until the total fee paid by Hercules Company to du Pont Company at such rate shall equal the sum of Fifty Thousand Dollars ($50,000,000.00), after which no further charge for the service herein referred to shall be due or payable; it being understood and agreed in this regard that the rated capacity of any such plant or plants shall be based on the rated capacity in terms of 100% HNO_3 of the ammonia burners installed therein.

Payment shall be made to the du Pont Company following the operation of the new plant and not later than one month after its physical completion.

3. Du Pont Company agrees that should Hercules Company desire to avail itself of the same, the services of du Pont Engineering Company may be secured by Hercules Company for the design and construction of said ammonia oxidation plant or plants, which services in connection with the design work shall be furnished on the basis of cost of plans and specifications plus ten per cent (10%), and in connection with the construction work shall be furnished at cost of plant plus seven per cent (7%). But, such design and construction shall be approved by du Pont Company, and du Pont Company agrees that in the performance of its services hereunder, its best efforts shall and will be directed to the end that any such plant or plants designed and constructed by du Pont Engineering Company shall give equally good results in production, yields, and costs in relation to its size and location as the most efficient plant theretofore designed and constructed for du Pont Company; it being understood in this regard, however, that should Hercules Company desire the services of said du Pont Engineering Company for design work only, then and in that event the charge for such service shall be the cost thereof, plus thirty per cent (30%), it being further

Digitized by Google

understood and agreed that the term "cost" as used herein shall be actual cost determined in accordance with the accounting practice of said du Pont Engineering Company, and shall include all administrative and overhead charges of the departments actually engaged in the work, and in the event that Hercules Company shall decide to avail itself of such services, an independent contract will be entered into between Hercules Company and said du Pont Engineering Company.

4. Upon the execution of this agreement it is understood and agreed that the salaries, traveling expenses, and maintenance of du Pont Engineers and Chemists, while directly engaged in assisting Hercules Company in connection with the design and construction of said plant, or placing the same in operation, shall be paid by Hercules Company. Payment shall be made upon the receipt of invoices.

5. The du Pont Company shall, during the period of five years from the date hereof, disclose, transmit, and impart to Hercules Company all knowledge, data, and information which it shall develop or acquire, as and when developed or acquired, in connection with ammonia oxidation, and Hercules Company, during said period, shall likewise, disclose, transmit, and impart to the du Pont Company all knowledge, data, and information which it shall develop or acquire, as and when developed or acquired, in connection with the operation of its ammonia oxidation plants. In event that any patentable discovery or invention is made or conceived by either part to this agreement, its respective servants, agents and/or employes, at any time or times during the said period of five years, then the rights to use each and every such discovery or invention shall thereafter be enjoyed by both parties; and in the event that patent or patents is or are applied for and granted thereon, non-exclusive license or licenses shall be given, without cost, by the owner of the patent or patents, to the other party to this contract, such license or licenses to run for the full term of the patent or patents.

6. It is further understood and agreed that du Pont Company hereunder engages only to supply Hercules Company with the benefit of its best skill and experience as hereinbefore represented in connection with the operation of ammonia oxidation and weak nitric acid plants, and nothing herein contained shall be construed by Hercules Company as a guarantee on the part of du Pont Company of any rate of production or yields in any such ammonia oxidation plant erected by Hercules Company pursuant to the terms hereof.

7. Each party will treat as confidential all secret information, data, and knowledge imparted or delivered to it, under this agreement, by the other party, and the party receiving such information shall not reveal or disclose it to any person outside of its employ, or to any person or corporation whatsoever, without the consent of the other party. But this prohibition shall not apply to any information, data, or knowledge which is known to the scientific or technical world, or which is known to the party to whom disclosed, or which is of such a character that the same would have been available to the party to whom it is disclosed if this contract had not been executed, and in any such case, the party receiving such information shall be under no obligation to refrain from imparting, disclosing, or delivering it to others.

8. The benefits and obligations of this agreement shall inure to and be binding upon the parties hereto, and their successors, as well as any subsidiary of Hercules Company.

In witness whereof, the parties hereto have, for themselves, their successors, and assigns, caused this agreement to be executed and their respective corporate seals to be hereunto affixed on the day and year first above written.

[SEAL] E. I. DU PONT DE NEMOURS & COMPANY,
By H. FLETCHER BROWN, *V. P.*

Attest:

M. D. FISHER,
Asst. Secretary.

[SEAL] HERCULES POWDER COMPANY,
By T. W. BACCHUS, *V. P.*

Attest:

XXX B. MORROW, *Secretary.*

Digitized by Google

This agreement made this 26th day of June, 1934, by and between The Grasselli Chemical Company, a corporation of the State of Delaware, hereinafter referred to as "Grasselli", and Hercules Powder Company, a corporation of the State of Delaware, hereinafter referred to as "Hercules":

Witnesseth:

Whereas Grasselli is the owner of the entire right, title, and interest in and to U. S. Letters Patent 1927963 dated Sept. 23, 1933, entitled "Catalyst for Ammonia Oxidation", and

Whereas, by agreement entered into on Nov. 22, 1927, by and between E. I. du Pont de Nemours & Company, a corporation of the State of Delaware, hereinafter referred to as "du Pont Company" and Hercules, wherein under paragraph 5 it is provided that the du Pont Company during the period of five years from the date thereof disclose, transmit and impart to Hercules all knowledge, data, and information which it shall develop or acquire, as and when developed or acquired, in connection with ammonia oxidation; and

Whereas Grasselli is a subsidiary of du Pont Company;

Now, therefore, for and in consideration of the sum of One Dollar ($1.00) paid by Hercules to Grasselli, the receipt whereof is hereby acknowledged, it is mutually agreed as follows:

1. Grasselli hereby grants to Hercules a non-exclusive, non-assignable license under the said United States Letters Patent 1927963 to practice the inventions covered by said Letters Patent throughout the United States of America, its territories and dependencies to the end of the time for which said Letters Patent were granted.

In witness whereof the parties hereto have caused this license to be executed, in duplicate, by their respective proper Officers thereunto duly authorized and their respective corporate seals to be hereunto affixed the day and year first above written.

[SEAL] THE GRASSELLI CHEMICAL COMPANY,
By E. C. THOMPSON, *Vice President.*

Attest:
T. J. ROW, *Asst. Secretary.*

[SEAL] HERCULES POWDER COMPANY,
By C. D. PRICKETT, *Vice President.*

Attest:
E. B. MORROW, *Secretary.*

AGREEMENT

This agreement made this 6th day of September 1933, by and between E. I. du Pont de Nemours & Company, a corporation organized and existing under the laws of the State of Delaware, with its principal place of business at Wilmington, Delaware (hereinafter referred to as du Pont) and the Hercules Powder Company, a corporation organized and existing under the laws of the State of Delaware, with its principal place of business at Wilmington, Delaware (hereinafter referred to as Hercules):

Witnesseth, that—

1. Whereas du Pont represents that it is the owner of the entire right, title, and interest in and to United States Letters Patent No. 1879064, issued September 27, 1932, to Leon O. Bryan, and in and to the inventions described in said Letters Patent;

2. Whereas Hercules represents that it is the owner of the entire right, title, and interest in and to United States Letters Patent 1613334, issued January 4, 1927, to Ernest M. Symmes, and to the inventions described in said Letters Patent;

3. Whereas Hercules desires to obtain and du Pont is willing to grant to Hercules a non-exclusive, non-assignable license to practice the invention, to manufacture, use, and/or sell the products covered by the aforesaid U. S. Letters Patent 1879064 throughout the United States of America, its territories and dependencies; and

4. Whereas du Pont desires to obtain and Hercules is willing to grant to du Pont a non-exclusive, non-assignable, license to practice the invention, and manufacture, use, and/or sell the product covered by the aforesaid U. S. Letters

Digitized by Google

Patent 1613334 throughout the United States of America, its territories and dependencies;

5. Now, therefore, in view of the premises and in consideration of Five Dollars ($5.00) paid by each party to the other party, receipts of which are hereby acknowledged, it is hereby mutually agreed as follows:

LICENSE

6. Du Pont hereby grants to Hercules a non-exclusive, non-assignable license under said patent 1879064 to make, use, and/or sell throughout the United States of America, its territories and dependencies, the products described and claimed in said patent or any reissue thereof. No right to sub-license is given.

7. Hercules hereby grants to du Pont a non-exclusive, non-assignable license under said patent 1613334 to practice the process and make, use, and/or sell throughout the United States of America, its territories and dependencies, the products described and claimed in said patent or any reissue thereof. No right to sub-license is given.

DURATION

8. The license granted herein to Hercules by du Pont shall extend from July 7, 1933, for the full term of the said U. S. patent 1879064.

9. The license granted herein to du Pont by Hercules shall extend from July 7, 1933, for the full term of said U. S. patent 1613334.

PAST INFRINGEMENT

10. Neither of the parties to this agreement shall be liable to the other for any past infringement or contributory infringement of the patents which constitute the subject matter of this agreement, and each party is hereby released from all liability for infringement preceding this agreement.

SUITS

11. Neither party shall be under any obligation to institute suits or prosecute infringers under the aforesaid patents, nor shall either party be in any way responsible or liable to the other for failure to prosecute infringers. If either party elects to prosecute any infringers the conduct of such suits and any recoveries therein shall belong entirely to the party bringing the suit.

12. This written license contract embodies all of the understandings and agreements between the parties concerning the license herein granted, there being no other previous or contemporaneous understandings or agreements, oral or written, between the parties on the foregoing subject.

In witness whereof the parties hereto have caused these presents to be signed by their respective proper officers and their respective corporate seals to be hereto affixed as of the day and year first above written.

E. I. DU PONT DE NEMOURS & COMPANY,
By J. THOMPSON BROWN, *Vice-President.*

Attest:

M. D. FISHER, *Ass't Secretary.*

HERCULES POWDER COMPANY,
By T. W. BACCHUS, *Vice-President.*

Attest:

E. B. MORROW, *Secretary.*

Form approved, Legal Department, H. C. Haskell, Asst. Director. C. A. W., W. B. Y.

O. K. for form, J. A. G., E. M. B.

BYLAWS OF HERCULES POWDER CO., INC., AS REVISED AND AMENDED MARCH 20, 1928. ORGANIZED UNDER THE LAWS OF DELAWARE

ARTICLE I. STOCKHOLDERS

Digitized by Google

ARTICLE I. STOCKHOLDERS

SECTION 1. *Annual meeting.*—The annual meeting of stockholders shall be held at 11 o'clock in the forenoon on the third Tuesday of March in each year, if not a legal holiday, and if a legal holiday, then on the day next following not a legal holiday, at the principal office of the company in Wilmington, Del., when there shall be elected by ballot, by the majority vote of the stock outstanding entitled to vote, a board of directors, and such other business may be transacted thereat as may come before the meeting.

Digitized by Google

SEC. 2. *Special meetings.*—Special meetings of the stockholders may be called to meet at the principal office of the company in the State of Delaware, at any time, by the chairman of the board, by the president, or by a majority of the board of directors, or upon resolution of the board of directors, which call or resolution shall state the purpose or purposes thereof.

SEC. 3. The board of directors may, from time to time, by resolution, fix another place, inside or outside of the State of Delaware, where such meetings, annual or special, may be held.

SEC. 4. *Notice of meetings.*—The secretary shall cause notice of each meeting of the stockholders to be published once in each of the two calendar weeks next preceding the date of the meeting, in at least one newspaper published in the city of New York. In case of a special meeting, the notice shall indicate briefly the purpose of such meeting. The failure to publish notice of an annual meeting, or any irregularity in the notice of an annual or special meeting, or in the publication thereof, shall not affect the validity of such meeting, or of any proceedings thereat.

No notice of a special meeting shall be required if the owners or holders of record of all the stock entitled to vote shall waive such notice or shall meet thereat either in person or by proxy, and at such a meeting any corporate action may be taken.

SEC. 5. *Quorum.*—The holders of a majority of all of the shares of the capital stock of the company entitled to vote, if present, in person or by proxy, at any stockholders' meeting, shall constitute a quorum for all purposes, unless a larger number shall be required by law or charter provision, in which case the number so required, if present in person or by proxy, shall constitute a quorum.

If a quorum shall fail to attend, in person or by proxy, at any meeting, a majority in interest of the stockholders present, in person or by proxy, may adjourn from time to time, without notice other than by announcement at the meeting, until a quorum shall attend. At any such adjourned meeting at which a quorum shall be present, any business may be transacted which might have been transacted at the original meeting, had a quorum been present.

SEC. 6. *Organization of meeting.*—The chairman of the board of directors shall call meetings of the stockholders to order, and shall act as chairman of such meetings. In his absence or inability to act, the president shall preside. In the absence of the chairman and the president, or their inability to act, then a chairman shall be selected from among the vice presidents. In the absence of all these officers, or their inability to act, then the meeting shall elect a chairman. The secretary of the company shall act as secretary of all meetings of the stockholders, but in the absence of the secretary, the presiding officer may appoint any person to act as secretary of the meeting.

SEC. 7. *Order of business.*—The order of business at all meetings of stockholders shall be as follows:

1. Filing of the proof of notice.
2. Roll call.

A quorum being present:

3. Reading of minutes of preceding meeting, and action thereon.
4. Reports of committees.
5. Reports of officers.
6. Election of directors.
7. Unfinished business.
8. New business.

SEC. 8. *Voting.*—At each meeting of the stockholders, every stockholder entitled to vote thereat may do so in person, or by proxy appointed by instrument in writing, subscribed by such stockholder or his duly authorized attorney, and delivered to the inspectors at the meeting; and he shall have one vote for each share of stock entitled to vote, standing registered in his name, at the time of the closing of the transfer books for said meeting, or at any date fixed by resolution of the board of directors as a record date for the determination of the stockholders entitled to notice of, or to vote at, any such meeting, as the case may be. The votes for directors, and upon demand of any stockholder entitled to vote thereat, the votes upon any question before the meeting, shall be by ballot.

The treasurer shall prepare and make, at least 10 days before every election, a complete list of all stockholders entitled to vote, arranged in alphabetical order and indicating the number of shares held by each, certified under oath by the secretary or by the treasurer of the company. Such list shall be open at the place where such election is to be held, for 10 days, to the examination of any stockholder, and shall be produced and kept at the time and place of election, during

Digitized by Google

the whole time thereof, and subject to the inspection of any stockholder who may be present.

SEC. 9. *Inspectors.*—At each meeting of the stockholders, the polls shall be opened and closed; the proxies and ballots shall be received and be taken in charge, and all questions touching the qualification of voters and the validity of proxies and the acceptance or rejection of votes shall be decided by three inspectors, two of whom shall have power to make a decision. Such inspectors shall be appointed by the board of directors before the meeting, or, in default thereof, by the presiding officer at the meeting, and shall be sworn to the faithful performance of their duties. If any of the inspectors previously appointed shall fail to attend, or refuse or be unable to serve, substitutes shall be appointed by the presiding officer.

SEC. 10. The original or duplicate stock ledger containing the names and addresses of the stockholders, in alphabetical order, and the number of shares held by them, respectively, shall at all times during usual hours for business, be open to the examination of every stockholder, at the principal office of the company.

ARTICLE II. BOARD OF DIRECTORS

SECTION 1. The board of directors shall consist of seven (7) members.

SEC. 2. The number of directors may be increased at any time by the affirmative vote of a majority of the board of directors, at any regular or special meeting; and in such case, the additional director or directors may be chosen at said meeting to hold office until their successors are respectively elected and qualified. In the case of any vacancy in the board of directors, for any cause, the remaining directors, by affirmative vote of a majority thereof, may elect a successor to hold office for the unexpired portion of the term of the director whose place shall be vacant, or until election of a successor, or may, by resolution, reduce the number of directors to the number then in office.

SEC. 3. *Annual and regular meetings.*—The annual meeting of the board of directors shall be held at 11 o'clock in the forenoon on the fourth Wednesday in March of each year, if not a legal holiday, and if a legal holiday, then on the day next following not a legal holiday, at Wilmington, Del. The board may, by resolution, hold such meeting at such other place as it shall determine. Stated or regular meetings of the board may be held at such times and places as shall be determined from time to time by resolution of the board. No notice shall be required for any such annual, regular, or stated meeting of the board.

SEC. 4. *Special meetings.*—Special meetings of the board of directors shall be held whenever called by direction of the chairman of the board, of the president, or of one-third of the directors then in office.

The secretary shall give notice of such special meetings by mailing the same at least 2 days before the meeting, or by telegraphing the same at least 1 day before the meeting, to each director, but such notice may be waived by any director. Unless otherwise indicated in the notice thereof, any and all business may be transacted at a special meeting. At any meeting at which every director shall be present, or at which a quorum is present and those not present have waived notice, any business may be transacted, irrespective of notice or call.

SEC. 5. *Quorum.*—A majority of the board of directors, for the time being in office, shall constitute a quorum. If there be less than a quorum present at any meeting, a majority of those present may adjourn the meeting from time to time. The affirmative vote of a majority of all the directors, for the time being in office, shall be necessary for the transaction of any business or the passage of any resolution.

SEC. 6. *Order of business.*—At meetings of the board of directors business shall be transacted in such order as from time to time the board may determine by resolution.

SEC. 7. *Powers of the board of directors.*—The board of directors shall have the management and control of the property and of the business and affairs of the company, and, subject to restriction imposed by law, the certificate of incorporation, and the bylaws, may exercise all the powers of the company.

SEC. 8. *Bonus plan.*—The directors shall have power to continue, and from time to time to alter, revise, or amend a plan for awarding bonuses to those of the company's employees, including employees who are also directors, who, in the judgment of a majority of the directors then in office, are entitled to such bonuses; *Provided, however,* That no employee who is also a director shall receive a bonus under said plan, unless the same is recommended by the president and the chairman of the board.

Digitized by Google

ARTICLE III. EXECUTIVE COMMITTEE AND FINANCE COMMITTEE

SECTION 1. The board of directors, as and when it shall determine it to be advisable, shall elect from the directors an executive committee and/or a finance committee, and shall designate for each of these committees a chairman, and, if desired, a vice chairman. The board of directors shall fill vacancies in the executive committee or in the finance committee by election from the directors, and at all times it shall be the duty of the board of directors to keep the membership of each such committee full; provided, always, that such committees, when established, shall exist at the pleasure of the board. All action by the executive or by the finance committee shall be reported to the board of directors at its next meeting succeeding such action, and shall be subject to revision or alteration by the board of directors, provided that no act or rights of third parties shall be affected by any such revision or alteration. The executive commitee and the finance committee each shall fix its own rules of procedure, and shall meet where and as provided by such rules or by resolution of the board of directors, but in every case the presence of a majority shall be necessary to constitute a quorum.

In every case the affimative vote of a majority of all the members of a committee shall be necessary to its adoption of any resolution.

SEC. 2. The executive committee shall consist of such number as the board of directors shall from time to time determine.

During the intervals between meetings of the board of directors, the executive committee shall possess, and may exercise, all the powers of the board of directors, in the management and direction of all the business and affairs of the company (except matters assigned to the finance committee), in such manner as the executive committee shall deem for the best interests of the company, in all cases in which specific directions shall not have been given by the board of directors. During the intervals between meetings of the executive committee, the chairman thereof shall possess, and may exercise, such of the powers vested in the executive committee as from time to time may be conferred upon him by resolution of the board of directors, or of the executive committee.

SEC. 3. The finance committee shall consist of such number as the board of directors shall from time to time determine.

The finance committee shall have special and general charge and control of all financial affairs of the company, and such other matters as may be assigned to it from time to time by the board of directors.

During the intervals between meetings of the board of directors, the finance committee shall possess, and may exercise, all the powers of the board of directors, in the management of the financial affairs of the company, and such other matters as may be assigned to it from time to time by the board of directors, such manner as said committee shall deem to be to the best interests of the company, in all cases where specific directions shall not have been given by the board of directors.

During the intervals between meetings of the finance committee, the chirman thereof shall possess, and may exercise, such of the powers vested in the finance committee as from time to time may be conferred upon him by resolution of the board of directors, or of the finance committee.

SEC. 4. In case only an executive committee is created, then that committee, in addition to the powers heretofore given it, shall have all the powers and duties given to the finance committee, and the chairman and the vice chairman thereof shall fill all the offices and perform all the duties herein respectively given to the chairman and vice chairman of the finance committee. In case only a finance committee is created, then that committee, in addition to the powers heretofore given it, shall have all the powers and duties given to the executive committee, and the chairman and the vice chairman thereof shall fill all the offices and perform all the duties herein respectively given to the chairman and vice chairman of the executive committee.

ARTICLE IV. OFFICERS

SECTION 1. The executive officers of the company shall be a chairman of the board of directors, a president, one or more vice presidents, a secretary, and a treasurer, and if the board of directors shall so determine, one or more assistant secretaries and assistant treasurers, all of whom shall be elected by the board of directors.

The board of directors may appoint such other officers as it shall deem necessary, who shall have such authority and shall perform such duties as from time to time may be prescribed by the board of directors. The powers and duties of

Digitized by Google

the chairman of the board of directors and of the president may be exercised and performed by the same person. The powers and duties of the treasurer and secretary may be exercised and performed by the same person. The board of directors may leave unfilled for any such period as it may fix by resolution any offices except those of president, treasurer, and secretary.

All members of all committees, all officers, and all agents shall be subject to removal or suspension at any time by the affirmative vote of a majority of the directors then in office. All officers, agents, and employees other than those appointed by the board of directors, may be suspended or removed by the committee, or by the officer appointing them.

SEC. 2. *Powers and duties of the chairman of the board.*—The chairman of the board shall preside at all meetings of the board of directors, and shall have supervision of such matters as may be delegated to him by the board of directors.

In the absence of the chairman of the board, or his inability to act, the president shall preside.

In the absence of the chairman of the board and the president, or their inability to act, then that director shall preside who, by previous resolution of the board, has been designated to perform the duties of the chairman of the board in such absences or inabilities. In the absence of such designation the board shall determine who shall preside.

SEC. 3. *Powers and duties of the president.*—Subject to the approval, direction, or authorization of the board of directors, the president shall have general management of the company, as well as general charge of its business and property; he shall appoint and discharge employees and agents of the company and determine their compensation. He may execute all authorized bonds, contracts, and agreements, and shall do and perform all acts incident to the office of president, or which are authorized or required by law.

In the absence of the president, or his inability to act, then that director shall act who, by previous resolution of the board, has been designated to perform the duties of the president in his absence or inability to act. In the absence of such designation, the board shall determine who shall perform such duties.

SEC. 4. *Powers and duties of the vice president.*—Each vice president shall have such powers, and shall perform such duties, as may be assigned to him by the board of directors.

SEC. 5. *Powers and duties of the treasurer.*—The treasurer shall be the principal officer in charge of the accounts and accounting department of the company. He shall have the custody of all moneys, securities, contracts, and deeds, and all valuable papers and documents of the company; shall place the same for safe keeping in such depositories as may be designated by the board of directors; shall keep, or cause to be kept, a book or books setting forth the true records of the receipts, expenditures, assets, liabilities, losses, and gains of the company; shall at all reasonable times exhibit his books and accounts to any director of the company, upon application at the office of the company during business hours; and shall, when and as required by the president or the board of directors, render a statement of the financial condition of the company. He shall have charge of the stock certificate books, transfer books, and stock ledgers of the company. He shall register and transfer stock of the company, or cause the same to be done, under such regulations as may be prescribed by the board of directors. He, or an assistant treasurer of the company, shall countersign certificates of stock, bonds, and debentures of the company, and he shall perform all acts incident to the position of treasurer, subject to the control of the board of directors.

The treasurer shall give the company a bond for the faithful discharge of his duties, in such amount and with such surety as shall be prescribed and approved by the board of directors.

By virtue of his office, the treasurer shall be an assistant secretary, and shall have such powers, and may perform such duties, as may be assigned to him by the board of directors.

SEC. 6. *Powers and duties of the assistant treasurer.*—Each assistant treasurer shall have such powers, and shall perform such duties, as may be assigned to him by the board of directors, and shall give bond for the faithful performance of his duties, in such sum and with such surety as the board of directors may require.

SEC. 7. *Powers and duties of the secretary.*—The secretary shall keep the minutes of all the meetings of the board of directors, and the minutes of all the meetings of the stockholders; he shall attend to the giving and serving of all notices of the company; he shall have custody of the seal of the company, he shall attest the execution of all contracts and other instruments authorized by the board of directors; and, when so required, shall affix the seal of the company thereto; he

Digitized by Google

shall have charge of such books, records, and other papers as the board of directors may direct, all of which shall, at all reasonable times, be open to the examination of any director, upon application at the office of the company during business hours, and he shall in general perform all the duties incident to the office of secretary, subject to the control of the board of directors.

By virtue of his office the secretary shall be an assistant treasurer and shall have such powers, and shall perform such duties, as may be given or assigned to him by the board of directors. The secretary shall be sworn to the faithful discharge of his duties.

SEC. 8. *Powers and duties of the assistant secretary.*—Each assistant secretary shall have such power, and shall perform such duties, as may be assigned to him by the board of directors, and shall be sworn to the faithful discharge of his duties.

SEC. 9. *Voting upon stock.*—Unless otherwise ordered by the board of directors, the chairman of the board of directors, the president, or any vice president who is also a director, shall each have full power and authority, in behalf of the company, to attend and to act and to vote, in person or by proxy, at any meeting of the stockholders of any company in which the company may hold stock, and at any such meeting shall possess, and may exercise, any and all the rights and powers incident to the ownership of such stock, and which, as the owner thereof, the company might have possessed and exercised, if present. The board of directors, by resolution, from time to time, may confer like powers upon any other person or persons.

SEC. 10. *Endorsement of securities for transfer.*—The chairman of the board of directors, the president, and the chairman of the finance committee shall each have power to endorse and deliver, for sale, assignment, or transfer, certificates of stock or bonds, or other securities, registered in the name of or belonging to this company, whether issued by this company or by any other corporation, government, state, or municipality; and the board of directors from time to time may confer like power upon any other officer, agent, or person, by resolution duly adopted at any regular or special meeting of the board of directors. Every such endorsement must be countersigned by the treasurer or an assistant treasurer.

ARTICLE V

SECTION 1. *Certificate of shares.*—The certificate for shares of the capital stock of the company shall be in such form, not inconsistent with the certificate of incorporation, as shall be prescribed by the board of directors. The president shall issue, or cause to be issued, to each stockholder, a certificate or certificates signed by himself or a vice president, and countersigned by the treasurer or an assistant treasurer, with the seal of the company affixed thereto, certifying the number of shares of stock of the company owned by such stockholder. No certificate shall be valid unless it is signed by the president or a vice president, and countersigned by the treasurer or an assistant treasurer.

SEC. 2. Shares of stock of the company shall be transferable only upon its books by the holder or holders thereof, in person or by proxy, or by his or their duly authorized attorney or legal representative, who shall, at such time, surrender to the company the old certificate or certificates, and receive new certificates in exchange therefor. Surrendered certificates shall be canceled at the time of such transfer. Each transfer shall be recorded, and the original record, or duplicate thereof, shall be kept at the principal office of the company in the State of Delaware.

SEC. 3. *Regulations.*—The board of directors may make rules and regulations concerning the issue, transfer, and registration of certificates for shares of the capital stock of the company.

The board of directors may appoint a transfer agent and a registrar of transfers, and may require all stock certificates to bear the signature of such transfer agent and of such registrar of transfers.

SEC. 4. *Closing of transfer books or fixing record date.*—The board of directors shall have power to close the stock transfer books of the company for a period not exceeding 40 days, nor less than 10 days, preceding the date of any meeting of stockholders, or the date for the payment of any dividend, or the date for allotment of rights, or the date when any change or conversion or exchange of capital stock shall go into effect: *Provided, however,* in lieu of closing the stock transfer books of the company, the board of directors may fix in advance a date not exceeding 40 days, nor less than 10 days, preceding the date of any meeting of stockholders, or the date for the payment of any dividend, allotment of rights, change, or conversion or exchange of capital stock, as a record date for the

Digitized by Google

determination of the stockholders entitled to notice of, and to vote at, any such meeting, or entitled to receive payment of any dividend, allotment of rights, or exercise the right in respect of any change, conversion, or exchange of capital stock, as aforesaid.

SEC. 5. *Dividends.*—Dividends may be declared by the board of directors in its discretion from surplus or net profits of the company.

SEC. 6. *Working capital.*—Before making any distribution of profits, there may be set aside out of the net profits of the company, such sum or sums as the directors from time to time, in their absolute discretion, deem expedient, for working capital, or for the expansion of the business, or for contingencies, or for equalizing dividends, or for any other purpose, and all profits of any year not distributed as dividends, shall be deemed to have been thus set apart by the directors.

ARTICLE VI. GENERAL PROVISIONS

SECTION 1. *Notice.*—Unless otherwise expressly provided, any notice required by these bylaws to be given to any person, or persons, shall be in writing, and may be given by duly depositing the same in a post office or letter box in a post-paid sealed wrapper, addressed to such person or persons at his or their address as the same appears on the books of the company, and such notice shall be held to have been given on the day of such deposit.

SEC. 2. *Corporate seal.*—The company shall have a seal, upon which shall be inscribed its name, the year of its creation, and the word "Delaware."

A duplicate of the seal may be kept and used by the treasurer, or by any assistant secretary or assistant treasurer, when specially authorized by the board of directors.

Sec. 3. *Adjournments.*—Whenever at any meeting provided for in these bylaws less than a quorum shall be present or represented, such meeting may thereupon be adjourned from time to time by a majority vote of those present or represented, without notice, until a quorum shall be present or represented: *Provided, however,* That no adjournment shall be for a period exceeding 1 month at any one time. Any meeting at which a quorum is present or represented may be adjourned in the same manner for such time as may be fixed by a majority vote at such meeting. At any adjourned meeting, whenever a quorum is present, any business may be transacted which could have been transacted at the meeting originally called, had a quorum been present.

ARTICLE VII

SECTION 1. These bylaws may be amended, repealed, or altered, in whole or in part, by a majority vote of the entire outstanding stock of the company entitled to vote, at any regular meeting of the stockholders, or at any special meeting where such action has been announced in the call and notice of such meeting.

SEC. 2. The board of directors may adopt additional bylaws in harmony therewith but shall not alter nor repeal any bylaws adopted by the stockholders of the company.

I hereby certify that the foregoing is a true and correct copy of the bylaws of Hercules Powder Co.

Witness my hand and the corporate seal of the company this _____ day of _____ 19_____.

_____

Secretary.

AMENDED CERTIFCATE OF INCORPORATION OF HERCULES POWDER CO.

CERTIFICATE OF INCORPORATION OF HERCULES POWDER CO.

1. The name of the corporation is Hercules Powder Co.

2. The principal office of the corporation in the State of Delaware is to be located in the city of Wilmington, county of New Castle. The name of the resident agent in charge thereof, upon whom process against this corporation may be served, is G. H. Markell.

3. The nature of the business of the corporation, and the objects or purposes proposed to be transacted, promoted or carried on by it are as follows, to wit:

(*a*) To produce, manufacture, and otherwise prepare, and to buy, sell, store, transport, distribute, and otherwise acquire, use, dispose of and deal in and with (1) powder, dynamite and all other explosives of every name and nature; (2) any

Digitized by Google

and all articles, munitions, appliances, products and things in which or in the manufacture, production, or preparation of which any of the above-mentioned products or commodities may be ingredients or factors; (3) any materials, supplies, products, articles, appliances, machinery or other thing which may be used in or in connection with the manufacture, production, preparation, use, purchase, sale, or distribution of any of the products, commodities, articles, and things aforesaid.

(*b*) To purchase or otherwise acquire, hold, own, occupy, develop, improve, sell, dispose of and convey real property and any and every interest therein either within or without the State of Delaware and anywhere in the world; to extract, remove, produce or prepare from any such property any animal, vegetable, mineral or other product or material therein or thereon, either by agricultural pursuits, mining, quarrying, or by any other method, or means now known or that may hereafter be discovered or invented, and to avail itself in every manner of each and every resource of such property by reducing it to proper form and by use, sale, or other disposition thereof.

(*c*) To manufacture, acquire, own, sell, or otherwise dispose of all kinds of goods, merchandise, and personal property of every nature whatsoever either within or without the State of Delaware and anywhere in the world.

(*d*) To engage in all kinds of business, including the following but without excluding others: All manufacturing, milling, mining, quarrying, building, construction and industrial works and operations; development and utilization of every kind of power; the acquirement, construction, use, operation, sale, and other disposition of all kinds of machinery, plants, factories, warehouses, elevators, boats, ships, buildings, and other structures, and generally the utilization of all instrumentalities, methods, processes and appliances, in all ways and by all means now known or which may hereafter be discovered or invented.

(*e*) To apply for, obtain, register, purchase, lease, or otherwise to acquire, and to hold, use, own, operate, and introduce, and to sell, assign or otherwise to dispose of any trade marks, trade names, brands, copyrights, concessions, patents, inventions, formulae, improvements and processes used in connection with or secured under letters patent of the United States, or any other country, or otherwise, and to use, exercise, develop, grant licenses in respect of, or otherwise to turn to account any such trade marks, copyrights, concessions, patents, licenses, processes and the like, or any such property or rights.

(*f*) To subscribe or cause to be subscribed for, and to purchase or otherwise acquire, hold for investment, or otherwise, sell, assign, transfer, mortgage, pledge, exchange, distribute or otherwise dispose of the whole or any part of the shares of the capital stock, bonds, coupons, mortgages, deeds of trust, debentures, securites, obligations, evidences of indebtedness, notes, good will, rights, assets and property of any and every kind whatsoever, or any part thereof of itself or any other corporation or corporations, stock companies, association or associations, now or hereafter existing, and whether created by or under the laws of the State of Delaware, or of any other State, district, territory, or colony of the United States, or any other country or otherwise, and to use, operate, manage, and control such properties or any of them, either in the name of such other corporation or corporations, stock company or association, or in the name of this corporation, and while owners of any of said shares of capital stock or bonds or other property to exercise all the rights, powers, and privileges of ownership of every kind and description, including the right to vote thereon, with power to designate some person for that purpose from time to time to the same extent as natural persons might or could do.

(*g*) To endorse, guarantee, and secure the payment and satisfaction of the bonds, coupons, martgages, deeds of trust, debentures, securities, obligations, evidences of indebtedness, and shares of the capital stock of other corporations, and also to undertake the whole or any part of the assets and liabilities, existing or prospective, of any person, firm, or association, also to procure any other person or corporation to assume any such obligation or obligations.

(*h*) Without in any particular limiting any of the objects and powers of the corporation, it is hereby expressly declared and provided that the corporation shall have power to do all the things hereinbefore enumerated, and also to issue or exchange stock, bonds, and other obligations in payment for property purchased or acquired by it, or for any other object in or about its business; to borrow money without limit; to mortgage or pledge its franchises, real or personal property, income and profits accruing to it, any stocks, bonds or other obligations, or any property which may be acquired by it, but subject to subdivision J of article VII hereof; to secure any bonds or other obligations by it issued or incurred; to guarantee any bonds or contracts, or other obligations; to make and perform contracts of any kind and description, and in carrying on its business,

Digitized by Google

or for the purpose of attaining or furthering any of its objects, to do any and all other acts and things, and to exercise any and all other powers which a copartnership or natural person could do and exercise, and which now or hereafter may be authorized by law in any part of the world.

(*i*) To carry on any business whatsoever which the corporation may deem proper or convenient in connection with any of the foregoing purposes or otherwise, or which may be calculated directly or indirectly to promote the interests of the corporation or to enhance the value of its property; and it is the purpose of the corporation from time to time to do any one or more of the acts and things herein set forth and it may conduct its business in other States, in the Territories, the District of Columbia, the colonies and dependencies and in foreign countries and places; it may have one office or more than one office and keep the books of the company outside the State of Delaware, except as otherwise provided by law.

4. The total authorized capital stock of the corporation is ten million dollars ($10,000,000), divided into one hundred thousand (100,000) shares of the par value of one hundred dollars ($100) each.

Of such authorized capital stock twenty thousand shares (20,000) amounting to two million dollars ($2,000,000) shall be nonvoting capital stock, and eighty thousand shares (80,000) amounting to eight million dollars ($8,000,000) shall be voting capital stock. The holders of nonvoting capital stock shall have no right to vote thereon at any corporate meeting; but such nonvoting capital stock shall be equal in every other respect with the voting capital stock and shall entitle the holders thereof to equal participation with the holders of voting capital stock in all earnings and dividends, and in any distribution of the company's property upon liquidation or dissolution or winding up (whether voluntary or involuntary).

Except as to nonvoting capital stock owned or held by the following individuals and corporations, viz: Thomas Coleman du Pont, Pierre S. du Pont, Alexis I. du Pont, Alfred I. du Pont, Eugene du Pont, Eugene E. du Pont, Henry F. du Pont, Irénée du Pont, Francis I. du Pont, Victor du Pont, Jr., Jonathan A. Haskell, Arthur J. Moxham, Hamilton M. Barksdale, Edmund G. Buckner, Frank L. Connable, Hazard Powder Co., Laflin & Rand Powder Co., the Eastern Dynamite Co., Fairmont Powder Co., Judson Dynamite & Powder Co., Delaware Securities Co., Delaware Investment Co., California Investment Co., E. I. du Pont de Nemours & Co. of Pennsylvania, du Pont International Powder Co., E. I. du Pont de Nemours Powder Co., and E. I. du Pont de Nemours & Co., the holders of nonvoting capital stock shall have the right at any time to exchange nonvoting capital stock, share for share, for voting capital stock, upon surrender of the certificate evidencing the nonvoting stock so to be exchanged duly endorsed by the owner of record thereof; provided, always, that upon the transfer through death or by will from any one of the individuals or corporations above named of any nonvoting stock of the corporation to some person or persons, other than one of the aforesaid individuals or corporations, or upon the sale by any one of the aforesaid individuals or corporations of nonvoting stock in said corporation to some person or persons, firms, or corporations, other than one of the aforesaid corporations or individuals, or the respective wives or children of said individuals, the nonvoting stock so sold or transferred may be exchanged by the legatee, transferee, or purchaser, share for share, for voting stock of the corporation.

From time to time the capital stock may be increased according to law, but no such increase shall be made without the consent in the manner provided by law of not less than two-thirds in interest of the class of stock so to be increased, and may be issued in such amounts and proportions as shall be determined by the board of directors, and as may be permitted by law. Stockholders of the corporation at the time any such increase in capital stock is issued, shall have a prior right to subscribe for the increased capital stock pro rata to their stockholdings in the corporation.

The amount of capital stock with which the corporation will commence business is two thousand dollars ($2,000).

5. The names and places of residence of each of the original subscribers to the capital stock are as follows: Russell H. Dunham, Wilmington, Del.; John J. Raskob, Claymont, Del.; J. P. Laffey, Wilmington, Del.

6. The duration of the corporation shall be perpetual.

7. The number of directors of the corporation shall be fixed from time to time by the bylaws, and the number may be increased or decreased as therein provided.

In case of any increase in the number of directors the additional directors shall be elected as provided by the bylaws, by the directors, or by the stockholders at an annual or a special meeting.

In case of any vacancy in the board of directors for any cause, the remaining directors, by affirmative vote of a majority of the whole board of directors, may

Digitized by Google

elect a successor to hold office for the unexpired term of the director whose place is vacant, and until the election of a successor.

In furtherance but not in limitation of the powers conferred by law, the board of directors are expressly authorized:

(*a*) To hold their meetings outside of the State of Delaware at such places as from time to time may be designated by the bylaws or by resolution of the board. The bylaws may prescribe the number of directors necessary to constitute a quorum of the board of directors, which number must not be less than a majority of the whole number of directors.

(*b*) To appoint the regular officers of the corporation, and such other officers as they may deem necessary for the proper conduct of the business of the company.

(*c*) To remove at any time any officer elected or appointed by the board of directors, but only by the affirmative vote of a majority of the whole board of directors.

(*d*) To remove any other officer or employee of the corporation or to confer such power on any committee or superior officer of the corporation, unless such removals are otherwise regulated by the bylaws.

(*e*) To appoint, but only by an affirmative vote of a majority of the whole board and from the members of the board, an executive committee, of which a majority shall constitute a quorum, and such committee may exercise any or all of the power of the board of directors to the extent provided in the bylaws, including the power to cause the seal of the corporation to be affixed to any necessary papers.

(*f*) To appoint any other standing committees by the affirmative vote of a majority of the whole board, and such standing committees shall have and may exercise such powers as shall be conferred or authorized by the bylaws.

(*g*) To issue the stock in such amounts and proportions as they may determine up to the total amount of the authorized capital stock or any increase thereof.

(*h*) From time to time to fix and determine and to vary the sum to be reserved over and above its capital stock paid in as working capital before declaring any dividends among its stockholders; to direct and determine the use and disposition of any surplus or net profits over and above the capital stock paid in; to fix the time of declaring and paying any dividend, and, unless otherwise provided in the bylaws, to determine the amount of any dividend. All sums reserved as working capital or otherwise may be applied from time to time to the acquisition or purchase of its bonds or other obligations or shares of its own capital stock or other property to such extent and in such manner and upon such terms as the board of directors shall deem expedient, and neither the stock, bonds, or other property so acquired shall be regarded as accumulated profits for the purpose of declaring or paying dividends unless otherwise determined by the board of directors; but shares of such capital stock so purchased or acquired may be resold, unless such shares shall have been retired for the purpose of decreasing the company's capital stock as provided by law.

(*i*) From time to time to determine whether and to what extent, and at what times and places, and under what conditions and regulations, the accounts and books of the corporation, or any of them, shall be open to the inspection of the stockholders, and no stockholder shall have any right to inspect any account or book or document of the corporation, except as conferred by statute, or authorized by the board of directors or by a resolution of the stockholders.

(*j*) Unless the holders of at least a majority of the voting capital stock of the corporation then outstanding consent thereto in writing filed with the directors or by vote in person or by proxy at a meeting specially called for that purpose, or at an annual meeting, the board of directors shall not mortgage or pledge any of its real property or any shares of the capital stock, or bonds of any other corporation; but this prohibition shall not be construed to apply to the execution of any purchase money mortgage or any other purchase money lien.

(*k*) With the written assent, without a meeting of the holders of two-thirds of its stock, or pursuant to the affirmative vote, in person or by proxy, at any meeting called as provided in the bylaws, of the holders of two-thirds of its stock, issued and outstanding, the board of directors may sell, convey, assign, transfer, or otherwise dispose of, the property, assets, rights, and privileges of the corporation, as an entirety, for such consideration and on such terms as they may determine.

(*l*) Any or all of the rights, powers or privileges herein granted or conveyed may be enlarged, amended, altered, changed or repealed by certificate of amendment authorized and filed in any manner now or hereafter permitted by the laws of the State of Delaware.

Digitized by Google

In witness whereof we, the undersigned, in order to form a corporation for the purposes and objects hereinbefore stated under and pursuant to the provisions of an act of the legislature of the State of Delaware, entitled "An act providing a general corporation law" (approved Mar. 10, A. D. 1899) and the acts amendatory thereof and supplemental thereto, have hereunto set our hands and seals on this 17th day of October, A. D. 1912.

R. H. DUNHAM.
JOHN J. RASKOB.
J. P. LAFFEY.

In the presence of—

C. R. MUDGE.

STATE OF DELAWARE,
County of New Castle, ss:

Be it remembered, that on this 17th day of October, A. D. 1912, personally came before me, Percy E. Strickland, a notary public in and for the county and State aforesaid, Russell H. Dunham, John J. Raskob, and J. P. Laffey, parties to the foregoing certificate of incorporation, known to me personally to be such, and severally acknowledged the said certificate to be the act and deed of the signers respectively, and that the facts therein stated are truly set forth.

Given under my hand and seal of office the day and year aforesaid.

PERCY E. STRICKLAND, *Notary Public.*

My commission expires May 24, 1914.

Percy E. Strickland, notary public, appointed May 25, 1910; term of office, 4 years; State of Delaware.

STATE OF DELAWARE,
Office of Secretary of State:

I, A. R. Benson, secretary of state of the State of Delaware, do hereby certify that the above and foregoing is a true and correct copy of certificate of incorporation of the Hercules Powder Co., as received and filed in this office the 18th day of October, A. D. 1912, at 9 o'clock a. m.

In testimony whereof I have hereunto set my hand and official seal at Dover, this 23d day of May in the year of our Lord one thousand nine hundred and twenty-one.

[SEAL] A. R. BENSON, *Secretary of State.*

CERTIFICATE OF AMENDMENT OF CERTIFICATE OF INCORPORATION OF HERCULES POWDER CO.

The certificate of the Hercules Powder Co. of the vote of the stockholders of said company, upon the four amendments of its certificate of incorporation, made under and pursuant to the provisions of an act of the Legislature of the State of Delaware, entitled "An act providing a general corporation law", approved March 10, A. D. 1899, and the acts amendatory thereof and supplemental thereto.

The Hercules Powder Co. a corporation having a capital stock, organized and existing under and pursuant to said act of the Legislature of the State of Delaware, and the acts amendatory thereof and supplemental thereto, by its president and secretary, and under its corporate seal, does hereby certify as follows:

First. That it appears, by the duplicate certificate of Gould G. Rheuby and Robert H. Richards, the judges duly appointed by resolution of the board of directors of said company, duly adopted January 6, A. D. 1914, for the purpose of conducting and counting the vote of the stockholders of said company, at a meeting of said stockholders, held on the 22d day of January, A. D. 1914, at the principal office of the company in room no. 696 of the building situate at the northwest corner of Tenth and Market Streets, in the city of Wilmington, State of Delaware, duly called to consider and to take action upon the resolution of said board adopted on the 6th day of January, A. D. 1914, declaring the advisability of the four proposed amendments to the certificate of incorporation of said company, that at said stockholders' meeting at a vote of the stockholders of said company then having a right to vote thereat, was by ballot in person or by proxy, duly taken for and against the said four proposed amendments; that said vote was conducted by said judges; that said judges decided upon the qualification of the stockholders voting at said meeting for or against said four proposed amendments; that the total number of shares of the voting capital stock of said company, issued and outstanding during all the said 22d day of January, and all the time the said vote was being taken by said stockholders on said four proposed

Digitized by Google

amendments, was 47,298 shares; that during all of such time, the total number of shares of nonvoting capital stock of said company issued and outstanding, was 15,831 shares; that when said vote was completed, said judges did count and ascertain the number of shares respectively voted for and against said four proposed amendments, and declared that the persons or bodies corporate holding a majority of the stock of said company then having voting power (there being but one class of stock of said company then having voting power), had voted a majority of said voting capital stock, for said four proposed amendments; that out of the said total of 47,298 shares of the said voting capital stock of said company issued and outstanding as aforesaid, 40,982 shares thereof were voted for and in favor of each and all of said proposed amendments; that no shares of said voting capital stock was voted against said proposed amendments; that said shares of the voting capital stock of said company so voted as aforesaid, for all said amendments, was a majority of all the capital stock of said company, including voting capital stock and nonvoting capital stock, then issued and outstanding.

Second. That attached hereto and marked "Exhibit A", is a true copy of the said four amendments to the certificate of incorporation of this company, as the same were adopted at the stockholders' meeting as aforesaid; that said four amendments so adopted at said stockholders' meeting are the said four amendments declared to be advisable by the said resolution last above mentioned, and that said meeting was called and held upon due notice thereof first being given to said stockholders, in accordance and compliance with the bylaws of said company.

Third. That also attached hereto and marked "Exhibit B", is one of the duplicate certificates made by the said judges, of the stockholders' vote at said stockholders' meeting, for and against said four amendments.

Fourth. That the persons or bodies corporate holding a majority of the stock of the said company then having voting power (there being but one class of stock of said company then having voting power), voted at said meeting a majority of said voting capital stock for said four proposed amendments; that of the said total of 47,298 shares of the said voting capital stock of said company then issued and outstanding as aforesaid, 40,982 shares thereof were at said meeting, voted for and in favor of each and all of said four proposed amendments; that no shares of said voting capital stock were voted against said proposed amendments; that said shares of the voting capital stock of said company so voted as aforesaid, for all said amendments, was a majority of all the capital stock of said company, including voting capital stock and nonvoting capital stock, then issued and outstanding.

In witness whereof the said Hercules Powder Co. has made under its corporate seal and the hand of Russell H. Dunham, its president, and the hand of George H. Markell, its secretary, the foregoing certificate, and the said president and secretary have hereunto respectively set their hands, and caused the corporate seal of said company to be hereunto affixed this 22d day of January, A. D. 1914.

[SEAL] R. H. DUNHAM, *President.*
GEO. H. MARKELL, *Secretary.*

STATE OF DELAWARE,
County of New Castle, ss:

Be it remembered, that on this 22d day of January, A. D. 1914, I, Aaron Finger, a notary public for the State of Delaware, hereby certify that Russell H. Dunham, president of the Hercules Powder Co., personally known to me to be such, duly executed the foregoing certificate, with exhibit A and exhibit B thereto attached, before me, and that the said Russell H. Dunham, president, as aforesaid, duly acknowledged that the signature of the said president and of the secretary of said company, to said certificate appended, are in the handwriting of the president and secretary of said company, respectively, and that the corporate seal to said certificate affixed, is the common and corporate seal of said company, and that the same was duly affixed by the authority of the stockholders of said company.

In witness whereof I have hereunto set my hand and seal of office the day and year aforesaid.

AARON FINGER, *Notary Public.*

Aaron Finger, notary public. Appointed June 22, 1911, for 4 years, Delaware.

EXHIBIT A

The four amendments to the certificate of incorporation of the Hercules Powder Co., a corporation organized and existing under and pursuant to the provisions of an act of the Legislature of the State of Delaware, entitled "An act providing

Digitized by Google

a general corporation law", approved March 10, A. D. 1899, and the acts amendatory thereof and supplemental thereto, and which certificate of incorporation was filed in the office of the secretary of state of said State on the 18th day of October, A. D. 1912, at 9 o'clock a. m.

That the certificate of incorporation of said company so filed be amended, under and pursuant to the provisions of said act of the Legislature of the State of Delaware, entitled "An act providing a general corporation law", approved March 10, A. D. 1899, and the acts amendatory thereof and supplemental thereto, as follows, viz.:

First: By striking out all of section 4 of said certificate, and inserting in lieu thereof, the following:

"The total authorized capital stock of the corporation is twenty million dollars ($20,000,000), divided into two hundred thousand (200,000) shares, of the par value of one hundred dollars ($100) each.

"Of such authorized capital stock, one hundred thousand (100,000) shares, amounting to ten million dollars ($10,000,000), shall be preferred stock, and one hundred thousand (100,000) shares, amounting to ten million dollars ($10,000,000), shall be common stock.

"Of such authorized common stock, twenty thousand (20,000) shares, amounting to two million dollars ($2,000,000), shall be nonvoting common stock, and eighty thousand (80,000) shares, amounting to eight million dollars ($8,000,000), shall be voting common stock.

"The holders of nonvoting common stock shall have no right to vote thereon at any corporate meeting; but such nonvoting common stock shall be equal in every other respect with the voting common stock, and shall entitle the holders thereof to equal participation with the holders of the voting common stock in all earnings and dividends, and in any distribution of the company's property upon liquidation or dissolution or winding up (whether voluntary or involuntary).

"Except as to nonvoting common stock owned or held by the following individuals and corporations, viz: Thomas Coleman du Pont, Pierre S. du Pont, Alexis I. du Pont, Alfred I. du Pont, Eugene du Pont, Eugene E. du Pont, Henry F. du Pont, Irénée du Pont, Francis I. du Pont, Victor du Pont, Jr., Jonathan A. Haskell, Arthur J. Moxham, Hamilton M. Barksdale, Edmund G. Buckner, Frank L. Connable, Hazard Powder Co., Laflin & Rand Powder Co., the Eastern Dynamite Co., Fairmont Powder Co., Judson Dynamite & Powder Co., Delaware Securities Co., Delaware Investment Co., California Investment Co., E. I. du Pont de Nemours & Co. of Pennsylvania, du Pont International Powder Co., E. I. du Pont de Nemours Powder Co., and E. I. du Pont de Nemours & Co., the holders of nonvoting common stock shall have the right at any time to exchange nonvoting common stock share for share for voting common stock upon surrender of the certificate evidencing the nonvoting common stock so to be exchanged, duly endorsed by the owner of record thereof, provided always, that upon the transfer through death, or by will, from any one of the individuals or corporations above named, of any nonvoting common stock of the corporation, to some person or persons other than one of the aforesaid individuals or corporations, or upon the sale by any one of the aforesaid individuals or corporations of nonvoting common stock in said corporation, to some person or persons, firms, or corporations other than one of the aforesaid corporations or individuals, or the respective wives or children of said individuals, the nonvoting common stock so sold or transferred may be exchanged by the legatee, transferee, or purchaser, share for share for voting common stock of the corporation.

"The holders of the preferred stock shall be entitled to receive when and as declared from the surplus or net profits of the corporation in excess of such sum if any, as shall have been fixed and reserved as working capital, yearly dividends at the rate of 7 percent per annum and no more, payable quarterly on the 15th days of February, May, August, and November.

"The dividends on the preferred stock shall be cumulative and shall be payable before any dividend on the common stock shall be paid or set apart, so that if in any year dividends amounting to 7 percent shall not have been paid thereon, the deficiency shall be payable before any dividends shall be paid upon or set apart for the common stock.

"Whenever all cumulative dividends on the preferred stock for all previous years shall have been declared, and shall have become payable, and the accrued quarterly installment for the current year shall have been declared, and the company shall have paid such cumulative dividends for previous years, and such accrued quarterly installments, or shall have set aside from its surplus or net profits a sum sufficient for the payment thereof, the board of directors may

Digitized by Google

declare dividends on the common stock payable then or thereafter out of any remaining surplus or net profits.

"In the event of any liquidation or dissolution or winding up (whether voluntary or involuntary), of the corporation, the holders of the preferred stock shall be entitled to be paid in full both the par amount of their shares, and the unpaid dividends accrued thereon, before any amount shall be paid to the holders of the common stock, and after the payment to the holders of the preferred stock of its par value, and the unpaid accrued dividends thereon, the remaining assets and funds shall be divided among and paid to the holders of the common stock, in proportion to their respective shares.

"The corporation may redeem all or any part of the preferred stock on the 15th day of November, A. D. 1915, or on the 15th day of November of each year thereafter, by mailing a notice of the stock to be redeemed to the registered owner thereof, addressed to the lsat registered address of such owner, at least 3 months prior to the day fixed for such redemption, and by publishing a notice of the stock to be redeemed once a week for 6 successive weeks previous to the day fixed for such redemption, in a daily newspaper of general circulation published in the city of Wilmington, Del., and in a daily newspaper of general circulation published in the city of New York, and by paying to the owner of stock so redeemed 120 percent of the par value thereof, all dividends accrued and unpaid thereon, and the dividend accruing on the date of such redemption, provided, however, that in case any of such stock so to be redeemed shall not be presented for delivery and redemption on or before the day fixed for such redemption, then the corporation may pay the amount due on said stock, with dividends as aforesaid to the Guaranty Trust Co. of New York, to pay to, on demand, or hold for the benefit of, the owner of the stock so to be redeemed, and the title to such stock, and all the benefits thereof, shall be held to have passed to the corporation, and all future dividends due thereon shall cease to be due or payable, as of the day fixed for such redemption and of the payment to the said Guaranty Trust Co. as aforesaid. If the amount of the stock so redeemed at any date shall be less than the full amount of the preferrred stock then outstanding, the preferred stock so redeemed as aforesaid shall be drawn by lot from the whole number of shares of preferred stock then outstanding. The corporation, however, shall have no right, anything to the contrary in the statute contained notwithstanding, to compel the redemption or retirement of any of the preferred stock, except upon payment to the owner thereof, or for his account, of 120 percent of the par value thereof, and all accrued and unpaid dividends thereonto the date of such payment.

"The holders of the preferred stock as such shall have no right to vote at any meeting of the corporation; except only when and in the event the corporation shall have been, for the continuous period of 1 year, in default in the payment of dividends thereon or any part thereof, or in the event the net earnings of the corporation for each of the 2 consecutive calendar years, respectively, immediately preceding any such meeting, shall have, for each of said years, fallen below the amount necessary to pay the dividends accruing on such stock, provided, however, that in no event shall the persons and corporations particularly named in the fifth paragraph of section 4 of this certificate, have the right, as the owners or holders of any of said preferred stock, to vote at any meeting of the corporation.

"From time to time the preferred and common stock or either class thereof, may be increased according to law, but no such increase shall be made without the consent, in the manner provided by law, of not less than two-thirds in interest of those shares of each class of stock which then have voting powers, and the capital stock may be issued in such amounts and proportions as shall be determined by the board of directors, and as may be permitted by law, subject to the limitations herein contained.

"The holders of any shares of any class of the capital stock of the corporation, at the time of any issue of the stock of such class, shall, except as hereinafter provided, have the prior right to subscribe to such issue pro rata to their respective holdings in such class, provided the corporation at any and all times shall, subject to the limitations hereinafter mentioned, have the right to and may as and when in the judgment of its board of directors, the interest of the corporation warrants, issue and deliver for not less than par, and for as much above par as is reasonably obtainable, any part of its capital stock and any increase thereof, in exchange or payment for property of whatsoever character by it purchased or obtained, or to be purchased or obtained, including its outstanding income bonds.

"No preferred stock shall be issued, and no dividends on common stock shall be paid, when such issue of stock and such payment of dividends, or either, shall

Digitized by Google

make the total outstanding preferred stock and income bonds of the corporation, exceed in amount 50 percent of the total assets of the corporation, unless at least three-fourths in interest of the holders of such preferred stock shall consent in writing thereto.

"No preferred stock shall be issued without the written consent thereto of at least three-fourths in interest of the holders of such stock then outstanding, unless the earnings of the corporation available for the payment of dividends thereon, shall, for the year immediately preceding, exceed two times the amount necessary to pay for a like period, the dividends of such stock then outstanding, and including such issue; provided, however, that preferred stock may be issued for the purchase of property when such earnings of the corporation, together with the earnings of the property so purchased, shall for the year immediately preceding such purchase, exceed two times the amount necessary to pay for a like period, the dividends on such stock outstanding at the completion of such purchase.

"The amount of capital stock with which the corporation shall commence business is two thousand dollars ($2,000)."

Second. By striking out all of subdivision G, of section 7 of said certificate, and inserting in lieu thereof, the following:

"To issue subject to the limitations and under the authority herein contained, the stock in such amounts and proportions as they may determine, up to the total amount of the authorized capital stock, or any increase thereof."

Third. By striking out all of subdivision J of section 7 of said certificate, and inserting in lieu thereof, the following:

"Unless the holders of at least a majority of the voting common stock of the corporation then outstanding, and at least three-fourths in interest of the holders of the preferred stock then outstanding, consent thereto in writing filed with the directors, the board of directors shall not mortgage or pledge any of its real property or any shares of the capital stock or bonds of any other corporation, but this prohibition shall not be construed to apply to the execution of any purchase money mortgage, or any other purchase money lien."

Fourth. By striking out all of subdivision L of section 7 of said certificate, and inserting in lieu thereof, the following:

"Any and all of the rights, powers, or privileges herein granted or conveyed, may be enlarged, amended, altered, changed, or repealed by certificate of amendment, authorized and filed in any manner now or hereafter permitted by the laws of the State of Delaware, except that there shall be no change, amendment or alteration of this amended certificate of incorporation affecting in any manner the rights of the preferred stockholders herein expressly provided, without the written consent of three-fourths in interest of such stockholders; provided, however, that this exception shall not apply to an amendment of this amended certificate of incorporation changing the amount of the authorized capital stock of the corporation."

EXHIBIT B. JUDGES' CERTIFICATE

To GEORGE H. MARKELL,
Secretary of the Hercules Powder Co.:

We, the undersigned, do hereby certify that by resolution of the board of directors of the Hercules Powder Co., duly adopted January 6, 1914, we were appointed judges, for the purpose of conducting and counting the vote of the stockholders of said company, at a meeting of said stockholders, held on the 22d day of January, A. D. 1914, at the principal office of the company, in room no. 696 of the building situate at the northwest corner of Tenth and Market Streets, in the city of Wilmington, State of Delaware, duly called to consider and to take action upon the resolution of said board adopted on the 6th day of January A. D. 1914, declaring the advisability of the four proposed amendments to the certificate of incorporation of the said Hercules Powder Co., a true copy of which said four proposed amendments is hereto attached and marked "Exhibit I"; that at said stockholders' meeting a vote of the stockholders of said company then having a right to vote thereat was by ballot in person or by proxy duly taken for and against the said four proposed amendments, which said vote was conducted by the undersigned, the two judges appointed as aforesaid; that in our offices as said judges we decide upon the qualification of the stockholders voting at said meeting for or against said four proposed amendments; that the total number of shares of the voting capital stock of said company issued and outstanding during all the said 22d day of January and all the time the said vote was being taken by said stockholders on said four proposed amendments was 47,298 shares, and that during all of such time the total number of shares of non-voting capital stock of said company issued and outstanding was 15,831 shares;

Digitized by Google

that when said vote was completed, we as such judges did count and ascertain the number of shares respectively voted for and against said four proposed amendments and declared that the persons or bodies corporate holding a majority of the stock of said company then having voting power (there being but one class of stock of said company then having voting power), had voted a majority of said voting capital stock for said four proposed amendments; that out of the said total of 47,298 shares of the said voting capital stock of said company issued and outstanding as aforesaid 40,982 shares thereof were voted for and in favor of each and all of said four proposed amendments, and that no shares of said voting capital stock was voted against said proposed amendments; that said shares of the voting capital stock of said company so voted as aforesaid, for all said amendments, was a majority of all the capital stock of said company, including voting capital stock and nonvoting capital stock then issued and outstanding.

In witness whereof we have made out the foregoing certificate accordingly in duplicate and subscribed our names thereto and delivered the same to the secretary of said company.

Dated January 22, A. D. 1914.

GOULD G. RHEUBY,
ROBT. H. RICHARDS,
Judges.

The above and foregoing certificate, in duplicate, was by said judges, Gould G. Rheuby and Robert H. Richards, filed with me as secretary of the Hercules Powder Co., this 22d day of January, A. D. 1914.

In witness whereof I have hereunto set my hand and seal as such secretary on the day and year aforesaid.

[CORPORATE SEAL] GEO. H. MARKELL, *Secretary.*

EXHIBIT I

The four amendments to the certificate of incorporation of the Hercules Powder Co., a corporation organized and existing under and pursuant to the provisions of an act of the Legislature of the State of Delaware, entitled "an act providing a general corporation law, "approved March 10, A. D. 1899, and the acts amendatory thereof and supplemental thereto, and which certificate of incorporation was filed in the office of the secretary of state of said State on the 18th day of October, A. D. 1912, at 9 o'clock a. m.

That the certificate of incorporation of said company so filed be amended, under and pursuant to the provisions of said act of the Legislature of the State of Delaware, entitled "an act providing a general corporation law," approved March 10, A. D. 1899, and the acts amendatory thereof and supplemental thereto, as follows, viz:

First. By striking out all of section 4 of said certificate and inserting in lieu thereof the following:

"The total authorized capital stock of the corporation is twenty million dollars ($20,000,000), divided into two hundred thousand (200,000) shares, of the par value of one hundred dollars ($100) each.

"Of such authorized capital stock, one hundred thousand (100,000) shares, amounting to ten million dollars ($10,000,000), shall be preferred stock and one hundred thousand (100,000) shares, amounting to ten million dollars ($10,000,000) shall be common stock.

"Of such authorized common stock, twenty thousand (20,000) shares, amounting to two million dollars ($2,000,000), shall be nonvoting common stock, and eighty thousand (80,000) shares, amounting to eight million dollars ($8,000,000), shall be voting common stock.

"The holders of nonvoting common stock shall have no right to vote thereon at any corporate meeting; but such nonvoting common stock shall be equal in every other respect with the voting common stock and shall entitle the holders thereof to equal participation with the holders of the voting common stock in all earnings and dividends and in any distribution of the company's property upon liquidation or dissolution or winding up (whether voluntary or involuntary).

"Except as to nonvoting common stock owned or held by the following individuals and corporations, viz: Thomas Coleman du Pont, Pierre S. du Pont, Alexis I. du Pont, Alfred I. du Pont, Eugene du Pont, Eugene E. du Pont, Henry F. du Pont, Irenee du Pont, Francis I. du Pont, Victor du Pont, Jr., Jonathan A. Haskell, Arthur J. Moxham, Hamilton M. Barksdale, Edmund G. Buckner, Frank L. Connable, Hazard Powder Co., Laflin & Rand Powder Co., the Eastern Dynamite Co., Fairmont Powder Co., Judson Dynamite & Powder Co., Delaware

Digitized by Google

Securities Co., Delaware Investment Co., California Investment Co., E. I. du Pont de Nemours & Co. of Pennsylvania, du Pont International Powder Co., E. I. du Pont de Nemours Powder Co., and E. I. du Pont de Nemours & Co., the holders of nonvoting common stock shall have the right at any time to exchange nonvoting common stock share for share for voting common stock upon surrender of the certificate evidencing the nonvoting common stock so to be exchanged, duly endorsed by the owner of record thereof, provided always that upon the transfer through death, or by will, from any one of the individuals or corporations above named, of any nonvoting common stock of the corporation, to some person or persons other than one of the aforesaid individuals or corporations, or upon the sale by any one of the aforesaid individuals or corporations of nonvoting common stock in said corporation, to some person or persons, firms or corporations other than one of the aforesaid corporations or individuals, or the respective wives or children of said individuals, the nonvoting common stock so sold or transferred may be exchanged by the legatee, transferee, or purchaser, share for share for voting common stock of the corporation.

"The holders of the preferred stock shall be entitled to receive when and as declared from the surplus or net profits of the corporation in excess of such sum if any, as shall have been fixed and reserved as working capital, yearly dividends at the rate of 7 percent per annum and no more, payable quarterly on the 15th days of February, May, August, and November.

"The dividends on the preferred stock shall be cumulative and shall be payable before any dividend on the common stock shall be paid or set apart, so that if in any year dividends amounting to 7 percent shall not have been paid thereon, the deficiency shall be payable before any dividends shall be paid upon or set apart for the common stock.

"Whenever all cumulative dividends on the preferred stock for all previous years shall have been declared, and shall have become payable, and the accrued quarterly installment for the current year shall have been declared, and the company shall have paid such cumulative dividends for previous years, and such accrued quarterly installments, or shall have set aside from its surplus or net profits a sum sufficient for the payment thereof, the board of directors may declare dividends on the common stock payable then or thereafter out of any remaining surplus or net profits.

"In the event of any liquidation or dissolution or winding up (whether voluntary or involuntary) of the corporation, the holders of the preferred stock shall be entitled to be paid in full both the par amount of their shares and the unpaid dividends accrued thereon, before any amount shall be paid to the holders of the common stock, and after the payment to the holders of the preferred stock of its par value, and the unpaid accrued dividends thereon, the remaining assets and funds shall be divided among and paid to the holders of the common stock, in proportion to their respective shares.

"The corporation may redeem all or any part of the preferred stock on the 15th day of November, A. D. 1915, or on the 15th day of November of each year thereafter, by mailing a notice of the stock to be redeemed to the registered owner thereof, addressed to the last registered address of such owner, at least 3 months prior to the day fixed for such redemption, and by publishing a notice of the stock to be redeemed once a week for 6 successive weeks previous to the day fixed for such redemption, in a daily newspaper of general circulation published in the city of Wilmington, Del., and in a daily newspaper of general circulation published in the city of New York, and by paying to the owner of stock so redeemed 120 percent of the par value thereof, all dividends accrued and unpaid thereon, and the dividend accruing on the date of such redemption: *Provided, however*, That in case any of such stock so to be redeemed shall not be presented for delivery and redemption on or before the day fixed for such redemption, then the corporation may pay the amount due on said stock, with dividends as aforesaid, to the Guaranty Trust Co. of New York, to pay to, on demand, or hold for the benefit of, the owner of the stock so to be redeemed, and the title to such stock, and all the benefits thereof, shall be held to have passed to the corporation, and all future dividends due thereon shall cease to be due or payable as of the day fixed for such redemption and of the payment to the said Guaranty Trust Co. as aforesaid. If the amount of the stock so redeemed at any date shall be less than the full amount of the preferred stock then outstanding, the preferred stock so redeemed as aforesaid shall be drawn by lot from the whole number of shares of preferred stock then outstanding. The corporation, however, shall have no right, anything to the contrary in the statute contained notwithstanding, to compel the redemption

Digitized by Google

or retirement of any of the preferred stock, except upon the payment to the owner thereof, or for his account, of 120 percent of the par value thereof, and all accrued and unpaid dividends thereon to the date of such payment.

"The holders of the preferred stock as such shall have no right to vote at any meeting of the corporation, except only when and in the event the corporation shall have been, for the continuous period of 1 year, in default in the payment of dividends thereon or any part thereof, or in the event the net earnings of the corporation for each of the 2 consecutive calendar years, respectively, immediately preceding any such meeting, shall have, for each of said years, fallen below the amount necessary to pay the dividends accruing on such stock: *Provided, however*, That in no event shall the persons and corporations particularly named in the fifth paragraph of section 4 of this certificate have the right, as the owners or holders of any of said preferred stock, to vote at any meeting of the corporation.

"From time to time the preferred and common stock or either class thereof may be increased according to law, but no such increase shall be made without the consent, in the manner provided by law, of not less than two-thirds in interest of those shares of each class of stock which then have voting powers, and the capital stock may be issued in such amounts and proportions as shall be determined by the board of directors, and as may be permitted by law, subject to the limitations herein contained.

"The holders of any shares of any class of the capital stock of the corporation, at the time of any issue of the stock of such class, shall, except as hereinafter provided, have the prior right to subscribe to such issue pro rata to their respective holdings in such class, provided the corporation at any and all times shall, subject to the limitations hereinafter mentioned, have the right to and may as and when in the judgment of its board of directors, the interest of the corporation warrants, issue and deliver for not less than par, and for as much above par as is reasonably obtainable, any part of its capital stock and any increase thereof, in exchange or payment for property of whatsoever character by it purchased or obtained, or to be purchased or obtained, including its outstanding income bonds.

"No preferred stock shall be issued, and no dividends on common stock shall be paid, when such issue of stock and such payment of dividends, or either, shall make the total outstanding preferred stock and income bonds of the corporation, exceed in amount 50 percent of the total assets of the corporation, unless at least three-fourths in interest of the holders of such preferred stock shall consent in writing thereto.

"No preferred stock shall be issued without the written consent thereto of at least three-fourths in interest of the holders of such stock then outstanding, unless the earnings of the corporation available for the payment of dividends thereon, shall, for the year immediately preceding, exceed two times the amount necessary to pay for a like period, the dividends of such stock then outstanding, and including such issue; *Provided, however*, That preferred stock may be issued for the purchase of property when such earnings of the corporation, together with the earnings of the property so purchased, shall for the year immediately preceding such purchase exceed two times the amount necessary to pay for a like period the dividends on such stock outstanding at the completion of such purchase.

"The amount of capital stock with which the corporation shall commence business is two thousand dollars ($2,000)."

Second. By striking out all of subdivision G of section 7 of said certificate and inserting in lieu thereof the following:

"To issue subject to the limitations and under the authority herein contained, the stock in such amounts and proportions as they may determine, up to the total amount of the authorized capital stock, or any increase thereof."

Third. By striking out all of subdivision J of section 7 of said certificate and inserting in lieu thereof the following:

"Unless the holders of at least a majority of the voting common stock of the corporation then outstanding, and at least three-fourths in interest of the holders of the preferred stock then outstanding, consent thereto in writing filed with the directors, the board of directors shall not mortgage or pledge any of its real property or any shares of the capital stock or bonds of any other corporation, but this prohibition shall not be construed to apply to the execution of any purchase-money mortgage, or any other purchase-money lien."

Fourth. By striking out all of subdivision L of section 7 of said certificate and inserting in lieu thereof the following:

"Any and all of the rights, powers, or privileges herein granted or conveyed may be enlarged, amended, altered, changed, or repealed by certificate of amendment, authorized and filed in any manner now or hereafter permitted by the

Digitized by Google

laws of the State of Delaware, except that there shall be no change, amendment, or alteration of this amended certificate of incorporation affecting in any manner the rights of the preferred-stock holders herein expressly provided, without the written consent of three-fourths in interest of such stockholders; *Provided, however*, That this exception shall not apply to an amendment of this amended certificate of incorporation changing the amount of the authorized capital stock of the corporation."

STATE OF DELAWARE,
Office of Secretary of State:

I, A. R. Benson, secretary of the State of Delaware, do hereby certify that the above and foregoing is a true and correct copy of certificate of amendment of certificate of incorporation of the Hercules Powder Co., as received and filed in this office the 22d day of January, A. D. 1914, at 5 o'clock p. m.

In testimony whereof I have hereunto set my hand and official seal at Dover this 23d day of May in the year of our Lord one thousand nine hundred and twenty-one.

[SEAL] A. R. BENSON, *Secretary of State.*

CERTIFICATE OF AMENDMENT OF AMENDED CERTIFICATE OF INCORPORATION OF HERCULES POWDER CO.

The certificate of the Hercules Powder Co. of the vote of the stockholders, common and preferred, of said company, upon the amendment of its amended certificate of incorporation, made under and pursuant to the provisions of chapter 65 of the Revised Code of Delaware, 1915, and the acts of the general assembly of said State amendatory thereof and supplemental thereto.

The Hercules Powder Co., a corporation having a capital stock, common and preferred, organized and existing under and pursuant to the provisions of an act of the Legislature of the State of Delaware, entitled "An act providing a general corporation law", approved March 10, A. D. 1899, and the acts amendatory thereof and supplemental thereto, by its president and secretary, and under its corporate seal, does hereby certify as follows:

First. That it appears by the duplicate certificate of Robert H. Richards and John A. Graves, the judges duly appointed by resolution of the board of directors of said company, duly adopted September 12, A. D. 1922, for the purpose of conducting and counting the vote of the stockholders of said company, at a meeting of said stockholders held on the 24th day of October, A. D. 1922, at the principal office of the company in room 1309 of the Delaware Trust Building, situated at the northeast corner of Ninth and Market Streets, in the city of Wilmington, State of Delaware, duly called to consider and to take action upon the resolution of said board adopted on the 12th day of September, A. D. 1922, declaring the advisability of the proposed amendment to the amended certificate of incorporation of said company; that at said stockholders' meeting a vote of the stockholders, common and preferred, of said company, then having a right to vote thereat, was by ballot in person or by proxy, duly taken for and against the said proposed amendment; that said vote was conducted by said judges, that said judges decided upon the qualification of the stockholders voting at said meeting for or against said proposed amendment; that the total number of shares of the voting common capital stock of said company, issued and outstanding during all the said 24th day of October, and all the time said vote was being taken by said stockholders on said proposed amendment, was 63,750 shares; that the total number of shares of the preferred capital stock of said company, issued and outstanding during all the said 24th day of October, and all the time the said vote was being taken by said stockholders on said proposed amendment was 94,252 shares; that during all of such time the total number of shares of nonvoting common capital stock of said company issued and outstanding was 6,020 shares; that when said vote was completed said judges did count and ascertain the number of shares of common voting stock and the number of shares of preferred stock respectively voted for and against said proposed amendment, and declared that the persons or bodies corporate holding more than two-thirds of all the voting common stock of said company had voted more than two-thirds of all the voting common stock of said company for said proposed amendment, and the persons or bodies corporate holding more than two-thirds of all the preferred stock of said company had voted more than two-thirds of the preferred stock of said company for said proposed amendment; that out of the said total of 63,750 shares of the said voting common stock of said company issued and outstanding, as aforesaid, 61,112 shares thereof

Digitized by Google

were voted for and in favor of said proposed amendment; and no shares of said voting common stock were voted against said proposed amendment; that out of the said total of 94,252 shares of the said preferred stock of said company issued and outstanding, as aforesaid, 84,900 shares thereof were voted for and in favor of said proposed amendment, and 13 shares of said preferred stock were voted against said proposed amendment; that said shares of the voting common stock of said company so voted, as aforesaid, for said amendment, were more than two-thirds of all the common stock of said company, including voting common stock and nonvoting common stock, then issued and outstanding; that said shares of the preferred stock of said company so voted, as aforesaid, for said amendment, were more than two-thirds of all the preferred stock of said company then issued and outstanding.

Second. That attached hereto and marked "Exhibit J", is a true copy of the said amendment to the amended certificate of incorporation of this company, as the same was adopted at the stockholders' meeting, as aforesaid; that said amendment so adopted at said stockholders' meeting was the said amendment declared to be advisable by the said resolution last above mentioned, and that said meeting was called and held upon due notice thereof first being given to said stockholders in accordance and in compliance with the bylaws of said company.

Third. That also attached hereto and marked "Exhibit K", is one of the duplicate certificates made by the said judges of the stockholders' vote at said stockholders' meeting, for and against said amendment.

Fourth. That the persons or bodies corporate holding more than two-thirds of the voting common stock of the said company, voted at said meeting more than two-thirds of said voting common stock of said company for said proposed amendment, and the persons or bodies corporate holding more than two-thirds of all the preferred stock of said company voted at said meeting more than two-thirds of the preferred stock of said company for said proposed amendment; that of the said total of 63,750 shares of said voting common stock of said company then issued and outstanding, as aforesaid, 61,112 shares thereof were at said meeting voted for and in favor of said proposed amendment and no shares of said voting common stock were voted against said proposed amendment, and that of the said total of 94,252 shares of the said preferred stock of said company, then issued and outstanding, as aforesaid, 84,900 shares thereof were at said meeting voted for and in favor of said proposed amendment, and 13 shares of said preferred stock were voted against said proposed amendment; that said shares of the voting common stock of said company so voted, as aforesaid, for said amendment, were more than two-thirds of all the common stock of said company, including voting common stock and nonvoting common stock then issued and outstanding, and that said shares of said preferred stock of said company so voted, as aforesaid, for said amendment were more than two-thirds of the preferred stock of said company then issued and outstanding.

In witness whereof the said Hercules Powder Co. has made under its corporate seal and the hand of Russell H. Dunham, its president, and the hand of Henry H. Eastman, its secretary, the foregoing certificate, and the said president and secretary have hereunto respectively set their hands, and caused the corporate seal of said company to be hereunto affixed this 24th day of October, A. D. 1922.

RUSSELL H. DUNHAM, *President.*
HENRY H. EASTMAN, *Secretary.*

Hercules Powder Co., Incorporated 1912, Delaware.

STATE OF DELAWARE,
County of New Castle, ss:

Be it remembered, that on this 24th day of October, A. D. 1922, I, Robert B. Colling, a notary public for the State of Delaware, hereby certify that Russell H. Dunham, president of Hercules Powder Co., personally known to me to be such, duly executed the foregoing certificate, with exhibit J and exhibit K thereto attached, before me, and that the said Russell H. Dunham, president, as aforesaid, duly acknowledged that the signature of the said president and of the secretary of said company to said certificate appended are in the handwriting of the president and secretary of said company, respectively, and that the corporate seal to said certificate affixed is the common and corporate seal of said company, and that the same was duly affixed by the authority of the stockholders of said company.

Digitized by Google

In witness whereof I have hereunto set my hand and seal of office the day and year aforesaid.

ROBERT B. COOLING, *Notary Public.*

Robert B. Cooling, notary public, appointed February 5, 1921, term 2 years, State of Delaware.

EXHIBIT J

The amendment to the amended certificate of incorporation of the Hercules Powder Co., a corporation organized and existing under and pursuant to the provisions of an act of the legislature of the State Delaware, entitled "an act providing a general corporation law", approved March 10, A. D. 1899, and the acts amendatory thereof and supplemental thereto, which certificate of incorporation was filed in the office of the secretary of state of said State, on the 18th day of October, A. D. 1912, at 9 o'clock a. m., and which certificate of incorporation was duly amended under and pursuant to said act of said legislature, and all acts then amendatory thereof and supplemental thereto, by that certificate of amendment of said certificate of incorporation duly filed in the office of the secretary of State of the State of Delaware, on the 22d day of January, A. D. 1914, at 5 o'clock p. m.

That such amended certificate of said company be amended under and pursuant to the provisions of chapter 65 of the Revised Code of Delaware, and the acts of the general assembly of said State amendatory thereof and supplemental thereto, as follows, viz:

By striking out the first three paragraphs of section 4 of said amended certificate of incorporation and inserting in lieu thereof, the following:

"The total authorized capital stock of the corporation is forty million dollars ($40,000,000), divided into four hundred thousand (400,000) shares, of the par value of one hundred dollars ($100) each.

"Of such authorized capital stock two hundred thousand (200,000) shares, amounting to twenty million dollars ($20,000,000), shall be preferred stock, and two hundred thousand (200,000) shares, amounting to twenty million dollars ($20,000,000) shall be common stock.

"Of such authorized common stock, twenty thousand (20,000) shares, amounting to two million dollars ($2,000,000), shall be nonvoting common stock and one hundred and eighty thousand (180,000) shares, amounting to eighteen million dollars ($18,000,000) shall be voting common stock."

EXHIBIT K, JUDGES' CERTIFICATE

To HENRY H. EASTMAN,
Secretary of Hercules Powder Co.:

We, the undersigned, do hereby certify that by resolution of the board of directors of the Hercules Powder Co., duly adopted September 12, A. D. 1922, we were appointed judges for the purpose of conducting and counting the vote of the stockholders of said company, at a meeting of said stockholders, held on the 24th day of October, A. D. 1922, at the principal office of the company, in room 1309 of the Delaware Trust Building, situate at the northeast corner of Ninth and Market Streets, in the city of Wilmington, State of Delaware, duly called to consider and to take action upon the resolution of said board adopted on the 12th day of September, A. D. 1922, declaring the advisability of the proposed amendment to the amended certificate of incorporation of the said Hercules Powder Co., a true copy of which amendment is hereto attached and marked "Exhibit L"; that at said stockholders' meeting a vote of the stockholders, common and preferred, of said company then having a right to vote thereat was by ballot in person or by proxy duly taken for and against the said proposed amendment, which said vote was conducted by the undersigned, the two judges appointed as aforesaid; that in our offices as said judges we decided upon the qualification of the stockholders voting at said meeting for or against said proposed amendment; that the total number of shares of the voting common stock of said company issued and outstanding during all said 24th day of October, A. D. 1922, and all the time the said vote was being taken by said stockholders on said proposed amendment was 63,750 shares; and during all such time the total number of shares of nonvoting common stock of said company issued and outstanding was 6,020 shares; and that the total number of shares of the preferred stock of said company issued and outstanding during all the said 24th day of October, A. D. 1922, and all the time the said vote was being taken by said stockholders on said proposed amendment was 94,252 shares; that when said vote was

Digitized by Google

completed we as such judges did count and ascertain the number of shares of voting common stock and preferred stock of said company respectively voted for and against said proposed amendment, and declared that the persons or bodies corporate holding more than two-thirds of the said voting common stock of said company had voted more than two thirds of all the voting common stock of said company for said proposed amendment and the persons or bodies corporate holding more than two-thirds of all the preferred stock of said company had voted more than two-thirds of all the preferred stock of said company for said proposed amendment; that out of the said total of 63,750 shares of the said voting common stock of said company issued and outstanding, as aforesaid, 61,112 shares thereof were duly voted for and in favor of the said proposed amendment, and no shares of said voting common stock were voted against said proposed amendment, and that out of said total of 94,252 shares of the preferred stock of said company issued and outstanding, as aforesaid, 84,900 shares thereof were duly voted for and in favor of said proposed amendment, and 13 shares of said preferred stock were voted against said proposed amendment, and that said shares of the voting common stock of said company so voted as aforesaid, for said amendment, were more than two-thirds of all the common stock of said company, including voting common stock and nonvoting common stock then issued and outstanding; that said shares of the preferred stock of said company so voted, as aforesaid, for said amendment were more than two-thirds of all the preferred stock of said company then issued and outstanding.

In witness whereof we have made out the foregoing certificate accordingly, in duplicate and subscribed our names thereto and delivered the same to the secretary of said company.

ROBT. H. RICHARDS,
JOHN A. GRAVES,
Judges.

The above and foregoing certificate, in duplicate, was by said judges, Robert H. Richards and John A. Graves, filed with me as secretary of the Hercules Powder Co. this 24th day of October, A. D. 1922.

In witness whereof I have hereunto set my hand and seal as such secretary on the day and year aforesaid.

H. H. EASTMAN, *Secretary.*

Hercules Powder Co., Incorporated 1912, Delaware.

EXHIBIT L

The amendment to the amended certificate of incorporation of the Hercules Powder Co., a corporation organized and existing under and pursuant to the provisions of an act of the Legislature of the State of Delaware, entitled "an act providing a general corporation law," approved March 10, A. D. 1899, and the acts amendatory thereof and supplemental thereto, which certificate of incorporation was filed in the office of the secretary of state of said State, on the 18th day of October, A. D. 1912, at 9 o'clock a. m., and which certificate of incorporation was duly amended under and pursuant to said acts of said legislature, and all acts then amendatory thereof and supplemental thereto, by that certificate of amendment of said certificate of incorporation duly filed in the office of the secretary of state of the State of Delaware, on the 22d day of January, A. D. 1914 at 5 o'clock p. m.

That such amended certificate of said company be amended under and pursuant to the provisions of chapter 65 of the Revised Code of Delaware, and the acts of the general assembly of said State amendatory thereof and supplemental thereto, as follows, viz:

By striking out the first three paragraphs of section 4 of said amended certificate of incorporation and inserting in lieu thereof the following:

"The total authorized capital stock of the corporation is forty million dollars ($40,000,000), divided into four hundred thousand (400,000) shares, of the par value of one hundred dollars ($100) each.

"Of such authorized capital stock two hundred thousand (200,000) shares, amounting to twenty million dollars ($20,000,000), shall be preferred stock, and two hundred thousand (200,000) shares, amounting to twenty million dollars ($20,000,000) shall be common stock.

"Of such authorized common stock, twenty thousand (20,000) shares, amounting to two million dollars ($2,000,000), shall be nonvoting common stock, and one hundred and eighty thousand (180,000) shares, amounting to eighteen million dollars ($18,000,000), shall be voting common stock."

Digitized by Google

STATE OF DELAWARE,
Office of Secretary of State:

I, A. R. Benson, secretary of state of the State of Delaware, do hereby certify that the above and foregoing is a true and correct copy of certificate of amendment of the Hercules Powder Co., as received and filed in this office the 24th day of October, A. D. 1922, at 2 o'clock p. m.

In testimony whereof I have hereunto set my hand and official seal, at Dover this 24th day of October in the year of our Lord one thousand nine hundred and twenty-two.

[SEAL] A. R. BENSON, *Secretary of State.*

CERTIFICATE OF AMENDMENT OF AMENDED CERTIFICATE OF INCORPORATION OF HERCULES POWDER CO.

Hercules Powder Co., a corporation having a capital stock, common and preferred, organized and existing under and pursuant to the provisions of an act of the Legislature of the State of Delaware entitled "an act providing a general corporation law", approved March 10, A. D. 1899, and the acts amendatory thereof and supplemental thereto, by its president and secretary, and under its corporate seal, does hereby certify as follows:

1. That the following is a true copy of amendments to the amended certificate of incorporation of this company, as the same were adopted at a meeting of the voting common stockholders of the company, duly called and held on the 27th day of November, A. D. 1928, at the principal office of the company in room 1325 of the Delaware Trust Building, situate at the northeast corner of Ninth and Market Streets, in the city of Wilmington, State of Delaware:

"Strike out the first three paragraphs of section 4 of said amended certificate of incorporation, and insert in lieu thereof the following:

" 'The number of shares of stock that may be issued shall be 1,800,000, of which 200,000 shall be preferred, having a par value of $100 each, and 1,600,000 shall be common stock, without nominal or par value. Of such 1,600,000 shares of authorized common stock 100,000 shares shall be nonvoting and 1,500,000 shares shall be voting common stock.

" 'Certificates for shares of the common stock of the corporation of the par value of $100 each, now outstanding, shall be exchanged for certificates representing the shares of the common stock without nominal or par value, on the basis of four of the new shares without nominal or par value for each of the old shares of $100 par value, in such manner as may be prescribed by the board of directors. Record holders of certificates of old common voting stock of the par value of $100 each not exchanged as aforesaid shall possess the voting power only represented by the number of shares of the new common voting stock without nominal or par value, which they are entitled to receive upon making the exchange.

" 'There shall be allocated to common capital account $25 for each share of common stock without nominal or par value, issued in exchange for said old common stock. The board of directors may from time to time issue the remaining shares of the common stock without nominal or par value, authorized hereunder, in such amounts and proportions, and for such consideration, as it may from time to time fix and as may be permitted by law.' And strike out all of paragraph 13 of such section 4, and insert in lieu thereof the following:

" 'The holders of any shares of any class of the capital stock of the corporation, at the time of any issue of the stock of such class, shall, except as hereinafter provided, have the prior right to subscribe to such issue pro rata to their respective holdings in such class, provided the corporation at any and all times shall, subject to the limitations hereinafter mentioned, have the right to and may as and when, in the judgment of its board of directors, the interest of the corporation warrants, issue and deliver for not less than par, and for as much above par as is reasonably obtained, any part of its authorized preferred capital stock, and any increase thereof, and/or any part of its authorized common capital stock, and any increase thereof, in exchange or payment for property of whatsoever character by it purchased or obtained, or to be purchased or obtained; and also to issue, deliver, and sell to the employees (including employees who are members of the board of directors) of the corporation 80,000 shares of the unissued authorized nonpar common capital stock of the corporation, such 80,000 shares, or any part thereof, to be sold from time to time to such employees as such board shall from time to time select, at such price or prices, either above or below the book value of the common stock then outstanding, and on such terms and conditions as such board shall determine, but no sale of such stock, or any part thereof, shall

Digitized by Google

be made to any employee who is then a member of the board of directors, unless a majority of the whole board of directors shall not then be purchasing any of such stock and shall affirmatively vote therefor, and no stockholder shall have any preemptive right to subscribe to or for any such stock then issued, or to be issued, for property or for sale to such employees.' "

2. That said amendments to the amended certificate of incorporation of said Hercules Powder Co. have been duly adopted in accordance with the provisions of section 26 of article I of chapter 65 of the Revised Code of Delaware, 1915, and the acts of the general assembly of said State amendatory thereof and supplemental thereto, and in accordance with the provisions of the amended certificate of incorporation of said Hercules Powder Co. pertinent thereto and requiring the affirmative vote of not less than two-thirds of the voting common stock of said Hercules Powder Co. to authorize the said amendments.

3. That the capital of the corporation will not be reduced under or by reason of said amendments.

In witness whereof the said Hercules Powder Co. has made, under its corporate seal and the hand of Russell H. Dunham, its president, and the hand of E. B. Morrow, its secretary, the foregoing certificate, and the said president and secretary have hereunto respectively set their hands and caused the corporate seal of said company to be hereunto affixed this 27th day of November, A. D. 1928.

[SEAL] R. H. DUNHAM, *President.*
E. B. MORROW, *Secretary.*

STATE OF DELAWARE,
County of New Castle, ss:

Be it remembered, that on this 27th day of November, A. D. 1928, I, Robert B. Cooling, a notary public for the State of Delaware, hereby certify that Russell H. Dunham, president of Hercules Powder Co., personally known to me to be such, duly executed the foregoing certificate before me, and that the said Russell H. Dunham, president as aforesaid, duly acknowledged that the signature of the said president and of the secretary of said company to said certificate appended are in the handwriting of the president and secretary of said company, respectively, and that the corporate seal to said certificate affixed is the common and corporate seal of said company, and that the same was duly affixed by the authority of the stockholders of said company.

In witness whereof I have hereunto set my hand and seal of office the day and year aforesaid.

[SEAL] ROBERT B. COOLING, *Notary Public.*

STATE OF DELAWARE,
Office of Secretary of State:

I, Charles H. Grantland, secretary of state of the State of Delaware, do hereby certify that the above and foregoing is a true and correct copy of certificate of amendment of the Hercules Powder Co., as received and filed in this office the 28th day of November, A. D. 1928, at 9 o'clock a. m.

In testimony whereof I have hereunto set my hand and official seal at Dover, this 28th day of November in the year of our Lord one thousand nine hundred and twenty-eight.

[SEAL] CHARLES H. GRANTLAND, *Secretary of State.*

STANDARD BRANDS, INC.,
595 Madison Avenue, New York, N. Y.,
November 18, 1935.

Hon. WILLIAM I. SIROVICH,
Chairman, Committee on Patents, House of Representatives,
24 Fifth Avenue, New York, N. Y.

DEAR SIR: This will acknowledge receipt of your letter of November 12 listing a number of questions pertaining to cross-licensing and patent-pooling agreements under existing patents.

On October 17, Mr. Martin, an investigator for your committee, called on us and we gave him copies of the few patent licenses under which this company operates; none of them, however, can even remotely be considered to fall within the scope of your investigation, and, as explained to Mr. Martin, this company is not a party to any cross-licensing or patent-pooling agreements or arrangements. Therefore, I do not believe we have any information that would be of assistance or even of interest to your committee.

Respectfully yours,

JOSEPH WILSHIRE, *President.*

Digitized by Google

ANNUAL REPORT OF STANDARD BRANDS, INC., FOR THE FISCAL YEAR ENDED DECEMBER 11, 1934

PRESIDENT'S REPORT

NEW YORK, *February 20, 1935.*

To the stockholders:

I respectfully submit the annual report of Standard Brands, Inc., for the year ended December 31, 1934, together with accompanying audited consolidated financial statements which reflect the condition and earnings of your company and its subsidiaries.

Your company's consolidated net income for the year, after all charges and preferred dividends, amounted to $13,384,490.07, equivalent to about $1.06 per share on the common stock outstanding, which is approximately 9 cents less than the amount per share reported for 1933.

Important among the many factors causing this shrinkage were:

Increased costs of both materials and labor, as well as other costs incidental to the various codes.

Decreases that occurred in volume of some of your company's products had a greater effect on earnings than increases in volume of other products.

Dividends on the common stock of 25 cents per share were paid for each quarter of the year, maintaining the rate established in 1932.

In connection with the revision of its Federal income-tax returns for prior years and to conform to the rates used therein, your company has reduced the rates of depreciation on its property with the result that depreciation charges in the income account are approximately $275,000 less than the amount that would have resulted from the application of the rates used by the company in preparing the income account as reported for 1933. However, since new property was added during 1934, actual depreciation charges for the year were only about $240,000 less than for 1933. Furthermore, as a result of the application of these revised rates to prior years, there has been restored to surplus an amount of $1,646,355 which had been charged against income in prior years.

The contract for the sale and distribution of gin, mentioned in the annual report for 1933, was canceled by mutual consent in June 1934, upon payment to your company of $800,000. A net amount of $690,000, after provision for estimated Federal income taxes applicable to this payment, was added directly to surplus and was not included in the consolidated net income reported by your company. Since the cancelation of this contract your company has been engaged in organizing its own distributing channels for the sale of Fleischmann's gin. Progress in this effort has been satisfactory. However, the overoptimism which characterized the gin industry following repeal of the eighteenth amendment is still reflected in excess capacity within the industry and the maximum that your company can expect is a reasonable margin of profit upon its share of the business.

Patents relating to the manufacture of yeast foods and vinegar were acquired during the year at a cost of $688,805.69. It is believed that they will be useful in your company's business, but in conformity to your company's policy of carrying its trade marks, patents, and good will at a nominal value of $1, the cost of these patents has been written off against surplus.

Your company's financial position continues to be sound with current assets at December 31, 1934, of $39,003,409 as against current liabilities of $5,033,592. Surplus at that date amounted to $26,897,344, an increase of $2,528,788 in the year.

As you know, your company maintains an extensive research laboratory, the staff of which is engaged in improving existing products and developing new ones. Work of this character we consider to be of paramount importance. During the past year your company's research activities have led to the successful introduction of XR yeast, which is a stronger, quicker acting yeast, rich in vitamins A, B, D, and G.

On behalf of the officers and directors of your company, I desire to express gratitude and appreciation of the earnest and whole-hearted attention given by your company's organization to its affairs The loyalty of the organization, as clearly demonstrated in the past trying year, is one of the most important assets of your company.

JOSEPH WILSHIRE, *President.*

Digitized by Google

Standard Brands, Inc., and subsidiary companies consolidated balance sheet, Dec. 31, 1934

[Includes certain foreign subsidiaries as of Oct. 31, or Nov. 30, 1934]

ASSETS

Current assets:			
Cash (includes time deposits $877,138.37)		$9, 697, 120. 57	
Mortgage Receivable (paid Jan. 2, 1935)		450, 000. 00	
United States Government bonds	$3, 670, 354. 99		
Canadian Government bonds	648, 334. 79		
State and municipal bonds	197, 735. 60		
		4, 516, 425. 38	
Accrued interest receivable		34, 913. 91	
Notes and collateral loans receivable		120, 877. 74	
Accounts receivable (less reserve $621,789.50)		5, 944, 402. 38	
Due from officers and employees		77, 835. 73	
Inventories at lower of cost or market		18, 161, 833. 48	
Total current assets			$39, 003, 409. 19
Investments:			
Stocks and bonds		$104, 218. 41	
Real Estate Mortgage		5, 000. 00	
Board of Trade memberships		19, 190. 00	
Life insurance policies		44, 066. 00	
Other		40, 443. 08	
Total investments			212, 917. 49
General insurance fund:			
Cash		$20, 686. 41	
United States Government bonds		506, 135. 94	
State and municipal bonds		685, 618. 58	
Accrued interest receivable		9, 158. 28	
Total general insurance fund			1, 221, 599. 21
Capital assets:			
Land, buildings, machinery, and equipment, including delivery equipment	$50, 372, 709. 20		
Less reserve for depreciation [1]	25, 252, 332. 08		
Capital assets—less depreciation			25, 120, 377. 12
Deferred charges—prepaid taxes, insurance, etc			764, 184. 36
Cash in closed banks and securities accepted therefor (less reserve, $300,000)			44, 132. 30
Trade marks, patents, and good will (the trade marks, patents, and good will carried on the books at a substantial amount are, for the purpose of this balance sheet, taken at the value of $1)			1. 00
Total			66, 366, 620. 67

LIABILITIES

Current liabilities:			
Accounts payable		$2, 131, 575. 59	
Accrued payroll, taxes (other than Federal and foreign income taxes) and expenses		581, 938. 46	
Accrued Federal and foreign income taxes		2, 320, 078. 36	
Total current liabilities			5, 033, 592. 41
Reserves			484, 405. 88
General insurance fund account—Appropriated surplus set aside to meet contingencies			1, 221, 599. 21
Minority interest in subsidiary company			383, 118. 76

[1] After transferring to surplus $1,646,355.01, representing adjustment of depreciation taken in prior years.

Digitized by Google

Standard Brands, Inc., and subsidiary companies consolidated balance sheet, Dec. 31, 1934—Continued

LIABILITIES—Continued

Capital stock:		
Preferred ($7 cumulative, series A)—without par value—authorized, 1,000,000 shares; issued, 70,558 shares at liquidating value of $100 per share	$7, 055, 800. 00	
Common—without par value—authorized, 20,000,000 shares; issued, 12,645,380 shares at stated value of $2 per share (including 520 shares reserved for unexchanged common stocks of companies acquired)	25, 290, 760. 00	
Total capital stock		$32, 346, 560. 00
Earned surplus, Dec. 31, 1934, as per summary of consolidated income and surplus [1]		26, 897, 344. 41
Total		66, 366, 620. 67

[1] Standard Brands, Inc., is a continuation of the business formerly operated as the Fleischmann Co. and subsidiaries, to which the businesses of other constituent companies have been added. Part of the earned surplus of the Fleischmann Co. was transferred to stated capital of Standard Brands, Inc.; in addition a part of the earned surplus of that company as well as all of the surpluses of other companies at date of acquisition, has been applied to reduce book value of intangibles to $1. The earned surplus reported above includes the balance of earned surplus of the Fleischmann Co. after the foregoing charges and after deduction for dividedns paid therefrom by Standard Brands, Inc.

NOTE.—In the above statement all securities included under current assets and general insurance fund are valued at the lower of cost or market. The current assets and current liabilities in forlign countries are converted from foreign currencies into United States dollars at current rates of exchange as of Dec. 31, 1934, any excess over par being credited to a reserve for exchange adjustments. Noncurrent foreign items are converted at par or cost of exchange.

Standard Brands, Inc., and subsidiary companies—summary of consolidated income and surplus for the year ended Dec. 31, 1934

[Includes operations of certain foreign subsidiaries for yearly periods ended Oct. 31, or Nov. 30, 1934]

Gross profit (after deducting manufacturing and other costs of goods sold)	$44, 555, 097. 10
Selling, administrative and general expenses	28, 619, 698. 83
Net profit from operations (after charging depreciation amounting to $1,749,440.71)	15, 935, 398. 27
Other income credits (includes $20,677.55 profit, being the net of all realized profit and loss on foreign exchange)	845, 773. 33
Gross income	16, 781, 171. 60
Income charges (includes net unrealized loss, $10,758.50 due to conversion of foreign net current assets at rates of exchange current Dec. 31, 1934, but not in excess of par)	684, 584. 72
Net income before charging Federal and foreign income taxes	16, 096, 586. 88
Federal and foreign income taxes	2, 195, 516. 77
Net income before deducting amount applicable to minority interest in subsidiary company	13, 901, 070. 11
Less amount applicable to minority interest in preferred and common stocks of subsidiary company	23, 048. 54
Net income applicable to parent company	13, 878, 021. 57

Digitized by Google

Standard Brands Inc., and subsidiary companies—summary of consolidated income and surplus for the year ended Dec. 31, 1934—Continued

Surplus credits:		
Adjustment of depreciation taken in prior years	$1,646,355.01	
Cancelation by mutual consent of contract for the sale and distribution of gin, less Federal income tax, $110,000, attaching thereto	690,000.00	
Transferred from general insurance fund account	120,042.01	
Adjustment of unrealized depreciation on securities	107,344.75	
Miscellaneous	105,286.82	
Total surplus credits		$2,669,028.59
Total		16,547,050.16
Surplus charges:		
Patents acquired during the year	$688,805.69	
Miscellaneous	190,548.61	
Total surplus charges		879,354.30
Surplus for the year before charging dividends		15,667,695.86
Surplus Jan. 1, 1934		24,368,555.80
Surplus before charging dividends		40,036,251.66
Dividends:		
Preferred	$493,531.50	
Common	12,645,375.75	
Total dividends		13,138,907.25
Surplus Dec. 31, 1934		[1] 26,897,344.41

[1] See footnote on accompanying balance sheet.

NOTE.—Extraordinary expenses, $34,697.98, and a credit adjustment of unrealized depreciation on general insurance fund investments, $150,481.56, were charged and credited, respectively, to general insurance fund account.

ACCOUNTANTS' CERTIFICATE

STANDARD BRANDS, INC.:

We have made an examination of the consolidated balance sheet of Standard Brands, Inc., and its subsidiary companies as of December 31, 1934, and of the related summary of consolidated income and surplus for the year 1934. In connection therewith, we made a review of the accounting methods, examined or tested, in a manner and to the extent which we considered appropriate in view of the company's system of internal accounting control, accounting records of the company and its subsidiaries and other supporting evidence, and made a general review of the operating and income accounts for the year, but we did not make a detailed audit of the transactions.

During the year, in connection with a revision of its Federal income-tax returns, the company reduced the rates of depreciation on property. The decrease of approximately $240,000 in provision for depreciation in 1934 as compared with 1933 was due principally to this reduction in rates.

In our opinion, subject to the foregoing, the accompanying consolidated balance sheet and related summary of consolidated income and surplus, with the notations thereon, fairly present, in accordance with accepted principles of accounting consistently followed by the companies, their financial condition at December 31, 1934, and the results of their operations for the year.

HASKINS & SELLS.

NEW YORK, *January 30, 1935.*

Digitized by Google

PRINCIPAL PRODUCTS OF STANDARD BRANDS, INC.

PRODUCTS OFFERED TO THE PUBLIC

Fleischmann's XR yeast for health: Recommended by well-known doctors for ridding the body of intestinal poisons, toning up the system, and restoring health and vitality.

Chase & Sanborn's dated coffee: A fine-quality blend, matchless in flavor and aroma. Freshness assured by dating and by swift delivery straight from roasting ovens to grocer.

Chase & Sanborn's tender leaf tea: A superb blend of finest teas. Only the youngest and tenderest tea leaves are used, insuring more delicious flavor and aroma. Richer in theol, the fragrant flavor-bearing essence of all teas.

Royal baking powder: Famous for over 60 years, preferred by three generations of home cooks, food experts, and dieticians.

Royal desserts—Royal quick-setting gelatin: Sets almost twice as fast as ordinary gelatin desserts. Rushed to grocers absolutely fresh, insuring full strength and full flavor. Seven tempting flavors and the new Royal gelatin aspic.

Royal chocolate and vanilla puddings: Delicious and economical. Both take but 5 minutes to prepare. Have healthful arrowroot base instead of ordinary starch.

Fleischmann's distilled dry gin: Fleischmann has been making gin since 1870 except during the prohibition years. Fleischmann's gin is an American gin, made by an American company, distilled from American grains, from an American formula for American taste and drinking customs.

PRODUCTS OFFERED TO BAKERS

Fleischmann's yeast—in 1-pound packages.
Fleischmann's baking powder—made specially for bakers.
Flesichmann's diamalt—a superior malt syrup.
Fleischmann's arkady—a dough improver.
Fleischmann's frozen eggs.
Fleischmann's phos-fo-lac and Fleischmann's cream—acid bases for baking powder.
These fine ingredients help to insure the high quality of bakers' products.

OTHER STANDARD BRANDS PRODUCTS

Distributed from Cleveland: Widlar's teas, coffees, pickles, spices, salad dressting, condiments, sauerkraut, etc., famous in the Central West for their high quality.

Barley malt and rye malt, made by the Fleischmann Malting Co.

Fleischmann's white distilled vinegar, made by Standard Brands, Inc.

Sold in Canada exclusively: Gillett's magic baking powder, Gillex cleanser, Gillett's flake lye, Royal yeast cakes, Gillett's cream of tartar, Gillett's caustic soda, magic soda, and bicarbonate of soda.

STANDARD BRANDS, INC.

(A Delaware corporation)

Executive offices, 595 Madison Avenue, New York, N. Y.

Directors: Donald K. David, H. P. Davison, William Ewing, Julius Fleischmann, Max C. Fleischmann, Lansing P. Reed, Joseph Wilshire, and William Ziegler, Jr.

Officers: Joseph Wilshire, president; Thomas L. Smith, first vice president; Paul W. Fleischmann, Daniel P. Woolley, Theodore Sedlmayr, Henry R. Newcomb, Hugh M. Freer, William Klusmeyer, W. W. Stanley, Joseph A. Lee, A. C. Monagle, Traver Smith, Corwin Wickersham, vice presidents; Hugo A. Oswald, secretary and treasurer; John B. Noone, assistant secretary and assistant treasurer; Herbert F. Carson, assistant treasurer; Louis Sturla, assistant secretary and general auditor; C. W. McKnight, A. C. Lemkau, assistant secretaries.

Stock transfer agents: For the preferred stock, Bankers Trust Co., New York, N. Y.; for the common stock, J. P. Morgan & Co., New York, N. Y.

Registrars of stock: For the preferred stock, The New York Trust Co., New York, N. Y.; for the common stock, Guaranty Trust Co. of New York, New York, N. Y.

Digitized by Google

Agreement made at New York, N. Y., this 17th day of November 1933, between the Emulsol Corporation, an Illinois corporation having its principal office at 59 East Madison St., Chicago, Illinois, hereinafter designated "Emulsol", and Standard Brands, Incorporated, a Delaware corporation having an office at 595 Madison Avenue, New York, N. Y., hereinafter designated "Standard", Witnesseth:

Whereas Emulsol represents that it is the sole owner of all right, title, and interest in and to United States Letters Patent No. 1730879 patented October 8, 1929, to Albert K. Epstein, and No. 1744575 patented January 21, 1930, to Thomas M. Rector, both assignors to Emulsol, and that Emulsol has the right to grant licenses under the following additional United States Letters Patent: 1595765, 1595766, 1687268, 1687269, 1687270, 1737365, 1842733, 1883652, and represents specifically that it has the right to grant the license and make the agreement hereinafter set forth; and

Whereas, there is now pending in the United States District Court for the Northern District of Ohio, Eastern Division, a suit in equity No. 4587, brought by Emulsol as plaintiff against Standard and The Widlar Corporation and The Fleischmann Corporation (which corporations are affiliated with Standard) as defendants, said suit being based on said United States Letters Patent No. 1730879; and

Whereas, the parties desire to settle the said suit and any liability growing out of the use by said defendants of any of said Letters Patent; and

Whereas Standard desires the license hereinafter set forth:

Now, therefore, in consideration of the premises and of the promises and conditions hereinafter set forth, it is agreed as follows:

1. Emulsol hereby agrees to discontinue the said suit and to waive an accounting and the payment of any costs, damages, profits, or other recovery therein (other than the payment which is made concurrently by Standard as hereinafter set forth, and agrees to waive likewise any and all liability of Standard, The Wildar Corporation, The Fleischmann Corporation, and any other companies subsidiary or related to Standard, and all the customers of said companies or any of them, by reason of the manufacture, use, or sale of anything heretofore made and disclosed or claimed in said Letters Patent or any of them. In part performance of this agreement Emulsol has concurrently herewith executed and delivered to Standard a consent to such termination of said suit.

2. Emulsol further agrees to and hereby does grant a non-exclusive license to Standard, its present subsidiary, controlled and/or affiliated corporations (so long as they remain such) and any successor wholly controlled by Standard or in which there is to a substantial extent the same or common ownership, under all the above described Letters Patent and during the life of this agreement, to make, use, and sell all products and to use all methods and processes disclosed or claimed in said Letters Patent or any of them and for all purposes, without royalty, except:

(*a*) That Standard for itself and the companies above described, agrees not to sell or solicit the sale of any patented products made under this license for use in the manufacture of mayonnaise and salad dressing to the manufacturers named in the annexed Schedule A unless Standard acquires a controlling ownership in such a manufacturer; and

(*b*) That in case Standard or other licensed companies mentioned above sell patented products made under this license for the manufacture of mayonnaise and/or salad dressing by others (exclusive of Standard and other companies specified in the introduction to Section 2), Standard shall pay to Emulsol a royalty at the rate of One-half Cent (½¢) a pound on all licensed products sold to such manufacturers for said purpose.

3. Standard agrees to and hereby does pay to Emulsol the sum of Seven Thousand Dollars ($7,000.00), receipt whereof is hereby acknowledged.

4. The royalties required by paragraph 2 (*b*) shall be paid on the 15th day of January, April, July, and October in each year during the life of this agreement, covering such sales during the three (3) calendar months preceding the month of such payment, and be accompanied with a duly verified report setting forth the facts from which such royalty can be computed Standard agrees further to keep full and accurate records showing the sales of the patented products for mayonnaise and salad dressing, and to permit Emulsol or a duly authorized representative to inspect such records at any time during ordinary business hours to the extent necessary to verify the reports and payments made under this agreement. Sales for the purpose of this agreement shall mean sales by the licensed companies (mentioned in the preamble to Section 2 to) another customer, and shall

Digitized by Google

not be deemed to include or impose a royalty requirement upon a mere transfer or sale of patented material from one of said licensed companies to another of said licensed companies.

5. Standard hereby agrees that in all sales of the licensed products hereunder, it will cause to be affixed to each container in which said products are packed and/or sold a notice reciting that said products are made under one or more of the patents hereby licensed, together with the numbers of such patents or with some other legal and proper form of patent notice.

6. In case there shall be a default in the payment of royalties or the rendering of reports hereunder, Emulsol shall have the option to terminate this agreement at any time provided it gives to Standard thirty (30) days' notice in writing specifying such default and the intention of Emulsol to terminate the agreement therefor, and said default is not corrected within said thirty (30) day period.

7. In case it be held by any court of competent jurisdiction from which no appeal is taken, that any claim of the patents hereby licensed is invalid upon grounds which apply to other licensed claims covering a given product, Standard shall have the right to terminate its obligations as to royalties and reports upon any product not covered by other claims.

8. It is further mutually agreed that Standard shall have the right to terminate this agreement upon six (6) months' notice either (*a*) without stated cause at any time after the expiration of five years from the date of this agreement; (*b*) at any time if the licensed patents are not so respected by the trade as to protect Standard against substantial competition from those not paying substantial considerations to Emulsol and not being diligently sued by Emulsol in the effort to terminate such competition.

9. This agreement and the license shall continue until the expiration of all the licensed Letters Patent, and shall extend throughout the United States and its territories, but no royalty shall be payable after the expiration of any of said patents upon any product not manufactured under an unexpired claim.

10. This agreement shall extend to and be binding upon Emulsol, its successors and assigns and upon Standard and its said other licensed companies.

In witness whereof, each of the parties has caused this instrument to be executed by its officers thereto duly authorized and its corporate seal to be affixed by like authority at New York, N. Y., the day and year first above written.

[CORPORATE SEAL]

THE EMULSOL CORPORATION,
By BENJAMIN R. HARRIS, *Treas.*

Attest:

ALBERT K. EPSTEIN, *Sec.*

[CORPORATE SEAL]

STANDARD BRANDS, INCORPORATED,
By JOSEPH WILSHIRE, *Pres.*

Attest:

HUGO A. OSWALD.

STATE OF NEW YORK,
County of New York, ss:

On the 17th day of November 1933, before me personally came Albert K. Epstein to me known who, being by me duly sworn, did depose and say that he is an officer, to wit, the Secretary of The Emulsol Corporation, one of the corporations named in the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that he signed his name thereto by like order.

[SEAL] L. A. WAKEFIELD, *Notary Public.*

Commission expires March 30, 1934.

STATE OF NEW YORK,
County of New York, ss:

On the 17th day of November 1933, before me personally came Joseph Wilshire to me known who, being by me duly sworn, did depose and say that he is an officer, to wit the President of Standard Brands, Incorporated, one of the corporations named in the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that he signed his name thereto by like order.

[SEAL] MAE DE LA MARCHE, *Notary Public.*

Commission expires March 30, 1933.

Digitized by Google

SCHEDULE A. NAMES AND ADDRESSES OF CUSTOMERS ON WHICH SALES OF EMULSOL APPEAR AS TAKEN FROM THE BOOKS AND RECORDS OF THE EMULSOL CORPORATION AS OF NOVEMBER 1, 1933

Adam N. Adler, Evansville, Ind.
Jas. A. Aicardi & Sons, Boston, Mass.
Atmore & Son, Philadelphia, Pa.
Beatty Food Products, Chicago, Ill.
Bennett Food Products, Baltimore, Md.
Blanke-Baer Ext. & Pres. Co., St. Louis, Mo.
The Blanton Co., St. Louis, Mo.
Bramhall Food Products, Washington, D. C.
Bronson Mayonnaise Co., Philadelphia, Pa.
Caliente Food Products, San Bernardino, Cal.
The Capital City Prod. Co., Columbus, Ohio.
Careme Kitchens, Long Island, N. Y.
Century Foods, Inc., Chicago, Ill.
Cha-ta-Wa Food Products, Louisville, Ky.
Clare Food & Relish Co., Philadelphia, Pa.
Cottage Creamery Co., Cleveland, Ohio.
Geo. H. Dentler & Sons, Houston, Texas.
Mrs. Drenk's, Milwaukee, Wis.
Wm. Edwards Co., Cleveland, Ohio.
El-Food Corporation, Dallas, Tex.
A. W. Fey, Hazleton, Pa.
J. H. Filbert, Inc., Baltimore, Md.
Food Specialties Co., Cincinnati, Ohio.
Gelfand Mfg. Co., Los Angeles, Cal.
Golden Brand Food, Philadelphia, Pa.
Harrow-Taylor Butter Co., Kansas City, Mo.
A. L. Hauber, Louisville, Ky.
Helwig & Leitch Corp., Baltimore, Md.
Hirsch Bros. & Co., Louisville, Ky.
Holsum Products Co., Milwaukee, Wis., and Kansas City, Mo.
Jefferson T. & Spec. Co., Jefferson, Wis.
John F. Jelke Co., Chicago, Ill.
Johnson's Food Kitchen, Milwaukee, Wis.
Kansas City Whol. Groc., Kansas City, Mo.
Kennedy Mayonnaise Co., Minneapolis, Minn.
Kraft-Phenix Cheese Corp., Chicago, Ill.
Lone Star Foods, Inc., Dallas, Tex.
McCormick & Co., Inc., Baltimore, Md.
Maury-Cole Co., Memphis, Tenn.
V. H. Meissner, Baltimore, Md.
Samuel Mervis Co., Baltimore, Md.
National Tea Co., Chicago, Ill.
Nierstheimer Bros., Bloomington, Ill.
Panzer Packing Co., Baltimore, Md.
B. S. Pearsall Butter Co., Elgin, Ill.
A. E. Phillips Co., Baltimore, Md.
Piknik Products Co., Montgomery, Ala.
Premier Foods, Oklahoma City, Okla.
Reliance Products Co., Chicago, Ill.
Rose Marie Shoppe, Washington, D. C.
Paul Rostov, Lafayette, Ind.
Thos. Roulston, Inc., Brooklyn, N. Y.
Russell Products Co., Oklahoma City, Okla.
C. F. Sauer Co., Richmond, Va.
B. F. Schafer, Champaign, Ill.
Mrs. Schlorer's, Inc., Philadelphia, Pa.
Schnull & Co., Indianapolis, Ind.
Otto Seidner, Inc., Westerly, R. I.
John Sexton Co., Chicago, Ill.
Southern Coffee Co., Oklahoma City, Okla.
Staufer Mfg. Co., St. Louis, Mo.
Union Food Products, Brooklyn, N. Y.
Wheatley Mayonnaise Mfg. Co., Louisville, Ky., and Jacksonville, Fla.
Wilben Food Products, Long Island, N. Y.

Digitized by Google

Mrs. Yarley's Mayon., Guyton, Ga.
Otto Ziegler, Oakland, Calif.
C. H. Wulf, Philadelphia, Pa.
T. J. Tucker, Louisville, Ky.

We hereby certify that we have examined the books and records of The Emulsol Corporation, Chicago, Illinois, and the foregoing names and addresses represent customers purchasing Emulsol products from said company as of November 1, 1933.

JOSEPH M. CHECKERS & COMPANY,
By JOSEPH M. CHECKERS,
Certified Public Accountant.

CHICAGO, ILLINOIS,
November 13, 1933.

LICENSE AGREEMENT

This agreement made in accordance with the laws of New York in triplicate this 29th day of October, 1931, between William L. Lomax, of Chicago, Illinois, (hereinafter called inventor) and Frank B. Lomax, doing business under the name and style of Frank B. Lomax Co., having an office and place of business at 365 West Oak Street, Chicago, Illinois, (hereinafter called Licensor), the first parties; and Standard Brands Incorporated, a Delaware corporation having a principal office and place of business at 595 Madison Avenue, New York, New York (hereinafter called Licensee), the second party; witnesseth:

Whereas the first parties hereby warrant that inventor is the inventor of, and the first parties (or one of them) exclusively own the entire right, title, and interest in and to certain inventions relating to processes of treating eggs and in and to an application for United States Letters Patent thereon, Serial Number 557,266, filed on or about August 15, 1931, a copy of said application being hereto attached and marked "Exhibit A", and hereby warrant that no license or right such as to be in conflict with the provisions hereof has heretofore been granted or agreed to be granted; and

Whereas licensee is engaged in the business of packing and selling eggs and desires to use the process and apparatus shown, described and/or claimed in said application and any improvements and/or other inventions relating to egg products and/or processes of treating eggs which the first parties may make and/or acquire or control during the life of this Agreement;

Now, therefore, in Consideration of the premises and of the promises and conditions hereinafter set forth, it is agreed as follows:

1. The first parties hereby grant to licensee the exclusive right in all parts of the United States and its territories and throughout the Dominion of Canada, throughout the term of this Agreement or so long as the terms hereof are fulfilled by second party but no longer, to practice the processes described and/or claimed in said application, make and use the apparatus therein illustrated and/or claimed, and make, use, and sell the products described and/or claimed in said application for Letters Patent of the United States, Serial Number 557,226, and any changes, alterations, additions, or improvements to their said process or the equipment used in connection therewith and/or in any other Letters Patent which the first parties or either of them now or hereafter acquire, own or control, or have the right to grant licenses under, pertaining to the mixing, agitation, or filtration of eggs. Such license herein granted also confers upon Licensee the right to grant sublicenses within the said period, territory, and scope.

2. Licensee agrees to pay to Licensor during the calendar year of 1932 one-tenth (1/10th) of a cent per pound royalty on all eggs packed under said process by or for the Licensee, with a guaranteed minimum royalty of Five Thousand Dollars ($5,000.00) for said calendar year.

For the calendar year of 1933, and all subsequent years, covered by this contract, the Licensee agrees to pay to the Licensor as royalties for all eggs packed by or for the Licensee as follows:

One-tenth (1/10th) of a cent per pound up to and including Twenty Million (20,000,000) pounds;

One-twentieth (1/20th) of a cent per pound in excess of Twenty Million (20,000,000) pounds and up to and including Forty Million (40,000,000) pounds;

One-fortieth (1/40th) of a cent per pound in excess of Forty Million (40,000,000) pounds.

In addition to the foregoing payments, Licensee agrees to pay to the Licensor one-tenth (1/10th) of a cent per pound for all eggs packed under this process by

Digitized by Google

its sublicensees, which, however, shall not include any eggs packed by or for the Licensee.

On all eggs so packed by both Licensee and its sublicensees, royalties shall be due and payable in monthly instalments on or before the 15th day of each month for the eggs packed during the preceding calendar month. In the event that the number of eggs packed during the year 1932 prior to August 1 is insufficient to bring the earned royalties to $5,000.00, the difference between the earned royalties paid and $5,000.00 will be paid to the first parties on or before August 15, 1932, without demand made by the first parties, the said difference, however, to be credited by Licensor against any royalties subsequently payable to Licensor during the calendar year 1932.

3. Licensee agrees to keep and to obligate its sublicensees to keep accurate books and records showing the number of pounds of eggs treated by the use of the said inventions and packed during 1932, month by month, and showing the number of pounds of eggs treated by the use of said inventions and packed during succeeding years, month by month, and to permit the first parties or their duly authorized representatives to inspect said books and records at any time during ordinary business hours.

4. The first parties shall disclose promptly to Licensee, and shall not disclose to any third party except for the purpose of obtaining letters patent, any and all improvements, inventions, letters patent, and applications coming within the scope of this license, and shall, with reasonable diligence, and at the expense of the Licensor, file and prosecute such patent applications on each of said improvements or inventions, as may be necessary or advisable in order to secure adequate patent protection for the Licensee in all parts of the United States and its territories and throughout the Dominion of Canada.

5. The first parties agree to keep the Licensee informed of the status of all applications coming within the scope of this license and to furnish Licensee promptly with copies of all applications and of all Patent Office actions and amendments resulting therefrom.

6. Inventor agrees to execute all applications for Letters Patent or for reissues and all other papers which may be necessary or advisable in order to secure adequate patent protection for Licensee within the scope of this license.

7. Any litigation in defense of the use of said process or any action to stop infringement of said patent which may be affected by this license shall be at the expense of the Licensee and such expense shall not be recoverable out of royalties. Any sum or recovery derived from such litigation shall belong to Licensee. First parties will join as parties plaintiff in any infringement suit brought by second party at the request of second party.

8. If the application for Letters Patent hereinabove identified shall be finally refused or abandoned, or any patent resulting therefrom be held invalid or so limited in its scope by any court of competent jurisdiction so that the Licensee or its sublicensees hereunder do not have substantial protection from such Letters Patent throughout the territories thereof, the obligations of Licensee and its sublicensees hereunder with regard to this contract shall thereupon cease.

9. In the event Licensee should abandon the practice of canning eggs or in the event that its production falls below an amount sufficient to pay a royalty of $10,000.00 per annum for any calendar year after 1932, then Licensor may terminate this license on thirty days' notice. On receipt of such notice, the Licensee agrees to assign to the first parties an unencumbered and full right, title, and interest in any then existing sublicense agreements without further consideration and regardless of the advantageous nature of such sublicenses.

10. Nothing herein contained shall take away any right which Licensee would otherwise have to question the validity of the patents of the first parties after the termination of this license or the right to use processes and make, use, and sell apparatus and products which do not infringe the valid rights of the first parties.

11. Licensee shall have the right to terminate this Agreement at any time between August 1 and October 1 in any year, but shall not thereby be relieved from the payment of royalties which have accrued prior to such notice or the guaranteed minimum royalty for the year 1932. Licensor shall have the right to terminate this license in the event that the Licensee defaults in the payment of its royalties or in the rendering of its reports and such default continues for a period of thirty days after written notice. Unless sooner terminated in accordance with the provisions hereof, this Agreement shall run to the expiration of the last to expire of the patents under which license is hereby granted.

Digitized by Google

12. This Agreement shall extend to and be binding upon the heirs, personal representatives, successors, and assigns of the respective parties.

In witness whereof the first parties have hereunto set their hands and affixed their seals, and the Licensee has cause this instrument to be signed by its officers thereto duly authorized and its corporate seal to be affixed by like authority, the day and year first above written.

WILLIAM L. LOMAX (L. S.),
FRANK B. LOMAX (L. S.),
Doing business as Frank B. Lomax Co.

Witness:
C. J. BOWMAN.

STANDARD BRANDS INCORPORATED,
By T. L. SMITH, *First Vice-President.*

Attest:
HUGO A. OSWALD,
Secretary.

STATE OF ILLINOIS,
County of Cook, ss:

On this fourth day of November 1931, before me, a Notary Public, personally appeared William L. Lomax and Frank B. Lomax, the said Frank B. Lomax doing business under the name and style of Frank B. Lomax Co., to me known and known to me to be the individuals described in and who executed the foregoing instrument, and duly acknowledged to me that they executed the same.

[SEAL] MATT J. LYMAN, *Notary Public.*

My Commission Expires October 7, 1934.

STATE OF NEW YORK,
County of New York, ss:

On this twenty-ninth day of October 1931, before me, a Notary Public, personally appeared T. L. Smith, to me known, who, being by me duly sworn, did depose and say that he resides at Summit, New Jersey, that he is First Vice-President of Standard Brands Incorporated, the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that he signed his name thereto by like order.

[SEAL] GERTRUDE F. HOGAN, *Notary Public.*

Commission expires March 30, 1932.

IN THE UNITED STATES PATENT OFFICE, PETITION

To the COMMISSIONER OF PATENTS:

Your petitioner, William L. Lomax, a citizen of the United States and resident of Chicago, in the County of Cook, and State of Illinois, whose post-office address is 365 West Oak Street, Chicago, County of Cook, and State of Illinois, prays that letters patent may be granted to him, as sole inventor for the improvement in Process of Treating Eggs set forth in the annexed specification, and hereby appoints Henry B. Floyd, Register No. 11454, of 38 South Dearborn Street (First National Bank Building), City of Chicago, County of Cook, and State of Illinois, his attorney, with full power of substitution and revocation to prosecute this application, to make alterations and amendments therein, to receive the patent, and to transact all business in the Patent Office connected therewith.

WILLIAM L. LOMAX.

SPECIFICATION

To Whom It May Concern:

Be it known that I, William L. Lomax, a citizen of the United States, residing at Chicago, in the County of Cook, and State of Illinois, have invented new and useful improvements in a Process of Treating Eggs of which the following is a specification:

The present invention relates to a process for the preservation and canning of eggs and has to do particularly with a means for obtaining a better and improved product. The invention relates primarily to what are known as "canned eggs", and is of large importance in the baking and other industries in that superior

Digitized by Google

canned eggs and greater uniformity of quality is obtained. It is useful for canned whole eggs, canned yolks, or canned whites of eggs.

At the present time, there are a number of egg breaking establishments or concerns. Eggs are broken, treated, and placed in cans. The yolks and the whites may be separated before canning when desired. The cans are maintained in cold storage until marketed and used. Great volumes of canned eggs are employed by bakers, or in other trades in which there is a demand for fresh eggs, or their equivalent, or for the materials which are contained in eggs. It is for the purpose of improving the canned product prepared by the egg breaker and going to the baker and others using such a product that the present process was perfected.

At the present time, and until the discovery of the present process, canned eggs contained some impurities or lacked uniformity. Such eggs contained materials which were not wholly desirable to the users thereof and which sometimes caused rejection of the product, or the use thereof under apprehension.

Coventionally, canned eggs have been subject to the following impurities or objectionable features, as well as to other undesirabilities. Splinters of the egg shell have gotten into the cans with the eggs to remain there until the eggs were used. When such splinters or parts of shells have not been noted in the product when in the hands of the users and are not removed by such users, the result has been that the ultimate consumer of say, cake, bites into a piece of splinter of shell. A number of damage suits have resulted against users of canned eggs because of the failure of the egg breaker or user of the product to successfully remove all the splinters or pieces of egg shell from the product.

Another objectionable feature in canned eggs has been lumps, some of which are called "meat balls" and others blood spots. Just what causes lumps to form is hard to understand. Some appear to be hardened portions of yolk. Such lumps are found in varying quantities in the heretofore conventional type of canned eggs. Lumps are objectionable to a baker or to other users of canned eggs in that lumps persist and are not broken down during the course of the mixing incidental to the use of the eggs. Lumps are successfully removed only at the breaking plant and must be watched for very carefully. Notwithstanding care, many get into the canned product.

Some dirt may get into conventionally canned eggs. Notwithstanding the fact that the eggs to be broken are kept as clean as is possible to do during the egg breaking operation and only clean eggs are supposed to be used, many of the eggs which get to the egg breaker have foreign matter upon the shell. Not infrequently such foreign matter gets into the eggs before being canned and is carried therewith into a cake or other product in which the canned eggs are employed.

Another product which is normally a part of conventionally canned eggs is the chalaza which serves no good purpose in the egg material insofar as baking is concerned. No successful means for excluding the chalaza from canned eggs has heretofore been devised as far as applicant knows, and until the present invention the chalaza was present in canned eggs. Its slow solubility makes it an undesirable addition to the eggs.

Because of the repeated handlings and mixings of eggs during canning, air has gotten thereinto. There has been a resulting formation of a foam and a froth upon the eggs which foam and froth is highly objectionable.

If air gets into the eggs during the course of canning, a certain amount of foam or froth forms upon the top of the eggs in the can. This frothy or foamy material, during the course of the preservation of the eggs at low temperatures, hardens and becomes gelatinous and provides an undesirable and unusable addition to the canned egg product. The baker or other user of canned eggs endeavors to find a product which is free from froth or foam, which freedom necessitates a total exclusion of air from the eggs after breaking and during the process of canning.

The objects of the present invention include the provision of a process for canning eggs which will exclude shell or splinters of shell from the eggs before canning, will prevent the formation of lumps or remove such lumps from the canned eggs in the course of canning, will exclude all dirt from the canned eggs, will remove the chalaza, which will keep air out of the eggs and which will prevent the formation of foam and froth therein.

All of these objects are attained in the process hereinafter described, and a new and superior canned egg product is the result of such new process.

For carrying out of the present invention, an apparatus such as is illustrated in the accompanying sheet of drawing may be employed, such drawing comprising a single figure somewhat schematic in its effect. Like reference characters are

Digitized by Google

used to designate similar parts in the drawing and in the description of the process following.

For the purpose of carrying out the present process, eggs are broken at a breaking table in the usual way. The egg breaking work is generally done by help skilled in breaking the shell to prevent unnecessary rupture thereof or of the contents of the shell. The women employed for this work become expert in detecting strictly fresh eggs from those which are too old to can. These usable eggs are segregated in a can or receptacle and the old eggs are rejected. Only fresh eggs are employed for canning. The various devices employed in egg breaking or in aiding the operative in the inspection of the broken egg do not form a part of the present process and need not be here illustrated or described.

The selected fresh eggs, which are temporarily dumped into a pail, bucket, or other suitable dish, are emptied into a receiving tank or hopper A, the left-hand tank or member in the drawing. From said hopper or receiving tank A, the eggs are drawn through the conduit B and a pump C and are forced upwardly from the pump C through the discharge conduit D into an egg-mixing tank E. The eggs which are not disintegrated in the mixing tank A are broken up to some extent in the pump C, and are forced into the tank E against the back pressure of the contents of said tank E. Hence, such eggs are not agitated in the presence of air which might otherwise be the case, agitation causing air to mix with the eggs. The effect of the pump C is to disintegrate the eggs without admission of air thereto or the forcing of air thereinto.

In the tank E there is a bottom propeller F which is adapted to be actuated by any suitable prime mover such as the motor G. As the agitation of the propeller F is at the bottom of a tank of eggs and below the top level, the tank E being filled to the line H before operation of the propeller F is started, there is no opportunity to draw or force air into the eggs in the tank.

By the use of the baffles I which surround the propeller F, any tendency on the part of the liquid egg material to rotate in the direction of the movement of the propeller F is overcome, and a complete mixing and agitating of the eggs, without the introduction of air thereinto, is thus obtained in the tank E. When such agitation has been continued until the whites and the yolks of the eggs are thoroughly broken up, disintegrated, and intermixed, the agitation is stopped in tank E, whereupon the egg material which is thoroughly uniform in its proportion of yolk and white content throughout is drawn out of the tank E through the pipe J by a pump K, and forced through the conduit L into a filter M.

The egg material or mix is forced through the filter M from the inside thereof outwardly. The porosity of the filter M is such that the chalaza, splinters or pieces of shell, and foreign matter will not pass through the pores of the filter but will remain on the interior of the filter M.

The filter M is encased in a housing N of suitable dimensions and coextensive with the length of the filter M. As egg material is forced through the pores of the filter M, it collects in the housing N to be drawn therefrom by way of a pipe O by the force of the pump K. The egg material is thus forced to travel into a tank P, which is supplied with an agitator Q adapted to be actuated by a motor R.

The tank P is a temporary storage tank from which the thoroughly mixed egg material is withdrawn coincidentally with its being run into cans, the discharge from the tank P being through the pipe S.

In order to keep the material thoroughly agitated while it is being withdrawn, the agitator Q is operated, said agitator being enclosed by a baffle T to prevent a circulatory action being imparted to the contents of the tank P.

The movement of the egg material through the filter into the tank P is always with a back pressure against the egg material so that there is no opportunity for air to be incorporated into the mixture during its course into the storage tank P. Likewise, no air is incorporated into the mix during the can-filling operation.

In the present process, when the whole egg is employed, disintegration of the egg and an even distribution of the yolk and the whites. This distribution is very important when a recipe calls for a whole egg, for a baker depends upon an average proportion of white and yolk in his whole egg material. Unless the average proportion of the white and yolk as it exists in a single egg is maintained in the large cans of whole eggs which are put in storage and thereafter withdrawn therefrom for the use of bakers, disastrous results will follow because the principles and operations of baking are founded upon the natural proportions of the white of an egg to the yolk thereof.

In the present process, the egg material is kept under agitation at all times but the agitation is not of a type to cause incorporation of air into the mix.

From time to time, the filter M is removed from its casing N and cleansed and replaced or a fresh filter substituted. It is indeed surprising to learn the great

Digitized by Google

quantity of shell and splinters of shell and other undesirable material which collects in such a filter.

Likewise, the fact that the eggs are always advanced under back pressure and at no time have an opportunity to be agitated in the presence of air, there is absolutely no froth or foam upon the eggs in the cans when they are put in storage. Hence, there is no froth or foam thereon or therein to separate and form a layer at the top of the cans of eggs and to provide an annoyance to the user thereof.

When desired, the hopper or small tank A may be omitted, and the eggs deposited directly in the mixing tank, or the eggs may go through pump to filter and then to the second tank. Such an arrangement may be desirable in the smaller egg-breaking establishments.

The three essentials in the apparatus for carrying out the present process are a hopper to receive the eggs, a filter, and a vat or receptacle to receive the filter material. Movement through the apparatus should always be against back pressure, as indicated. The process may be effectively carried out upon yolks alone or whites alone, it not being unusual to can these following separation by the egg breakers.

At the present time it is a common practice to pack eggs containing a quantity of salt, sugar, glycerine, syrup, and other ingredients. Apparently, the number of such added ingredients is increasing from time to time.

What I claim is new and desire to secure by letters patent of the United States is:

1. That process of preserving and canning eggs which includes the step of filtering the whole or any separated part thereof.

2. That process of preserving and canning eggs which comprises filtering the eggs anterior to placing in a storage receptacle.

3. That process of preserving and canning eggs which includes the steps of agitating the egg material to disintegration without incorporating air therein.

4. That process of preserving and canning eggs which includes the steps of agitating the egg material to disintegration without incorporating air therein, and filtering the disintegrated egg material.

5. That process of preserving and canning eggs which includes the steps of forcing eggs through a porous membrane through which the impurities and undesirable ingredients thereof will not pass.

6. That process of preserving and canning eggs which includes the step of beating eggs without surface agitation.

7. That process of preserving and canning eggs which includes the step of mixing the eggs while maintaining the level of the egg material in a substantially undisturbed horizontal plane.

8. That process of preserving and canning eggs which includes the step of mixing the white and yolks of the egg while preventing the incorporation of air therein.

9. That process of preserving and canning eggs which includes the step of advancing the eggs against a back pressure.

WILLIAM L. LOMAX.

OATH

STATE OF ILLINOIS,
County of Cook, ss:

William L. Lomax, the above-named petitioner, being sworn, deposes and says that he is a citizen of the United States, and a resident of Chicago, County of Cook, and State of Illinois, that he verily believes himself to be the original, first, and sole inventor of the improvement in Process of Treating Eggs described and claimed in the annexed specification; that he does not know and does not believe that the same was ever known or used before his invention or discovery thereof, or patented or described in any printed publication in any country before his invention or discovery thereof, or more than two years prior to this application, or in public use or on sale in the United States for more than two years prior to this application; that said invention has not been patented in any country foreign to the United States on an application filed by him or his legal representatives or assigns more than 12 months prior to this application; and that no application for patent on said improvement has been filed by him or his legal representatives or assigns in any country foreign to the United States.

WILLIAM L. LOMAX.

Subscribed and sworn to before me, a Notary Public, this day of 1931.

——— ——— *Notary Public.*

Endorsement on back: License agreement, William L. Lomax and Frank B. Lomax with Standard Brands Incorporated, Dated October 29, 1931.

Digitized by Google

SUPPLEMENTAL AGREEMENT

This agreement made this 4th day of April 1932, between the Wisconsin Alumni Research Foundation, a Wisconsin corporation not for pecuniary profit (hereinafter called the Foundation) and Standard Brands Incorporated, a corporation organized and existing under and by virtue of the laws of the State of Delaware (hereinafter called the Company),

Witnesseth:

That, Whereas, The Foundation and The Fleischmann Company, an Ohio corporation, did on August 9, 1928, enter into a certain license contract whereby the Foundation granted certain rights and licenses to said The Fleischmann Company to use the invention described in Application for Patent No. 723,171, filed June 30, 1924, and Patent Number 1680818 issued thereon, also any other patents affecting this invention, and

Whereas, the rights and licenses of The Fleischmann Company under said contract have been with the consent of the Foundation, duly assigned to the Company, and

Whereas, there is now pending on appeal in the Supreme Court of the State of Wisconsin, a suit instituted by the Company against the Foundation, to secure a judicial interpretation in regard to the rights of said Company under said contract to sell the activated yeast products therein licensed, and

Whereas, the Foundation and the Company are desirous of composing their differences without further legal proceedings by entering into a Supplemental Contract amending said license contract of August 8, 1928;

Now, therefore, it is agreed as follows:

I. That Section II, Paragraph A of said license contract be amended to read as follows:

A The exclusive right and license to manufacture, use, and sell throughout the United States and Canada, antirachitically activated Foil Yeast, Dried Yeast, Autolyzed Yeast, Hydrolyzed Yeast and like yeast products, whether antirachitically activated in bulk (directly) or by incorporation therein of separately antirachitically activated substance (indirectly) subject, however, to the following terms, conditions and agreements:

1. If such yeast products are to be activated indirectly they shall not be activated to a potency in excess of that obtainable by direct irradiation.

2. None of such yeast products shall be used by the Company or sold to others than licensees of the Foundation for use in a field or fields in which the Foundation has prior to the date hereof issued a license or licenses, except as hereinafter provided. (A list of such licensees and the respective fields covered by such licenses is hereto attached, marked Exhibit "A".)

3. Nothing herein contained shall prevent the Company from selling such activated yeast products without restriction in the feed fields for stock, poultry, animals, and birds, nor shall anything herein contained prevent the Company from selling its activated foil yeast without restriction as heretofore.

4. The Company shall not use or sell such activated yeast products for incorporation in the following products, viz, margarines, cosmetics, bottled soft drinks, chewing gum, flour, and cheese.

5. For all purposes and in all fields other than those hereinabove in sub-paragraphs 2 and 4 set forth (except the natural liquid milk field, as hereinafter set forth) the company has the right to sell and use such activated yeast products without restriction, but it shall not permit the name of Dr. Steenbock, the University of Wisconsin, or the Foundation to be used in the advertising of any product in which such activated yeast products may be incorporated, without the consent and approval of the Foundation.

6. The company shall pay to the Foundation a royalty of Two (2c.) Cents per pound for all such activated yeast products, except Foil Yeast, sold by the Company; such payments shall be made semi-annually and in addition to other payments provided for under said contract of August 8, 1928.

7. The Company shall make no price discrimination in the sale of such activated yeast products in favor of nonlicensees.

II. It is understood by the parties that producers of milk are now seeking to increase the antirachitic qualities of milk by the use of activated yeast as a part of the ration of cows, and it is agreed that the Company will not sell its activated dried yeast to milk producers unless they have a license from the foundation in the form of Exhibit B attached hereto, or similar form as may be mutually agreed upon between the Company and the Foundation from time to time. The Foundation agrees that it will promptly issue a license in such form or similar form and

Digitized by Google

for the consideration therein named, to any and all milk producers designated by the Company, whenever requested by the Company to do so, and it is understood that nothing therein contained shall prevent such licensees from evaporating, condensing, or drying such activated milk, or selling the same to other persons, firms, or corporations intending to evaporate, condense, or dry such activated milk.

III. The Foundation agrees that it will not grant new licenses or permit any of its existing licensees, except insofar a such licensees may already be licensed, to sell or use irradiated ergosterol or any solution thereof as a source or medium of imparting Vitamin D properties to liquid milk to be marketed as such; provided, however, that if the parties, having in mind the public welfare, shall mutually agree that the activation of any particular grade or grades of milk, other than certified milk, by direct addition of ergosterol or any solution thereof (as differentiated from feeding such ergosterol or solution thereof) is a more suitable or satisfactory means of imparting Vitamin D qualities to such milk, than thru the medium of feeding Irradiated Dry Yeast, then this restriction shall not apply as to such grade or grades of milk.

In the absence of such mutual agreement, it is understood that nothing in this paragraph shall prevent the foundation, after two (2) years from the date hereof, from granting licenses to dealers iu milk to use irradiated ergosterol or solutions thereof derived from yeast for direct incorporation into grades of milk other than certified milk as a means of imparting Vitamin D thereto; provided, that the Foundation will not grant any such licenses to producers of milk who may be using irradiated dry yeast. In the event that the Foundation grants any such licenses, the Company agrees that it will supply to such licensees irradiated ergosterol at prices that shall not be in excess of prices which the Company is then obtaining for irradiated ergosterol sold for other purposes, and in no event shall such price be in excess of One Dollar ($1.00) for 666,666 present Steenbock Vitamin D units.

IV. The Company shall cooperate with the Foundation to the best of its ability in enforcing the provisions and restrictions of the preceding paragraphs and to this end agrees that it will promptly discontinue the sale of such activated yeast products to any person, firm, or corporation wrongfully using, disposing of, or intending to wrongfully use or dispose of such yeast; it being understood that the Foundation and the Company shall be in mutual accord as to the facts of such wrongful use or disposition, or intended wrongful use or disposition, of such yeast.

The Company further agrees that it will promptly discontinue the sale of such activated yeast products to any person, firm, or corporation licensed by the Foundation when it comes to the attention of the Company by notice or otherwise that such person, firm, or corporation is violating the provisions of its license from the Foundation, it being understood, however, that the Foundation and the Company shall be in mutual accord as to the facts of such violation.

It is distinctly understood and agreed, however, that the Company shall not be responsible or in any way liable for the wrongful acts or representations of any purchaser or user of said products.

V. The Company agrees that it will keep complete records of the sales of its activated yeast products (except Foil Yeast) and will furnish summaries of such records to the Foundation semi-annually. The Company further agrees that it will, upon request, furnish information as to the amount of activated yeast sold to any licensee whom the Foundation may wish to investigate.

VI. Promptly upon the execution of this Supplemental Agreement the Company shall dismiss the appeal in the case of *Standard Brands, Incorporated*, vs. *The Wisconsin Alumni Research Foundation*, now pending in the Supreme Court of the State of Wisconsin.

VII. It is also agreed that the following language appearing in Clause IX of the contract dated August 8, 1928, shall not hereafter be operative: "and shall be such amount plus an amount, if any, which shall be determined and fixed by the Company at the end of each year after reviewing its licensed operations for such year and in good faith based upon the profitableness and the general value and benefit of the licensed inventions to the Company during such year, and which shall appear, in the judgment of the Company, to be fair and reasonable. It is understood and agreed that each such extra amount determined and paid by the Company in excess of the Twenty-Five Thousand Dollars ($25,000.00) per year minimum shall be considered independently of any such amount of the same character which may have been paid theretofore or which may be paid thereafter."

Digitized by Google

VIII. All other provisions of the contract of August 8, 1928, shall remain unaltered except as expressly modified by this Agreement.

In witness whereof, the Parties have hereunto affixed their corporate seals and caused these presents to be signed, the Wisconsin Alumni Research Foundation, by its officers, and Standard Brands, Incoprorated, by its officers, thereunto duly authorized by their respective Boards of Directors.

WISCONSIN ALUMNI RESEARCH FOUNDATION,
By GEO. I. HAIGHT, *President.*

Attest:

L. W. HANHS, *Secretary.*

STANDARD BRANDS, INCORPORATED,
By JOSEPH WILSHIRE, *President.*

Attest:

HUGO A. OSWALD, *Secretary.*

The Dry Milk Company, Inc	Dry Milk.
Snider Packing Corporation	Tomato Juice.
United Biscuit Company of America	Biscuits
Canada Biscuit Company	Biscuits.
Hygeia Nursing Bottle Company	Fruit and Vegetable Purees.
The Quaker Oats Company	Rolled Oats and Oatmeal, puffed rice, puffed wheat, and other puffed products, cornmeal and corn flour, pancake flour, macaroni, stock and poultry feed, and other cereal products.
E. R. Squibb & Sons Mead Johnson & Company Winthrop Chemical Company Abbott Laboratories Parke-Davis & Company	Human medicinal preparations.
Silmo Chemical Company	Stock, Poultry, and Animal feeds.
National Foods Limited	Bread stuffs, including bread, rolls, buns, coffee cakes, cakes, fruit cakes, and doughnuts.
R. B. Davis & Company	Cocomalt.
Acetol Products, Inc	Stock, Poultry, and Animal feeds.

License granted this _____ day of _____ by the WISCONSIN ALUMNI RESEARCH FOUNDATION, a Wisconsin corporation not for pecuniary profit, hereinafter called the LICENSOR, to _____ of _____ hereinafter called the Licensee, Witnesseth:

Whereas the Licensor is the owner of United States Letters Patent No. 1,680,818, issued August 14, 1928, relating to antirachitic products and processes, and other patents and applications for patents relating to the same;

Whereas the Licensor has granted a license to Standard Brands, Incorporated, authorizing said Company, exclusively, to activate dried yeast under said patented process, but to sell the same only to other licensees of the Licensor, when said yeast is intended for use in the manner herein licensed;

Whereas the Licensee is desirous of securing a license under said Letters Patent to increase the antirachitic qualities of milk by the feeding of irradiated dried yeast to cows;

Now, therefore, in consideration of the premises and the sum of One Dollar for each cow in a producing herd of not more than _____ cows, the receipt whereof is hereby acknowledged, the Licensor has licensed and empowered, and by these presents does license and empower the Licensee to purchase from Standard Brands, Incorporated, dried yeast antirachitically activated under said Letters Patent and other patents, upon the following terms and conditions:

First. The Licensee shall buy and use such yeast for no other purpose than that of feeding cows to impart antirachitic qualities to milk.

Second. This License shall expire one year from the date hereof.

Third. The Licensee agrees to feed such irradiated dried yeast at the average daily ration of not less than ten (10) ounces per cow until such time as biological tests indicate that a different amount may be fed to impart a potency of not less than approximately 160 Steenbock Units per quart of milk, and Licensee will cause to be made such biological tests as may be necessary.

Digitized by Google

The Licensee shall keep a record of all such activated yeast used and the number of cows fed, and the Licensor shall have the right at any time to inspect such records, as well as the dairy, plant, or farm of the Licensee. Licensor shall also have the right to test the milk activated under this License, and the Licensee will furnish to the Licensor, upon request, free of charge, the necessary samples for this purpose.

Fourth. The Licensee shall not sell any of its antirachitically activated milk to others for use or incorporation in any other marketed product when Vitamin D or antirachitic claims are made or intended to be made for such other marketed product.

Fifth. The activated yeast purchased by Licensee pursuant to this License shall not be resold or otherwise used except for feeding the same to the Licensee's animals, pursuant to the conditions of this license.

Sixth. The Licensee shall not, without the approval of the Licensor, circulate any advertising material relating to the Licensor, the Steenbock process, the Steenbock patents, the University of Wisconsin, or Dr. Steenbock, nor shall Licensee make any unwarranted claims for the milk so produced.

Seventh. The Licensee shall not assign this license without the written consent of the Licensor.

Eighth. Licensee hereby accepts the said License upon the terms and conditions herein set forth and does hereby agree to comply with all the said terms and conditions. Violation of any of such terms and conditions shall constitute sufficient cause for the revocation of this license forthwith.

Dated----------
Expires----------

WISCONSIN ALUMNI RESEARCH FOUNDATION,
By GEO. I. HAIGHT, *President.*

Accepted:

———— ————, *Licensee.*

Approved:

STANDARD BRANDS INCORPORATED,
By ———— ————

(Endorsement on back.) Wisconsin Alumni Research Foundation, Supplemental Agreement, Dated April 4, 1932, Terminating July 31, 1936.

MEMO RE AGREEMENT OF AUGUST 8, 1928, BETWEEN THE WISCONSIN ALUMNI RESEARCH FOUNDATION AND THE FLEISCHMANN COMPANY

It is understood by the parties that the statement of permissible claims for the Company's advertising referred in paragraph X, sub-paragraph (b), shall include a provision whereby the Company's advertising use of the name "Steenbock" (beyond the use thereof in the legend of said paragraph) shall be submitted in advance for approval to a Trustee of the Foundation in New York City, appointed for the purpose, and that such approval shall not be unreasonably withheld or delayed.

MEMORANDUM OF ADVERTISING POLICY AND "LIMITS OF FACT STATEMENT" RELATING TO ANTI-RACHITICALLY ACTIVATED YEAST REFERRED TO IN FLEISCHMANN COMPANY-WISCONSIN ALUMNI RESEARCH FOUNDATION CONTRACT, PARAGRAPH X (B), OF AUGUST 8, 1928

All statements relating to ergosterol shall be in strict accordance with the facts, and all advertising copy and publicity articles will be referred to Dr. Lee for careful study and okeh.

A general statement regarding the importance of vitamins in the diet may be used.

The facts on which Dr. Steenbock and Dr. Lee are in general agreement and on which advertising statements may be based are as follows:

1. That through the addition of activated ergosterol yeast now carries another vitamin—Vitamin D—also known as the antirachitic vitamin.
2. In the human diet, under practical conditions, Vitamin D is necessary for the proper assimilation and retention of lime and phosphorus and for growth.
3. Vitamin D is especially important for expectant and nursing mothers.
4. Vitamin D is absolutely essential for the infant and growing child and valuable during the entire period of bone growth, for which it is a necessary factor. It makes the musculature firmer.

Digitized by Google

5. Cow's milk is always inferior to mother's milk, which is frequently deficient in vitamin D.

6. In the human diet Vitamin D is essential for the retention of lime and phosphorus, which is so important for the roper development of the teeth.

7. Yeast now has the active principle, Vitamin D, of cod liver oil.

8. Yeast properly treated with ergosterol is as valuable as a source of Vitamin D as cod liver oil.

9. A cake of yeast with the proper amount of activated ergosterol has the same anti-rachitic properties as cod liver oil.

10. One cake of yeast, properly activated, contains as much Vitamin D as a teaspoonful of cod liver oil

11. Vitamin D is especially valuable for those children living in cities, who are deprived of a normal amount of bring sunshine.

12. Vitamin D is produced in the yeast by the action of ultra violet light.

13. Yeast is the richest known source of that substance which when exposed to ultra violet light is converted into Vitamin D.

14. Ergosterol is known as the pro-vitamin D, because by the action of the ultra violet it is converted into Vitamin D or rather anti-rachitic vitamin.

15. Yeast is the richest known source of ergosterol which is converted into Vitamin D by irradiation.

16. Vitamin D in the diet guards against rickets which come from lack of sunshine. The mere brightness of the sun is no criterion of its richness in ultra violet. The essential seems to be the clearness of the atmosphere. Smoke and dust prevent the ultra violet from reaching the surface of the earth.

17. In the so-called sunshine treatment the optimum exposure is difficult to determine; since its efficacy depends upon the amount of ultra violet light which varies with the atmospheric conditions. Direct treatment with ultra violet light is unreliable as to dosage, and may result in considerable harm. Over-treatment with ultra violet is dangerous.

18. The use of ultra violet should be strictly confined to institutional treatment.

19. One advantage of the Fleischmann activated yeast is the accuracy of the dosage. There is no danger of an overdose.

N. B.—It is understood that as soon as the proper amount of activated ergosterol to be used in yeast has been established, in no case shall a yeast cake contain more than four times this amount.

20. Stores setting forth the facts of the effect of ergosterol and irradiated food stuffs on chickens, rats, and other laboratory animals and laboratory photographs are permissible.

21. Advertising relating to this subject may contain some one of the following legends:

Activated by the Steenbock Process under licenses from the Wisconsin Alumni Research Foundation, or

Contains Vitamin D produced by the Steenbock Process as licensed by the Wisconsin Alumni Research Foundation, or

Anti-rachitically activated by the Steenbock Process under license from the Wisconsin Alumni Research Foundation, or

Some similar legend which will be submitted for approval.

22. The importance of educating the public as to the meaning of irradiation and the value of Vitamin D will be constantly borne in mind and stressed.

23. A constant effort will be made to keep the advertising on a high dignified plane, and all advertising featuring either Dr. Steenbock, his work or the University of Wisconsin will be submitted to Dr. Steenbock for approval.

24. It is understood that the above is merely a preliminary attempt to agree on the facts as they now stand and is subject to change and amplification as the science progresses and our knowledge of the value of vitamin D grows.

(Sgd.) R. E. LEE.

L. M. Hanks, being first duly sworn, says that he is Secretary of the Wisconsin Alumni Research Foundation and that he has attended the meeting of the said Foundation held on August 13, 1928, in the City of Madison, Wisconsin, attending said meeting both as a Trustee and as Secretary of said Foundation; that as such Secretary he has custody of the minutes of said meeting and that he knows that said minutes correctly report the proceedings of said meeting; and that the annexed copy of the resolution passed at the said meeting correctly reports the resolution duly made, seconded and carried by the said Board of Trustees in said

Digitized by Google

meeting; and that the same was not modified, canceled or weakened by any other or further proceedings held by the said Board.

L. M. HAWKS.

Subscribed and sworn to before me this 13th day of August A. D., 1928.

[SEAL] H. J. BECK,
Notary Public, Dane County.

My commission expires Aug. 19, 1928.

At a meeting of the Trustees of The Wisconsin Alumni Research Foundation held at The Central Wisconsin Trust Company, Madison, Wisconsin, on the 13th day of August 1928, at nine-thirty A. M., at which meeting the following Trustees were present: Thomas E. Brittingham, Vice President; L. M. Hanks, Secretary and Treasurer; Timothy Brown, and Professor Harry Steenbock, the following resolution, proposed by Mr. Brown and seconded by Mr. Hanks, was unanimously adopted:

Whereas Mr. W. S. Kies, one of the trustees of The Wisconsin Alumni Research Foundation, and Professor Harry Steenbock, pursuant to authority delegated to them at the meeting of the trustees held on Saturday, August 4, 1928, have executed on behalf of the Foundation under date of August 8, 1928, a certain license agreement between The Wisconsin Alumni Research Foundation and The Fleischmann Company, a copy of which is hereinafter set forth: Now, therefore, be it

Resolved, That the trustees do hereby approved, ratify, and confirm in all respects the said agreement so executed on August 8, 1928, by Mr. W. S. Kies and Professor Harry Steenbock on behalf of The Wisconsin Alumni Research Foundation with The Fleischmann Company; and be it further

Resolved, That a copy of the minutes of this meeting, duly certified, be attached to the Fleischmann Company's duplicate original of said agreement.

L. M. HANKS, *Secretary.*

AGREEMENT

This agreement dated the 8th day of August 1928 between The Wisconsin Alumni Research Foundation, a corporation not for profit under the laws of the State of Wisconsin (hereinafter called the Foundation) and The Fleischmann Company, a corporation organized and existing under the laws of the State of Ohio and having a principal office in the City, County, and State of New York (hereinafter called the Company), each by its proper officers thereunto duly authorized, Witnesseth:

I. The Foundation represents and warrants that it has full right and authority to convey the license rights hereinafter granted.

II. The Foundation grants the Company under application for United States patent, Serial No. 723,171, filed June 30, 1924, by Harry Steenbock and under any and all United States Letters Patent which may eventuate therefrom, and under any and all additional United States patents and applications therefor now owned or hereafter acquired by the Foundation relating to antirachitic activation of substances (all hereinafter referred to as the Foundation patent rights), the following rights and licenses for the entire effective territory of said patents:

A. The exclusive right and license to manufacture antirachitically activated Foil Yeast, Dried Yeast, Autolyzed Yeast, Hydrolyzed Yeast, and the like yeast products whether antirachitically activated in bulk (directly) or by incorporation therein of separately antirachitically activated substance (indirectly) and to sell such antirachitically activated Foil Yeast, Dried Yeast, Autolyzed Yeast, Hydrolyzed Yeast, and the like yeast products without restriction throughout the United States and Canada, the Company agreeing, however, that it will not knowingly sell any of its products licensed under this paragraph in substantial quantities in the exclusive licensed field of any other licensee of the Foundation under the Foundation patent rights and that, if such sale should occur, it will after notice use all reasonable business effort in good faith to prevent the recurrence thereof.

B. The exclusive right and license to manufacture antirachitically activated compressed yeast of the type used commercially by bakers or in the home whether antirachitically activated directly or indirectly and to sell the same only to other licensees of the Foundation.

C. The exclusive right and license to make and the exclusive right and license to sell, but only to other licensees of the Foundation, yeast and yeast products, as defined in Paragraph A and B above, but unactivated, for use as a source of

Digitized by Google

antirachitically activatable unsaponifiable lipoids for antirachitic activation, it being understood, however, that the right and license of the Company under the provisions of this Paragraph C shall remain exclusive only during the period or periods that the Company's net selling price for such yeast and yeast products to other licensees of the Foundation shall not be in excess of the Company's net selling price for equal quantities of similar substance sold under similar conditions as to delivery and the like at the same time to bakers or the Company's other trade customers. It is understood and agreed that the rights of the Company to sell unactivated compressed yeast shall not be affected by any provisions of this agreement and that such sale by the Company shall not affect the term or force of this agreement.

D. A non-exclusive right and license to make and the exclusive right and license to sell, but only to other licensees of the Foundation, antirachitically activatable unsaponifiable lipoids, for antirachitic activation, derived from compressed yeast or dried yeast or other yeast used commercially by bakers or in the home, it being agreed, however, that the right and license of the Company under the provisions of this paragraph D shall remain exclusive only during the period or periods that the Company's net selling price therefor to other licensees of the Foundation shall not be more than 10% in excess of the bona fide cost to such licensees of equal quantity of such substance of equal quality imported from abroad (save for such prohibition) and delivered at the same point in the United States with duty and transportation charges paid.

E. A non-exclusive right and license to make and/or sell, but only to other licensees of the Foundation, antirachitically activated unsaponifiable lipoids derived from yeast and yeast products.

III. The Foundation undertakes and agrees that all future licenses which it may grant under the Foundation patent rights shall be granted in all cases subject to the rights of the Company as hereinabove set forth and that no license shall be granted by the Foundation to any other yeast manufacturer, in the United States or Canada, than the Company.

IV. The Foundation undertakes and agrees that in each license hereafter executed under its patent rights, it will incorporate a restrictive provision whereby such licensee shall not be licensed to import into the United States any antirachitically activated foil yeast, dried yeast, autolyzed yeast, hydrolyzed yeast, or compressed yeast, and shall not be licensed to antirachitically activate in the United States any foil yeast, dried yeast, autolyzed yeast, hydrolyzed yeast, or compressed yeast imported from outside the United States.

V. The Foundation further undertakes and agrees that in each such future license (with only the possible exception stated in Paragraph VI following) it will also incorporate a restrictive provision whereby such licensee shall not be licensed to import into the United States any antirachitically activatable unsaponifiable lipoids derived from yeast or yeast products for antirachitic activation nor any antirachitically activated unsaponifiable lipoids derived from yeast or yeast products during any period or periods that such licensee can purchase from the Company such substances, of equal or better quality, at prices not more than ten percent (10%) in excess of the actual cost to such licensee of such material purchasable by it (save for such prohibition) outside the United States for importation into the United States with duty and transportation charges paid.

VI. It is understood that the Foundation is negotiating with certain pharmaceutical manufacturing companies for the grant of licenses under the Foundation patent rights for the manufacture and sale of antirachitically activated unsaponifiable lipoids for medicinal and pharmaceutical purposes. If, in the opinion of the Foundation, the successful conclusion of such negotiations requires it, then it is agreed by the parties hereto that as to such licensees only and as to such licenses only for antirachitically activated unsaponifiable lipoids for sale for medicinal and pharmaceutical purposes and not for sale to any other licensees of the Foundaion the restrictive provision of paragraph V above shall not apply.

VII. Whereas Steenbock, the inventor above named, has not yet determined upon the dosage or degree of antirachitic activation for the contemplated licensed operations of the Company with the precision desirable for commercial operations, it is agreed by the parties that the licenses hereby granted the Company shall begin from the date hereof and extend over a period of two years from a date sixty (60) days after the Company shall indicate its approval of or agreement on the matter of dosage or of degree of antirachitic activation of its licensed product foil yeast. It is understood that Steenbock will proceed with diligence to determine and advise the Company regarding this matter of dosage or degree of antirachitic activation and the Company agrees that it will with diligence thereafter

Digitized by Google

and in good faith consider such recommendations and test the same to the end of reaching an early approval thereof or mutual agreement regarding the matter.

VIII. The Company agrees to pay the Foundation in full payment for the licenses hereinabove granted, the minimum sum of Fifty Thousand Dollars ($50,000.00) payable as follows:

Ten Thousand Dollars ($10,000.00) on the execution of this agreement;

Ten Thousand Dollars ($10,000.00) on the date of the beginning of the two-year period provided for above in Paragraph VII, and

Ten Thousand Dollars ($10,000.00) semiannually thereafter until said Fifty Thousand Dollars ($50,000.00) is fully paid. The Company agrees, moreover, that at the end of said two-year period it will review its licensed operations, and in good faith, based upon the profitableness and general value and benefit of the licensed inventions to the Company during said period, make such increased payment, if any, therefor to the Foundation as shall, in the judgment of the Company, be fair and reasonable.

IX. The Foundation hereby grants the Company an option to extend the licenses hereinabove granted for an additional term of five (5) years and also grants the Company an option to extend the licenses hereinabove recited for such period beyond said five (5) years extension as will constitute the balance of the full term and life of any United States Letters Patent of the Foundation hereinabove referred to, it being understood that the said options are independent and may be independently and successively exercised by the Company and that the amounts payable by the Company to the Foundation as full royalty during the term of either of such extended licenses shall be a minimum of Twenty-Five Thousand Dollars ($25,000.00) per year and shall be such amount plus an amount, if any, which shall be determined and fixed by the Company at the end of each year after reviewing its licensed operations for such year and in good faith based upon the profitableness and the general value and benefit of the licensed inventions to the Company during such year, and which shall appear, in the judgment of the Company, to be fair and reasonable. It is understood and agreed that each such extra amount determined and paid by the Company in excess of the Twenty-five Thousand Dollars ($25,000.00) per year minimum shall be considered independently of any such amount of the same character which may have been paid theretofore or which may be paid thereafter. Each of the options hereby granted may be exercised by the Company and the extended licenses thereby secured to the Company at any time while license rights of the Company are in force and that written notice to such effect deposited in the registered mail and addressed to the Foundation shall be a sufficient exercise of each of said options.

X. The Foundation agrees that the name "Steenbock" and the title "The Wisconsin Alumni Research Foundation" may be used by the Company in advertising its products made under the license granted hereby, but to the extent only as follows:

(a) The Company's advertising which includes said name and/or said title shall be of a dignified and ethical character and not extravagant and not sensational;

(b) The Company's advertising which includes said name and/or said title shall, so far as it advances therapeutic claims for its advertised products arising from inclusion therein of any invention within the Foundation patent rights, confine said claims within the limits of fact statement to be defined by the Foundation promptly hereafter;

(c) The Company's advertising which includes said name and/or said title shall be accompanied by a legend or phrase as follows:

"Made under the Steenbock process as licensed by the Wisconsin Alumni Research Foundation."

(d) No restriction shall ever be imposed on the Company's advertising under the provisions of this paragraph beyond restrictions which the Fouudation has imposed, and/or shall impose, upon all of its other licensees under the Foundation patent rights.

XI. Promptly upon the execution of this agreement the Company undertakes to disclose to the Foundation or to Dr. Steenbock the full recommendations of the Company's patent counsel as to procedure and means for improving the Foundation's patent rights and the Company undertakes further to instruct its attorneys to cooperate to the fullest extent with Dr. Steenbock and/or the Foundation's patent counsel to effect such improved status of the Foundation's patent rights.

XII. It is understood and agreed that the parties, as promptly as possible hereafter, will endeavor to agree on suitable provisions to be incorporated in this

Digitized by Google

agreement, or a supplemental agreement, affecting their ancillary or incidental respective obligations. As examples of such matters on which the parties will endeavor to reach such agreement are the following:

(a) The effect of a final and determinative decree by a court of competent jurisdiction adjudging the claims of the Foundation patents which cover the licensed operations of the Company to be ineffective to protect the Company's operations under the licenses hereby granted;

(b) The effect of a final and determinative decree by a court of competent jurisdiction enjoining the Company from continuing its operations or any of them under the licenses hereby granted:

(c) The institution and maintenance of suits against infringers of the Foundation patent rights, insofar as such infringement may arise to the prejudice of the Company's rights under the licenses hereby granted;

(d) The rights of the parties in and to any future patentable inventions which may be developed by the Company by way of improvement on the subject-matter of the Foundation patent rights under which the Company is licensed;

(e) The rights and obligations of the parties in the event that the Company is sued by any third party for patent infringement arising from the operations of the Company under license from the Foundation.

In witness whereof the parties have hereunto affixed their corporate seals and caused these presents to be signed, The Wisconsin Alimuni Research Foundation, by its agents, and The Fleischmann Company, by its officers, thereunto duly authorized by their respective Boards of Directors.

[CORPORATE SEAL] THE WISCONSIN ALUMNI RESEARCH FOUNDATION,
By W. S. KIES,
HARRY STEENBOCK.

[CORPORATE SEAL] THE FLEISCHMANN COMPANY,
By JOSEPH WILSHIRE, *President.*

STATE OF NEW YORK,
County of New York, ss:

On the 8th day of August, 1928, before me came W. S. KIES and HARRY STEENBOCK, to me known, who being by me duly sworn, did depose and say that they reside in Scarboro, Westchester County, New York, and in Madison, Dane County, Wisconsin respectively; that they are the agents of The Wisconsin Alumni Research Foundation, the corporation described in and which executed the above instrument; that they know the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation and that they signed their names thereto by like order.

BERNICE SINCLAIR.

NOTARY PUBLIC, Bronx County, Bronx Co. Clerk's No. 118, Reg. No. 3078, Certificate filed in New York County, Clerk's No. 1132, Register's No. 0–787; Commission Expires March 30, 1930.

STATE OF NEW YORK,
County of New York, ss.

On the 8th day of August, 1928, before me came JOSEPH WILSHIRE, to me known, who being by me duly sworn, did depose and say that he resides in Greenwich, Fairfield County, Connecticut; that he is the President of the Fleischmann Company, the corporation described in and which executed the above instrument; that they know the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation and that they signed their names thereto by like order.

BERNICE SINCLAIR.

NOTARY PUBLIC, Bronx County, Bronx Co. Clerk's No. 118, Reg. No. 3078. Certificate filed in New York County, Clerk's No. 1132, Register's No. 0–787. Commission Expires March 30, 1930.

(Endorsement on back:) Agreement between THE WISCONSIN ALUMNI RESEARCH FOUNDATION and THE FLEISCHMANN COMPANY.

AGREEMENT

This agreement, made May 10, 1935, between S. M. A. Corporation, a corporation organized and existing under the laws of the State of Ohio, with principal office at Cleveland, Ohio (and hereinafter called "SMA"), party of the first part,

Digitized by Google

and Standard Brands Incorporated, a corporation organized and existing under the laws of the State of Delaware, with principal offices at New York City, New York (and hereinafter called "Standard"), party of the second part, Witnesseth:

Whereas SMA is the owner of certain inventions and applications for patents filed and about to be filed in the Patent Office of the United States by W. O. Frohring, A. F. O. Germann, Vernon Jersey, Harold M. Barnett, et al., and relating to a product high in Vitamin A content and the process and methods for production thereof, and is now engaged in manufacturing certain products thereunder (the present product being known as "Primatene"); and

Whereas Standard is engaged in the manufacture and sale, among other things, of Fleischmann's Yeast;

Now, Therefore, the parties agree:

ARTICLE I

SMA shall sell and deliver to Standard, f. o. b. Mason, Ingham County, Michigan, SMA products of high Vitamin A content (now sold under the trade name of Primatene and hereinafter called "Primatene"), with a Vitamin A potency as ordered from time to time by Standard, but not to exceed a potency of over four thousand two hundred (4,200) U. S. P. X units per gram.

During each twelve (12) month period from the effective date hereof Standard shall purchase for use in Fleischmann's Yeast its entire requirements of Vitamin A products for such purpose and SMA shall sell the same to Standard and make delivery thereof with all reasonable promptness and not more than fifteen (15) days after the receipt of each order from Standard. Standard shall pay to SMA for the Primatene at the rate of fifty-five cents (55¢) per million (1,000,000) U. S. P. X units less 10% to allow for unavoidable inaccuracies in the biological assays. Standard agrees to use Primatene in all fresh yeast for health manufactured by it, incorporating approximately 200 U. S. P. X units in each half-ounce yeast cake. In addition, Standard shall supply SMA with cotton-seed oil necessary for the preparation of the Primatene solution to be used by Standard under this contract. The concentration of Vitamin A shall be 5,600,000 U. S. P. X units per gallon, unless otherwise specified by Standard.

The purchase price of all products bought by Standard hereunder shall be paid within the first ten (10) days of the month following delivery.

Deliveries by SMA shall be subject to acts of God, riots, civil or military commotion, strikes, floods, drouths, fires, or other causes beyond its control.

ARTICLE II

SMA guarantees that all Primatene delivered to Standard for the use designated shall have a potency in Vitamin A content as described in Article I. The vitamin unit referred to herein is that known as U. S. P. X (1934 revised).

ARTICLE III

SMA warrants that it has not licensed or sold heretofore, and covenants that it will not hereafter during the existence of this contract, either sell, or license the use and sale of, Primatene or other Vitamin A product, or license said inventions or any patents, either United States or foreign, relating thereto, to any other person or corporation for use in yeast.

ARTICLE IV

Recognizing the necessity of establishing and permanently maintaining in good repute Primatene with its Vitamin A, and the products in which it may be incorporated, and the effect of extravagant or unwarranted statements relating to the potency or efficiency of Primatene or the Vitamin A content thereof, Standard shall not make any statement in its advertising regarding Primatene and/or its Vitamin A content except statements which are like or substantially like those contained in the attached "List of Advertising Statements," or those which may be added thereto by SMA.

ARTICLE V

SMA, if requested by Standard, will, through its attorneys, defend Standard from any actions at law or equity alleging that the products sold hereunder by SMA to Standard infringe any other patents, and will defray the costs and expenses of such attorneys and also pay court costs in any such litigation.

Digitized by Google

If Standard desires action to be instituted against any person or corporation alleged to be infringing any patents owned or controlled by SMA and involved in the manufacture of Primatone, it may so notify SMA in writing, naming the alleged infringer. Within ninety (90) days after the receipt by SMA of such notice, SMA, at its own expense, may file suit to enjoin the continuation of such infringement and/or the recovery of damages therefor, and shall pay to Standard all sums of money recovered thereunder after first deducting its costs and expenses therein. If at the end of such ninety (90) days SMA shall have failed to file suit, Standard may institute such suit at its own expense and in the name of SMA and may retain any and all sums of money recovered therein.

ARTICLE VI

Though executed on the date hereinabove recited this contract shall be effective as of April 1, 1935 and shall continue for three (3) years thereafter; provided, however, that Standard shall have the option to extend it for an additional two year period by giving sixty (60) days' notice in writing prior to the expiration of the first three-year period. Thereafter, subject to the prior written agreement of the parties on the quantities and prices for each ensuing term, this contract may be similarly renewed by Standard prior to the expiration of each two-year period.

During this contract and the first renewal period of two (2) years, Standard shall purchase from SMA its entire requirements of Primatene for use in yeast and SMA shall deliver such Primatene to Standard at a price not exceeding Fifty-Five Cents (55¢), less 10%, per million (1,000,000) U. S. P. X units.

If Standard discontinues the use of Vitamin A in Yeast, Standard shall have the right to cancel the contract at the end of any year during this agreement or any renewal thereof, by giving sixty (60) days' notice in writing prior to the end of such year.

ARTICLE VII

Standard shall not sell or otherwise dispose of, except in its product herein defined, any Primatene purchased hereunder, and this contract shall not be assignable by Standard without first having secured the written consent of SMA, except (a) Standard may assign to a corporation which purchases substantially all of the assets of Standard, and (b) the rights granted hereunder to Standard may be exercised by any of its subsidiary or related companies, subject to their performance of the obligations imposed hereby upon Standard; provided, however, that Standard shall not thereby be released from the obligations hereof (save that the aggregate purchases of such subsidiary or related companies may be applied toward the minimum purchases of Standard set forth in Article I hereof).

ARTICLE VIII

SMA shall use its best efforts and diligence to obtain at its own expense, United States Letters Patent covering said inventions and said Primatene and processes and method for production thereof. At the request, and at the expense of Standard, SMA shall file suitable applications, and thereafter diligently prosecute the same, in any and all foreign countries which Standard by written notice to SMA may request and designate. Said applications and patents and all rights thereunder shall belong to SMA. In all countries in which applications shall have been filed pursuant to this provision, Standard shall have (and SMA binds itself to execute upon request) a royalty free license to manufacture, sell, and use, but in yeast only, the products covered by said patents, and except as to price and quantities, subject to the restrictions and limitations imposed upon Standard hereby, which license or licenses shall be co-extensive with this contract and all renewals and extensions thereof.

ARTICLE IX

In the event of breach of any covenant hereof by Standard or by its assignees or its subsidiaries or related companies exercising rights hereunder pursuant to Article VII, this contract and all rights and obligations of the parties save those theretofore accrued, shall terminate upon the delivery to Standard by SMA of written notice of cancellation of the contract.

Digitized by Google

ARTICLE X

Except for rights and obligations accrued thereunder to date hereof, the agreement heretofore made between the parties dated November 22, 1933, the supplemental agreement dated November 22, 1933, and the supplemental agreement dated May 1, 1934, are terminated and cancelled. It is agreed, however, that all sums due SMA under the price adjustment clause in supplemental agreement dated November 22, 1933, are hereby waived.

ARTICLE XI

All notices provided herein shall be regarded as delivered by the deposit, in the United States mail, of registered letter directed to the opposite party, as follows: if so S. M. A. Corporation, at 4614 Prospect Avenue, Cleveland, Ohio; if to Standard Brands Incorporated, at 595 Madison Avenue, New York City, New York. Either party may give notice to the other of change of address.

In witness whereof the parties hereto have hereunto set their hands by their duly authorized officers, the day and year first above written.

S. M. A CORPORATION,
By ——— ———

Attest:
———

STANDARD BRANDS INCORPORATED,
By WILLIAM KLUSMEYER,
Vice President.
[SEAL]

Attest:
HUGO A. OSWALD,
Secretary and Treasurer.

STATEMENTS OF FACTS UPON WHICH ADVERTISING CLAIMS WILL BE BASED

1. According to the present accepted definition of a vitamin, carotene is a vitamin.
2. Carotene is known as primary or pro-vitamin A.
3. Carotene is converted (in the body) into Vitamin A.
4. Through the addition of pure carotene, Fleischmann's Yeast now supplies a fourth vitamin—vitamin A—the anti-infective vitamin.
5. One cake of Fleischmann's Yeast supplies 200 units of vitamin A.
6. Fleischmann's Yeast now supplies both active principles of cod liver oil in the form most suited for the human body.
7. Pure carotene is the international unit for measuring vitamin A. The international unit of vitamin A is that amount equal in activity to 0.001 milligram, or 1 gramma, of standard carotene.
8. Carotene is the natural fruit and vegetable source of vitamin A, and is vitamin A in the form to which man has adapted himself by nature.
9. The inclusion of three cakes of Fleischmann's Yeast in the daily diet provides 600 units of vitamin A in the form of carotene. Nutrition experts agreement that this is a desirable and safe, healthful supplement of vitamin A for the average American diet.
10. One great advantage of Fleischmann's Yeast with Carotene is the accuracy of the dosage of vitamin A.
11. Fleischmann's Yeast contains a dependable dosage of vitamin A in a palatable form.
12. Vitamin A is known as the anti-infective vitamin.
13. Vitamin A is known as the anti-xerophthalmic vitamin.
14. Vitamin A increases the resistance of the mucous membranes to invasion by disease producing organisms.
15. Vitamin A helps to keep the mucous membranes in a healthy condition.
16. Vitamin A is an aid in preserving and promoting health and vigor.
17. A liberal supply of vitamin A is an extremely important factor in maintaining a full measure of health and vigor. A. M. A.
18. Vitamin A is necessary for the normal growth of all the tissues.
19. Normal adults need several times larger the amount of vitamin A in order to do their best than they need to prevent characteristic signs of deficiency.
20. A deficiency of vitamin A may produce a lasting deleterious effect on the body.

Digitized by Google

21. When the diet is deficient in vitamin A there is widespread weakening of the body.
22. Vitamin A is necessary to preserve the anatomic and physiologic integrity of the body surfaces, enabling them to function as the normal protective barrier against disease producing organisms.
23. A lack or deficiency of vitamin A predisposes to infection by changing the natural protective forces effective against bacterial organisms, and by breaking down the natural resistance of the body.
24. Deficiency in the intake of the other vitamins also lowers the resistance to infection, but there is no evidence that the relationship is as direct as in vitamin A deficiency.
25. Vitamin A stands out conspicuously as one of the dietary factors related to respiratory infections.
26. A lack or deficiency of vitamin A in the diet predisposes to colds, bronchitis, and infections of the respiratory mucuous membrane.
27. Partial vitamin A deficiency disturbs the function of the retina of the eye and causes night blindness, while a marked deficiency leads to the destruction of the eye.
28. Vitamin A is necessary for undisturbed function of the glands of the body and is a factor in preserving dental health insofar as proper functioning of the salivary glands are maintained.
29. Vitamin A is essential for the proper formation of the enamel forming organ in the embryo.
30. Vitamin A is especially important for the expectant mother. It is necessary for the formation of healthy tooth germs in the unborn child.
31. Fleischmann's Yeast with carotene may prevent the development of symptoms of vitamin A deficiency.
32. A mild deficiency of vitamin A may lower the resistance of the body to infection before there are pronounced evidence of its deficiency.
33. Vitamin A helps to guard us against many forms of infection.
34. Vitamin A lessens the danger of infections of the eye, nose, throat, lungs, and kidneys.
35. Experimental work with animals indicates that carotene gives better protection against upper respiratory infection than cod liver oil (Turner and Loew, Jour. Inf. Dis. 52, 102 (1933)).
36. During fever, the body store of carotene is rapidly depleted; the need of supplying it daily is therefore obvious (Clausen Am. J. Dis. Child., 42, 6981 (1931)).
37. The presence of carotene in milk and butter emphasizes the importance of this vitamin in nutrition.
38. Mother's milk contains carotene. The importance of an adequate supply for nursing mothers would seem to be obvious.
39. Carotene appears to be present in the reproductive organs of both plants and animals. This fact appears to be significant (Euler, Bull. Soc. Chim. Biol., 838 (1932)).
40. Carotene is a plant pigment. Nutritionists tell us that plant pigments are essential to health (Kugelmass, Feeding in Infancy and Childhood, page 35).

OCTOBER 30TH, 1933.

SUPPLEMENTAL AGREEMENT

This supplemental agreement, made May 1, 1934, between S. M. A. Corporation, a corporation organized and existing under the laws of the State of Ohio, with principal offices at Cleveland, Ohio, and Standard Brands Incorporated, a corporation organized and existing under the laws of the State of Delaware, with principal offices at New York City, New York, Witnesseth:

That in consideration of the sum of One Dollar ($1.00) paid by Standard Brands Incorporated to S. M. A. Corporation, receipt of which is hereby acknowledged, and in further consideration of the mutual promises between the parties covering Primatene, the formal Contract dated November 22, 1933, and the Supplemental Contract dated November 22, 1933, shall be amended so that the commencement date of the Contract shall be April 1, 1934, instead of January 1, 1934. It is further mutually agreed that all yearly periods shall be computed from April 1st.

In all other respects the Agreement, dated November 22, 1933, and the Supplemental Agreement, dated November 22, 1933, shall remain the same.

Digitized by Google

In witness whereof the parties hereto have hereunto set their hands by their duly authorized officers, the day and year first above written.

S. M. A. CORPORATION,
By (sgd) W. O. FROHRING, *Vice President.*
Attest: F——— G———, *Secretary.*

STANDARD BRANDS INCORPORATED,
By (sgd) T. L. SMITH, *Vice President.*
Attest: HUGO A. OSWALD, *Secretary and Treas.*

SUPPLEMENTAL AGREEMENT

This agreement, made November 22, 1933, between S. M. A. Corporation, a corporation organized and existing under the laws of the State of Ohio, with principal offices at Cleveland, Ohio, and Standard Brands Incorporated, a corporation organized and existing under the laws of the State of Delaware, with principal offices at New York City, New York, Witnesseth:

That in consideration of the sum of One Dollar ($1.00) paid by Standard Brands Incorporated to S. M. A. Corporation, receipt of which is hereby acknowledged, and in further consideration of the execution of the contemporaneous contract between the parties covering Primatene, the formal contract shall be modified as follows for shipments during the first twelve months period of the contract:

If total shipments for first twelve months are—	The price per million ADMA units shall be—
	Cents
70,000 million ADMA units	95½
80,000 million ADMA units	91
90,000 million ADMA units	86½
100,000 million ADMA units	82
110,000 million ADMA units	77½
120,000 million ADMA units	73½

On all Primatene shipped in excess of one hundred twenty thousand million (120,000,000,000) ADMA units, but less than one hundred fifty thousand million (150,000,000,000) ADMA units, the price will be $0.657 per million units.

On all Primatene shipped in excess of one hundred fifty thousand million (150,000,000,000) ADMA units, the price will be One Dollar ($1.00) per million units.

The formal contract shall be further modified as follows for shipments during the second year of the contract:

It total shipments for second twelve months are—	The price per million ADMA units shall be—
	Cents
70,000 million ADMA units	95½
80,000 million ADMA units	91
90,000 million ADMA units	86½
100,000 million ADMA units	82

For all Primatene shipped in excess of 100,000 million SMA units the price will be not more than 82c per million.

The S. M. A. Corporation shall bill Standard Brands Incorporated each month at the scale price of the estimated annual requirements of Standard Brands Incorporated. Adjustment in price shall be made at the close of each yearly period.

Nothing in this supplemental agreement shall be construed to change the cancellation provisions contained in Article VI of the formal contract.

Digitized by Google

In witness whereof, the parties hereto have hereunto set their hands by their duly authorized officers, the day and year first above written.

S. M. A. CORPORATION,
By W. O. FROHRING.

Attest:

W. E. TELLING.

STANDARD BRANDS INCORPORATED,
By T. L. SMITH.

Attest:
[SEAL]

HUGO A. OSWALD.

AGREEMENT

This agreement, made November 22, 1933, between S. M. A. Corporation, a corporation organized and existing under the laws of the State of Ohio, with principal offices at Cleveland, Ohio (and hereinafter called "SMA"), party of the first part, and Standard Brands Incorporated, a corporation organized and existing under the laws of the States of Delaware, with principal offices at New York City, New York (and hereinafter called "Standard"), party of the second part, Witnesseth:

Whereas, SMA is the owner of certain inventions and applications for patents filed and about to be filed in the Patent Office of the United States by W. O. Frohring, A. F. O. Germann, Vernon Jersey, Harold M. Barnett, et al, and relating to a product high in Vitamin A content and the process and methods for production thereof, and is now engaged in manufacturing certain products thereunder (the present product being known as "Primatene"); and

Whereas, Standard is engaged in the manufacture and sale, among other things, of Fleischmann's Yeast;

Now therefore, the parties agree:

ARTICLE I

SMA shall sell and deliver to Standard, f. o. b. Mason, Ingham County, Michigan, SMA products of high Vitamin A content (now sold under the trade name of Primatene and hereinafter called "Primatene"), with a Vitamin A potency as ordered from time to time by Standard, but not to exceed a potency of over three thousand (3,000) ADMA units per gram.

During each twelve (12) month period from January 1, 1934, which shall be the date of commencement of this contract, Standard shall purchase for use in Fleischmann's Yeast its entire requirements of Vitamin A products for such purpose but which shall not be less than sixty billion (60,000,000,000) ADMA units, and SMA shall sell the same to Standard and make delivery thereof with all reasonable promptness and not more than fifteen (15) days after the receipt of each order from Standard; provided, however, that Standard shall not be required to purchase nor SMA required to sell and deliver quantities of Vitamin A products in excess of 150,000,000,000 ADMA units per year. Standard shall pay to SMA for the Primatene at the rate of One Dollar ($1.00) per million (1,000,000) ADMA units. In addition thereto, Standard shall pay to SMA for each pound of solution purchased by Standard from SMA hereunder and containing Primatene, a sum equal to the price per pound which Standard is then paying for cotton seed oil purchased by it for use in its Fleischmann's Yeast product.

The purchase price of all products bought by Standard hereunder shall be paid within the first ten (10) days of the month following delivery.

Deliveries by SMA shall be subject to acts of God, riots, civil or military commotion, strikes, floods, drouths, fires, or other causes beyond its control.

ARTICLE II

SMA guarantees that all Primatene delivered to Standard for the use designated shall have a potency in Vitamin A content as described in Article I. The test of Vitamin A content shall be that specified by the American Drug Manufacturers Association, Vitamin Committee, reported in the Journal of the American Pharmaceutical Association, issue of June 1932, page 597.

Digitized by Google

ARTICLE III

SMA warrants that it has not licensed or sold heretofore, and covenants that it will not hereafter during the existence of this contract, either sell, or license the use and sale of, Primatene or other Vitamin A product, or license said inventions or any patents, either United States or foreign, relating thereto, to any other person or corporation for use in yeast. In addition to the purchase price of the products ordered by Standard hereunder, Standard shall pay to SMA a fee of $1,000.00 per annum during the life of this agreement, the first annual fee to be paid simultaneously with the execution of this agreement, and the annual fees thereafter to be paid within thirty (30) days after the commencement of each and every annual period during the life of this agreement.

ARTICLE IV

Recognizing the necessity of establishing and permanently maintaining in good repute Primatene with its Vitamin A, and the products in which it may be incorporated, and the effect of extravagant or unwarranted statements relating to the potency or efficiency of Primatene or the Vitamin A content thereof, Standard shall not make any statement in its advertising regarding Primatene and/or its Vitamin A content except statements which are like or substantially like those contained in the attached "List of Advertising Statements" or those which may be added thereto by SMA.

ARTICLE V

SMA, if requested by Standard, will, through its attorneys defend Standard from any actions at law or equity alleging that the products sold hereunder by SMA to Standard infringe any other patents and will defray the costs and expenses of such attorneys and also pay court costs in any such litigation.

If Standard desires action to be instituted against any person or corporation alleged to be infringing any patents owned or controlled by SMA and involved in the manufacture of Primatene, it may so notify SMA in writing, naming the alleged infringer. Within ninety (90) days after the receipt by SMA of such notice, SMA, at its own expense, may file suit to enjoin the continuation of such infringement and/or the recovery of damages therefor, and shall pay to Standard all sums of money recovered thereunder after first deducting its costs and expenses therein. If at the end of such ninety (90) days SMA shall have failed to file suit, Standard may institute such suit at its own expense and in the name of SMA and may retain any and all sums of money recovered therein.

ARTICLE VI

Except for obligations theretofore accruing, this contract shall terminate three (3) years from date hereof; provided, however, that Standard shall have the option to extend it for an additional two year period, by giving sixty (60) days, notice in writing prior to the expiration of the first three year period. Thereafter, subject to the prior written agreement of the parties on the quantities and prices for each ensuing term, this contract may be similarly renewed by Standard prior to the expiration of each two year period.

During this contract and the first renewal period of two years, SMA agrees to deliver Primatene that may be required by Standard at a price not exceeding One Dollar ($1.00) per million (1,000,000) ADMA units for a quantity not in excess of one hundred and fifty billion (150,000,000,000) ADMA units per year.

If Standard discontinues the use of Vitamin A in Yeast, Standard shall have the right to cancel the contract at the end of any year during this agreement or any renewal thereof, by giving sixty (60) days' notice in writing prior to the end of such year.

ARTICLE VII

Standard shall not sell or otherwise dispose of except in its product herein defined, any Primatene purchased hereunder, and this contract shall not be assignable by Standard without first having secured the written consent of SMA, except (a) Standard may assign to a corporation which purchases substantially all of the assets of Standard, and (b) the rights granted hereunder to Standard may be exercised by any of its subsidiary or related companies, subject to their performance of the obligations imposed hereby upon Standard; provided, however, that Standard shall not thereby be released from the obligations hereof

Digitized by Google

(save that the aggregate purchases of such subsidiary or related companies may be applied toward the minimum purchases of Standard set forth in Article I hereof).

ARTICLE VIII

SMA shall use its best efforts and diligence to obtain, at its own expense, United States Letter Patent covering said inventions and said Primatene and processes and method for production thereof. At the request, and at the expense of Standard, SMA shall file suitable applications, and thereafter diligently prosecute the same, in any and all foreign countries which Standard by written notice to SMA may request and designate. Said applications and patents and all rights thereunder shall belong to SMA. In all countries in which applications shall have been filed pursuant to this provision, Standard shall have (and SMA binds itself to execute upon request) a royalty free license to manufacture, sell and use, but in yeast only, the products covered by said patents, and except as to price and quantities, subject to the restrictions and limitations imposed upon Standard hereby, which license or licenses shall be coextensive with this contract and all renewals and extensions thereof.

ARTICLE IX

In the event of breach of any covenant hereof by Standard or by its assignees or its subsidiaries or related companies exercising rights hereunder pursuant to Article VII, this contract and all rights and obligations of the parties save those theretofore accrued, shall terminate upon the delivery to Standard by SMA of written notice of cancellation of the contract.

ARTICLE X

All notices provided herein shall be regarded as delivered by the deposit in the United States mail, of registered letter directed to the opposite party, as follows: if to S. M. A. Corporation, at 4614 Prospect Avenue, Cleveland, Ohio; if to Standard Brands Incorporated, at 595 Madison Avenue, New York City, New York. Either party may give notice to the other of change of address.

In witness whereof, the parties hereto have hereunto set their hands by their duly authorized officers, the day and year first above written.

S. M. A. CORPORATION,
By W. O. FROHRING.

Attest:

W. E. TELLING.

STANDARD BRANDS INCORPORATED,
By T. L. SMITH.

Attest:
[SEAL.]

HUGO A. OSWALD.

AGREEMENT

Agreement made at New York, N. Y., this 22d day of March 1935 between Clarence G. Stone, of 304 First Avenue, Mount Vernon, N. Y., and Abraham Edelman, of 115 West One hundred and Seventy-second Street, Bronx, N. Y. (hereinafter collectively designated "the Inventors"), and Standard Brands Incorporated, a New Jersey corporation having an office at 595 Madison Avenue, New York, N. Y. (hereinafter designated "the Company"), Witnesseth:

Whereas the Inventors are the joint inventors and owners of a certain new and useful invention, to wit: Improvements in Photo-Electric Color Comparator, for which an application for United States Letters Patent, Serial No. 691910, was filed October 3, 1933; and

Whereas the Company has at its own expense prepared and filed said application, and desires to use the invention thereof in its coffee business:

Now, therefore, in consideration of the premises and of the promises and conditions hereinafter contained, it is agreed as follows:

1. The Company waives and releases any rights in or under said invention or application except as set forth herein.

2. The Inventors hereby grant to the Company, its successors and subsidiaries, a royalty free personal license and shopright to use, in its or their business only, said invention and to make or have made, for its or their use only, apparatus and devices constructed in accordance with said application, Serial No. 691910, and

Digitized by Google

any divisions or continuations thereof and under any Letters Patent of the United States obtained on such applications throughout the life of said Letters Patent.

3. The Inventors release the Company from all further liability and expense in connection with the prosecution of said application, Serial No. 691910, and shall take over the prosecution of said application, and shall be free to entrust the prosecution of the same to patent attorneys of their own selection; but the Inventors shall not reimburse the Company for expenses heretofore incurred.

4. This agreement shall supersede any other or prior agreement between the parties with reference to this subject matter.

In witness whereof, the Inventors have each hereunto set his hand and affixed his seal, and the Company has caused this instrument to be signed and its corporate seal to be affixed at New York, N. Y., by its officers thereto duly authorized, the day and year first above written.

(sgd) CLARENCE G. STONE.
(sgd) ABRAHAM EDELMAN.

Witnesses:
CLAIRE W. STONE.
B. EDELMAN.

STANDARD BRANDS INCORPORATED,
(sgd) THOMAS L. SMITH,
First Vice President.

Attest:
(sgd) HUGO A. OSWALD,
Secretary.

GRAYBAR BUILDING, LEXINGTON AVENUE AT FORTY-THIRD STREET,
New York, December 23, 1935.

DR. WILLIAM I. SIROVICH,
Chairman, Committee on Patents,
Fifth Avenue Hotel, Fifth Avenue and Ninth Street, New York, N. Y.

DEAR DR. SIROVICH: I am enclosing for insertion in the permanent records of the hearings of your committee, in final form, the statement which I had the honor to make before your committee on December 2.

As I explained to the clerk of your committee, to whom I handed a rough draft of the statement as delivered, this was prepared in haste and was to be replaced in the permanent record of your committee by the final form in which the statement appears, as enclosed herein, with the substantiating footnotes, in which there is a considerable amount of material which may be of interest to your committee.

If the statement is printed in your permanent records, as I assume it will be, the footnotes should, of course, be printed on the same page as the appropriate text, or as an appendix to the statement (as you may desire).

Will you kindly have returned to me the temporary draft of the statement, which I left with the clerk on December 2.

With best wishes,
Sincerely yours,

FRANK I. SCHECHTER.

WOULD COMPULSORY LICENSING OF PATENTS BE UNCONSTITUTIONAL?*

By Frank I. Schechter

The famous dictum of Dr. Samuel Johnson, uttered over 150 years ago, "that patriotism is the last refuge of a scoundrel" has, I am sorry to say, acquired—especially in view of the recent antics of eminent counsel—a popular corollary in the vernacular of today that the Constitution of the United States is the last hideout for desperate lawyers. This feeling is not, I believe, directed against the motives or the logic of those attorneys and also those professors of law who are confronted with the interpretation of proposed legislation that is, for one

*This paper was read at the request of the Committee on Patents, House of Representatives, at a hearing on H. Res. 196 and H. R. 4523, 74th Cong., 1st sess., held at New York City on December 2, 1935. I am indebted to Mr. Leslie D. Taggart of the New York Bar for his assistance in its preparation. I also desire to thank the authorities of the Columbia Law Library for many courtesies and for putting at my disposal their valuable collection of early American treatises concerning patent law.

Digitized by Google

reason or another, obviously and palpably unconstitutional.[1] However, there is another type of legislation, concerning which the plea of unconstitutionality is not received with equal equanimity. There are, from time to time, legal and social reforms advocated, the unconstitutionality of which is instinctively, vehemently and uncompromisingly challenged with, on the one hand, "an exquisite aloofness from the vulgarity of contemporary ideas" [2] and, on the other hand, a lack of historical perspective and of sound, factual basis. The plea of unconstitutionality in such cases cannot and should not be successfully maintained by the mere and sheer process of reiteration.

I have been invited by the Committee on Patents to discuss the constitutionality and the historical background of what has been aptly described by a subcommittee of the American Bar Association as "a hardy perennial", viz: A proposal for some form of compulsory licensing of patents.[3] In appearing before you, I have made it perfectly clear to your chairman, and so that there be no misunderstanding, I desire to repeat now that I am not a member of the patent bar, and that I am not speaking to you in the capacity of a patent attorney but merely as a member of the general bar, interested in historical research and in problems of constitutional law.

Article I, section 8 of the Constitution of the United States provides that Congress "shall have the power * * * to promote the progress of science and useful arts by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries." At the hearings before your committee in 1912 on the Oldfield Revision and Codification of the Patent Statutes, and also at other times and places when various proposals for compulsory licensing of patents, or for a refusal of a court of equity to protect the owner of a patent who has not used his patent has been discussed, such proposals have been denounced most emphatically as "unconstitutional", "unfair", and "un-American." [4] I am well aware that any compulsory licensing system may have

[1] The duty of the court with regard to such statutes is quaintly reflected in an observation made by that great constitutional commentator, Associate Justice Joseph Story, of the Supreme Court, nearly a hundred years ago to his colleague, Mr. Justice McLean: "There will not, I fear, ever in our day, be any case in which a law of a State or of Congress will be declared unconstitutional; for the old constitutional doctrines are fast fading away, and a change has come over the popular mind, from which I augur little good. Indeed, on my return home, I came to the conclusion to resign." W. W. Story, *Life and Letters of Joseph Story*, (Boston, 1851), Vol. II, p. 272. The reference of Judge Story is to *Charles River Bridge* v. *Warren Bridge*, concerning which see under that title in Index to C. Warren, *The Supreme Court in United States History*, revised ed., Vol. II (Boston, 1926), at p. 770. See also Story's mournful lamentations as to the passing of "The doctrines and the opinions of the 'Old Court'" in C. Warren, loc. cit., Vol. II, p. 129.

[2] P. Guedalla, *Palmerston* (New York, 1917), p. 26.

[3] *American Bar Association*, Section of Patent, Trade-Mark, and Copyright Law. *Committee Report*. (July 15–16, 1935), pp. 29 ff.

[4] For opposition on such grounds in *Hearings on Oldfield Revision* (1913) see testimony; in No. 12 by H. Pettit (p. 6); by S. E. Edmonds (*loc. cit.*, pp. 8, 13–14); in No. 14, by L. Gifford (pp. 4–5); in No. 24, by F. F. Church (p. 12); "* * * the bill strikes at the very foundation of our patent system"; in No. 26, by F. F. Fish (pp. 6–7); in No. 27, by W. F. Rogers, President of the Patent Law Association of Washington, D. C., who was especially emphatic on this point: "Thus historically and traditionally * * * the spirit of our patent laws is that of an untrammeled grant of exclusion * * *. It would be an archaic and reactionary step to inject * * * compulsory license or * * * working" (*Ibid.*, p. 11). "It is not the Constitution we follow. It is not the law we adopted. It is not the bargain we made. It is not the policy which has studded every county, town, and hamlet with thriving independent shops and plants, with industries which never could have begun or lived but for the protection of the patent law" (*Ibid.*, p. 12). See W. F. Rogers' testimony (*ibid.*, p. 22) and, by P. T. Dodge (*ibid.*, p. 35); E. W. Bradford (*ibid.*, p. 37).

Belief in the constitutionality or historical justification of such legislation, although accompanied often by comment on the practical difficulties therein involved, was expression by F. L. Dyer, President of Thomas A. Edison, Inc. (in No. 10, p. 38); by H. L. Ward, representing the Inventors' Guild (No. 3, pp. 20, 22; No. 4, p. 22); by F. Y. Gladney (in No. 16, pp. 22 ff.); by F. L. O. Wadsworth (in No. 21, pp. 10 ff.); by W. H. Chamberlin (in No. 23, p. 4); by the Commissioner of Patents in Senate Doc. No. 555, 62nd Cong., 2nd Sess., relative to Bill S. 6273, recommending amendment to proposed Oldfield Bill by District Court granting a license after four years: "It is believed that such a measure will have the effect of placing all valuable inventions in public use within a reasonable time and will also encourage the establishment in the United States of manufactories for the production of patented machines, devices, etc., which have been patented by persons who are not citizens of the United States."

The Oldfield Report on the Revision of the Patent Laws (H. R. Report No. 1161, 62nd Congress, 2nd Session, August 8th, 1912, to accompany H. R. no. 23417) recommending compulsory licensing, stated (pp. 6–7): "Nonuse or suppression, in order to afford the basis for compelling the grant of a license, must be for the purpose or with the result of suppressing competition between the specific articles protected by the patent suppressed and some other article made and sold by the owner of the patent. Any one who objects to such a law must claim the right in the owner of a patent to suppress purely as a device to manipulate the market. Undoubtedly the framers of the patent law never contemplated such a use of patents. * * * What such a concern will pay for the patent will be determined by what it considers it worth to get the patent out of the way—its value in nonuse, not in active work. In such case the patent is valued for the protection that its ownership will give to a pre-existing monopoly and not for the profits to be made from the manufacture and sale of the new commodity." The "Minority Report" (*H. R. Report No. 1162, part 2, 62nd Congress, 3rd Session*) (February 26th, 1913), with equal emphasis opposed compulsory licensing, laying particular stress on the fact that in the "Majority Report" no concrete evidence of the suppression of patents was introduced and, it maintained, signatories of the Report relied not upon testimony "but upon comments and complaints in the public press * * * and upon instances which they contend are to be found in Reports of Decisions of the Federal Courts" (pp. 1–2).

For the difficulty existing formerly, but presumably presently eliminated of finding specific evidence of the suppression of patents, see F. W. Vaughn "Suppression and Non-Working of Patents * * *" in (1919) 9 *American Economic Review*, at pp. 693–4. *Cf.* testimony of F. Y. Gladney at *Oldfield Hearings*,

Digitized by Google

its difficulties and perplexities; some of these were brought out in the Oldfield hearings of 1912;[5] some of these have been considered by Prof. Floyd L. Vaughan in his valuable work on Economics of our Patent System;[6] some of these have recently been presented by a subcommittee of the American Bar Association in its 1935 meeting at Los Angeles;[7] and furthermore there is much illuminating material on the pros and cons of compulsory licensing in the most recent edition of Terrell's authoritative treatise on the law relating to patents in England, where the practical workings of that system of compulsory licensing may be watched both in legislation and in litigation.[8]

However, as indicated above, with the technique of a compulsory licensing system in the United States I am not concerned; if such a system is constitutional, and if the testimony brought out at the hearings of this committee indicate it to be desirable, then I have no doubt that it can be worked out by your committee with the proper cooperation of the patent bar, and also of the bench. The only phase of this problem with which I am concerned here is the constitutional phase, the appropriate elucidation of which necessitates an inquiry into the rationale and history of our patent system. I believe that this whole problem will be clarified if the proper distinction be at all times kept in mind between what Congress was empowered to do under article I, section 8, of the Constitution, and what Congress has, as evidenced in the present patent law, for the present, deemed it advisable to do in the exercise of that constitutional power. There is no question but that, as it has been consistently construed by the Supreme Court of the United States, the present statutory right of an inventor "to make, use, and vend the invention or discovery" includes the paradoxical right under his patent not to make, not to use, and not to vend his invention or his discovery during the term of his patent. Mr. Justice Brandeis has recently said for the Supreme Court that "if the patent is valid the owner can, of course, prohibit entirely the manufacture, sale, or use of such packages * * *."[9] As you are doubtless aware, this whole doctrine of the right of nonuser was developed in 1908 by the Supreme Court in the *Paper Bag Patent case.*[10] In that case, involving a bill in equity to retain the infringement of a certain patent, it was contended for the defendant by the able author of Walker on Patents that:

"To permit the owner of a patent held in nonuse to invoke the aid of courts of equity to enjoin the use by others of an invention which he refuses to use himself, would defeat the very object of the patent laws and of the constitutional provision to which they owe their existence, and such a course, had it been pursued in the past, would have blocked the road along which the great historic inventions of the nineteenth century have proceeded to their present state of perfection." [11]

No. 16, cited *supra*, at p. 23: "Another instance of suppressing patents we might call voluntary suppression, where a manufacturing concern buys up patents competitive with other patents that it owns and deliberately suppresses them. We know that is done every day. The practice has a judicial history. The courts time and again have commented on the fact. In the Thrashing Machine case tried out in the court of appeals for the seventh circuit, the facts were that the thrashing machine combine owned 105 patents on a straw stacker. In the reports of the decisions of the Federal courts you will find statements like this: That the complainant indulges the common practice of buying up patents to get rid of them in competition with the patents that they own."

For contemporary comments on the proposed Oldfield compulsory working legislation, see O. C. Bellman "The Compulsory Working of Patents" (1912), 24 *Green Bag* 513, 517 (calling such legislation "detrimental to the just rights of manufacturers and inventors, and decidedly un-American"), O. R. Barnett "The Oldfield Bill" (1913), 22 *Yale L. J.* 383 (partly favorable to "remedial legislation"); G. H. Montague, "The Pro-Posed Patent Law Revision", (1912) 26 *Harvard L. Rev.* 128 (opposed to such legislation on the ground that patent owners' rights are neither greater nor less than those of owners of unimproved land [p. 153]. See also Case Note in (1907) 20 *Harvard L. Rev.*, pp. 638–639, criticizing the decision in favor of a patentee who had not used his patent, in the *Paper Bag Patent Case*, 150 Fed. 741, later affirmed, 210 U. S. 405 (1908); *cf.* "The Effect of Non-Use on a Patentee's Remedy against Infringement", in (1903) 18 *Yale L. J.* 52, approving the decision of the Supreme Court in the *Paper Bag Patent Case*, on the ground that Article I, Section 8, of the Constitution obviously did not intend to give patentees "a narrower right than that which inheres in the absolute owners of property in general" (p. 53); *Walker on Patents*, 6 Ed., sec. 200.

[5] See Testimony against compulsory licensing in *Hearings on Oldfield Revision*, cited *supra*, note 4, also in those *Hearings* in No. 10 by E. J. Prindle (pp. 16 ff.); in No. 27, *passim*, by various witnesses.

[6] New York, 1925, at pp. 2–40 ff.; see also his article entitled "Suppression and Non-Working of Patents, with Special Reference to the Dye and Chemical Industries", in (1919) *The American Economic Review*, Vol. 9, 1919.

[7] See Report cited *supra*, note 3, pp. 29 ff.

[8] See *Terrell on Patents* (8th Ed. by J. R. Jones, London, 1934), Chs. I, XII, and XIII. For a recent clinical demonstration of the system see *The Co-Operative Union, Ld.*, 50 R. P. C., 1933. As to Canadian experience see *American Bar Association* * * * *Report*, cited *supra*, note 2, at p. 34; F. B. Fetherstonhaugh, and H. G. Fox, *Law and Practice of Inventions in Canada* (Toronto 1926), pp. 19 ff., 442 ff.; O. M. Biggar, *Canadian Patent Law and Practice* (Toronto 1927), pp. 70–71, 80 ff. For the working and compulsory licensing provisions of the new Canadian Patent Act, 1935, see Secs. 64–70 (reprinted in (1935) 33 *Pat. and T. M. Rev.* at pp. 323–327).

[9] *Carbice Corporation of America* v. *American Patents Development Corp.*, 283 U. S. 27, 31 (1931).

[10] *Paper Bag Patent Case*, 210 U. S. 405 (1908). See 1 *Walker on Patents* (6 Ed. by J. L. Lotsch, 1929) sec. 742.

[11] *Paper Bag Patent Case*, supra, note 10, at p. 407.

Digitized by Google

The reasoning of the court, in rejecting Mr. Walker's plea that an inventor may not invoke the protection of equity where there has been no commercial use of his patent, can be summarized in the Court's own language as follows:

(1) "The patent law is the execution of a policy having its first expression in the Constitution, and it may be supposed that all that was deemed necessary to accomplish and safeguard it must have been studied and provided for.[12]

(2) "As to the suggestion that competitors were excluded from the use of the new patent, we answer that such exclusion may be said to have been of the very essence of the right conferred by the patent, as it is the privilege of any owner of property to use or not use it, without the question of motive.[13]

(3) "In some foreign countries the right granted to an inventor is affected by nonuse. This policy, we must assume, Congress has not been ignorant of nor of its effects. It has, nevertheless, selected another policy; it has continued that policy through many years. We may assume that experience has demonstrated its wisdom and beneficial effect upon the arts and sciences.[14]

(4) "From the character of the right of the patentee we may judge of his remedies. It hardly needs to be pointed out that the right can only retain its attribute of exclusiveness by a prevention of its violation. Anything but prevention takes away the privilege which the law confers upon the patentee. * * * Whether, however, a case cannot arise where, regarding the situation of the parties in view of the public interest, a court of equity might be justified in withholding relief by injunction we do not decide."[15]

As thus summarized, the *Paper Bag Patent* decision would merely appear to have committed the Supreme Court to a finding that the present patent law then in effect may be interpreted to permit nonuse by an inventor during the term of his patent; it would not necessarily commit the Court to a further finding that, if the testimony now brought out by this committee discloses clearly the urgent present necessity for a compulsory licensing system, nevertheless the establishment now by Congress of such a system would not fall within the grant of power to Congress conveyed by article I, section 8, of the Constitution. It is a strange thing that within 3 years after the decision of the Supreme Court in the *Paper Bag Patent* case, that Court, in the famous case of *Bauer* v. *O'Donnell*, holding that the grant under the patent law "of the exclusive right to make, use, and vend the invention or discovery", did not permit the patentee to limit the price of future retail sales of his patented product, stated in most emphatic language that, even if the patent law be most "liberally construed" in favor of the patentee, his patent rights under that law were exactly what they said, viz, "to make, use, and vend", and that these words have no less simple and more mystic connotation. Here is what the Court said:

"In framing the act and defining the extent of the rights and privileges secured to a patentee Congress did not use technical or occult phrases, but in simple terms gave an inventor the exclusive right to make, use, and vend his invention for a definite term of years. The right to make can scarcely be made plainer by definition, and embraces the construction of the thing invented. The right to use is a comprehensive term and embraces within its meaning the right to put into service any given invention. And Congress did not stop with the express grant of the rights to make and to use. Recognizing that many inventions would be valuable to the inventor because of the sales of the patented machine or device to others, it granted also the exclusive right to vend the invention covered by the letters patent. To vend is also a term readily understood and of no doubtful import. Its use in the statute secured to the inventor the exclusive right to transfer the title for a consideration to others. In the exclusive rights to make, use, and vend, fairly construed, with a view to making the purpose of Congress effectual, reside the extent of the patent monopoly under the statutes of the United States."[16]

---

[12] *Ibid.*, at p. 423.
[13] *Ibid.*, at p. 429.
[14] *Ibid.*, at p. 429–430.
[15] *Ibid.*, at p. 430. For a number of well reasoned decisions of the lower courts before the Supreme Court in deciding this case holding *contra* on the subject of non-user of invention, see the *Paper Bag Patent Case* decision at 210 U. S. 426, note 4, as well as the dissenting opinion of Circuit Court Judge Aldrich in the lower court in the *Paper Bag Patent Case* itself.
[16] *Bauer* v. *O'Donnell*, 229 U. S. 1 (1913), at pp. 10–11.
In this connection see also *Motion Picture Co.* v. *Universal Film Co.*, 243 U. S. 502, 509 (1917), where, at pp. 509–10, the court states: "We are concerned only with the right to 'use', authorized to be granted by this statute, for it is under warrant of this right only that the plaintiff can and does claim validity for its warning notice.
"The words used in the statute are few, simple, and familiar; they have not been changed substantially since they were first used in the Act of 1790, c. 7, 1 Stat. 109; *Bauer* v. *O'Donnell*, 229 U. S. 1, 9, and their

Digitized by Google

However, despite this seemingly specific construction by the Court of the language of the patent law, as indicated above, it still remains the doctrine of the Supreme Court, as enunciated by Mr. Justice Brandies that the patentee, "can, of course, prohibit entirely the manufacture, sale, or use" of a patented article during the term of the patent.

Nevertheless, despite this present doctrine of the Supreme Court, I cannot help feeling that:

(1) The present holding of the Supreme Court on this point disregards the history, intent, and logic underlying the whole of any rational system and our system of rewards to inventors for their discoveries, and

(2) This present view of the law might well be reconsidered by the Court, if evidence of the nonuse and supression of patents, and of the injury to public welfare occasioned thereby, gathered by your committee, is deemed sufficiently impressive and socially urgent by the court.

From the historical data which I now submit to you, it seems to me that when the framers of the Constitution gave Congress the power "to promote the progress of science and the useful arts by securing * * * to * * * inventors the exclusive right to their respective * * * discoveries", they certainly did not contemplate that this promotion of such "progress" could be accomplished by legislation permitting an inventor receiving a patent to file that patent away in his safe for the patent term, or for an undue portion thereof, or to sell that patent to a purchaser engaged in the wholesale filing away and suppression of patents similarly acquired. Apart from the doctrine of the Supreme Court consistently followed for over a hundred years, that the main and primary purpose of our patent laws is not the creation of private fortunes for the owners of patents but "to promote the progress of science and useful arts,"[17] there are two cardinal principles of constitutional interpretation justifying or even necessitating the historical expedition to ascertain the nature of the reward which the framers of the Constitution intended to enable Congress to confer upon inventors. These two principles are as follows:

(1) In the first place, to a certain school of constitutional lawyers, it may be a rather startling although fairly obvious idea that when the framers of the Constitution used the words "to promote the progress of science and useful arts", they actually meant what they said. Those words, "to promote the progress of science and useful arts", would seem to fall within the category of those described as early as 1793, by Chief Justice John Jay, as "express, positive, free from ambiguity," and accordingly to come within the rule he then enunciated that "words are to be understood in their ordinary and common acceptation * * *."[18] From the evidence which I shall submit to you, I believe that it will appear that the "ordinary and common acceptation" of the words used in article I, section 8 of the Constitution would prevent any express or implied implication of an intention to allow inventors to suppress or to assign for suppression the patents granted to them.

(2) However, there is a further rule of constitutional interpretation which may be applicable here, viz: That if there is any doubt, any ambiguity, in the language of the constitutional grant of power to Congress in this respect, such doubt, and such ambiguity shall be resolved and decided by evidence not merely of practice contemporaneous with the framing of the Constitution, but also by evidence of colonial and English experience on the point at issue long prior to the framing of the Constitution. There is hardly a single major clause of or important

---

meaning would seem not to be doubtful if we can avoid reading into them that which they really do not contain."

Mr. Justice Holmes dissenting opinion is interesting for its comment upon the *Paper Bag Patent* decision: "I suppose that a patentee has no less property in his patented machine than any other owner, and that in addition to keeping the machine to himself the patent gives him the further right to forbid the rest of the world from making others like it. In short, for whatever motive, he may keep his device wholly out of use. *Continental Paper Bag Co.* v. *Eastern Paper Bag Co.*, 210 U. S. 405, 422. (p. 519.) * * * Not only do I believe that the rule that I advocate is right under the *Paper Bag Case*, but I think that it has become a rule of property that law and justice require to be retained. For fifteen years, at least since *Bement* v. *National Harrow Co.*, 186 U. S. 70, 88–93, if not considerably earlier, the public has been encouraged by this court to believe that the law is as it was laid down in *Heaton-Peninsular Button-Fastener Co.* v. *Eureka Specialty Co.*, 77 Fed. Rep. 288, 25 C. C. A. 267, and numerous other decisions of the lower courts. (p. 520.) * * * I leave on one side the question of the effect of the Clayton Act, as the court has done, *and also what I might think if the Paper Bag Case were not upheld*, or if the question were upon the effect of a combination of patents such as to be contrary to the policy that I am bound to accept from the Congress of the United States." (italics mine.) (p. 521.)

[17] *Pennock* v. *Dialogue*, 2 Peters 1 (1828); *Kendall* v. *Windsor*, 21 Howard 322 (1858); *Motion Picture Co.* v. *Universal Film Co.*, 243 U. S. 502 (1917); *Vanore* v. *Improta*, 25 Fed. (2d) 918, App. D. of C. (1928); *George Franke Sons Co.* v. *Wiebke Mach. Co.*, 2 Fed. Supp. 499, U. S. D. C. Md. (1933).

[18] *Chisholm* v. *Georgia*, 2 Dallas, 419, 476–477. *Cf.* the statement of Mr. Justice Day in *Bauer* v. *O'Donnell*, 229 U. S. 1, 10, construing the words "make, use, and vend" in the patent law, quoted in the text above.

Digitized by Google

phrase or even word employed in the Constitution in the interpretation of which the Supreme Court has not gone back, not merely to the famous contemporary writings compiled under the name of "The Federalist," or to the records of the Constitutional Convention, and of the State ratification conventions and to the private correspondence of the framers of the Constitution, but also to prior State and Colonial legislation, or even to the still earlier but often fundamental English experience reflecting or illuminating the particular constitutional phraseology under consideration.[19]

If then we have indisputable judicial sanction for a search into the beginnings of the patent system in order to determine whether the promotion of "the progress of science and useful arts" is accomplished by nonuser of a patent, the answer of history on both sides of the Atlantic is a flat and emphatic no. An ancient Greek historian has recorded that the luxury-loving Sybarites, in what may perhaps be one of the first patent grants known (in the third century B. C.), encouraged a caterer or cook who had invented a dish "which was especially choice" by allowing no one else to "adopt the use of it before the lapse of a year, in order that the first man to invent the dish might possess the right of manufacture during that period * * *."[20] Jumping from the Greece of Alexander the Great to the England of Queen Elizabeth, we find there an immediately significant point to be recalled here, namely that the whole institution of grants of patents for invention arose from the practical necessities of Great Britain in literally promoting "the progress of science and useful arts." In other words, patents for invention (as distinguished from the great trading monopoly patents) were granted with the ever-present thought of introducing into Great Britian new industries, and of improving those industries already there existent. In this connection it is interesting to note that the first exclusive patents for invention granted in Great Britian were given, not to Englishmen, but to foreigners whose discoveries were regarded by the Crown as being of vital significance for British industry.[21] The development of the British patent system is, of course, inex-

[19] See *e. g.*, *Cohens* v. *Virginia*, 6 Wheat. 264, 1, pp. 418–19 (1821, construing the Judiciary Clauses); *Gibbons* v. *Ogden*, 9 Wheat. 1, 224 (1824, regarding the Federal regulation of pilots); *U. S.* v. *Wong Kim Ark*, 169 U. S. 649, 653–4, 658 (1898, construing Cl. [1] of the fourteenth amendment and the constitutional qualifications for Representatives and Senators); *Hawke* v. *Smith*, 253 U. S. 221, 227–8 (1920, construing the word "Legislatures" within the meaning of Art. V); *Myers* v. *U. S.*, 272 U. S. 52, 136 ff., 174–175 (1926, determining powers of removal from office under Art. II); *U. S.* v. *Macintosh*, 283 U. S. 605, 632–633 (1931, Mr. Chief Justice Hughes, dissenting, in construing the naturalization oath in the light of Art. VI, sec. 3); *Smiley* v. *Holm*, 285 U. S. 355, 368 (1932, construing various words in Art. I, sec. 4); *O'Donoghue* v. *United States*, 289 U. S. 516, 530 ff. (1933) and *Williams* v. *U. S.* 289 U. S. 553–4 (1933) both construing the judicial power under Art. III; *Home Building & Loan Ass'n.* v. *Blaisdell*, 290 U. S. 398, 427–8 (1934, construing the "Contract Clauses" of Art. I, sec. 10); *Monaco* v. *Mississippi*, 292 U. S. 313, 322–5 (1934, construing Art. III, Sec. 2, Cl. [1] and [2] and the eleventh amendment); *Baldwin* v. *Seelig*, 294 U. S. 511, 522 (1935, explaining original necessity for "Commerce Clauses", Art. I, Sec. 8); *Gordon* v. *Washington*, 295 U. S. 30, 36 (1935, construing meaning of phrase "suits in equity" in Judiciary Act of 1789). See also R. P. Post "Constitutionality of Government Spending For General Welfare" in 32 *Va. L. Rev.* (1935) I, at p. 2 ff., and authorities, articles, and brief there cited.

For cases specifically dealing with *patent* questions and going back to English precedents, see *Pennock* v. *Dialogue*, 2 Peters 1, 18 (1829); *Grant* v. *Raymond*, 6 Pet. 218, 241–2, 247–8 (1832); *Shaw* v. *Cooper*, 7 Pet. 292, 319–320 (1833); see also the great steamboat case, *Livingston & Fulton* v. *Van Ingen*, 9 Johns. 506, 577, 587 (decided by the New York Court of Errors in 1812, per James Kent, then Chief Justice); however, as to *patent* law, seemingly *contra*—perhaps due to the idolatry of the biographer for his subject—*cf.* W. W. Story in his *Life and Letters of Joseph Story* (Boston, 1851), Vol. I, pp. 236–7: "Cases began to arise involving all the principles applicable to patents; and to the adjudication of these, the existing rules were not only to be practically applied as they never before had been, but new rules and modifications were demanded. The questions were often so novel, that counsel were forced to argue, and the court to decide, without chart and upon general principles. I have often heard my father relate, that in several of the early cases tried before him, the gentlemen engaged in them apologized for the mode in which they had been conducted, saying, that the law was so without precedent and form, that they knew not how to proceed." And again: "The condition of the law relating to *patents*, when my father came to the bench, has already been adverted to. In its principles and practice it was nearly formless in America, and the English decisions were so contradictory and unsatisfactory as to afford little aid. The strong inventive genius of New England began to develop rapidly after the war, and his circuits were crowded with patent cases. It became his office, therefore, almost to construct the law on this subject, and the system which is now developed is mainly owing to his effort. This law then in England was a mere shuttlecock between equity, with its liberal doctrines, and the common law, with its fear of monopoly." (*Ibid*, Vol. II, p. 584.) *Cf.* T. G. Fessenden, *Essay onthe Law of Patents* (Boston, 1810), pp. 42 ff., 176 and note.*

[20] According to Phylarchus, quoted in *Athenaeus*, The Deipnosophists, XII, 521 (tr. C. B. Gulick, *Loeb Classical Library* edition, Vol. 5, London (1933), p. 349; Gulick cites: "C. Cichorius, 'Ein Patentgesetz aus dem griechischen Altertum' in *Jahrbücher für Nationalökonomie und Statistik*, Vol. 118, p. 46 (Jena 1922)." See also note on "Ancient Monopolies" in (1935) 17 *Journal of the Patent Office* (Washington, D. C.), p. 344.

[21] See W. H. Price, *The English Patents of Monopoly* (Harvard Econ. Studies, I (1913)), pp. 7–8: "* * * The earliest recorded application for an exclusive patent for introducing a new art into England bears the date of 1558 and was presented jointly by an Englishman and an Italian. The petition was granted in 1562 as a reward of 'diligent travail' and to 'give encouragement to others'. Meanwhile two other patents had been granted for inventions of foreign origin. Before any one of these was conceded, another Italian, Giacopo Acontio, in a petition for a patent prefaced his application with the suggestion that 'nothing is more honest than that those who by searching have found out things useful to the public should have some fruit of their rights and labors, as meanwhile, they abandon all other modes of gain, are at much expense in experiments, and often sustain much loss.' He then explained that he had invented certainf furnaces and 'wheel-machines' which others would copy without remunerating him unless he were protected." See also *ibid*, pp. 62–3, 67.

Digitized by Google

tricably interwoven with the great struggle against monopolies resulting ultimately in the passing of the Statute of Monopolies which specifically exempted from its operation patents for invention. One thing is clear in all that early period of patents for invention in England, and that is the emphasis placed upon the social undesirability and the illegality of nonuse of a patent. Patents granted to Italians, Hollanders, Germans, etc., were all predicated upon their actual use for commercial purpose in Great Britain within a certain period, and patentees, whether foreigners or Englishmen, who failed to comply with this requirement of use, soon found themselves patentless. Thus in 1563, owing to a growing scarcity of wood fuel, Queen Elizabeth granted a license to George Gylpin and Peter Stoughberken to make ovens and furnaces for 10 years. The grant refers to the "growing scarcity of wood fuel owing to the large consumption in the brewing and baking trades" and "is void in case the patentees fail to come over (presumably from Germany) and put the grant into practice within 2 months * * *."[22] Again, in 1571, in the grant for an engine for land drainage and water supply "the grant is void if the engine be not erected within 2 years."[23] The Crown, being fully aware of the hatred, in England, of monopoly, was careful to emphasize the fact that such monopolies were granted for use by the public. In Francis Bacon's "Defense of the Royal Perogative in the Grant of Patents" (1601), he takes great care to distinguish between those patents which he avers, "truly in my own conscience, are hateful to the subject as monopolies", and those patents for inventions which are useful to and usable by the public. Of these he says:

"If any man out of his own wit, industry, or endeavor, find out anything beneficial for the commonwealth, or bring any new invention, which every subject of this realm may use; yet in regard of his pains, travail, and charge therein, her Majesty is pleased (perhaps) to grant him a privilege to use the same only by himself, or his deputies, for a certain time: This is one kind of monopoly."[24]

Even the haughty Elizabeth herself, in her "golden speech" to her last Parliament pleaded that any patents which she had granted, and which had not been actually used for the public good, had been obtained from her by fraud: "Since I was queen", she said: "yet did I never put my pen to any grant but upon pretext and semblance made me, that it was for the good and avail of my subjects generally, though a private profit to some of my ancient servants, who have deserved well; but that my grants shall be made grievances to my people, and oppressions, to be privileged under color of our patents, our princely dignity shall not suffer it.

"When I heard it, I could give no rest unto my thoughts until I had reformed it, and those varlets, lewd persons, abusers of my bounty, shall know I will not suffer it."[25]

In 1611, a certain Simon Sturtevant filed a petition for a metallurgical patent which ended with a statement that "he was not tied to any time in the trial of his invention." However, he "was speedily undeceived for in the following year the patent was canceled on the ground of his * * * neglect to work the patent."[26] It is also of significance that in 1639, King Charles I, "fearing to meet the Parliament, which soon had to be called, with a grievance of the monopolies still unremedied," issued a proclamation in which, inter alia, he revoked and canceled "all patents for new inventions not to be in practice within 3 years next after the date of the said grant.[27]

PATENTS FOR INVENTION OR INDUSTRY IN THE AMERICAN COLONIES

In our quest of the intention of the framers of the Constitution who, in article I, section 8, authorized Congress "to promote the progress of science and useful arts by securing * * * to * * * inventors the exclusive right to their respective * * * discoveries", we now return from England to the New World. We find in the records of the American Colonies as strong, if not even more, impressive evidence that nonuser and the suppression of patents granted

[22] E. W. Hulme, "The Early History of the English Patent System" in *Select Essays in Anglo-American Legal History*, Vol. 3, Boston (1909), pp. 123–4, No. VI.
[23] *Ibid*, p. 129, No. XXIV. See also Patents Nos. XXVIII (1573, "term of two years assigned for introducing the industry") (*Ibid.*, p. 130); No. XXXVII (1574, for making drinking glasses, patentee to teach the art to the natives, since "great sums of money have gone forth of our Realms for that manner of ware." (*Ibid*, p. 131); No. XXXV (1578, for engines for water-raising, "fixes three years for the introduction of the engine.") (*Ibid.*, p. 132.)
[24] W. H. Price, op. cit., *supra*, note 21, at p. 154.
[25] *Ibid.*, p. 161.
[26] E. W. Hulme, *supra*, note 22, p. 142; *cf.*, W. H. Price, *supra*, note 21, p. 108.
[27] W. H. Price, *supra*, note 21, pp. 45, 175.

Digitized by Google

were absolutely foreign to the colonial concept of a patent for invention. A mere reading of some of these patents in chronological order clearly indicates the steady and general trend that they were granted either to foreigners who had already tried out the workability of their inventions, or to the colonists themselves, not merely for the general purpose of fostering trade among the Colonies and abroad, but to meet some specific emergency affecting the more or less immediate needs of the colonists. The spirit of these patent grants demanded, as Professor Vaughan states, "a concrete introduction, not a mere disclosure of the invention." [28]

Thus, in 1652, the General Court of Massachusetts Bay granted to John Clarke a 3-year patent for an invention: "for saueing of firewood & warming of rooms wth little coste & charges, by which meanes great benefitt is like to be to the country, & especially to these populous places; & if any family or other pson doe with the consent & direction of the sd Mr Joh Clarke, or without his consent, doth improue, or vse sajd experiment, they shall pay ten shillinge to the sd Mr. Clarke, for which he may sue or implead any pson before any commissionor for the same, as the case shall require." [29]

Again, 4 years later the General Court of Massachusetts Bay dealt with the problem of "the vncertajntje of procuring salt amongst vs for our necessary vses" and whereas Mr. John Winthrop "proffereth to make salt for the colony after a new way", they granted him a 21-year patent for "making salt after his new way." [30]

In 1691, the legislature of the Province of South Carolina, having been approached by Peter Jacob Guerard, the inventor of a rice-husking machine, and in order to encourage the said Guerard "& all other ingenious & industrious persons * * * to essay such other machines as may conduce to the better propagation of any commodityes of the produce of this Collony" granted the said Guerard a 2-year patent for his "Pendulum Engine" and forbade the manufacture of said "Pendulum Engine" by others "unlesse he or they shall first pay unto the said Peter Jacob Guerard forty shillings current money of this Province, for each such Engine he or they shall make, sett up or use as aforesaid." [31]

In 1733, the same legislature of the Province of South Carolina granted to Charles Lowndes a 4-year exclusive privilege for making "a new engine for the pounding and beating of rice" but specifically provided "That the said Charles Lowndes, his executors, administrators, and assigns, shall not, during the term of four years aforesaid, receive or take any more than the just and full sum of sixty pounds current money from any person that shall apply for a lycence in writing from him the said Charles Lowndes, his executors, administrators, or assigns, for the making or using any such Engine * * *." [32]

Four patents granted by the thriving industrial Colony of Connecticut from 1746 to 1753 involving a new art or industry are equally significant.

1. John and Stephen Jerom were granted (in 1746) "the sole liberty and privilege of making salt by the boiling of sea water" for 14 years, provided, however, that if the patentees "shall neglect or fail, to erect, set up and prepare suitable works and materials for the making of salt, as aforesaid, for the space of two years, or shall fail of making the quantity of five hundred bushels of good salt in any one of the remaining twelve years after the said two years, that then this grant and every part thereof shall be void and of none effect; anything therein before to the contrary in any wise contained notwithstanding." [33]

2. In the following year Thomas Darling of New Haven prayed for "the sole liberty of making glass in this Colony." This "sole liberty and privilege of making and manufacturing glass in this Colony" was granted to him for 20 years on the condition, however, that "if the memorialist and his assigns shall

[28] F. W. Vaughan, *supra*, note 6, p. 20. For a thorough background of the relation of colonial industries to the necessity for inventive energy and protection by patents, see W. B. Weeden, *Economic and Social Hist. of New England* (Boston 1890), in Index to vol. II, *s. v.* "Inventions"; V. S. Clark, *History of Manufactures in the United States* (Washington, D. C., 1916), vol. I, pp. 48–53, chs. VIII and IX; J. L. Bishop, *Hist. of American Manufactures*, vol. I (Philadelphia, 1864), pp. 96, 114, 186.

[29] *Records of the Company and Governor of Massachusetts Bay*, (ed. N. B. Shurtleff) vol. III, (1854) p. 283.

[30] *Ibid.*, Vol. II, p. 259, May 14, 1656.

[31] *South Carolina, Statutes at Large*, (edited by Thomas Cooper, Columbia, S. C., 1837) Vol. II, p. 63, No. 72 (1691).

[32] *The Statutes at Large of South Carolina*, ed. D. J. McCord, Vol. VI (Columbia, S. C., 1839), p. 630, No. 6 (1733).

[33] *The Public Records of the Colony of Connecticut*, ed. C. D. Hoadly, (Hartford, 1876) p. 246, (1746). For the importance of salt to the colonists, see W. B. Weeden, *op. cit., supra*, note 27; Index to vol. II, *s. v.* "Salt"; V. S. Clark, *op. cit., supra*, note 27, Index to vol. I, *s. v.* "Salt." It is not always easy "to mark the transition from the monopolies of an earlier date to the patent rights which play so important a part in modern legislation affecting manufactures" (V. S. Clark, *op. cit., supra*, note 27, vol. I, p. 53); in this and the other Connecticut patents, whether for invention or introduction of an industry, the point to be noted is the condition that the public benefit be prompt and not unduly suspended.

Digitized by Google

neglect or fail to erect, set up and prepare suitable works and materials for the making of glass, as aforesaid, for the space of four years, or shall fail of making the quantity of five hundred feet of good window-glass in any one of the remaining sixteen years after the aforesaid four years, that then this grant and every part thereof shall be void and of none effect, anything thereinbefore to the contrary in anywise contained notwithstanding." [34]

3. In the same year (1747), Joseph Pitkin of Hartford was granted "the sole privilege of slitting iron within this Colony for the term of fourteen years * * *" with this proviso only, "that he shall certify this Assembly in May next that he hath began to provide to building a slitting mill, and that the same be set on work within two years from the present sessions of this Assembly, and kept going as occasion shall be to the end of the said term." [35]

4. In 1753, Jabez Hamlin and Elihu Chauncey, of New Haven, were granted "the exclusive liberty and privilege" for 15 years of setting up and operating machines "for managing ye linnen manufactures", but with a reservation that "if the memorialists failed to set up one such machine in every town within five years, they should lose the privilege in that town." [36]

Returning to Massachusetts for a minute, in 1750 the legislature granted a 10-year patent to a manufacturer of sperm candles and other whale products "requiring him to teach at least five apprentices during that period, of whom two should be nominated by the General Court." [37]

In 1761, the Colony of Rhode Island granted James Lucena a 10-year patent for making castile soap, it being recited: "* * * that he proposes to set up the manufactory thereof in this colony; that the procuring one of the chief materials will employ many poor people, and the manufactory be otherwise highly beneficial to the public, by furnishing a great and valuable article of commerce, which may be exported to all parts of the continent, to the West Indies, &c;" [38]

POST-REVOLUTIONARY PATENTS FOR INVENTIONS GRANTED PRIOR TO THE ADOPTION OF THE CONSTITUTION

The post-revolutionary grants of patents are similarly significant in their insistence that an exclusive right of manufacture actually implies manufacture and not nonuse of the patent. Thus, in March 1780, the General Assembly of the Commonwealth of Pennsylvania granted to Henry Guest "the sole and exclusive right, for the term of 5 years, of manufacturing oil and blubber from the materials he has discovered"; this exclusive right was, however, to become effective only "after the time at which the aforesaid Henry Guest shall erect a manufactory in this State, and produces oil and blubber therein for sale from the materials he has discovered, provided the same be done within the space of 8 months from the time of passing this act * * *." [39] In the same year, the New York Legislature granted the same Henry Guest "the sole and exclusive right of making and vending within the State for the space of 5 years the same species of oil and blubber"; adding to this grant:

"Provided, nevertheless, that the grant hereby made shall not take effect until the said Henry Guest shall have filed in the secretary's office in this State a writing containing the names and descriptions of the materials aforesaid, and the method and process of making such blubber and oyl, or a substitute for blubber and oyl; nor until the said Henry Guest shall have a manufactory erected for the purpose, and shall have made such blubber or oyl, or a substitute for blubber or oyl, of the materials aforesaid, within this State." [40]

In South Carolina, from which, as we shall see, hailed one of the two drafts of what ultimately became the patent clause of the Constitution, there was enacted in 1784 probably the first real general patent law, as distinguished from an individual legislative grant of a patent. In that statute, entitled "An act for the encouragement of arts and sciences", the major portion thereof dealt with the exclusive rights of copyright owners and provided that if, upon complaint to the court and judges of the court of common pleas, it shall be found that the grantee

[34] *Ibid.*, p. 281 (1747).
[35] *Ibid.*, p. 329 (1747).
[36] W. R. Bagnall, *The Textile Industries of United States*, Vol. 1 (Cambridge, 1893), p. 50.
[37] V. S. Clark, *op. cit., supra*, note 28, vol. I, p. 50.
[38] *Records of the Colony of Rhode Island* (ed. J. R. Bartlett, 1860), Vol. 6, p. 267.
[39] *Statutes at Large of Pennsylvania* (from 1682–1801), compiled by J. T. Mitchell and H. Flanders, Vol. X (1904), p. 131, ch. DCCCXCVIII. It may be of interest to note that "before or as soon as * * * Guest begins to manufacture the aforesaid oil and blubber in this state he shall put up in the said manufactory or manufactories a printed account in English and German of the said materials * * *". [Section III.]
[40] *Session Laws of the State of New York* (1777–1784) ch. 71, republished in Vol. I (Albany, 1886) p. 277.

Digitized by Google

has neglected to "furnish the public with sufficient editions thereof * * *", the grantee of such copyright shall furnish security that "a suffiicent number of copies of such book or pamphlet" shall be published, and "if such author or proprietor shall, before said court, neglect or refuse to give such security as aforesaid, the said court are hereby authorized and empowered to give to such complainant a full and ample license to reprint and publish such book or pamphlet, in such numbers, and for such term, as said court shall judge just and reasonable: * * *" This principle of user in the same statute was likewise extended to the inventors of machines in the following language:

"IV. And be it further enacted by the authority aforesaid, that the inventors of useful machines shall have a like exclusive privilege of making or vending their machines for the like term of fourteen years, under the same privileges and restrictions hereby granted to and imposed on the authors of books."[41]

Again, in 1788, the Legislature of South Carolina passed a special act granting to Samuel Knight "the sole and exclusive right and liberty of erecting, building, constructing, and vending within this State "a machine for the pounding of rice" for and during the term of 14 years"; "provided always", however—

"that if any person or persons shall tender or pay to the said Samuel Knight, his heirs or assigns, the sum of five pounds sterling, he or they shall and are obliged and required to grant each and every such person, or persons, a license and permission * * * authorizing him or them to construct or building such machine."[42]

THE CONSTITUTION AND THE PROTECTION OF PATENTS OF INVENTIONS

In advocating, in the Federalist, to the people of the State of New York the ratification of the Constitution, Madison, quoting the proposed power in Congress "to promote the progress of science and useful arts by securing, for a limited time, to authors and inventors the exclusive right to their respective writings and discoveries", stated:

"The utility of this power will scarcely be questioned. The copyright of authors has been solemnly adjudged, in Great Britain, to be a right of common law. The right to useful inventions seems with equal reason to belong to the inventors. The public good fully coincides in both cases with the claims of individuals. The States cannot separately make effectual provision for either of the cases, and most of them have anticipated the decision of this point, by laws passed at the instance of Congress."[43]

Just what State patent laws, "passed at the instance of Congress", Madison referred to is not altogether clear; we have already quoted the South Carolina statute of 1784. From the standpoint of the immediate necessity and purpose of a general patent statute, implying an exclusive right of use in the patentee but not the right to suppress his patent, we do know that as early as 1783 a committee of the Continental Congress, to which had been referred a petition for a patent for the manufacture of steel, thus reported on the desirability of rewarding inventors:

"The committee, however, considering that there are at this time many important manufactures in the different States and that others may be attempted which by proper attention and encouragement may be carried to great perfection by which our own citizens may be employed and supported and large sums of money be saved which must otherwise be expended in foreign countries, circumstances which deserve the most serious consideration at a period when the United States are labouring under heavy debts, both foreign and domestic: Wherefore, the following resolution is submitted:

"That it be recommended to the legislatures of the several States to countenance and encourage the establishment of useful manufactures, either by premiums or by such other means as they may find most effectual which are consistent with the confederation and the treaties subsisting between the United States and foreign powers."[44]

Again, in the same year, the committee of the Continental Congress, expressing apprehension as to the workability of a mechanical boat, for which its inventor prayed for "a compensation in land on the west side of the Ohio", stated—

"That if the boat proposed to be constructed by Mr. McMechen shall answer the valuable purposes that from his memorial he seems to expect, Congress, when

[41] *Act No. 1221*, Cl. III and IV, reprinted in *South Carolina Statutes at Large*, ed. by T. Cooper, Vol. IV, (Columbia, S. C., 1838), pp. 618-620.
[42] *Act No. 1400, ibid.*, Vol. V (Columbia S. C., 1839), p. 69.
[43] *The Federalist* XLIII (Everyman Edition), p. 218.
[44] *Journals of Continental Congress*, ed. G. Hunt, Vol. XXIV (Washington, 1922), p. 515.

Digitized by Google

the situation of their affairs permit of it, will take the same into consideration; and notwithstanding that he may have published his discovery, they will grant such premium to the projector as to them may seem an adequate compensation."[45]

Acting on another petition for a grant of land to an inventor of a mechanical boat, the Continental Congress resolved, in 1785:

"That 30,000 A[s] of land in the new purchase to the west of the Ohio be given to James Rumsey, provided he shall before the first day of May next produce good and sufficient evidence that by means of certain mechanism of his invention wrought or aided by three men only, a boat carrying ten tons has been moved (sic) for six days in succession against the stream of the R. Ohio at the rate of (sic) 50 miles (sic) per day." [46]

In arguing that the use of the term "exclusive right" referred to in article I, section 8, of the Constitution, would render a compulsory licensing system or cancelation of a patent for nonuse unconstitutional, stress has been laid on the fact that in Madison's draft, submitted to the Convention on August 18, 1787, the phrase used was "to encourage by premiums and provisions the advancement of useful knowledge and discovery", furthermore, that Charles Pinckney, on the same date, proposed "to grant patents for useful inventions", while the phraseology as finally adopted on September 5, 1787, by Judge Brearley's committee on postponed matters, read 'by securing' for limited times to * * * inventors, the exclusive right to their respective * * * discoveries." [47] From this change in phraseology it has been argued by a very learned authority on patent law, Mr. Karl Fenning, that—

"It is significant, therefore, that in framing the Constitution in its final form, words 'patent' and 'copyright' were not used, possibly lest the power be limited to the particular forms of conditional exclusive rights which were at that time known as 'copyrights and patents.' "

From the "words finally chosen for the Constitution", Mr. Fenning deduces that "these seem to allow no limitations on the 'exclusive' right such as requirements for working or compulsory licensing." [48]

However, this reasoning, although ingenious is, I believe, purely surmise and unsupported at any rate as far as I can at present gather by contemporary evidence On the contrary, I submit that (1) we do know that the final corrections of Judge Brearley's committee and of the "Committee on Style and Correction" were not carefully or discriminately considered by the delegates to the convention, who, Mr. Charles Warren the learned historian of "The Making of the Constitution" tells us "were now 'very impatient' to get through, and tolerated little debate"; "the delegates were evidently tired and anxious to finish their labors and go home." [49] (2) We likewise know that the congressional grants to inventors and authors finally authorized under article I, section 8, of the Constitution represent the utmost limits to which the framers of the Constitution, inheriting and raised in the fear of monopolies, were willing to go, and that the proposal of a broader power "to establish public institutions, rewards and immunities for the promotion of agriculture, commerce, trade and manufacture" was emphatically rejected.[50] (3) We also know from contemporary, as well as later evidence, that the sole encouragement to obtain, or the consideration for these limited patent and copyright grants, was regarded as the economic inducement of recurring profit through the constant use by the grantee of his constitutional monopoly. As James Iredell, later one of the first Associate Justices of the Supreme Court, wrote in defense of the Constitution in 1788, "the interest of the proprietor (of a copyright) will always induce him to publish a quantity fully equal to the demand." [51] In an early patent decision the Supreme Court likewise described the inventor's reward as "the profits arising from the sale of the thing invented." [52]

[45] *Ibid.*, pp. 433–4.
[46] *Journals of the Continental Congress*, ed. G. Hunt, XXVIII (Washington, 1922), p. 349.
[47] See C. Warren, *The Making of the Constitution*, (Boston, 1928), pp. 625–6, 702.
[48] K. Fenning, "The Origin of the Patent * * * Clause of the Constitution" in (1928) 17 *Georgetown Law Journ.*, 109,116.
[49] C. Warren, *op. cit., supra*, note 47, pp. 690, 692–693.
[50] Joseph Story, *Commentaries on the Constitution of the United States*, Vol. 3 (Boston, 1833), Sec. 1150; C. Warren, *op. cit., supra*, note 47, p. 702.
[51] G. J. McRee, *Life and Correspondence of James Iredell*, Vol. II (Boston 1858), p. 208.
[52] *Shaw* v. *Cooper*, 7 Peters 292, 320 (1833), per McLean, Associate Justice. In this connection and on the question as to contemporary ideas of what Congress *could* do if it so deemed fit, by way of conferring *conditional* rewards upon inventors for their discoveries, it is interesting to note the following extract from a treatise by W. Phillips, *The Law of Patents* (Boston, 1837), at pp. 8–9: "Though *property* in a discovery, therefore, like that in land, originates in and is created by legislation, the *right* to such property exists to an imperfect degree, independently of the positive laws. In this view Mr. Rawle remarks, that upon the provisions of the Constitution of the United States on this subject, that it was not intended thereby to create rights, but merely to regulate those already existing. The inventor has a *right* to keep his secret,

Digitized by Google

(4) Finally we also know that just as at the introduction of a system of patents for invention in England, described above, so, as already indicated by the committee of the Continental Congress just quoted, and during the period of the formation, ratification and putting into effect of the Constitution itself, the whole urgent need of the patent system was to promote immediately, and not merely ultimately after a 17-year period of suspension, the concrete welfare of the People of the United States. Contemporary evidence stresses the need to increase both production and consumption, thereby not only making America a more livable country, but enabling both the Federal and State Governments to pay their debts. About 1788, in his Letters of an American Farmer, Crèvecoeur, the famous French observer of America, noted that—

"The farmer and the artisan have more to do than they can perform; scarcity of men makes labor very dear; to supply the want of labor and time the American is forced to invent, to think out new ways of augmenting his efficiency." [53]

Writing to Jefferson in the fall of 1788 on the problem of patents of monopoly, "as encouragement to * * * ingenious discoveries", James Madison, describing monopolies as "justly classed among the greatest nuisances in Government", even went so far as to inquire whether it would "not suffice to reserve in all cases a right to the public to abolish the privilege at a price to be specified in the (patent) grant * * * ?" [54] How important American inventions already appear in public estimation is well illustrated in the historian McMaster's description of the rejoicing in Philadelphia on the news of the ratification of the Constitution.

"The Manufacturers' Society", he writes; "delighted the crowd with the spectacle of a huge wagon drawn by 10 horses and neatly covered with cotton cloth of their own make. On the wagon were a lace loom, a printing mill, a carding and a spinning jenny of eighty spindles. Compared with the cunningly and exquisitely wrought machines now to be found in the mills and factories of New England, they would seem rude and illformed. But they were among the newest inventions of the age, and were looked on by your ancestors as marvels of mechanical ingenuity." [55]

---

and if he discloses it he has a just claim to remuneration and reward, according to the amount of his expenditure, and the importance of his improvement." And again, at pp. 204–206: "A patent once granted is not forfeited in the United States by the neglect of the patentee to put his invention into practical operation. Our law differs in this respect, from that of France, which provides that unless the patentee reduces his invention to use within two years from the granting of the patent, he forfeits his privilege. This provision is rather rigid, for a general rule, since some inventions, requiring extensive preparations and large outlays, cannot be brought into operation in that time. A law containing a provision of this description ought also to provide for lengthening the time in particular cases. But the laws of England and the United States, contain no provision on this subject. Mr. Justice Washington distinctly lays down the doctrine that no neglect of the patentee, to put his invention into practical operation, will be construed to be an abandonment of his patent right. And such is the language of all the cases. Our law appears to go upon the presumption that the public benefit may in this case be left wholly to the influence of the interest of the patentee and confides to him the absolute control and disposal of his invention for the period of his monopoly.

"There may be instances of inventions, the use of which are vitally material to the public safety, just as in some instances the appropriation of individual property to the public use is essential to the public defence. In the latter case the general safety is not subjected to the caprice or inordinate cupidity of the proprietor, for his property may be taken for the public use without his consent, and a reasonable compensation allowed. And such would be the rules, probably, in regard to the use of a patent right, which is no more sacred than other personal property. This provision of law is limited to the case of the use of property by the public as a corporate political body, and does not reach the case of an indirect benefit derived to the public by the use of a thing by individuals. In this respect the law leaves patent rights upon the same footing as other personal property, the proprietor of which may, by his own caprice or folly, deprive the public and himself of the benefit that would result from a reasonable use of it, and there does not seem to be any pressing "urgency for a different rule in regard to different species of property. There is, it is true, no absolute insurmountable objection to a regulation on this subject in relation to patents, for the public may grant patents or lands upon such conditions as may be deemed expedient, and for the general benefit; but as a general rule, unless the case is plain and urgent, it is the better policy to leave private rights to the discretion and interest of proprietors, where their interest evidently coincides with that of the public, since the inconveniences attendant upon an attempt by law to supply their want of reasonable discretion, would, in a majority of cases, be greater than those consequent upon their abuse of the discretion and control allowed by the law."

In *Woodbridge* v. *United States*, 263 U. S. 50, 55, 56 (1923), while following the holding in the *Paper Bag Patent Case* that a patentee "is not obliged either to make, use, or vend his invention during the period of his monopoly", Chief Justice Taft paradoxically further reasoned that: "Congress relies for the public benefit to be derived from the invention during the monopoly *on the natural motive for gain in the patentee* to exploit his invention and to make, use, and vend it or its products or to permit others to do so *for profit.*" (Italics mine.) *Cf.* cases cited in J. B. Waite, *Patent Law* (Princeton, 1920), p. 224, note 369.

[53] Quoted in V. S. Clark's *op. cit., supra*, note 28, at p. 53. See also for this and the post-Revolutionary pre-constitutional period, W. B. Weeden, *op. cit., supra*, note 28, vol. II, pp. 854 ff.; V. S. Clark, *op. cit., supra*, note 28, vol. I, chs. X–XII; J. L. Bishop, *op. cit., supra*, note 28, vol. II, chs. I–II; C. A. and M. R. Beard, *The Rise of American Civilization* (1930 ed.), vol. I, pp. 442 ff.; E. Channing, *History of the United States*, vol. III (New York, 1930), pp. 390 ff.

[54] *The Writings of James Madison*, ed. G. Hunt, Vol. 5 (New York, 1904), p. 274; Oct. 17, 1788.

[55] J. B. McMaster, *A History of the People of the United States from the Revolution to the Civil War*, Vol. I, (New York, 1883), p. 493.

Digitized by Google

In his very first annual address to Congress on January 8, 1790, President Washington urged the passage of a patent law, saying:

"I cannot forbear intimating to you the expediency of giving effectual encouragement, as well to the introduction of new and useful inventions from abroad as to the exertion of skill and genius at home."[56]

In the first patent Federal statute enacted in April 1790, it was provided that the "board of three members" to whom petitions for patents were referred "if they so deem the invention or discovery sufficiently useful and important" shall allow the applicant a grant of "the sale and exclusive right and liberty of making, constructing, using, and vending to others to be used, the said invention or discovery."[57]

CONCLUSION

We have come to the end of our—I fear—long journey into constitutional law and American and English history, in order to ascertain the meaning of four seemingly very simple terms, viz, "exclusive", "make", "use", and "vend." I wish that I could have curtailed this journey for you, but I can only plead that the law and the lawyers have made such curtailment impossible. Those of you who, in childhood—and subsequently—have properly studied their Gulliver's Travels will perhaps recall that when he went to the land of the giants, he found that "the learning of these people is very defective, consisting only of morality, history, poetry, and mathematics, wherein they must be allowed to excel", but of "abstractions and transcendentals" he could "never drive the least conception into their heads." Furthermore, as to their legal system, he records that:

"No law of that country must exceed in words the number of letters in their alphabet, which consists only in two and twenty. But indeed few of them extend even to that length. They are expressed in the most plain and simple terms, wherein those people are not mercurial enough to discover above one interpretation; and to write a comment upon any law is a capital crime."[58]

As we have seen in *Bauer* v. *O'Donnell*, the famous price-fixing case, the Supreme Court found nothing "occult" in the words "make, use, and vend", and the same Court, in construing the grant of "an exclusive right * * * for a period of 30 years of a system of water works" has held that "the term 'exclusive' is so plain that little additional light can be gained by resorting to the lexicons * * *."[59] With regard to the constitutionality of compulsory licensing provisions or the cancelation of patents for unjustifiable and indefensible nonuser—if this committee can, by evidence adduced before it, clearly and adequately establish that there is suppression or nonuser of patents which is unjustifiable and indefensible—the proof of which the Oldfield Committee did not seem to be able to gather in sufficiently impressive quantity and quality—then I believe that perhaps our historical quest into law, economics, and lexicography may not have been in vain, and the door which the Supreme Court left open in the *Paper Bag Patent case* may serve as an approach to the enactment of constitutional legislation affording the relief which this committee advocates "to promote the progress of science and useful arts." The rational basis of patent protection has been stated in no more crisp, comprehensive fashion than in the testimony of the most respected, former Commissioner of Patents James T. Newton, before the committees on patents of the Senate and House of Representatives in 1919. Discussing the basis of patent protection, he stated:

"And the value of the patent is right there; it enables the manufacturer to get an industry started. That is the value to the public, too. After the industry is started and the public gets the benefit of the invention, then the patent is beginning to perform the function that the framers of the Constitution intended it should perform, in making work easier for the general public, in giving them something they never had before and something that they wanted."[60]

---

[56] G. A. Weber, *The Patent Office, Its History, Activities and Organization* (Service Monographs of the United States Government #31, The Johns Hopkins Press, Baltimore, 1924), p. 3.

[57] *Statutes at Large*, 109.

[58] J. Swift, *Gulliver's Travels* (Modern Library ed., 1931), p. 153.

[59] *Vicksburg* v. *Water Works Co.*, 202 U. S. 453 (1906), pp. 470–1. For an interesting discussion of the meaning of the language "the exclusive right to use", see T. R. Powell, "The Nature of a Patent Right" in (1917) (17 *Col. Law Rev.*, 663 at 678 ff.) Professor Powell states (p. 683), "The objects of the patent statute were practical objects", but it is difficult to determine from his discussion whether, if confronted now with an actual accumulation of proof convincingly establishing the suppression of patents, as against the public interest, he would regard a compulsory licensing legislation as constitutional.

[60] General Hearings before the Committee on Patents of the Senate and House of Representatives, Sixty-eighth Congress, first session, on S. 3223, H. R. 9932, Nov. 5, 1919, at p. 16.

Digitized by Google

EATON, BLAKEMORE, RUSSELL & COLBY,
27 State Street, Boston, Mass., January 28, 1936.

Hon. WILLIAM I. SIROVICH,
Chairman, Committee on Patents, House of Representatives,
Room 1015, New House Office Building, Washington, D. C.

DEAR SIR: I am handing you enclosed brief on suggested changes in the patent law requested by you and Representative Perkins in your committee.

From many years' experience both at law and in an industry greatly affected by the patent structure, I believe that if the suggestions I have made in this brief are adopted most of the bad situations in the patent structure will be eliminated.

I realize that the requirement of filing of assignments, licenses, and agreements and the making of an annual report on the use of patents would involve considerable work both on the part of the patent owner and the Patent Commissioner's office, but I do not believe the amount of effort required would be unreasonable.

The biggest thing which could be done for the industry and the public alike would be the successful setting up of industry cross-licensing arrangements similar to that now existing in the automobile industry. The main reason why this is not voluntarily done oftener is because some one organization in the industry feels that their patent structure is such that they overshadow all others.

As an inducement to set up such industry arrangements, it might be desirable in all such cases to waive the requirement as to those in such industries of requiring a report upon the use or making members of such industry subject to the cancelation of patents not used and devolving some plan whereby the Commissioner of Patents would maintain for each such industry a library of the patents affecting such industry which would be available for Government research and for reference by those in the industry.

Such a library is now maintained by the Automobile Chamber of Commerce, the organization handling the cross-licensing agreements in that industry.

The preparation of this brief has taken considerable time and effort on my part and I would be pleased to have you advise me whether I am expected to contribute my time and effort for the good of the cause, although this would mean no gain to me, or whether your committee has funds which would be applicable for the payment of a reasonable fee for the preparation of this brief; and if the latter, would appreciate your returning to me a voucher which I may make out for the same and forward to you.

Very truly yours,

CLARENCE C. COLBY.

SUGGESTED CHANGES IN THE PATENT LAW OF THE UNITED STATES

By Clarence C. Colby

PERSONAL

The writer was admitted to the Massachusetts Bar in 1908 and to practice in the Federal Courts in 1909 and is a member of the law firm of Eaton, Blakemore, Russell & Colby, 27 State Street, Boston, Mass. He was for 17 years president and general manager of the Samson Electric Co., a manufacturer of electrical equipment, located in Canton, Mass. From 1924–30, both inclusive, he was a director of the Radio Manufacturers Association. In 1927 he was chairman of the patents committee of this association. In 1927–28 he was president of the association and in 1928–30 he was chairman of the legislative committee of this association. In 1928 he organized and became president of the Audio Research Foundation, a national organization for the sound industry.

STATEMENT REQUESTED

On October 16, 1935, he was summoned to appear under authority of House Resolution 196 before the Committee on Patents of the House of Representatives at a hearing in New York and at the end of the hearing was requested by Representative Perkins of said Committee to file an additional statement which is herewith presented.

Digitized by Google

I. Present Status of the Patent Law

Before attempting to constructively criticize existing conditions it may be well to set up briefly the features of the Patent Law.

AUTHORITY

Congress, acting under authority given to it by Article I, Section 8 of the Federal Constitution, in 1790 and by various later revisions and amendments thereof has passed various acts, establishing the rights of inventors for limited periods to the exclusive use of their discoveries within the United States.

THE PATENT RIGHT

Under these laws the patentee is given the right to exclude others having knowledge of the invention from making, using or selling it, for a limited term. The right granted is property—property of the patentee and is subject to the general laws relating to such property, and is surrounded by the same rights and sanctions which attend all other property.

PATENTABILITY

Patents may be issued for any new and useful discovery, or any improvement thereof, which fall in the following classes:

1. Any new or useful art or process; that is, any method or means of producing a physical result which is independent of the mechanism or mechanical combination for producing it.
2. Any new or useful machine, not a mere principle or idea, but a concrete thing consisting of parts, or certain devices or combination of devices to accomplish a definite given result.
3. Any new or useful manufacture, an article made by the art or industry of man, not being a machine, a composition of matter, or a design, being distinguished from a machine by not having any rule of action, and from composition of matter by not involving the relation of ingredients.
4. Any new or useful composition of matter, which may be a compound produced or resulting from the intermixture of two or more specific ingredients, and possessing properties different from, or in addition to, those possessed by the several ingredients in common, and which may be produced by a mechanical or chemical operation or both.
5. Any new or useful design, applied to, or to be applied to, an article of manufacture.

NEW AND USEFUL

The test of novelty is that it must have not been known or used by others in this country before the invention or discovery thereof and not patented or described in any printed publication in this or any foreign country before the invention or discovery thereof. The test of usefulness is that it shall tend to promote in some substantial way the progress of science and the useful arts.

ASSIGNMENT AND LICENSE

Under the expressed terms of the patent law, patents or any interest therein are assignable, absolutely and without restriction, and an assignment vests in the assignee a title to so much of the patent itself. A patentee or his assigns may by instrument in writing, assign, grant, or convey,

1. The whole patent, comprising the exclusive right to make, use and vend the invention throughout the United States, or
2. An undivided part or share of that exclusive right, or
3. The exclusive right under the patent within and throughout a specified part of the United States.

The grant of rights, less than an undivided part interest in the patent itself, is a license, and gives the licensee no title in the patent.

RECORDING

The patent law does not require the recording of an assignment as a prerequisite to validity, but, as constructive notice, so as to protect against a subsequest purchaser for value it must be recorded in the Patent Office within 3 months from the date thereof, or prior to such subsequent purchase. The

Digitized by Google

law does not require that a license be recorded even as against a subsequent purchaser. It may even be made by parole.

VALIDITY AND INFRINGEMENT

The issuance of a patent by the Patent Office is only prima facie evidence of its validity, that is, that it is new and useful and that the invention falls within one of the classes set forth above. Validity and likewise, infringement can only be determined by a decision of the Federal courts having jurisdiction thereof. If a patent has been found valid and infringed the fact that the plaintiff is in an illegal combination in restraint of trade, and other equitable defenses, cannot be successfully pleaded in bar in mitigation of damages.

NONUSER

In the United States the nonuse of a patented article will not render the patent void. The inventor does not forfeit his patent or his right to exclude others from using his invention by his failure to make use of it himself, or his refusal to license others to use it upon reasonable terms. The question of licensing others to use his invention is one which the patentee alone has the right to answer, and the courts cannot compel him to make use of his invention or to permit others to use it against his will.

These are the main features of our patent law which has grown up through more than a century and a half of legislation and by interpretation of our courts in an effort to carry out the intent and purpose of the framers of the Constitution to reward inventors for their effort and success in promoting the progress of science and the useful arts.

II. Why New Legislation is Needed

There can be no doubt that the industrial progress of this country has been greatly benefited by our patent system, and that any legislation that would tend to break down or destroy it in principle would be unwise, but a development of our economic and industrial structure has reached a point where it is obvious that the object of the constitutional provision to reward inventors for their discoveries has been lost sight of, that the large organizations in our industrial life are using the patent system, to obtain control of industries and to prevent competition therein in a manner aimed to circumvent the prohibition of the Sherman and Clayton Acts and that new legislation should be enacted by Congress to stop the abuse of the patent system that threatens its destruction.

COMPARISONS

When the patent laws were established this country was in its infancy, the larger portion of our Nation was a wilderness, business was entirely local, transportation and communication in its present sense were unknown, and finance and initiative were matters largely in the control of the individual.

Today we are a Nation of approximately 130 million people covering the country from coast to coast, millions of whom are gathered in large centers, business is conducted on a national scale, our railroads, automobiles, shipping, and airplanes make transportation to any part of our country a matter of hours, our telephones, telegraph, and radio make communication substantially instantaneous, our press, our mails, and our publications spread knowledge of our doings and advertisements of our productions in a never-ending stream into every home, our financial structure has grown apace and business is conducted by corporations in which many hundreds of thousands are grouped together and act only through elected representatives.

The inventor today does not exploit his discovery alone but he is usually a paid employee of a large organization drawing a salary, while his company exploits his patents and takes the profits from his invention. If one be an independent inventor he must usually sell his patent to some similar organization and as a practical matter on whatever terms this organization shall fix.

Today the corporations are the large owners of patents, and compete in the industries of the country in the manufacture and sale of patented articles and strive to eliminate competition in their field of activity by putting themselves in such a patent position that their competitors are embarrassed and are often unable to obtain finances through fear of patent litigation and are thus forced from the field. This is done by buying up all available patents bearing upon the field of

Digitized by Google

operation. These patents are obtained not in most instances for use, but rather to prevent their use and for the purpose of blanketing an art and making competition difficult if not impossible.

PATENT MONOPOLIES

Of late years there has been in many industries an effort to combine groups of patents, secret pooling or cross-licensing agreements, covering both important and trivial patents, to a point at which the very multiplicity of patents has made competition impossible. Thus, monopolies have appeared in many of our large industries hiding behind the pretense of patent rights and have thus sought to avoid the antitrust law.

One of the most powerful of these patent combinations appeared in the radio industry in the pooling of patents by the Radio Corporation of America, the American Telephone & Telegraph Co., the General Electric Co., the Westinghouse Electric Co., and others, a group whose combined assets aggregated several billion dollars. This combination was made for the obvious purpose of controlling this new and important industry, eliminating competition among themselves and dividing the field.

It took 10 years to arouse public opinion to the point that Congress compelled action by the Department of Justice, to put an end to this illegal combination.

LACK OF RECORDS

Combinations of this sort act, so far as possible, secretly. Their license arrangements are not a matter of public record, and there is no place that a competitor may go and learn, with any assurance of obtaining a complete story, the exact standing of the equitable and legal rights regarding any patent, for the reason as we have shown, that assignments do not have to be recorded as a prerequisite of validity, and licenses and pooling agreements as a matter of practice, are not recorded at all.

CONCLUSION

Under the present conditions, the result largely of the revolution of our industrial system, the principle of the constitutional provision to reward the inventor for his discovery has become a matter of minor importance, the desire to promote the advance of the arts and sciences has been strangled by the failure to require the use of the patented invention, and the attempt by Congress to prevent monopolies of industries has been evaded by the attempt to hide behind patent rights. Congress should therefore consider what steps may or should be taken to amend the present law so that the patent rights granted by the United States may be more fairly administered and used in the interest of the individual, industry, and the public.

III. Suggested Amendments to the Patent Law

With the above object in view the following suggestions for changes in the patent law are submitted for consideration.

THERE SHOULD BE A COMPLETE PUBLIC RECORD OF PATENT RIGHTS

We have indicated above that the recording of a patent assignment is not required as a prerequisite to its validity and that the recording of a license or pooling agreement relating to patents is not required at all. It is evident therefor that the only records available are those of the issuance of the patents and such records of assignment as may have been voluntarily recorded.

The present record is, of course, suitable so far as to indicate the patents issued but as to affording one actively engaged in business, an index of how the patents issued in an industry are owned, what licenses or license agreements are in force, and by whom held, the record gives no information. Likewise the Government has no prompt and accurate method of discovering the manner in which these rights are being used, under pooling or cross-license agreements, whereby those involved are eliminating competition between themselves.

One of the great problems before the Government at the present time is the ipassage of laws which will keep open the right to compete in business and succeed tf success is based on ability, genius, or greater efficiency, and to stop the dominasion of any field by an organization whose policy is based on cunning and deceit, decret agreements, and a code of conduct free from all principles of fair and honest dealing.

Digitized by Google

The only way to accomplish this with relation to industries affected or controlled by patents is to make mandatory the recording of all agreements relating to patents and of all transfers of patent rights, so that the honest competitor may be forwarned and the Government informed with relation thereto.

I therefore suggest that Congress pass a suitable act requiring the recording of all assignments, licenses, and agreements relating to patents within 3 months of their execution.

PATENTS SHOULD BE USED OR BE MADE AVAILABLE TO THE PUBLIC

The purpose named in the Constitution as the basis of the granting of patents was "to promote the progress of science and useful arts", and the granting of patents for this purpose was to recompense the patentee for his effort and at the same time gain for the public the advance in science and art made thereby. Without the use of the patent the public is not getting the benefit which they have a right to expect in return for the right granted to the inventor.

It has been pointed out that under our patent law the patentee cannot be made to use his invention or to permit others to use it against his will. This situation has been taken advantage of in thousands of cases by the purchase of patents, not for the purpose of using them but for the purpose of preventing their use, in competition with the goods of the purchaser, enabling him thereby to control his field and thereby raising the price of his goods to the public. Thus the public has not only lost the benefit of its agreement with the patentee of the purchased patents but is made to pay a higher price for goods than it would have had to pay if the articles made under the competing patents were in free and open competition.

It is therefore suggested that a law be enacted requiring an annual report by owners and licensees of patents of the use of the patents held by them and that the Commissioner of Patents be authorized to declare abandoned and open to the public all patents which are not being used to the extent that they serve to promote the progress of science and the useful arts.

PREVENTION OF ILLEGAL POOLING OF PATENTS IN RESTRAINT OF TRADE

It has been apparent in recent years that the monopoly given to a patentee has been made the basis of an effort by holders of large groups of patents, to avoid the effect of our restraint of trade and antimonopoly laws, and the public interests sacrificed thereby. The experience of the radio industry cited above has been an outstanding example.

An act should be passed requiring all patents, cross-licensing and pooling agreements be made a matter of public record and providing a prompt and efficient method of correcting any such situation which in the opinion of the Government is against public interest. House Resolution 4523 of the first session of the Seventy-fourth Congress has been suggested for this purpose and in the writer's opinion would be effective in accomplishing this result.

PATENTS OF PUBLIC-SERVICE CORPORATIONS

Another problem has arisen under our patent system. It does not of itself concern the patent law, but in view of the fact that rights under patents are involved, it may properly be mentioned in this discussion.

Public-service corporations exist and maintain their business on the basis of a franchise from the people. Their business relates to the service of the people. Their income comes from the people in payment for such service.

In the normal development of the art relating to their particular field, they make many new and useful improvements that are covered by patents. The cost of these developments comes from the money received from the people, who pay for their services.

As long as these patents are used in serving the public under their franchise no question can be raised. Often however the service company enters into fields not covered by its franchise, and either directly or through subsidiary corporations uses the patents developed in the public interest and paid for by the public in its own interest.

The tremendous prominence and good will obtained from its public service and the patent control developed from the public funds place such a company in

Digitized by Google

a position to successfully prevent competition in such a field. An outstanding example of this is the American Telephone & Telegraph Co. which has spread beyond its service field of public telephone communication and today substantially controls the recording of motion pictures, the broadcast-station-equipment field, and other fields of electrical transmission. It substantially destroyed all competition in these fields through its control of patents, developed through the use of money received from the public and has driven out those who fought an unequal contest with them from industries which are entirely beyond the scope of its franchise.

This is another type, but no less a ruthless one, of unfair competition, which has grown up without national industrial development.

It is suggested that an act be passed prohibiting public-service corporations in interstate business from entering fields outside of its franchise, either directly or indirectly, and that patents received for new and useful improvements developed in the public service, be held in the public interest.

INDUSTRY CROSS-LICENSING OF PATENTS

There can be little question that the cross-licensing of patents in an entire industry is in the interest not only of the public but of the members of the industry itself. Those who have any doubts on this matter have only to study the automobile industry which for more than 20 years has worked under such an arrangement.

It is of value to the public, because they have the advantage of receiving in the products they buy all of the new and useful improvements in the art, which have proved to be desirable, irrespective of what make they buy or what concern made the improvement, and in addition the maintenance of free competition brings the goods to them at the minimum price.

It is of value to the manufacturer because it has been demonstrated that no one concern has all the brains of an industry, and the gain from the developments of all the others in the industry, far exceeds that arising from the efforts of any individual concern.

It is felt that similar cross-licensing agreements in other major industries would be of great advantage to the public and to those in these industries and it is therefore suggested that some Government authority be established or that the matter be referred to some authority now in being to negotiate, establish, ratify, and supervise cross-licensing agreements in other major industries.

CONCLUSION

It is submitted—

1. That the requirement of public record of patent assignments, licenses, and agreements will give to the public the full picture of patent rights affecting them or their business, to which they are entitled, and place before the Government authorities the necessary information to enable them to protect the public from monopolies and unfair competition, attempting to hide behind the patent grant.
2. That the requirement that a patent must be used or abandoned to the public will be of substantial assistance in preventing the "shelving" of many valuable patents purchased and held to prevent competition with other patented articles, and in preventing the building up of so-called defensive patent positions with no intention of using the patents obtained and further reduce the cost to the public by opening to competition many fields now so controlled that there is no competition, with a result that prices are exorbitant.
3. That restraining public-service corporations in interstate commerce from fields outside of their franchise will return to the public opportunities which have been unfairly taken from them and reduce the cost to the public in such fields by opening them to competition.
4. That an effort on the part of the Government be set up within the major industries of the country, cross-licensing agreements for such industries, will eliminate a great deal of the unfair competition in industries controlled by patents and create a situation of great advantage to the public and to the industries themselves.

Respectfully submitted.

CLARENCE C. COLBY.

JANUARY 28, 1936.

Digitized by Google

CHRYSLER CORPORATION,
Detroit, Mich., February 6, 1936.

Hon. WILLIAM I. SIROVICH,
Chairman, Committee on Patents,
House of Representatives, Washington, D. C.

DEAR SIR: I take the liberty of informing the committee that in my opinion H. R. 4523, introduced on January 23, 1935, providing for the recording of patent pooling agreements and contracts with the Commissioner of Patents, would do more harm than good. The bill seems to require the recording in the Patent Office of every kind of cross-licensing agreement, as well as agreements intended to create patent pools. Whatever may be said about patent pools, there is a great distinction between them and cross-licenses. Patent cross-licenses of various kinds are common and usual. The most usual form is that by which one party grants certain rights to another and in return receives rights from the other under the other's patents. Many arrangements of this kind do not have cross-licensing as their principal purposes and would not ordinarily be considered cross-licensing agreements, but the fact that each party gives to the other some right to a patent would make them technically cross-license agreements and would bring them under the provisions of the bill.

Cross-licenses occur in many different business arrangements ranging from the case where two or more manufacture cross-license their respective patents, to a case where one party licenses another under his patents and the other gives back an agreement to license the first under improvements which the second may make to the licensed inventions. As a consequence a very large proportion of all licenses would have to be recorded under the terms of the bill. In the automotive industry, in addition to the usual granting of reciprocal rights when entering into conventional agreements, we have a cross-licensing arrangement which has worked out with great benefit to the manufacturers and to the public. This arrangement permits members of the Automobile Manufacturers Association to obtain free licenses under the patents owned by other members. The result of this is that law suits between the subscribers to the cross-license agreement are avoided and the public has the opportunity to purchase from any one of a number of manufacturers motor vehicles that embody inventions covered by patents of various subscribers to the agreement. No one can say that this arrangement is unfair to manufacturers who do not own important patents or that it is unfair to the buying public. It has benefited large and small manufacturer alike and has been a great factor in promoting peace in the industry and at the same time enabling all manufacturers to produce the finest vehicles at prices within the range of the great mass of the American people.

Whatever the committee may decide to do about pools, I venture to recommend that it modify the bill in such a way as not to impose upon manufacturers a requirement that in effect will cover most licensing agreements.

Very truly yours,

W. P. CHRYSLER,
Chairman of the Board.

WM. WRIGLEY, JR., CO.,
CHEWING GUM MANUFACTURERS,
Wrigley Building, Chicago, Ill., February 3, 1936.

MR. WILLIAM I. SIROVICH,
Chairman, Committee on Patents,
Fifth Avenue Hotel, New York City, N. Y.

DEAR SIR: Replying to your letter of November 12, 1935, response to which should have been made much sooner, but the writer has been abroad on business for the past 3 months, I wish to advise you as follows:

Wm. Wrigley, Jr., Co., is a manufacturer of chewing gum. This company is the owner of several detail patents relating largely to improvements upon mechanical devices, devised and built by it and used in its factory. It owns no so-called broad or basic patents and is not a member of any patent pool, nor has it entered into any agreement regarding patents, or otherwise, with its competitors.

The sole reason for this company taking out patents on improvements made in its machinery or factory equipment is purely for defensive purposes. It has never brought suit against any competitor, or anyone else for that matter, where the subject matter of the suit was based on its patents.

The sole object of this company in taking out patents is to give whatever patent protection is possible to its own business and to prevent someone else

Digitized by Google

from patenting that which we ourselves have improved and thereby subjecting our company to a patent suit. This policy has proven effective because, as yet, this company has never been sued for infringement of a patent.

Referring to your last question as to whether or not we have any suggestions regarding amendment to existing patent laws, we might remark that most patents issued to us seem to be of little value to us because they are so restricted and confined that there is always doubt in our mind as to whether or not there was any invention to begin with. In other words, if the Patent Office drew a tighter line distinguishing between ordinary mechanical skill and invention, it would probably be unnecessary for us to waste our money in taking out patents which we and our attorneys feel are merely defensive instruments having little, if any, merit, but which we are obliged to attempt to secure patent protection on for fear that some machinery manufacturer might secure limited protection and subject us to a lawsuit which would cost us more to defend than it does for us to take out innumerable patents.

We trust that this explanation has made our position perfectly clear.

Yours very truly,

WM. WRIGLEY, JR., CO.,
W. H. STANLEY, *Vice President.*

FRANK I. SCHECHTER,
COUNSELOR AT LAW,
Graybar Building, New York, January 29, 1936.

Hon. WILLIAM I. SIROVICH,
Chairman, Committee on Patents,
House of Representatives, Washington, D. C.

DEAR DR. SIROVICH: I take pleasure in enclosing herewith two reprints of articles of mine that I believe you may find of some interest. The first of these, entitled "Would Compulsory Licensing of Patents be Unconstitutional?", is based upon the statement recently made, upon your kind invitation, to your committee sitting in New York.

The second of these papers, "Fog and Fiction in Trade-Mark Protection, Part I", involves a reconsideration and extension of my researches into the rationale of trade-mark protection and the basis of unfair competition generally, contained in my "Historical Foundations of Trade-Mark Law" (Columbia Legal Studies, Vol. I) and in "The Rational Basis of Trade-Mark Protection", 40 Harvard Law Review.

I know how bush you always are, but may I trouble you to let me have an up-to-date list of the names of the members of both the House Committee on Patents and the Senate Committee on Patents, as perhaps those gentlemen may also care to have copies of the enclosed papers, and particularly of the one with respect to compulsory licensing of patents.

With kindest regards, I am

Sincerely yours,

FRANK I. SCHECHTER.

FIS:FBB
Encs.

WOULD COMPULSORY LICENSING OF PATENTS BE UNCONSTITUTIONAL?*

THE HISTORICAL RATIONALE OF PATENT PROTECTION

By Frank I. Schechter, New York

[Reprinted from *Virginia Law Review*, Volume XXII, No. 3, January, 1936]

The famous dictum of Dr. Samuel Johnson, uttered over 150 years ago, "that patriotism is the last refuge of a scoundrel" has, one is sorry to say, acquired—especially in view of the recent antics of eminent counsel—a popular corollary

*Based upon a paper read at the request of the Committee on Patents, House of Representatives, at a hearing on H. Res. 196 and H. R. 4523 (74th Cong., 1st sess.), held in New York City, Dec. 2, 1935. This paper was intended by the writer to deal solely with the constitutionality and the historical background of what has been aptly described by a subcommittee of the American Bar Association as "a hardy perennial" i. e., a proposal for some form of compulsory licensing of patents. (See American Bar Association, section of patent, trade-mark and copyright law. Committee Reports, July 15-16, 1935, pp. 29 ff.) In appearing before the House Committee on Patents the writer stated that he is not a member of the patent bar and was not speaking to the committee in the capacity of a patent attorney, but merely as a general practitioner interested in historical research and in problems of constitutional law.

The writer wishes to express his indebtedness to Mr. Leslie D. Taggart of the New York Bar for his assistance in the preparation of this paper, and to the authorities of the Law Library of Columbia University for their many courtesies and for permitting the use of their valuable collection of early American treatises concerning patent law.

Digitized by Google

in the vernacular of today that the Constitution of the United States is the last hide-out for desperate lawyers. This feeling is not, the author believes, directed against the motives or the logic of those attorneys and also those professors of law who are confronted with the interpretation of proposed legislation that is, for one reason or another, obviously and palpably unconstitutional.[1] However, there is another type of legislation, concerning which the plea of unconstitutionality is not received with equal equanimity. There are, from time to time, legal and social reforms advocated, the unconstitutionality of which is instinctively, vehemently and uncompromisingly challenged with, on the one hand, "an exquisite aloofness from the vulgarity of contemporary ideas" [2] and, on the other hand, a lack of historical perspective and of sound factual basis. The plea of unconstitutionality in such cases cannot and should not be successfully maintained by the mere and sheer process of reiteration.

Article I, section 8 of the Constitution of the United States provides that Congress "shall have the power * * * to promote the progress of science and useful arts by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries." At the hearings before the Congressional Committee on Patents in 1912 on the Oldfield Revision and Codification of the Patent Statutes, and also at other times and places when various proposals for compulsory licensing of patents, or for a refusal of a Court of Equity to protect the owner of a patent who has not used his patent has been discussed, such proposals have been denounced most emphatically as "unconstitutional", "unfair", and "un-American." [3] Any compulsory licensing system

[1] The duty of the court with regard to such statutes is quaintly reflected in an observation made by that great constitutional commentator, Associate Justice Joseph Story of the Supreme Court, nearly a hundred years ago to his colleague, Mr. Justice McLean: "There will not, I fear, ever in our day, be any case in which a law of a State or of Congress will be declared unconstitutional; for the old constitutional doctrines are fast fading away, and a change has come over the popular mind, from which I augur little good. Indeed, on my return home, I came to the conclusion to resign." W. W. Story, Life and Letters of Joseph Story (Boston, 1851) vol. II, p. 272. The reference of Judge Story is to *Charles River Bridge* v. *Warren Bridge* (11 Pet. 420 (1837), concerning which see under that title in Index to C. Warren, the Supreme Court in United States History, revised ed., vol. II (Boston, 1926), at p. 770; cf., C. B. Swisher, Roger B. Taney (New York, 1935), pp. 361 ff. See also Story's mournful lamentations as to the passing of "the doctrines and the opinions of the 'Old Court' " in C. Warren, loc. cit., vol. II, p. 129. By way of contrast, it is exceedingly interesting to note in the dissenting opinion of Mr. Justice Stone just handed down in the *A. A. A. case*, his impressive plea for the exercise of judicial "self-restraint" in declaring a statute unconstitutional (*United States* v. *William M. Butler, et al., Receivers of Hoosac Mills Corporation*, Jan. 6, 1936, reported the New York Times, Jan. 7, 1936, p. 11).

[2] P. Guedalla, Palmerston (New York, 1927), p. 26.

[3] For opposition on such grounds in Hearings on Oldfield Revision (1913), see testimony: in no. 12 by H. Pettit (p. 6); by S. E. Edmonds (loc. cit., pp. 8, 13–14); in no. 14, by L. Gifford (pp. 4–6); in no. 24, by F. F. Church (p. 12): "* * * the bill strikes at the very foundation of our patent system;" in no. 28, by F. F. Fish (pp. 6–7), in no. 27, by W. F. Rogers, president of the Patent Law Association of Washington, D. C., who was especially emphatic on this point: "Thus historically and traditionally * * * the spirit of our patent laws is that of an untrammeled grant of exclusion * * *. It would be an archaic and reactionary step to inject * * * compulsory license or * * * working." (Ibid., p. 11.) "It is not the Constitution we follow. It is not the law we adopted. It is not the bargain we made. It is not the policy which has studded every county, town, and hamlet with thriving independent shops and plants, with industries which never could have begun or lived but for the protection of the patent law." (Ibid., p. 12.) (See W. F. Rogers' testimony (ibid., p. 22) and, by P. T. Dodge (ibid., p. 35); by E. W. Bradford (ibid., p. 37).)

Belief in the constitutionality or historical justification of such legislation, although accompanied often by comment on the practical difficulties therein involved, was expressed by F. L. Dyer, president of Thomas A. Edison, Inc. (in no. 10, p. 38); by H. L. Ward, representing the Inventors' Guild (no. 3, pp. 20, 22; no. 4, p. 22); by F. Y. Gladney (in no. 16, pp. 22 ff.); by F. L. O. Wadsworth (in no. 21, pp. 10 ff.); by W. H. Chamberlin (in no. 23, p. 4); by the Commissioner of Patents in S. Doc. No. 555, 62d Cong., 2d sess., relative to bill S. 6273 recommending amendment to proposed Oldfield bill by District Court granting a license after 4 years: "It is believed that such a measure will have the effect of placing all valuable inventions in public use within a reasonable time and will also encourage the establishment in the United States of manufactories for the production of patented machines, devices, etc., which have been patented by persons who are not citizens of the United States.

The Oldfield Report on the Revision of the Patent Laws (H. Rept. 1161, 62d Cong., 2d sess., Aug. 8, 1912, to accompany H. R. 23, 417), recommending compulsory licensing, stated (pp. 6–7): "Nonuse or suppression in order to afford the basis for compelling the grant of a license must be for the purpose or with the result of suppressing competition between the specific articles protected by the patent suppressed and some other article made and sold by the owner of the patent. Anyone who objects to such a law must claim the right in the owner of a patent to suppress purely as a device to manipulate the market. Undoubtedly the framers of the patent law never contemplated such a use of patents * * *. What such a concern will pay for the patent will be determined by what it considers it worth to get the patent out of the way—its value in nonuse, not in active work. In such case the patent is valued for the protection that its ownership will give to a preexisting monopoly and not for the profits to be made from the manufacture and sale of the new commodity." The "Minority Report" (H. Rept. 1162, pt. 2, 62d Cong., 3d sess., Feb. 26, 1913), with equal emphasis opposed compulsory licensing, laying particular stress on the fact that in the Majority Report no concrete evidence of the suppression of patents was introduced and, it maintained, signatories of the report relied not upon testimony "but upon comments and complaints in the public press * * * and upon instances which they contend are to be found in Reports of Decisions of the Federal Courts" (pp. 1–2).

For the difficulty existing formerly, but presumably presently eliminated, of finding specific evidence of the suppression of patents. (See F. W. Vaughan, Suppression and Non-Working of Patents * * * in (1919) 9 American Economic Review, at pp. 693–4. Cf. testimony of F. Y. Gladney at Oldfield Hearings, no. 16, cited supra, at p. 23: "Another instance of suppressing patents we might call voluntary suppression, where a manufacturing concern buys up patents competitive with other patents that it owns

Digitized by Google

may have its difficulties and perplexities; some of these were brought out in the Oldfield Hearings of 1912;[4] some of these have been considered by Prof. Floyd L. Vaughan in his valuable work on Economics of Our Patent System;[5] some of these have recently been presented by a subcommittee of the American Bar Association in its 1935 meeting at Los Angeles;[6] and furthermore there is much illuminating material on the pros and cons of compulsory licensing in the most recent edition of Terrell's authoritative treatise on the law relating to patents in England, where the practical workings of that system of compulsory licensing may be watched both in legislation and in litigation.[7]

However, with the technique of a compulsory licensing system in the United States this article is not concerned; if such a system is constitutional, and if the testimony brought out at the hearings of this committee indicate it to be desirable, then there is no doubt that it can be worked out by the committee with the proper cooperation of the patent bar and also of the bench. The only phase of the problem treated here is the constitutional phase, the appropriate eludication of which necessitates an inquiry into the rationale and history of our patent system. This whole problem will be clarified if the proper distinction be at all times kept in mind between what Congress was empowered to do under article I, section 8 of the Constitution, and what Congress has, as evidenced in the present patent law, for the present, deemed it advisable to do in the exercise of that constitutional power. There is no question but that, as it has been consistently construed by the Supreme Court of the United States, the present statutory right of an inventor "to make, use, and vend the invention or discovery" includes the paradoxical right under his patent not to make, not to use, and not to vend his invention or his discovery during the term of his patent. Mr. Justice Brandeis has recently said for the Supreme Court that "if the patent is valid the owner can, of course, prohibit entirely the manufacture, sale, or use of such packages * * *."[8] As is well known, this whole doctrine of the right of nonuser was developed in 1908 by the Supreme Court in the *Paper Bag Patent case*.[9] In that case, involving a bill in equity to retain the infringement of a certain patent, it was contended for the defendent by the able author of Walker on Patents that—

"To permit the owner of a patent held in nonuse to invoke the aid of courts of equity to enjoin the use by others of an invention which he refuses to use himself, would defeat the very object of the patent laws and of the constitutional provision to which they owe their existence, and such a course, had it been pursued in the past, would have blocked the road along which the great historic inventions of the nineteenth century have proceeded to their present state of perfection."[10]

---

and deliberately suppresses them. We know that is done every day. The practice has a judicial history. The courts time and again have commented on the fact. In the *Thrashing Machine case* tried out in the court of appeals for the seventh circuit, the facts were that the thrashing machine combine owned 106 patents on a straw stacker. In the reports of the decisions of the Federal courts you will find statements like this: That the complainant indulges the common practice of buying up patents to get rid of them in competition with the patents that they own." See also T. C. Blaisdell, The Federal Trade Commission (New York, 1932) pp. 168–170, 229, 247, 257, for valuable references to patent pooling in various industries.)

For contemporary comments on the proposed Oldfield compulsory working legislation, see O. C. Bellman, the Compulsory Working of Patents (1912) 24 Green Bag 513, 517 (calling such legislation "detrimental to the just rights of manufacturers and inventors, and decidedly un-American"), O. R. Barnett, the Oldfield bill (1913) 22 Yale L. J. 383 (partly favorable to "remedial legislation"); G. H. Montague, the Proposed Patent Law Revision (1912) 26 Harv. L. Rev. 128, opposed to such legislation on the ground that patent owners' rights are neither greater nor less than those of owners of unimproved land [p. 153]. See also Case Note in (1907) 20 Harv. L. Rev. pp. 638–639, criticizing the decision, in favor of a patentee who had not used his patent, in the *Paper Bag Patent case* (150 Fed. 741, later affirmed, 210 U. S. 405 (1908)); cf. the Effect of Non-Use on a Patentee's Remedy against Infringement in (1908) 18 Yale L. J. 52, approving the decision of the Supreme Court in the *Paper Bag Patent case*, on the ground that art. I, sec. 8 of the Constitution obviously did not intend to give patentees "a narrower right than that which inheres in the absolute owners of property in general" (p. 53) (Walker on Patents, 6 ed., (1929) sec. 200).

[4] See testimony against compulsory licensing in Hearings on Oldfield Revision, cited supra note 3, also in those hearings in no. 10, by E. J. Prindle (pp. 16 ff.); in no. 27, passim, by various witnesses.

[5] New York, 1925, at pp. 2–40 ff.; see also his article entitled "Suppression and Non-Working of Patents, with Special Reference to the Dye and Chemical Industries" in (1919) the American Economic Review, vol. 9, 1919.

[6] See report cited supra note 1, pp. 29 ff.

[7] See Terrell on Patents (8th ed. by J. R. Jones, London 1934), chs. I, XII, and XIII. For a recent clinical demonstration of the system, see The Co-Operative Union, Ltd. 50 R. P. C., 1933. As to Canadian experience see American Bar Association * * * Report, cited supra note 2, at p. 34; F. B. Featherstonhaugh and H. G. Fox, Law and Practice of Inventions in Canada (Toronto 1926), pp. 19 ff., 442 ff.; O. M. Biggar, Canadian Patent Law and Practice (Toronto 1927), pp. 70–71, 80 ff. For the working and compulsory licensing provisions of the new Canadian Patent Act, 1935, see secs. 64–70 (reprinted in (1935) 33 Pat. and T. M. Rev. at pp. 323–327).

[8] *Carbice Corporation of America* v. *American Patents Development Corp.* (283 U. S. 27, 31 (1931)); see also, *United Drug Co.* v. *Rectanus Co.* (248 U. S. 90, 97 (1918)), "The owner of a trade mark, may not, like the proprietor of a patented invention, make a negative and merely prohibitive use of it as a monopoly [citing cases]." For a critical examination of the Carbice decision and of the "possibly * * * outmoded" patent system, see A. McCormack, "Restrictive Patent Licenses and Restraint of Trade," in (1931) 31 Columbia Law Rev., p. 743.

[9] *Paper Bag Patent case* (210 U. S. 405 (1908)). See 1 Walker on Patents (6 Ed., 1929), sec. 742.

[10] *Paper Bag Patent case*, supra note 9, at p. 407.

Digitized by Google

The reasoning of the Court, in rejecting Mr. Walker's plea that an inventor may not invoke the protection of equity where there has been no commercial use of his patent, can be summarized in the Court's own language, as follows:

(1) "The patent law is the execution of a policy having its first expression in the Constitution, and it may be supposed that all that was deemed necessary to accomplish and safeguard it must have been studied and provided for." [11]

(2) "As to the suggestion that competitors were excluded from the use of the new patent, we answer that such exclusion may be said to have been of the very essence of the right conferred by the patent, as it is the privilege of any owner of the property to use or not use it, without the question of motive." [12]

(3) "In some foreign countries the right granted to an inventor is affected by nonuse. This policy, we must assume, Congress has not been ignorant of nor of its effects. It has, nevertheless, selected another policy; it has continued that policy through many years. We may assume that experience has demonstrated its wisdom and beneficial effect upon the arts and sciences." [13]

(4) "From the character of the right of the patentee we may judge of his remedies. It hardly needs to be pointed out that the right can only retain its attribute of exclusiveness by a prevention of its violation. Anything but prevention takes away the privilege which the law confers upon the patentee. * * * Whether, however, a case cannot arise where, regarding the situation of the parties in view of the public interest, a court of equity might be justified in withholding relief by injunction we do not decide." [14]

As thus summarized, the Paper Bag Patent decision would merely appear to have committed the Supreme Court to a finding that the present patent law then in effect may be interpreted to permit nonuse by an inventor during the term of his patent; it would not necessarily commit the Court to a further finding that, if the testimony now brought out by this Committee discloses clearly the urgent present necessity for a compulsory licensing system, nevertheless, the establishment now by Congress of such a system would not fall within the grant of power to Congress conveyed by article I, section 8 of the Constitution. It is a strange thing that within 3 years after the decision of the Supreme Court in the *Paper Bag Patent case*, the Court, in the famous case of *Baur* v. *O'Donnell*, holding that the grant under the patent law "of the exclusive right to make, use, and vend the invention or discovery", did not permit the patentee to limit the price of future retail sales of his patented product, stated in most emphatic language that, even if the patent law be most "liberally construed" in favor of the patentee, his patent rights under that law were exactly what they said, viz: "to make, use, and vend", and that these words have no less simple and more mystic connotation. Here is what the Court said:

"In framing the act and defining the extent of the rights and privileges secured to a patentee Congress did not use technical or occult phrases, but in simple terms gave an inventor the exclusive right to make, use, and vend his invention for a definite term of years. The right to make can scarcely be made plainer by definition, and embraces the construction of the thing invented. The right to use is a comprehensive term and embraces within its meaning the right to put into service any given invention. And Congress did not stop with the express grant of the rights to make and to use. Recognizing that many inventions would be valuable to the inventor because of sales of the patented machine or device to others, it granted also the exclusive right to vend the invention covered by the letters patent. To vend is also a term readily understood and of no doubtful import. Its use in the statute secured to the inventor the exclusive right to transfer the title for a consideration to others. In the exclusive rights to make, use, and vend, fairly construed, with a view to making the purpose of Congress effectual, reside the extent of the patent monopoly under the statutes of the United States." [15]

---

[11] *Ibid.*, at p. 423.
[12] *Ibid.*, at p. 429.
[13] Ibid., at pp. 429–430.
[14] Ibid., at p. 430. For a number of well-reasoned decisions of the lower courts before the Supreme Court in deciding this case holding *contra* on the subject of nonuser of invention, see the *Paper Bag Patent case* decision at 210 U. S. 426, note 3, as well as the dissenting opinion of Circuit Court Judge Aldrich in the lower court in the paper bag patent case itself.
[15] *Baur* v. *O'Donnell* (229 U. S. 1 (1913), at pp. 10–11).
In this connection, see also, *Motion Picture Co.* v. *Universal Film Co.* (243 U. S. 502, 509 (1917)), where, at pp. 509–510, the Court states: "We are concerned only with the right to 'use,' authorized to be granted by this statute, for it is under warrant of this right only that the plaintiff can and does claim validity for its warning notice.
"The words used in the statute are few, simple and familiar, they have not been changed substantially since they were first used in the act of 1790 (c. 7, 1 Stat. 109); *Baur* v. *O'Donnell* (229 U. S. 1, 9), and their

Digitized by Google

However, despite this seemingly specific construction by the Court of the language of the patent law, as indicated above, it still remains the doctrine of the Supreme Court, as enunciated by Mr. Justice Brandeis that the patentee, "can of course, prohibit entirely the manufacture, sale or use" of a patented article during the term of the patent.

Nevertheless, despite this present doctrine of the Supreme Court, one cannot help feeling that—

(1) The present holding of the Supreme Court on this point disregards the history, intent, and logic underlying the whole of any rational system and our system of rewards to inventors for their discoveries; and

(2) This present view of the law might well be reconsidered by the Court, if evidence of the nonuse and suppression of patents, and of the injury to public welfare occasioned thereby, gathered by your committee, is deemed sufficiently impressive and socially urgent by the Court.

From the historical data which are now submitted, it would seem that when the framers of the Constitution gave Congress the power "to promote the progress of science and the useful arts by securing * * * to * * * inventors the exclusive right to their respective * * * discoveries", they certainly did not contemplate that this promotion of such "progress" could be accomplished by legislation permitting an inventor receiving a patent to file that patent away in his safe for the patent term, or for an undue portion thereof, or to sell that patent to a purchaser engaged in the wholesale filing away and suppression of patents similarly acquired. Apart from the doctrine of the Supreme Court consistently followed for over a hundred years, that the main and primary purpose of our patent laws is not the creation of private fortunes for the owners of patents but "to promote the progress of science and useful arts",[16] there are two cardinal principles of constitutional interpretation justifying or even necessitating the historica-expedition to ascertain the nature of the reward which the framers of the Conl stitution intended to enable Congress to confer upon inventors. These two principles are as follows:

(1) In the first place, to a certain school of constitutional lawyers, it may be a rather startling although fairly obvious idea that when the framers of the Constitution used the words "to promote the progress of science and userul arts", they actually meant what they said. Those words, "to promote the progress of science and useful arts", would seem to fall within the category of those described, as early as 1793, by Chief Justice John Jay, as "express, positive, free from ambiguity", and accordingly to come within the rule he then enunciated that "words are to be understood in their ordinary and common acceptation. * * *"[17] From the evidence infra it will appear that the "ordinary and common acceptation" of the words used in article I, section 8 of the Constitution would prevent any express or implied implication of an intention to allow inventors to suppress or to assign for suppression the patents granted to them.

(2) However, there is a further rule of constitutional interpretation which may be applicable here, viz.: that if there is any doubt, any ambiguity, in the language of the constitutional grant of power to Congress in this respect, such doubt, and such ambiguity shall be resolved and decided by evidence not merely of practice contemporaneous with the framing of the Constitution, but also by evidence of Colonial and English experience on the point at issue long prior to the framing of the Constitution. There is hardly a single major clause of or important phrase or even word employed in the Constitution in the interpretation of which the Supreme Court had not gone back, not merely to the famous contemporary

---

meaning would seem not to be doubtful if we can avoid reading into them that which they really do not contain."

Mr. Justice Holmes' dissenting opinion is interesting for its comment upon the paper bag patent decision: "I suppose that a patentee has no less property in his patented machine than any other owner, and that in addition to keeping the machine to himself the patent gives him the further right to forbid the rest of the world from making others like it. In short, for whatever motive, he may keep his device wholly out of use. *Continental Paper Bag Co.* v. *Eastern Paper Bag Co.* (210 U. S. 405, 422 (p. 519)) * * *. Not only do I believe that the rule that I advocate is right under the *Paper Bag case*, but I think it has become a rule of property that law and justice require to be retained. For 15 years, at least since *Bement* v. *National Harrow Co.* (186 U. S. 70, 88–93), if not considerably earlier, the public has been encouraged by this court to believe that the law is as it was laid down in *Heaton-Peninsular Button-Fastener Co.* v. *Eureka Specialty Co.* (77 Fed. Rep. 288, 25 C. C. A. 267), and numerous other decisions of the lower courts (p. 520) * * *. I leave on one side the question of the effect of the Clayton Act, as the court has done, *and also what I might think if the Paper Bag Case were not upheld*, or if the question were upon the effect of a combination of patents such as to be contrary to the policy that I am bound to accept from the Congress of the United States." (At p. 521. Italics mine.)

[16] *Pennock* v. *Dialogue* (2 Peters 1 (1828)); *Kendall* v. *Windsor* (21 Howard 322 (1858)); *Motion Picture Co.* v. *Universal Film Co.* (243 U. S. 502 (1917)); *Crown Co.* v. *Nye Tool Works* (261 U. S. 24, 35 (1923); *Vanore* v. *Improta* (25 Fed. (2d) 918, App. D. of C. (1928)); *George Franke Sons Co.* v. *Wiebke Mach. Co.*, (2 Fed. Supp. 499, U. S. D. C. Md. (1933)).

[17] *Chisholm* v. *Georgia* (2 Dallas 419, 476–477). *Cf.*, the statement of Mr. Justice Day in *Bauer* v. *O'Donnell* (229 U. S. 1, 10), construing the words "make, use, and vend" in the patent law, quoted in the text above.

Digitized by Google

writings compiled under the name of "The Federalist", or to the records of the Constitutional Convention, and of the State ratification conventions and to the private correspondence of the framers of the Constitution, but also to prior State and Colonial legislation, or even to the still earlier but often funda mental English experience reflecting or illuminating the particular Constitutional phraseology under consideration.[18]

If then we have indisputable judicial sanction for a search into the beginnings of the patent system in order to determine whether the promotion of "the progress of science and useful arts" is accomplished by nonuse of a patent, the answer of history on both sides of the Atlantic is a flat and emphatic no. An ancient Greek historian has recorded that the luxury-loving Sybarites, in what may perhaps be one of the first patent grants known (in the third century B. C.), encouraged a caterer or cook who had invented a dish "which was especially choice" by allowing no one else to "adopt the use of it before the lapse of a year, in order that the first man to invent the dish might possess the right of manufacture during that period. * * *" [19] Jumping from the Greece of Alexander the Great to the England of Queen Elizabeth, we find there an immediately significant point to be recalled here, namely that the whole institution of grants of patents for invention arose from the practical necessities of Great Britain in literally promoting "the progress of science and useful arts." In other words, patents for invention (as distinguished from the great trading monopoly patents) were granted with the ever-present thought of introducing into Great Britain new industries, and of improving those industries already there existent. In this connection it is interesting to note that the first exclusive patents for invention granted in Great Britain were given, not to Englishmen but to foreigners whose discoveries were regarded by the Crown as being of vital significance for British industry.[20]

[18] See *e. g., Cohens* v. *Virginia* (6 Wheat. 264, 1, pp. 418–19 (1821, construing the judiciary clauses)); *Gibbons* v. *Ogden* (9 Wheat. 1, 224 (1824, regarding the Federal regulation of pilots)); *U. S.* v. *Wong Kim Art* (169 U. S. 649, 653–4, 658 (1898, construing clause [1] of the fourteenth amendment and the constitutional qualifications for Representatives and Senators)); *Hawke* v. *Smith* (253 U. S. 221, 227–8 (1920, construing the word "Legislatures" within the meaning of Art. V)); *Myers* v. *U. S.* (272 U. S. 52, 136 ff., 174–175 (1926, determining powers of removal from office under Art. II)); *U. S.* v. *Macintosh* (283 U. S. 605, 632–633 (1931, Mr. Chief Justice Hughes, dissenting, in construing the naturalization oath in the light of art. VI, sec. 3)); *Smiley* v. *Holm* (285 U. S. 355, 368 (1932, construing various words in art. I, sec. 4)); *O'Donoghue* v. *United States* (289 U. S. 516, 530 ff. (1933)) and *Williams* v. *U. S.* (289 U. S. 553–554 (1933)), both construing the judicial power under art. III; *Home Building & Loan Ass'n* v. *Blaisdell* (290 U. S. 398, 427–428 (1934, construing the "Contract Clauses" of art. I, sec. 10)); *Monaco* v. *Mississippi* (292 U. S. 313, 322–325 (1934, construing art. III, sec. 2, clause [1] and [2] and the eleventh amendment)); *Baldwin* v. *Seelig* (294 U. S. 511, 522 (1935, explaining original necessity for "Commerce Clauses", art. I, sec. 8)); *Gordon* v. *Washington* (295 U. S. 30, 36 (1935, construing meaning of phrase "Suits in Equity" in Judiciary Act of 1789)); *Humphrey's Executor* v. *U. S.* (295 U. S. 602, 626 ff. (1935, determining powers of removal from office under art. II)); *Clyde Mallop Lines* v. *State of Alabama* (56 S. Ct. 194 (1935, construing the term "tonnage" in art. I, sec. 10, clause [3])). C. Warren, Bankruptcy in United States History (Harvard University Press, 1935) pp. 4 ff., discusses the historical background of the phraseology "uniform laws on the subject of bankruptcies" as used in art. I, sec. 8, clause [4]). See also, R. P. Post, Constitutionality of Government Spending for General Welfare in 22 Va. L. Rev. (1935) 1, at pp. 2 ff., and authorities, articles, and brief there cited.

For cases specifically dealing with patent questions and going back to English precedents, see *Pennock* v. *Dialogue* (2 Peters 1, 18 (1829)); *Grant* v. *Raymond* (6 Pet. 218, 241–242, 247–248 (1832)); *Shaw* v. *Cooper* (7 Pet. 292, 319–320 (1833)); see also, the great steamboat case, *Livingston & Fulton* v. *Van Ingen* (9 Johns. 506, 577, 587 (decided by the New York Court of Errors in 1812, per James Kent, then Chief Justice); however, as to patent law, seemingly contra—perhaps due to the idolatry of the biographer for his subject; *cf.* W. W. Story, Life and Letters of Joseph Story (Boston, 1851) vol. i, pp. 236–237: "Cases began to arise involving all the principles applicable to patents; and to the adjudication of these, the existing rules were not only to be practically applied as they never before had been, but new rules and modifications were demanded. The questions were often so novel, that counsel were forced to argue, and the Court to decide, without chart and upon general principles. I have often heard my father relate, that in several of the early cases tried before him the gentlemen engaged in them apologized for the mode in which they had been conducted, saying that the law was so without precedent and forms, that they knew not how to proceed." And again: "The condition of the law relating to patents, when my father came to the bench, has already been adverted to. In its principles and practice it was nearly formless in America, and the English decisions were so contradictory and unsatisfactory as to afford little aid. The strong inventive genius of New England began to develop rapidly after the war, and his circuits were crowded with patent cases. It became his office, therefore, almost to construct the law on this subject, and the system which is now developed is mainly owing to his effort. This law then in England was a mere shuttlecock between equity, with its liberal doctrines, and the common law, with its fear of monopoly." (*Ibid.*, vol. II, p. 584). *Cf.* T. G. Fessenden, Essay on the Law of Patents (Boston, 1810), pp. 42 ff., 176 and note.

[19] According to Phylarchus, quoted in Athenaeus, The Deipnosophists, XII, 521, tr. C. B. Gulick, Loeb Classical Library edition, vol. 5, London (1933) p. 349; Gulick cites: "C. Cichorius 'Ein Patentgesetz aus dem griechischen Altertum' in Jahrbucher fur Nationalokonomie und Statistik, vol. 118, p. 46 (Jena 1922)." See also, note on "Ancient Monopolies" in (1935) 17 Journal of the Patent Office (Washington, D. C.) p. 344.

[20] See W. H. Price, The English Patents of Monopoly (Harvard Econ. Studies, I (1913)) pp. 7–8: "* * * The earliest recorded application for an exclusive patent for introducing a new art into England bears the date of 1558 and was presented jointly by an Englishman and an Italian. The petition was granted in 1562 as a reward of 'diligent travail' and to 'give encouragement to others.' Meanwhile two other patents had been granted for inventions of foreign origin. Before any one of these was conceded, another Italian, Giacopo Acontio, in a petition for a patent prefaced his application with the suggestion that 'nothing is more honest than that those who by searching have found out things useful to the public should have some fruit of their rights and labors, as meanwhile they abandon all other modes of gain, are at much expense in experiments, and often sustain much loss.' He then explained that he had invented certain furnaces and 'wheel-machines' which others would copy without remunerating him unless he were protected." See also *ibid.* pp. 62–63, 67.

Digitized by Google

The development of the British patent system is, of course, inextricably interwoven with the great struggle against monopolies resulting ultimately in the passing of the Statute of Monopolies which specifically exempted from its operation patents for invention. One thing is clear in all that early period of patents for invention in England, and that is the emphasis placed upon the social undesirability and the illegality of nonuse of a patent. Patents granted to Italians, Hollanders, Germans, etc., were all predicated upon their actual use for commercial purpose in Great Britain within a certain period, and patentees, whether foreigners or Englishmen, who failed to comply with this requirement of use, soon found themselves patentless. Thus is 1563, owing to a growing scarcity of wood fuel, Queen Elizabeth granted a license to George Gylpin and Peter Stoughberken to make ovens and furnaces for 10 years. The grant refers to the "growing scarcity of wood fuel owing to the large consumption in the brewing and baking trades" and "is void in case the patentees fail to come over (presumably from Germany) and put the grant into practice within 2 months. * * *" [21] Again, in 1571, in the grant for an engine for land drainage and water supply "the grant is void if the engine be not erected within 2 years." [22] The Crown, being fully aware of the hatred, in England, of monopoly, was careful to emphasize the fact that such monopolies were granted for use by the public. In Francis Bacon's Defense of the Royal Prerogative in the Grant of Patents (1601), he takes great care to distinguish between those patents which he avers, "truly in my own conscience are hateful to the subject as monopolies", and those patents for inventions which are useful to and usable by the public. Of these he says:

"If any man out of his own wit, industry, or endeavor find out anything beneficial for the commonwealth, or bring any new invention, which every subject of this realm may use; yet in regard of his pains, travail, and charge therein, Her Majesty is pleased (perhaps) to grant him a privilege to use the same only by himself, or his deputies, for a certain time: This is one kind of monopoly." [23]

Even the haughty Elizabeth, herself, in her "Golden Speech" to her last Parliament pleaded that any patents which she had granted and which had not been actually used for the public good, had been obtained from her by fraud: "Since I was queen", she said, "yet did I never put my pen to any grant but upon pretext and semblance made me, that it was for the good and avail of my subjects generally, though a private profit to some of my ancient servants, who have deserved well; but that my grants shall be made grievances to my people, and oppressions, to be privileged under color of our patents, our princely dignity shall not suffer it.

"When I heard it, I could give no rest unto my thoughts until I had reformed it, and those varlets, lewd persons, abusers of my bounty, shall know I will not suffer it." [24]

In 1611 a certain Simon Sturtevant filed a petition for a metallurgical patent which ended with a statement that "he was not tied to any time in the trial of his invention." However, he "was speedily undeceived for in the following year the patent was canceled on the ground of his * * * neglect to work the patent." [25] It is also of significance that in 1639, King Charles I, "fearing to meet the Parliament, which soon had to be called, with a grievance of the monopolies still unremedied", issued a proclamation in which, *inter alia*, he revoked and canceled "all patents for new inventions not to be in practice within 3 years next after the date of the said grant." [26]

PATENTS FOR INVENTION OR INDUSTRY IN THE AMERICAN COLONIES

In quest of the invention of the farmers of the Constitution who, in Article I, Section 8, authorized Congress "to promote the progress of science and useful arts by securing * * * to * * * inventors the exclusive right to their respective * * * discoveries", we now return from England to the New World. We find in the records of the American Colonies as strong, if not even more, impressive evidence that nonuser and the suppression of patents granted

[21] E. W. Hulme, The Early History of the English Patent System in Select Essays in Anglo-American Legal History, vol. 3, Boson (1909), pp. 123–124, no. VI.

[22] *Ibid.* p. 129, no. XXIV. See also, Patents Nos. XXVIII (1573, "term of 2 years assigned for introducing the industry") (*Ibid.* p. 130); no. XXXVII (1574, for making drinking glasses, patentee to teach the art to the natives, since "great sums of money have gone forth of our Realms for that manner of ware.") (*Ibid.* p. 131); no. XXXV (1578, for engines for water-raising, "fixes 3 years for the introduction of the engine.") (*Ibid.* p. 132).

[23] W. H. Price, *op. cit. supra* note 20, at p. 154.

[24] *Ibid.* p. 161.

[25] E. W. Hulme, *supra* note 21, p. 142; *cf.*, W. H. Price, *supra* note 20, p. 108.

[26] W. H. Price, *supra* note 20, pp. 45, 175.

Digitized by Google

were absolutely foreign to the Colonial concept of a patent for invention. A mere reading of some of these patents in chronological order clearly indicates the steady and general trend that they were granted either to foreigners who had already tried out the workability of their inventions, or to the colonists themselves, not merely for the general purpose of fostering trade among the Colonies and abroad, but to meet some specific emergency affecting the more or less immediate needs of the colonists. The spirit of these patent grants demanded, as Professor Vaughan states, "a concrete introduction, not a mere disclosure of the inventions." [27]

Thus, in 1652, the General Court of Massachusetts Bay granted to John Clarke a 3-year patent for an invention: "for saueing of firewood & warming of rooms wth little coste & charges, by which meanes great benefitt is like to be to the country, & especially to these populous places; & if any family or other pson doe with the consent & direction of the sd Mr. Joh Clarke, or without his consent, doth improue, or vse sajd experiment, they shall pay ten shillinge to the sd Mr Clarke, for which he may sue or implead any pson before any commissionor for the same, as the case shall require." [28]

Again, 4 years later the General Court of Massachusetts Bay dealt with the problem of "the vncertajntje of procuring salt amongst vs for our necessary vses" and whereas Mr. John Winthrop "proffereth to make salt for the colony after a new way", they granted him a 21 year patent for "making salt after his new way." [29]

In 1691 the legislature of the Province of South Carolina, having been approached by Peter Jacob Guerard, the inventor of a rice husking machine, and in order to encourage the said Guerard "& all other ingenious & industrious persons * * * to essay such other machines as may conduce to the better propagation of any commodityes of the produce of this Collony" granted the said Guerard a 2-year patent for his "Pendulum Engine" and forbade the manufacture of said "Pendulum Engine" by others "unlesse he or they shall first pay onto the said Peter Jacob Guerard forty shillings current money of this Province, for each such Engine he or they shall make, sett up or use as aforesaid." [30]

In 1733 the same legislature of the Province of South Carolina granted to Charles Lowndes a 4-year exclusive privilege for making "a new Engine for the pounding and beating of Rice" but specifically provided "That the said Charles Lowndes, his executor, administrators and assigns, shall not, during the term of four years aforesaid, receive or take any more than the just and full sum of sixty pounds current money from any person that shall apply for a lycence in writing from him the said Charles Lowdnes, his executors, administrators or assignes, for the making or using any such Engine. * * * " [31]

Four patents granted by the thriving industrial Colony of Connecticut from 1746 to 1753 involvlng a new art or industry are equally significant.

1. John and Stephen Jerom were granted (in 1746) "the sole liberty and privilege of making salt by the boiling of sea water" for 14 years, provided, however, that if the patentees "shall neglect or fail, to erect, set up and prepare suitable works and materials for the making of salt, as aforesaid, for the space of two years, or shall fail of making the quantity of five hundred bushels of good salt in any one of the remaining twelve years after the said two years, that then this grant and every part thereof shall be void and of none effect; anything therein before to the contrary in any wise contained notwithstanding." [32]

2. In the following year Thomas Darling of New Haven prayed for "the sole liberty of making glass in this Colony." This "sole liberty and privilege of making and manufacturing glass in this Colony" was granted to him for 20 years on the

[27] F. W. Vaughan, *supra* note 5, p. 20. For a thorough background of the relation of colonial industries to the necessity for inventive energy and protection by patents, see W. B. Weeden, Economic and Social History of New England (Boston 1890), in index to vol. II, *s. v.* "Inventions;" V. S. Clark, History of Manufactures in the United States (Washington, D. C. 1916), vol. I, pp. 48-53, chs. VIII and IX; J. L. Bishop, History of American Manufactures, vol. I (Philadelphia, 1864), pp. 96, 114, 186.

[28] Records of the Company and Governor of Massachusetts Bay (ed. N. B. Shurtleff), vol. III (1854), p. 283.

[29] *Ibid.*, vol. II, p. 259, May 14, 1656.

[30] South Carolina, Statutes at Large (edited by Thomas Cooper, Columbia, S. C., 1837), vol. II, p. 63, (No. 72, — 1691.)

[31] The Statutes at Large of South Carolina, ed. D. J. McCord, Vol. VI (Columbia, S. C., 1839), p. 620, (no. 6, 1733.)

[32] The Public Records of the Colony of Connecticut, ed. C. D. Hoadly (Hartford, 1876), p. 246, — (1746.) For the importance of salt to the colonists, see W. B. Weeden, *op. cit. supra* note 27; index to vol. II, *s. v.* "Salt;" V. S. Clark, *op. cit. supra* note 27; index to vol. I, *s. v.* "Salt." It is not always easy "to mark the transition from the monopolies of an earlier date to the patent rights which play so important a part in modern legislation, affecting manufactures" (V. S. Clark, *op. cit. supra* note 27, vol. I, p. 53); in this and the other Connecticut patents, whether for invention or introduction of an industry, the point to be noted is the condition that the public benefit be prompt and not unduly suspended.

Digitized by Google

condition, however, that "if the memorialist and his assigns shall neglect or fail to erect, set up and prepare suitable works and materials for the making of glass, as aforesaid, for the space of 4 years, or shall fail of making the quantity of five hundred feet of good window-glass in any one of the remaining sixteen years after the aforesaid four years, that then this grant and every part thereof shall be void and of none effect, anything thereinbefore to the contrary in anywise contained notwithstanding." [33]

3. In the same year (1747) Joseph Pitkin, of Hartford, was granted "the sole privilege of slitting iron within this Colony for the term of 14 years * * *" "*with this proviso only*, that he shall certify this Assembly in May next that he hath began to provide to building a slitting mill, and that the same be set on work within two years from the present sessions of this Assembly, and kept going as occasion shall be to the end of the said term." [34]

4. In 1753 Jabez Hamlin and Elihu Chauncey, of New Haven, were granted "the exclusive liberty and privilege" for 15 years of setting up and operating machines "for managing ye linnen manufactures," but with a reservation that "if the memorialists failed to set up one such machine in every town within 5 years, they should lose the privilege in that town." [35]

Returning momentarily to Massachusetts, in 1750 the legislature granted a 10-year patent to a manufacturer of sperm candles and other whale products "requiring him to teach at least five apprentices during that period, of whom two should be nominated by the General Court." [36]

In 1761, the Colony of Rhode Island granted James Jucena a 10-year patent for making castile soap, it being recited: " * * * that he proposes to set up the manufactory thereof in this colony; that the procuring one of the chief materials will employ many poor people, and the manufactory be otherwise highly beneficial to the public, by furnishing a great and valuable article of commerce, which may be exported to all parts of the continent, to the West Indies, &c;" [37]

POST-REVOLUTIONARY PATENTS FOR INVENTIONS GRANTED PRIOR TO THE ADOPTION OF THE CONSTITUTION

The post-revolutionary grants of patents are similarly significant in their insistence that an exclusive right of manufacture actually implies manufacture and not nonuse of the patent. Thus, in March 1780 the General Assembly of the Commonwealth of Pennsylvania, granted to Henry Guest "the sole and exclusive right, for the term of five years, of manufacturing oil and blubber from the materials he has discovered;" this exclusive right was, however, to become effective *only* "after the time at which the aforesaid Henry Guest shall erect a manufactory in this State, and produces oil and blubber therein for sale from the materials he has discovered, provided the same be done within the space of eight months from the time of passing this act. * * *" [38] In the same year, the New York Legislature granted the same Henry Guest "the sole and exclusive right of making and vending within the State for the space of five years the same species of oil and blubber,"—adding to this grant "*Provided* nevertheless that the grant hereby made shall not take effect until the said Henry Guest shall have filed in the secretary's office in this State, a writing containing the names and descriptions of the materials aforesaid, and the method and process of making such blubber and oyl, or a substitute for blubber and oyl; nor until the said Henry Guest shall have a manufactory erected for the purpose, and shall have made such blubber or oyl, or a substitute for blubber or oyl, of the materials aforesaid, within this State." [39]

In South Carolina, from which, as we shall see, hailed one of the two drafts of what ultimately became the patent clause of the Constitution, there was enacted in 1784 probably the first real general patent law, as distinguished from an individual legislative grant of a patent. In that statute entitled "An Act for the encouragement of Arts and Sciences", the major portion thereof dealt with the exclusive rights of copyright owners and provided that, if upon complaint to

[33] *Ibid.* p. 281, (1747).
[34] *Ibid.* p. 329 (1747).
[35] W. B. Bagnell, The Textile Industries of United States, vol. 1 (Cambridge, 1893), p. 50.
[36] V. S. Clark, *op. cit. supra* note 27, vol. I, p. 50.
[37] Records of the Colony of Rhode Island (ed. J. R. Bartlett, 1860), vol. 6, p. 267.
[38] Statutes at Large of Pennsylvania (from 1682-1801), compiled by J. T. Mitchell and H. Flanders, vol. X (1904), p. 131, ch. DCCCXCVIII. It may be of interest to note that "before or as soon as * * * Guest begins to manufacture the aforesaid oil and blubber in this State he shall put up in the said manufactory or manufactories a printed account in English and German of the said materials * * *." [Sec. III.]
[39] Session Laws of the State of New York (1777-1784), ch. 71, republished in vol. I (Albany, 1886), p. 277.

Digitized by Google

the court and judges of the court of common pleas, it shall be found that the grantee has neglected to "furnish the public with sufficient editions thereof * * *", the grantee of such copyright shall furnish security that "a sufficient number of copies of such book or pamphlet" shall be published, and "if such author or proprietor shall, before said court, neglect or refuse to give such security as aforesaid, the said court are hereby authorized and empowered to give to such complainant a full and ample license to re-print and publish such book or pamphlet, in such numbers, and for such term, as said court shall judge just and reasonable: * * *." This principle of user in the same Statute was likewise extended to the inventors of machines in the following language:

"IV. And be it further enacted by the authority aforesaid, That, the inventors of useful machines shall have a like exclusive privilege of making or vending their machines for the like term of fourteen years, under the same privileges, and restrictions hereby granted to and imposed on the authors of books." [40]

Again, in 1788, the Legislature of South Carolina passed a special act granting to Samuel Knight "the sole and exclusive right and liberty of erecting, building, constructing and vending within this State" a machine for the pounding of rice "for and during the term of fourteen years", "*provided always*", however, "that if any person or persons shall tender or pay to the said Samuel Knight, his heirs or assigns, the sum of five pounds sterling, he or they shall and are obliged and required to grant each and every such person or persons, a license and permission, * * * authorizing him or them to construct or build such machine." [41]

THE CONSTITUTION AND THE PROTECTION OF PATENTS OF INVENTIONS

In advocating, in "The Federalist", to the people of the State of New York, the ratification of the Constitution, Madison, quoting the proposed power in Congress "to promote the progress of science and useful arts, by securing, for a limited time, to authors and inventors, the exclusive right to their respective writings and discoveries", stated:

"The utility of this power will scarcely be questioned. The copyright of authors has been solemnly adjudged, in Great Britain, to be a right of common law. The right to useful inventions seems with equal reason to belong to the inventors. The public good fully coincides in both cases with the claims of individuals. The States cannot separately make effectual provision for either of the cases, and most of them have anticipated the decision of this point, by laws passed at the instance of Congress." [42]

Just what State patent laws, "passed at the instance of Congress", Madison referred to is not altogether clear—we have already quoted the South Carolina Statute of 1784. From the standpoint of the immediate necessity and purpose of a general patent statute, implying an exclusive right of use in the patentee but not the right to suppress his patent, we do know that as early as 1783 a committee of the Continental Congress, to which had been referred a petition for a patent for the manufacture of steel, thus reported on the desirability of rewarding inventors:

"The Committee however considering that there are at this time many important manufactures in the different States and that others may be attempted which by proper attention and encouragement may be carried to great perfection by which our own Citizens may be employed and supported and large sums of money be saved which must otherwise be expended in foreign Countries, circumstances which deserve the most serious consideration at a Period when the United States are labouring under heavy debts both foreign and domestic; Wherefore the following Resolution is submitted:

"That it be recommended to the Legislatures of the several States to countenance and encourage the establishment of useful manufactures either by premiums or by such other means as they may find most effectual which are consistent with the Confederation and the Treaties subsisting between the United States and foreign powers." [43]

Again, in the same year, the Committee of the Continental Congress, expressing apprehension as to the workability of a mechanical boat, for which its inventor prayed for "a compensation in land on the west side of the Ohio", stated:

"That if the Boat proposed to be constructed by Mr. McMechen shall answer the valuable purposes that from his memorial he seems to expect, Congress,

[40] Act No. 1221, Cl. III and IV, reprinted in South Carolina Statutes at Large, ed. by T. Cooper, vol. IV (Columbia, S. C., 1838), pp. 618–620.
[41] Act No. 1400, ibid, vol. V (Columbia, S. C., 1839), p. 69.
[42] The Federalist XLIII (Everyman Edition), p. 218.
[43] Journals of Continental Congress, ed. G. Hunt, vol. XXIV (Washington, 1922), p. 515.

Digitized by Google

when the situation of their affairs permit of it, will take the same into consideration; and notwithstanding that he may have published his discovery, they will grant such premium to the Projector as to them may seem an adequate compensation." [44]

Acting on another petition for a grant of land to an inventor of a mechanical boat, the Continental Congress resolved, in 1785:

"That 30,000 A[s] of land in the new Purchase to the West of the Ohio be given to James Rumsey provided he shall before the first day of May next produce good and sufficient Evidence that by means of certain Mechanism of his Invention wrought or aided by three men only, a Boat carrying ten Tons has been moved (sic) for six days in succession against the Stream of the R. Ohio at the rate of (sic) 50 miles (sic) pr. day." [45]

In arguing that the use of the term "exclusive right" referred to in article I, section 8 of the Constitution, would render a compulsory licensing system or cancelation of a patent for nonuse unconstitutional, stress has been laid on the fact that in Madison's draft, submitted to the Convention on August 18, 1787, the phrase used was "to encourage by premiums and provisions the advancement of useful knowledge and discovery", furthermore, that Charles Pinckney, on the same date, proposed "to grant patents for useful inventions", while the phraseology as finally adopted on September 5th, 1787, by Judge Brearley's Committee on Postponed Matters, read "by securing" for limited times to * * * inventors, the *exclusive* right to their respective * * * discoveries." [46] From this change in phraseology it has been argued by a very learned authority on patent law, Mr. Karl Fenning that:

"It is significant, therefore, that in framing the Constitution in its final form, the words 'Patent' and 'Copyright' were not used, possibly lest the power be limited to the particular forms of conditional exclusive rights which were at that time known as 'Copyrights and Patents.'"

From the "words finally chosen for the Constitution", Mr. Fenning deduces that "these seem to allow no limitations on the 'exclusive' right such as requirements for working or compulsory licensing." [47]

However, this reasoning, although ingenious is, the writer believes, purely surmise and unsupported as far as he can at present gather by contemporary evidence. On the contrary, he submits that (1) we do know that the final corrections of Judge Brearley's Committee and of the "Committee on Style and Correction" were not carefully or discriminately considered by the Delegates to the Convention, who, Mr. Charles Warren tells us "were now 'very impatient' to get through, and tolerated little debate"; the delegates were evidently tired and anxious to finish their labors and go home." [48] (2) We likewise know that the congressional grants to inventors and authors finally authorized under article I, section 8 of the Constitution represent the utmost limits to which the Framers of the Constitution, inheriting and raised in the fear of monopolies, were willing to go, and that the proposal of a broader power "to establish public institutions, rewards and immunities for the promotion of agriculture, commerce, trade and manufacture" was emphatically rejected.[49] (3) We also know from contemporary, as well as later evidence, that the sole encouragement to obtain, or the consideration for these limited patent and copyright grants, was regarded as the economic inducement of recurring profit through the constant use by the grantee of his constitutional monopoly. As James Iredell, later one of the first Associate Justices of the Supreme Court, wrote in defense of the Constitution in 1788, "the interest of the proprietor (of a copyright) will always induce him to publish a quantity fully equal to the demand." [50] In an early patent decision the Supreme Court likewise described the inventor's reward as "the profits arising from the sale of the thing invented." [51] (4) Finally we also know that just as at the

[44] *Ibid.* pp. 433–4.
[45] Journals of the Continental Congress, ed. G. Hunt, XXVIII (Washington, 1922), p. 349.
[46] See C. Warren, The Making of the Constitution (Boston, 1928), pp. 625–6, 702.
[47] K. Fenning, "The Origin of the Patent * * * Clause of the Constitution" in (1928) 17 Georgetown Law Journ. 109, 116.
[48] C. Warren, op. cit. supra note 46, pp. 690, 692–693.
[49] Joseph Story, Commentaries on the Constitution of the United States, Vol. 3 (Boston 1833), Sec. 1150; C. Warren, op. cit. supra note 46, p. 702.
[50] G. J. McRee, Life and Correspondence of James Iredell, vol. II (Boston, 1858), p. 208.
[51] *Shaw* v. *Cooper* (7 Peters 292, 320 (1833)) per McLean, Associate Justice. In this connection and on the question as to contemporary ideas of what Congress could do if it so deemed fit, by way of conferring conditional rewards upon the inventors for their discoveries, it is interesting to note the following extract from a treatise by Philips, The Law of Patents (Boston, 1837), at pp. 8–9: "Though property in a discovery, therefore, like that in land, originates in and is created by legislation, the right to such property exists to an imperfect degree, independently of the positive laws. In this view Mr. Rawle remarks, that upon the provisions of the constitution of the United States on this subject, that it was not intended thereby to create

Digitized by Google

introduction of a system of patents for invention in England, described above, so, as already indicated by the Committee of the Continental Congress just quoted, and during the period of the formation, ratification, and putting into effect of the Constitution itself, the whole urgent need of the patent system was to promote immediately, and not merely ultimately after a 17-year period of suspension, the concrete welfare of the people of the United States. Contemporary evidence stresses the need to increase both production and consumption, thereby not only making America a more livable country but enabling both the Federal and State Governments to pay their debts. About 1788, in his "Letters of an American Farmer", Crèvecoeur, the famous French observer of America, noted that:

"The farmer and the artisan have more to do than they can perform; scarcity of men makes labor very dear; to supply the want of labor and time the American is forced to invent, to think out new ways of augmenting his efficiency."[52]

Writing to Jefferson, in the fall of 1788, on the problem of patents of monopoly, "as encouragement to * * * ingenious discoveries", James Madison, describing monopolies as "justly classed among the greatest nuisances in Government", even went so far as to inquire whether it would "not suffice to reserve in all cases a right to the public to abolish the privilege at a price to be specified in the (patent) grant * * * ?"[53] How important American inventions already appear in public estimation is well illustrated in McMaster's description of the rejoicing in Philadelphia on the news of the ratification of the Constitution. "The Manufacturers' Society", he writes: "delighted the crowd with the spectacle of a huge wagon drawn by ten horses and neatly covered with cotton cloth of their own make. On the wagon were a lace loom, a printing mill, a carding and a spinning jenny of eighty spindles. Compared with the cunningly and exquisitely wrought machines now to be found in the mills and factories of New England, they would seem rude and ill-formed. But they were among the newest inventions of the age, and were looked on by your ancestors as marvels of mechanical ingenuity."[54]

---

rights, but merely to regulate those already existing. The inventor has a right to keep his secret, and if he discloses it he has a just claim to remuneration and reward, according to the amount of his expenditure, and the importance of his improvement." And again, at pp. 204-206: "A patent once granted is not forfeited in the United States by the neglect of the patentee to put his invention into practical operation. Our law differs in this respect, from that of France, which provides that unless the patentee reduces his invention to use within 2 years from the granting of the patent, he forfeits his privilege. This provision is rather rigid, for a general rule, since some inventions, requiring extensive preparations and large outlays, cannot be brought into operation in that time. A law containing a provision of this description ought also to provide for lengthening the time in particular cases. But the laws of England and the United States, contain no provision on this subject. Mr. Justice Washington distinctly lays down the doctrine that no neglect of the patentee, to put his invention into practical operation, will be construed to be an abandonment of his patent right. And such is the language of all the cases. Our law appears to go upon the presumption that the public benefit may in this case be left wholly to the influence of the interest of the patentee; and confides to him the absolute control and disposal of his invention for the period of his monopoly.

"There may be instances of inventions, the use of which are vitally material to the public safety, just as in some instances the appropriation of individual property to the public use is essential to the public defence. In the latter case the general safety is not subjected to the caprice or inordinate cupidity of the proprietor, for his property may be taken for the public use without his consent, and a reasonable compensation allowed. And such would be the rules, probably, in regard to the use of a patent right, which is no more sacred than other personal property. This provision of law is limited to the case of the use of property by the public as a corporate political body, and does not reach the case of an indirect benefit derived to the public by the use of a thing by individuals. In this respect the law leaves patent rights upon the same footing as other personal property, the proprietor of which may, by his own caprice or folly, deprive the public and himself of the benefit that would result from a reasonable use of it, and there does not seem to be any pressing "urgency for a different rule in regard to different species of property. There is, it is true, no absolute insurmountable objection to a regulation on this subject in relation to patents, for the public may grant patents or lands upon such conditions as may be deemed expedient, and for the general benefit; but as a general rule, unless the case is plain and urgent, it is the better policy to leave private rights to the discretion and interest of proprietors, where their interest evidently coincides with that of the public, since the inconveniences attendant upon an attempt by law to supply their want of reasonable discretion, would, in a majority of cases, be greater than those consequent upon their abuse of the discretion and control allowed by the law."

In *Woodbridge* v. *United States* (263 U. S. 50, 55, 56 (1923), while following the holding in the *Paper Bag Patent Case* that a patentee "is not obliged either to make, use, or vend his invention during the period of his monopoly," Chief Justice Taft paradoxically further reasoned that "Congress relies for the public benefit to be derived from the invention during the monopoly *on the natural motive for gain in the patentee* to exploit his invention and to make, use, and vend it or its products or to permit others to do so, *for profit.*" (Italics mine.) *Cf.* cases cited in J. B. Waite, Patent Law (Princeton, 1920), p. 224, note 369.

[52] Quoted in V. S. Clark's *op. cit. supra* note 27, at p. 53. See also, for this and the post-Revolutionary pre-Constitutional period, W. B. Weeden, *op. cit. supra* note 27, vol. II, pp. 854 ff.; V. S. Clark, *op. cit. supra* note 27, vol. I, chs. X-XII; J. L. Bishop, *op. cit. supra* note 27, vol. II, chs. I-II; C. A. and M. R. Beard, The Rise of American Civilization (1930 ed.) vol. I, pp. 442 ff.; E. Channing, History of the United States, vol. III (New York, 1930), pp. 390 ff.

[53] The Writings of James Madison, ed. G. Hunt, vol. 5 (New York, 1904), p. 274; October 17, 1788.

[54] J. B. McMaster, A History of the People of the United States from the Revolution to the Civil War, vol. I (New York, 1888), p. 493.

Digitized by Google

In his very first annual address to Congress on January 8, 1790, President Washington urged the passage of a patent law, saying:

"I cannot forbear intimating to you the expediency of giving effectual encouragement, as well to the introduction of new and useful inventions from abroad as to the exertion of skill and genius at home."[55]

In the first Patent Federal Statute enacted in April 1790, it was provided that the "Board of Three Members" to whom petitions for patents were referred "if they so deem the invention or discovery sufficiently useful and important" shall allow the applicant a grant of "the sale and exclusive right and liberty of making constructing, using, and vending to others to be used, the said invention or discovery."[56]

CONCLUSION

We have come to the end of a journey into constitutional law and American and English history in order to ascertain the meaning of four seemingly very simple terms, viz: "exclusive", "make", "use", and "vend". As we have seen in *Bauer* v. *O'Donnell*, the famous price-fixing case, the Supreme Court found nothing "occult" in the words "make, use, and vend", and the same Court, in construing the grant of "an exclusive right * * * for a period of thirty years of a system of water works" has held that "the term 'exclusive' is so plain that little additional light can be gained by resorting to the lexicons. * * *"[57] With regard to the constitutionality of compulsory licensing provisions or the cancelation of patents for unjustifiable and indefensible nonuser—if the Committee on Patents can, by evidence adduced before it, clearly and adequately establish that there is suppression or nonuser of patents which is unjustifiable and indefensible—the proof of which the Oldfield Committee did not seem to be able to gather in sufficiently impressive quantity and quality—then perhaps the door which the Supreme Court left open in the *Paper Bag Patent case* may serve as an approach to the enactment of constitutional legislation affording the relief which the committee advocates "to promote the progress of science and useful arts". The rational basis of patent protection has been stated in no more crisp, comprehensive fashion than in the testimony of the most respected, former Commissioner of Patents, James T. Newton, before the Committees on Patents of the Senate and House of Representatives in 1919. Discussing the basis of patent protection, he stated:

"And the value of the patent is right there; it enables the manufacturer to get an industry started. That is the value to the public, too. After the industry is started and the public gets the benefit of the invention, then the patent is beginning to perform the function that the framers of the Constitution intended it should perform, in making work easier for the general public, in giving them something they never had before, and something that they wanted."[58]

FRANK I. SCHECHTER,

NEW YORK.

[55] G. A. Weber, The Patent Office, Its History, Activities, and Organization (Service Monographs of the United States Government No. 31, The Johns Hopkins Press, Baltimore, 1924), p. 3.

[56] 1 Statutes at Large, 109.

[57] *Vicksburg* v. *Water Works Co.* (202 U. S. 453 (1906) pp. 470–1). For an interesting discussion of the meaning of the language "the exclusive right to use," see T. R. Powell, The Nature of a Patent Right in (1917) 17 Col. Law Rev. 663, at 678 ff. Professor Powell states (p. 683) "The objects of the patent statute were practical objects"—but is is difficult to determine from his discussion whether, if confronted now with an actual accumulation of proof convincingly establishing the suppression of patents, as against the public interest, he would regard a compulsory licensing legislation as constitutional. Cf., C. J. Williamson, "The Rights Conferred by Letters Patent for Inventions," in (1922) 8 Va. Law Rev. 507, at pp. 509–11; note on *In re Amtorg Trading Corporation*, 75 F. (2d) 826 (C. C. P. A. 1935) cert. denied, Oct. 14, 1935, in (1935) 35 Columbia Law Rev. 1317, at pp. 1318–19.

[58] General Hearings before the Committee on Patents of the Senate and House of Representatives, 68th Cong., 1st sess., on S. 3223, H. R. 9932, Nov. 5, 1919, at p. 16.

Digitized by Google

FOG AND FICTION IN TRADE-MARK PROTECTION *

PART I

By Frank I. Schechter

(REPRINTED FROM COLUMBIA LAW REVIEW, VOL. XXXVI, NO. I (JANUARY 1936))

"The silent pirates of the shore
Eat and sleep soft, and pocket more
Than any red robustious ranger
Who picks his farthings hot from danger."
[From Robert Louis Stevenson's Moral Emblems]

I. INTRODUCTION

The marquise, Isabella d'Este, a great lady of the Renaissance, on a visit to Rome, wrote to her secretary as follows: "We are so busy with these right reverend cardinals that we have no time to recite the major office; take 3 ducats to the reverend mother of San Paolo and ask her to say it for us, while we are away." [1]

The members of the committee on trade-mark legislation of the American Bar Association have recently done themselves a grave injustice; despite their eminence in the field of trade-mark law, and the many years they have spent in studying and endeavoring to remedy the defects in trade-mark legislation, the bewildered reader of their report for 1935 would—quite groundlessly—jump at the conclusion that, like the marquise, Isabella d'Este, and the "right reverend cardinals," they had been much too busy or weary "to recite the major office." In that report they state:

"Thirty years' experience with the present statutes has shown that, as a whole, they have worked surprisingly well. While certain language in them was originally obscure, it has been clarified by interpretation. We have come to the conclusion, therefore, that the ideally perfect had better give way to the practically attainable." [2]

By a peculiar coincidence, this report of the American Bar Association committee is signed by the very distinguished and profoundly learned chairman, who was, at the same time, chairman of that committee on trade marks of the Association of the Bar of the city of New York, which disapproved of proposed New York State trade-mark legislation because "the bill copies, and would perpetuate, various provisions of the Federal statute which have been found, after many years, to be objectionable, and which bar associations have been attempting to have amended." [3]

By another strange paradox, the same signatory of these two reports is the author of one of the most scathing and effective indictments of our present Federal trade-mark legislation ever written, entitled "The Expensive Futility of the United States Trade-Mark Statute." [4] In that article the author has graphically and amusingly described the dismay which he, in common with all other practitioners in this field, has encountered when he has endeavored to explain to a client just what real and concrete advantage is to be gathered from an investment of money and time in obtaining a Federal trade-mark registration. That this article was no exaggeration of a long-existent situation may also, perhaps, be gathered from the fact that over 10 years ago another distinguished attorney—the ex-president of the American Bar Association—in paying tribute

* This paper was prompted by two recent utterances emanating from very different sources.—(1) an important technical report concerning the prospect, technique, and constitutional basis of Federal trade-mark legislation, and (2) a hotly critical, although not altogether illuminating philosophic comment on the rationale and the ethical and social utility of trade-mark protection. In this pt. I, I am dealing only with the first phase; pt. II will be dealt with subsequently. I intend to incorporate certain portions of this paper in my History of Trade Morals and Control, now in the writing, of which have appeared my A Study in Comparative Trade Morals and Control in (1933) 19 Va. L. Rev. 794–845, and The Law and Morals of Primitive Trade in Radin and Kidd, Legal Essays in Tribute to Orrin Kip McMurray (1935) 546–622.

I am indebted to Mr. Leslie D. Taggart of the New York Bar for his assistance in the preparation of this manuscript.

[1] R. Roeder, The Man of the Renaissance (1933) 325–326.

[2] American Bar Association, section of patent, trade mark, and copyright law, committee reports presented at the annual meeting July 15–16, 1935, Los Angeles, Calif., at 9.

[3] See Annual Report of the Committee on Trade Marks and Unfair Competition for 1934–35 in Association of the Bar of the City of New York, Yearbook, 1935, 255.

[4] E. S. Rogers in (1914) Mich. 12 L. Rev. 660 (1914). See also his article Some Suggestions Concerning the International Trade-Mark Situation (1926), 26 Yale L. J. 235, and his Goodwill Trade Marks and Unfair Trading (Reprint, Chicago, 1919) 110. Cf. M. Block, Trade Marks—The Futility of Trade-Mark Registration n N. Y. L. J., Oct. 26, 1926, at 388.

Digitized by Google

before a congressional committee to the disinterested work of the author of that article and his associates "during the last 4 or 5 years," nevertheless referred to pending trade-mark legislation as "what I consider the great American con fidence game on the public." [5]

From the foregoing remarks it may be gleaned that not all practitioners or students of trade-mark law are convinced that the present trade-mark legislation—even with a few amendments—furnishes adequate machinery for the protection, under modern conditions, of the trade marks and good will that have become so vital and integral a part of present day commerce.[6] Although the dissatisfaction often appears to extend merely to administrative features of Federal trade-mark legislation, actually it goes to the roots of the system. For instance, in a recent case, due to the present classification methods used in the Patent Office, a Federal court was compelled to take up its time in arriving at the seemingly obvious holding [7] that the defendant's trade mark "Swavel" was confusingly similar [8] to the plaintiff's "Suavelle" and that "silk and suede and other rainproof clothing" had "the same descriptive properties" [9] as a "waterproof garment having a silklike finish," remarking caustically:

"It is apparent that if the Trade Mark Division of the Patent Office had any sort of proper cross-indexing system, the registration of two such similar trade

[5] See testimony of Mr. O. R. Barnett in Joint Hearings Before the Committee on Patents on S. 2697, 68th Cong., 2d sess. (1925) 78. The witness further stated (id. at 80):

"A patent does not exist, except as Congress creates it, through the Patent Office, but a trade mark does, and when the Patent Office has spent its time handling all these contested matters and arriving at its conclusions as to infringement or noninfringement, the property rights are precisely the same as before, and that money has all been spent on a moot case. Simply to determine, what? Not whether the party has any rights or not, but whether or not the Patent Office will make a public record of the fact that John Jones is using this mark. Is it to the public interest to have that mark registered, or is it to the public interest to keep that fact off the register?

"A great many of our clients get into these matters not appreciating that it does not adjudicate anything. They come to the end of an interference and then find John Jones still doing what the Commissioner said he had not any right to do, and they say 'Can't you stop him?' We reply, 'Yes; you can start a fresh suit for infringement.' They ask, 'Does not that adjudication mean anything?' And we have to reply, 'Not a thing.' That is what I say is the confidence game. The result is that this system of registration not only keeps them off the record, because the Patent Office refuses to record it but the wise merchant will not attempt to register, because of the expense and the possibility of being involved in these opposition, interference, and cancellation proceedings."

See also statement of the American Bar Association Committee in 1925: "This is essentially a professional matter * * * The commercial community is interested in the results, not in the means by which they are arrived at. The criticism of the present statutes is that they are obscure, the procedure under them is slow and expensive, and the results uncertain." Id. at 5; cf. id. at 91.

[6] I am here discussing trade-mark legislation and rights from the functional and legal standpoints, on the assumption that competition is still extant in this country, irrespective of questions of a social desirability of competition and of the economic utility of trade marks. These latter aspects will be considered in the second part of this article.

[7] *J. A. Livingston, Inc.*, v. *Pocono Rubber Co.*, 8 F. Supp. 249 (D. N. J. 1933), modified and affirmed, *Pocono Rubber Cloth Co.* v. *J. A. Livingston, Inc.*, 79 F. (2d) 446 (C. C. A. 3d, 1935). The action was for trade-mark infringement and unfair competition and it concerned two manufacturers of a certain silk and suede leather-like rainproof cloth. The plaintiff used and registered the trade mark "Suavelle" for the material as well as the finished products. About a year after the plaintiff had begun to use this word, the defendant adopted for the same material the trade mark "Swavel." The plaintiff had registered his "Suavelle" trade mark in class 39 for clothing ("garments of silk material and the like"). Defendant first applied for the registration of its "Swavel" mark under class 42 ("knitted, netted, and textile fabrics"), the class the plaintiff applied for before obtaining the registration in class 39 for clothing. Defendant later amended its application and obtained registration in class 50 ("for merchandise not otherwise classified"), 2 months after the registration of plaintiff's "Suavelle" trade mark. (The facts are pieced together from the decisions of the two courts.)

[8] Under sec. 5 (b) of the Trade Mark Act of 1905, it is provided that:

"* * * trade marks which are identical with a registered or known trade mark owned and in use by another and appropriated to merchandise of the same descriptive properties, or which so nearly resemble a registered or known trade mark owned and in use by another and appropriated to merchandise of the same descriptive properties as to be likely to cause confusion or mistake in the mind of the public or to deceive purchasers shall not be registered * * *" 33 Stat. 725, 15 U. S. C. A., sec. 85 (1927).

See *J. A. Livingston, Inc.* v. *Pocono Rubber Co.*, 8 F. Supp. 249, 250 (D. N. J. 1933). The Circuit Court of Appeals, per Davis, C. J., said:

"The selection of the word 'Swavel' by the defendant following so closely upon the selection of the word 'Suavelle' by the plaintiff would hardly seem a mere coincidence. A fair interpretation of the evidence rather indicates that the word was chosen by design. It is absolutely impossible for the defendant to control the pronunication which the trade would give to the word. It is apparent that the word so nearly resembles in sound, appearance, and spelling the plaintiff's trade mark that it will necessarily cause confusion or mistake in the public mind and will deceive purchasers who will think they are buying merchandise produced by the plaintiff when as a fact they are purchasing defendant's merchandise."

See *Pocono Rubber Cloth Co.* v. *J. A. Livingston, Inc.*, 79 F. (2d) 446, 448 (C. C. A. 3d, 1935).

[9] Under sec. 2 of the act of May 4, 1906:

"* * * the Commissioner of Patents shall establish classes of merchandise for the purpose of trade-mark registration, and shall determine the particular descriptions of goods comprised in each class * * *," 34 Stat. 169 (1906), 15 U. S. C. A. sec. 131 (1926).

For the classification of merchandise for registration purposes see Rules of the Patent Office (revised July 1, 1933, nos. 19, 22 (b), also p. 43).

Digitized by Google

marks would not have been permitted * * * that is the first totally unnecessary instance of human fallibility." [10]

The Court of Customs and Patent Appeals, which reviews the decisions of the Commissioner of Patents, in ascertaining whether articles are of the "same descriptive qualities", does not regard the Patent Office classification of trade-marked articles as controlling on it. "In fact", states the court, "we have many times held to the contrary." [11] The point here is not, however, a criticism of existing administrative practice, which may be attributable to an erroneous theory of law and to the parsimony of Congress in the allotment of funds.

The question whether Patent Office classifications of articles for the purpose of the registration of trade marks are sound, hinges upon the much broader question as to the whole basis and rationale of the framing and administration of any trade-mark registration law.

A condition precedent to any intelligible discussion of these probelms is the proper appraisal of the functional concept of a trade mark today. Under modern conditions of national and international distribution of goods, a trade mark no longer, strictly speaking, designates "ownership or origin of goods", since, to the consuming public, actually that ownership or origin may remain anonymous. The trade mark is a valuable, even though anonymous, link between the owner of the mark and the consumer. It is not merely his commercial signature but is a creative "silent salesman" through which direct contact between the owner of the mark and the consumer is obtained and maintained.[12] Nothing is to be gained, in determining the nature of a trade mark and the basis of its protection

---

[10] See *J. A. Livingston* v. *Pocono Rubber Co.*, 8 F. Supp. 249 (D. N. J. 1933).

The present writer has personally observed a similar situation regarding Patent Office classifications. *A*, who had used the trade mark "Aquaduk" for bathing suits since Nov. 12, 1930, applied for the registration thereof in class 39 (clothing) on Nov. 24, 1930, and a certificate of registration thereon was issued on Mar. 24, 1931. On Nov. 24, 1933, another firm B commenced the use of the trade mark "Aquadul" for knitted and textile fabrics and filed an application for the registration of this mark in class 42 (knitted, netted, and textile fabrics) on Dec. 7, 1933. This "Aquadul" registration was granted to *B* by the patent Office on May 8, 1934, despite the protest of *A*, the owner of the "Aquaduk" mark, on the ground (given by the Patent Office) that no search for "Aquadul" has been made by the Patent Office in class 39 (clothing) and that, as to class 42, the search shows that "no trade mark like applicant's has been registered for use on the same kind of goods." The matter was afterward amicably adjusted between the "Aquaduk" and "Aquadul" registrants.

Nims on unfair competition and trade marks (3d ed. 1929), speaking of the phrase "goods of the same descriptive properties," appropriately states, at 579: "To the lawyer it is the synonym of confusion; to the layman it is meaningless. The attempts of the Patent Office and of the courts to find a rule of thumb by which to classify commodities in this respect has been a complete failure, at least from the layman's standpoint."

[11] *Harlan-Wallins Coal Corp.* v. *Transcontinental Oil Co.*, 64 F. (2d) 122 (C. C. P. A. 1933), per Graham, P. J. This decision has recently been cited by the Commissioner of Patents in *Fruit Industries Limited* v. *Continental Distilling Corporation*, 457 O. G. 3, Aug. 6, 1935, wherein there was much grave consideration of the question whether whiskey and wine are "goods of the same descriptive qualities within the meaning of the Trade-Mark Act.' F'razer, A. C., in holding that wine and whiskey "possess the same descriptive properties * * * and are sold in similar containers, through the same dealers, to the same people, for the same uses", noted that "the classification of articles in the Patent Office has never been deemed of controlling importance by the courts." See 457 O. G. at 4.

Cf. Mantle Lamp Co. of America v. *Aladdin Mfg. Co.*, 78 F. (2d) 426, 429 (C. C. A. 7th, 1935) cert. denied, 56 Sup. Ct. 173 (1935) per Fitzhenry, C. J.: "The trial court apparently placed weight upon the fact that the trade marks registered by the defendant (appellant here) in the United States Patent Office were under class 34 'covering heating, lighting and ventilating apparatus, not including electrical apparatus.' The court said:

"The foregoing would indicate that defendant's trade marks did cover portable electric lamps, and that when the plaintiff began using the word 'Aladdin' on electric lamps it invaded no field that had previously been occupied by the defendant.

"With the conclusion which the trial court draws from the facts, we cannot agree. Persons desiring to register trade marks are required to use the wording of the Patent Office classification under which registration is desired. As appellant has so well argued in its briefs, any presumption that might have arisen from the words of the Patent Office classification as being a limitation upon the scope of the trade mark, has been overcome by the action of the Patent Office in determining between these parties that the rights of the appellant in its trade mark registration do extend beyond the words of the Patent Office classification and do include electric portable lamps. The Patent Office has decided, in litigation between the parties to this suit, that kerosene mantle lamps and electric lamps are goods possessing the same descriptive properties and while that decision is not controlling upon us here, it is entitled to great weight."

[12] See Crane, C. J., dissenting in *Gotham Music Service Co., Inc.* v. *Denton and Haskins Music Pub. Co.*, 259 N. Y. 86, 91, 181 N. E. 57, 59 (1932):

"When one buys Uneeda biscuits or Cremo cigars or talcum powder, no one has in mind the manufacturer; this legal phraseology is a mere fiction. The producer may change its corporate existence innumerable times and the public does not know or care. What they do know is that an ordinary bit of merchandise has, through advertising, become very popular, and they want the merchandise with that name. It is the name that counts and has been made a valuable asset. So with this old song which nobody wanted; a revised edition was given a new name; the name, through advertising, became popular, created the demand, and the sale of the song under this new name brought in much profit to the plaintiffs, until the defendant diverted it by making unfair use of the name."

Digitized by Google

by describing the trade mark as "property." [13] The real heart of the matter seems to be that a trade mark, both as a symbol and as a creative agency of its owner's goodwill, depends for its value upon its hold upon the public mind; this value may be diminished or even destroyed either by a diversion of trade from the owner of the mark (where it is used by another upon competing goods) or even in the case of its use upon noncompeting goods, and especially when the mark is coined or fanciful, by the gradual dilution or whittling away of its uniqueness—and hence of its selling power.[14]

The problem at hand resolves itself into two phases: i. e., (1) What sort of trade-mark registration act should we have? (2) Under our constitutional system, how far can Congress go in enacting such legislation? [15] In endeavoring to answer these questions, it is preferable that we deal with them in reverse order since, no matter how desirable any system of Federal trade-mark protection may be, it is unavailing if constitutional limits forbid.

---

[13] The writer pointed this out a decade ago in the Historical Foundations of Trade Mark Law (Columbia University Legal Studies, vol. I, 1935) at 156 et seq. "Delusive exactness," wrote Holmes, J., "is a source of fallacy throughout the law." See *Truax* v. *Corrigan*, 257 U. S. 312, 342 (1921). For the constant shifts and shadings of judicial opinion on the reason for trade mark protection, particularly with reference to the property concept, see the decisions of the Supreme Court (mainly per Holmes, J.) cited in Schechter, op. cit. supra. at 153–155; see also *Chattanooga Foundry* v. *Atlanta*, 203 U. S. 390, 399 (1906); *Hamilton-Browne Shoe Co.* v. *Wolf Bros. & Co.*, 240 U. S. 251, 259 (1916); *Du Pont de Nemours Powder Co.* v. *Masland*, 244 U. S. 100, 102 (1917). *Cf.* Holmes, J. in *Beechnut Co.* v. *Lorillard Co.*, 273 U. S. 629, 632 (1927): "A trade mark is not only a symbol of an existing good will, although it commonly is though of only as that. Primarily it is a distinguishable token devised or picked out with the intent to appropriate it to a particular class of goods and with the hope that it will come to symbolize goodwill. Apart from nice and exceptional cases, and within the limits of our jurisdiction, a trade mark and a business may start together, and in a qualified sense the mark is property, protected and alienable, although as with other property its outline is shown only by the law of torts, of which the right is a prophetic summary. Therefore the fact that the goodwill once associated with it has vanished does not end at once the preferential right of the proprietor to try it again upon goods of the same class with improvements that renew the proprietor's hopes."

[14] This point of view was first expressed, as far as I know, in this country by the present writer [The Rational Basis of Trade Mark Protection (1927) 40 Harv. L. Rev. 813, 831–832] and was fortified by a decision of a German court—the Landesgericht at Elberfeld—in the *Odol case* (involving the same trade mark on mouth-wash and steel railroad ties). It was later incorporated into the law of New York State. See *Tiffany & Co.* v. *Tiffany Products, Inc.*, 147 Misc. 679, 682–683, 264 N. Y. Supp. 459, 462 (Sup. Ct. 1932), affirmed, 237 App. Div. 801, 260 N. Y. Supp. 821 (1st Dept. 1932), affirmed, 262 N. Y. 482, 188 N. E. 30 (1933). In that case the owners of the famous "Tiffany" trade mark on jewelry were held entitled to restrain the use of "Tiffany" in connection with the motion picture industry. Cf. the suggestive paper on Pre-emption in Connection with Unfair Trade by Prof. G. Glenn in (1919) 19 Columbia Law Rev. 29, written when the doctrine of the protection of similar marks from misuse on dissimilar goods was still in its infancy.

The parallel functional development in Great Britain is most significantly summarized in the recent (1934) Report of the Board of Trade Departmental Committee on the Law * * * Relating to Trade Marks, Cmd. 4568, at 80. No. 286:

"We think that the evidence shows clearly the need for some protection for an advertised trade mark which as a result of such advertisement has been adopted by the public as a descriptive name of the article to an extent beyond the power of the trade mark proprietor to control. This tendency on the part of the public is no doubt due largely to the fundamental changes that have taken place in recent years in the function and use of trade marks. Under modern conditions it is customary to build up the business around the trade mark by advertisement, and it is beyond the control of the trader to prevent the public from identifying and ordering the goods by reference to the mark and from using the mark as the name of the article. *The common law rule appears therefore to be based upon obsolete conditions, and to be a source of embarrassment to traders, and we suggest that provision should be made by legislation for overcoming these difficulties by reversing the existing rule, but subject to the conditions which we specify.* We do not believe that such an alteration in the law will operate to confer on the proprietor of the mark any monopoly in the sale of the goods to which he has applied it. It may give him an initial advantage over his competitors, but not more, we think, than is due to him in respect of his being first in the field and of his expenditure in research, development, and advertising." (Italics inserted.)

The committee also states (*id.*, at 22, no. 77):

"We accordingly recommend that provision be made that where a registered trade mark consisting of an invented word or invented words has become identified with the proprietor to such an extent that the use of the mark by others *on goods other than those for which the mark is registered, and whether or not of the same description as such goods, would create the impression that there was a connection between the goods in question and the proprietor of the mark*, such mark should be registrable as a defensive trade mark for all or any of such other goods, and no application for such further registration be removed from the Register merely on the ground that the proprietor had no intention to use the mark and did not use or had not in fact used the mark in respect of any such other goods * * *" (Italics inserted.)

The views expressed above have been fairly roughly handled from the general standpoint of ethics and social utility by Felix S. Cohen, Transcendental Nonsense and the Functional Approach (1935) (35 Columbia Law Rev. 809, 814–817). To this article I shall have occasion to recur later in pt. II of this paper, but in the meantime as to the groundlessness of the fear that the innovation of so broad a doctrine as suggested above may be antisocial as creating monopolies, I would refer merely to E. S. Rogers, Good Will, Trade Marks, and Unfair Trading (Reprint, Chicago, 1919) at 99–100; see also the colloquy between witnesses and the House Committee on Patents on H. R., 72d Cong., 1st Sess. (1932) 38 ff.; 11 ff.: Schechter, op. cit. supra note 13, 158 ff.: Schechter, supra, 40 Harv. L. Rev., at 833; *Barton* v. *Rex-Oil Co.*, 2 F. (2d) 402, 404 (C. C. A. 3d, 1924); *Crystal Corp.* v. *The Manhattan Chemical Mfg. Co., Inc.*, 75 F.(2d) 506 (C. C. P. A., 1935); *Yellow Cab Corp.* v. *Korpeck*, 120 Misc. 499, 500–501, 198 N. Y. Supp. 864, 865–866 (Sup. Ct. 1923); *American Chain Co., Inc.* v. *Car Chain Works, Inc.*, 141 Misc. 303, 308, 252 N. Y. Supp. 860, 867 (Sup. Ct. 1931).

[15] The author has previously written on these problems in (1) Historical Foundations of Trade Mark Law (Columbia University Legal Studies, vol. I, 1925); (2) The Rational Basis of Trade Mark Protection (1927) 40 Harv. L. Rev. 813 and (3) Hearings Before Committee on Patents, H. R., 72d Cong., 1st Sess. (1932) subsequently reflected in his revision, at the request of the Committee on Patents, of the Trade Mark Act introduced by Representative Perkins on April 25, 1932, as H. R. 11592 at the first session of the 72d Congress.

Digitized by Google

II. Congressional Power with Regard to Trade Mark Protection

A. The Historical and Economic Background

It is most unfortunate that in evaluating the efficacy of any Federal trade-mark legislation, as well as in interpreting the present Federal trade-mark registration acts, so much stress has been laid upon the notion that because trade marks, as distinguished from patents and copyrights, were not specifically included in the constitutional enumeration of the powers of Congress, any Federal legislation concerning trade marks must be purely "procedural", [16] affording "merely a convenient privilege, * * * prima-facie protection", [17] and may not be "substantive." [18] This misconception is attributable to three distinct factors.

(1) It is occasionally forgotten that "Federal control over trade marks does not rest upon the patent and copyright provision * * * in the Constitution * * * but that power is found in the commerce clause." [19] (2) The classical *Trade Mark Cases* [20] are cited [21] as authority for the proposition that Congress has no power to enact "substantive" legislation on the subject of trade marks. But in those cases, the Supreme Court merely held that the statute there under consideration was not "on the face of the law, or from its essential nature" limited to interstate commerce, and was accordingly unconstitutional, since it might also affect intrastate commerce, of which the Court found "there still remains a very large amount, perhaps the largest." [22] There is no indication in the *Trade Mark Cases* that Congress might not properly enact a "substantive" law of trade marks in interstate commerce. [23] (3) In considering

[16] E. g., see Mr. Chief Justice Hughes in *American Trading Co.* v. *Heacock Co.*, 285 U. S. 247 (1932) "While the Congress, by virtue of the commerce clause, has no power to legislate upon the substantive law of trade marks * * *" (at 256) and "* * * the Federal statute did not attempt to create exclusive substantive rights in marks, or to afford a refuge for piracy through registration under the act, but to provide appropriate procedure and to give the described protection and remedies where property rights existed. The acquisition of such property rights in trade marks rested upon the laws of the several States (*United Drug Co.* v. *Rectanus Co.*, 248 U. S. 90, 98; *American Steel Foundries* v. *Robertson*, 269 U. S. 372, 381; *United States Printing & Lithograph Co.* v. *Griggs, Cooper & Co.*, 279 U. S. 156, 158)" (at 258.)

In *Beckwith* v. *Commissioner of Patents*, 252 U. S. 538, 543 (1920) it was said: "The Registration Act * * * *without changing the substantive law of trade marks*, provided, in the manner prescribed, for the registration of marks (subject to special exceptions) which, without the statute, would be entitled to legal and equitable protection * * *" (Italics added.) See also *May* v. *Goodyear Tire & Rubber Co.*, 10 F. Supp. 249, 256 (D. Mass. 1935), and E. S. Rogers, Hearings, supra note 15, at 36: "As far back as the trade mark cases in 100 U. S. ,and more recently in the *American Steel Foundries* v. *Robertson*, the Supreme Court has held that Congress has been given no authority under the Constitution to legislate on the substantive law of trade marks, and the result is that any trade-mark statute as long as that rule of law prevails in this country, must be procedural. It must be, as lawyers say, a practice act, and hardly anything else."

[17] See *Société Vinicole de Champagne* v. *The Mumm Champagne & Importation Co. Inc.*, 10 F. Supp. 289, 294 (S. D. N. Y. 1935).

[18] See supra note 16; also the dictum in *American Foundries* v. *Robertson*, 269 U. S. 372, 381 (1926) that Congress "has been given no power to legislate upon the substative law of trade marks."

[19] See *Ironite Co.* v. *Guarantee Waterproofing Co.*, 64 F. (2d) 608, at 610–611 (C. C. A. 8th, 1933); cf. *United Drug Co.* v. *Rectanus Co.*, 248 U. S. 90, 98 (1918); "The power of Congress to legislate on the subject [trade marks] being only such as arises from the authority to regulate commerce with foreign nations and among the several States and with the Indian tribes."

[20] 100 U. S. 82 (1879).

[21] E. g., *American Trading Co.* v. *Heacock Co.*, 285 U. S. 247, 256, note 2. (1932).

[22] See 100 U. S. 82, 96 (1879).

[23] On the question whether or not the regulation of trade marks comes within the commerce clause, the court specifically stated 100 (U. S. 82, 95 (1879)):

"The argument is that the use of a trade mark—that which alone gives it any value—is to identify a particular class or quality of goods as the manufacture, produce, or property of the person who puts them in the general market for sale; that the sale of the article so distinguished is commerce; that the trade mark is, therefore, a useful and valuable aid or instrument of commerce, and its regulation by virtue of the clause belongs to Congress, and that the act in question is a lawful exercise of this power.

"Every species of property which is the subject of commerce, or which is used or even essential in commerce, is not brought by this clause within the control of Congress * * *.

"The question, therefore, whether the trade mark bears such a relation to commerce in general terms as to bring it within congressional control, when used or applied to the classes of commerce which fall within that control, is one which, in the present case, we propose to leave undecided."

It appears to have been overlooked that in the case of *South Carolina* v. *Seymour*, 153 U. S. 353 (1894), decided only 15 years after the *Trade Mark Cases*, the Supreme Court explained that in those cases it had held the earlier legislation of Congress for the registration and protection of trade marks to be unconstitutional "because not limited to trade marks used in commerce with foreign nations, or among the several States, or with the Indian tribes" (at 353–354). See also *U. S. Printing Co.* v. *Griggs & Co.*, 279 U. S. 156, 158 (1929). It is true that immediately following the decision in the *Trade Mark Cases* there was agitation in Congress for an amendment to the Constitution, specifically giving Congress the power to grant and protect trade marks, but the joint resolution proposing such an amendment was rejected as entirely unnecessary if a proper statute on the subject were submitted to Congress. The House Committee on Manufactures reported that:

"*Trade marks are now universally regarded as necessary to business. They have grown into use with the growth of civilization and progressive trade.* All manufactures, all kinds of business adopt and use them. They are the ensigns of honor and popularity under which businessmen ship their goods from State to State and nation to nation. And now our commerce challenges the competition of the most prosperous countries. We are fast becoming the merchants; and our ingenious, industrious, and enterprising people, above all others, need this commercial proprietary protection.

"As to the second question, your *committee regard this as peculiarly the subject of national legislative control.*

"Nothing could be more detrimental to the interests of manufacture, trade, and commerce than the unharmonious local and conflicting legislation which would necessarily arise if this subject should be left

Digitized by Google

from both a functional and a legal standpoint whether or not Congress may now constitutionally enact so-called substantive trade-mark legislation, it should be remembered that under contemporaneous conditions distribution, and consequently trade-mark use, is essentially national or interstate and no longer intrastate. While in 1879, when the Supreme Court declared the Registration Act of 1870 unconstitutional, only 7,785 trade marks had been registered during the intervening 9 years,[24] by 1934, according to official estimate, "over 300,000 trade marks are registered in the United States Patent Office, and it has been estimated that only one out of five in actual use is registered."[25] National distribution is the goal of every large and of every small manufacturer.[26]

B. THE DESIRABILITY AND CONSTITUTIONALITY OF SUBSTANTIVE TRADE-MARK LEGISLATION

To the reader of the previous pages it may, prehaps, appear that the distinction between "procedural" and "substantive" trade-mark legislation has been unnecessarily stressed, but this distinction has been repeatedly drawn by the Supreme Court.[27] It is true that despite the Court's emphasis on the theory that "Congress has been given no power to legislate upon the substantive law of trade marks," it has itself impliedly, at least, sanctioned congressional substantive legislation, at any rate in its adjudications upon the so-called "10-year clause" of the Trade-Mark Act.[28] However, the line of demarcation between substantive

---

to the States. The interest and safety of all demand that it, along with the power of making war, peace, and treaties, of taxation, regulating commerce and coining money, of granting patents and copyrights, should be vested in the general Government." (Italics inserted.) See Report of the Commissioners, loc. cit. infra note 24.

[24] Considerable anxiety was expressed not only concerning the protection of these marks but as to the breach of treaty obligations which foreign countries might regard as arising from these decisions, and a further perplexing problem was whether or not the United States was not honor bound to refund to the registrants under the unconstitutional statute the sum of $211,750, which had been paid in registration fees. See Report of the Commissioners Appointed to Revise the Statutes Relating to Patents, Trade, and Other Marks * * * Under Act of Congress Approved June 4, 1898 (Washington, 1902) 392-393, 419 ff.

[25] See *Ashland Refining Company* v. *United Collieries, Incorporated*, 442 O. G. 257, 259 (Com Dec. 1934). In 1932 the Commissioner of Patents testified that, for the 5-year period ending in 1931, the Patent Office received annually an average of "about 18,000 applications." (Hearings, supra note 15, at 23.)

[26] Some of the statistics gathered from the decisions are amazing: for instance, between the years 1918 and 1934 the annual sales of a certain brand of baking powder "have averaged 21,000,000 cans" and, in the past 10 years, the same manufacturer has under its brand, "sold approximately 34,000,000 cans of * * * chocolate malted drink." *R. B. Davis Co.* v. *Julius J. Davis*, 11 F. Supp. 269 (E. D. N. Y. 1935), decree modified, 75 F. (2d), 499 (C. C. A. 2d, 1935). A manufacturer of wallboard, trade mark "Celotex", from 1922 to 1929 increased its production "from 18,000,000 square feet * * * to approximately 500,000,000 square feet per year; * * * its products are marketed in the United States through approximately 7,000 retail lumber dealers * * * ; its sales increased from $1,241,826.18 for the year 1923, to $10,311,569 for the year 1928 * * *; from the year 1923 to the year 1928 inclusive, [it] * * * had expended $3,579,059 in advertising its products and trade mark. * * *" *Celotex Co.* v. *Chicago Panelstone Co.*, 49 F. (2d) 1051 (C. C. P, A. 1931). A manufacturer of cereal breakfast food has, by advertising his trade mark and product over the radio and in magazines, caused its sales to rise "from 2,000,000 packages in 1925 to 31,000,000 packages in 1932," *Yeasties Products, Inc.* v. *General Mills*, 77 F. (2d) 523 (C. C. P. A. 1935). A more astonishing chronicle of expansion is found in the case of Dyanshine, a leather polish peddled during the first great World War at Camp MacArthur, Waco, Tex. In 1934 the court found that: "* * * there was no record of sales in 1918 and the early part of 1919, but beginning in 1919, the firm sold 1,198,600 bottles; in 1920, 3,371,320 bottles; in 1921, 3,964,784 bottles and in 1922 (to Oct. 1) 3,485,000 bottles. The largest sales were in the South but the business extended as far east as Boston, as far north as Pittsburgh and Chicago, as far west as Omaha, and the product, under the trade name of 'Dyanshine', later registered as a trade mark, is now handled through 2,374 jobbers supplying 186,722 retail dealers and serving a trade which, of course, is larger than the number of bottles sold." *Barton* v. *Rex-Oil Co.*, 2 F. (2d) 402, 405 (C. C. A. 3d, 1924). See also E. S. Rogers testimony, Joint Hearings, supra note 5, at 62.

The contrast between the essentially interstate nature of commerce today and the larger intrastate commerce which the Supreme Court found to exist in the trade-mark cases is of vital significance in the presentation of an argument in favor of the constitutionality of substantive trade-mark legislation by Congress and bears out the statement in the American Bar Association's Report above referred to that "trade marks which are not used in interstate commerce, and are therefore not subject to Federal registration, are relatively few * * *." (1935) Report, at 15. It may, perhaps, not be an exaggeration to state that intrastate commerce has, to a large extent, evolved from an industrial institution to a legal device for the purpose of avoiding Federal control in matters of wages, hours, child labor, etc., e. g., *Hammer* v. *Dagenhart*, 247 U. S. 251 (1918); *Heisler* v. *Thomas Colliery Co.*, 260 U. S. 245 (1922); *Utah Power & Light Co.* v. *Pfost*, 286 U. S. 165 (1932); *Schechter Corporation* v. *United States*, 295 U. S. 495 (1935); *United States* v. *Weirton Steel Co.*, 7 F. Supp. 255 (D. Del. 1934), 10 F. Supp. 55 (D. Del. 1935).

[27] See supra notes 16 and 18.

[28] For the 10-year clause see sec. 5b of the Trade-Mark Act of Feb. 20, 1905, as amended by the acts of Jan. 8, 1913, and Mar. 19, 1920, 33 Stat. 726 (1905), 15 U. S. C. A. sec. 85 (1927). Nowhere is the confusion between "procedural" and "substantive" law relating to trade marks so well illustrated as in the judicial construction of this clause. From a reading of the decisions, there can be little doubt, however, that despite much legalistic tight-rope walking on the subject, when Congress enacted the 10-year clause, "it granted a substantive right in a trade mark." See testimony of Mr. A. C. Paul, an eminent authority on trade-mark law, in Hearings. * * * Before the Committee on Patents on H. R. 2828, 71st Cong., 2d sess. (1930) 74-5: "It seems to have been assumed by those opposing this bill that Congress does not have authority to protect a mark used in interstate and foreign commerce that is not a trade mark at common law and which the registrant did not own before he applied for registration. That is not true. I haven't the slightest doubt but that Congress, under this clause of the Constitution, has authority to protect any mark not a trade mark at common law that is used in interstate and foreign commerce. In one instance this is done by the

Digitized by Google

and procedural law generally is still sharply drawn,[29] particularly with regard to the distinction between prima facie and irrebuttable or conclusive presumptions.[30] Since thus far that Court has admittedly not squarely and definitely set its seal of approval upon substantive trade-mark legislation,[31] I believe that the whole fabric of trade-mark law rests upon a shaky and insubstantial basis which, in fairness to all those engaged in the production, distribution and consumption of trade-marked goods, cannot be satisfactorily propped up by any device such as making the presumption of validity and ownership of a trade mark "conclusive" by claiming that this presumption "merely prescribes a rule of evidence" and is, therefore, constitutional.[32] We have already discussed the commercial chaos

---

act of 1905. * * * When Congress adopted that provision it did more than to authorize the registration of a common-law mark. It granted a substantive right in a mark that was not, under the common law, a valid trade mark. * * *

"In other words, here is a mark that is not a common-law trade mark, but by reason of this act of 1905 and its registration under that act it becomes a valid trade mark. And all because Congress has said it is a valid trade mark; and Congress can say, with proper limitations perhaps, that any mark that is used in interstate and foreign commerce, registered in accordance with provisions of a statute it passes, even though it never was a common-law trade mark, is a valid trade mark. There is no limitation on the authority of Congress to make valid trade marks that are used in interstate and foreign commerce."

And in *Planten* v. *Gedney*, 224 Fed. 382 (C. C. A. 2d, 1915), Judge Lacombe held squarely: "If the applicant satisfied the Patent Office that the conditions required in sec. 5 existed—10 years' exclusive use—he should get his registration, even though the mark were descriptive; and registration made his trade mark a valid one, although at common law its descriptiveness might make it invalid" (at 385).

In *Thaddeus Davids Co.* v. *Davids Manufacturing Co.*, 233 U. S. 461 (1913), Chief Justice Hughes (then an Associate Justice) said [at 466]: "Congress evidently had in mind the fact that marks, although not susceptible of exclusive appropriation at common law, frequently acquired a special significance in connection with particular commodities; and the language of the fourth proviso was carefully chosen in order to bring within the statute those marks which, while not being technical trade marks, had been in 'actual and exclusive use' as trade marks for 10 years next preceding the passage of the act." See also *Merriam Co.* v. *Syndicate Publishing Co.*, 237 U. S. 618, 622, (1915); cf. *Scandinavia Belting Co.* v. *Asbestos and Rubber Works*, 257 Fed. 937, 957 (C. C. A. 2d, 1919), cert. denied, 250 U. S. 644 (1919); *Hercules Powder Co.* v. *Newton*, 266 Fed. 169, 171 (C. C. A. 2d, 1920); *Chas. Broadway Rouss, Inc.* v. *Winchester*, 300 Fed. 706, 713 (C. C. A. 2d, 1924), cert. denied, 266 U. S. 607 (1924); *In re Plymouth Motor Corp.*, 46 F. (2d) 211, 212 (C. C. P. A. 1931); *In re California Perfume Co.*, 56 F. (2d) 885 (C. C. P. A. 1932); *Barber-Colman Co.* v. *Overhead Door*, 65 F. (2d) 147 (C. C. P. A. 1933); *Campana Corporation* v. *Glanzberg*, 10 F. Supp. 876 (E. D. Pa. 1935); *Ex parte Canada Dry Ginger Ale, Inc.*, 159 M. D. 437 (Com. Dec., 1935); 25 T. M. Rep. 574. See also Report of the New York Patent Law Association in Joint Hearings, supra note 5, at 97: "Our principal concern has been that the power of Congress should not be exercised to create trade-mark rights in words or marks that are not true trade marks, and the use of which should not be withdrawn from the public domain. It is necessary to recognize that Congress has the power to create trade-mark rights if limited to interstate or foreign commerce."

[29] For interesting recent illustrations see (1) as to the right of set-off, *Heiden* v. *Beutler*, 11 F. Supp. 290, 291 (N. D. Iowa 1935): "The right of set-off was originally an equitable right, but has been adopted by most of the States as statutory, giving a right at law; but, after all, it is an equitable right. The equitable rules of set-off are derived from the civil law and are founded upon principles of natural equity and justice. By the exercise of its equitable jurisdiction, the court is enabled to do justice between the parties. While the doctrine was originally a mere procedural convenience, it has now become 'really a requirement of substantive justice.' *First Nat. Bank, etc., et al.* v. *Malone*, 76 F. (2d) 251, 254, decided by the United States Circuit Court of Appeals, 8th Circuit, on March 9, 1935." (2) As to the Statute of Limitations, see *People* v. *Hagan*, 138 Misc. 771, 775, 247 N. Y. Supp. 374, 379 (Sp. Sess. 1931) aff'd, 235 App. Div. 784, 257 N. Y. Supp. 887 (1st Dept. 1932): "It is a general rule that statutes of limitation do not create vested or substantive rights; they deal merely with a remedy (*House* v. *Carr*, 185 N. Y. 453) and are available only as a defense. (*Kelly Asphalt B. Co.* v. *Brooklyn A. A. Co.*, 190 App. Div. 750, 757, 758.)" See also *Hopkins* v. *Trust Co.*, 115 Misc. 257, 258, 187 N. Y. Supp. 883, 884 (Sup. Ct., 1921) aff'd on other grounds, 233 N. Y. 213, 135 N. E. (1922): "Statutes of limitation are remedial only: they in no manner partake of the nature of substantive law; they regulate only the methods whereby such law is applied to the affairs of men. *Hulbert* v. *Clark*, 128 N. Y. 295; *House* v. *Carr*, 185 id. 453–458."

[30] See 5 Wigmore, Evidence (2d ed. 1923) sec. 2492; 2 Chamberlayne, Modern Law of Evidence (1911) secs. 1086 ff., 1160 ff.; cf. 9 Holdsworth, History of English Law (1926) 129 ff., 139 ff. For the decisions of the Supreme Court on this point, see infra note 32.

[31] See *U. S. Printing Co.* v. *Griggs & Co.*, 279 U. S. 156, 158 (1929); 2 Willoughby, The Constitutional Law of the United States (2d ed. 1929) 428; cf. *Ironite Co.* v. *Guarantee Waterproof Co.*, 64 F. (2d) 608 (C. C. A. 8th, 1923).

[32] The recommendation of the American Bar Association Committee on Trade-Mark Legislation is that sec. 16 of the Trade-Mark Act of 1905 [33 Stat. 728 (1905), 15 U. S. C. A. sec. 96 (1926)], which now provides that "registration of a trade mark under the provisions of this act shall be prima facie evidence of ownership" shall be amended so that "after 5 years from the date of registration the presumption of validity and ownership shall be conclusive, excepting only where the mark is calculated to deceive, in which cases there shall be no presumption of validity." The majority of the Committee "do not believe this can be attacked as unconstitutional because it merely prescribes a rule of evidence" (1935 Report, supra note 2, at 12).

This conclusive presumption of validity after 5 years from the date of registration is similar to that provided for in sec. 41 of the British Trade-Marks Act of 1905 (5 Edw. VII, c. 15), except that the period of prima facie ownership is 7 years. It was 5 years under the British Act of 1883, 46 & 47 Vict. c. 57; see Kerly, Trade Marks (6th ed. 1927) 384, 385, 706. Recently there has been considerable reaction of feeling there in favor of a return to a 5-year "prima facie" period [see Board of Trade, Minutes of Evidence * * * before the Departmental Committee on * * * Law * * * Relating to Trade Marks (London, 1934), Questions nos. 1585 ff.]. However the committee of the Board of Trade itself disapproved of this proposed reduction. [Report of * * * Departmental Committee, Cmd. 4568 (April 1934) 52, 53.] It should be remembered that in Great Britain, no constitutional problem arises as to this conclusive presumption of ownership. In the United States, however, while the Supreme Court has not yet squarely decided "whether * * * so-called irrebuttable presumptions are, in a more accurate sense, rules of substantive law" [*United States* v. *Provident Trust Co.*, 291 U. S. 272, 283 (1934)], and has found it "hard to see how a statutory rebuttable presumption is turned from a rule of evidence into a rule of substantive law as a result of a later statute making it conclusive" [*Heiner* v. *Donnan*, 285 U. S. 312, 328 (1932)], at the same time, in the latter decision it stated, "However, whether the latter presumption be treated as a rule of evidence

Digitized by Google

that resulted from the decision of the Supreme Court in the *Trade Mark cases* over half a century ago;[33] within the last 2 years all sections of industrial America have learned what complications may develop from adjudications of unconstitutionality under the commerce clause.[34]

Assuming, therefore, the importance of squarely meeting at this time the question of the constitutionality of Federal trade-mark legislation, and assuming, furthermore, the desirability of improving such legislation in many respects, may Congress, under the commerce clause, constitutionally enact substantive trade-mark legislation? Or, as the Supreme Court phrased it—and left it unanswered—over half a century ago, the question is "whether the trade mark bears such a relation to commerce in general terms as to bring it within the Congressional control, when used or applied to the classes of commerce which fall within that control * * *" [35] There seems to have been little doubt on this point when the Constitution was framed. As early as 1791 Thomas Jefferson, when the petition of a sale-cloth maker of Massachusetts for the registration of his mark was referred to him as Secretary of State, reported to the House of Representatives as follows:

"That it would, in his opinion, contribute to fidelity in the execution of manufactures, to secure to every manufactory, an exclusive right to some mark on its wares, proper to itself.

"That this should be done by general laws, extending equal right to every case to which the authority of the legislature should be competent.

"That these cases are of divided jurisdiction: Manufactures made and consumed within a State being subject to State legislation, while those which are exported to foreign nations, or to another State, or into the Indian Territory, are alone with the legislation of the general Government.

"That it will, therefore, be reasonable for the general Government to provide in this behalf by law for those cases of manufacture generally, and those only which relate to commerce with foreign nations, and among the several States, and with the Indian tribes." [36]

---

or of substantive law, it constitutes an attempt, by legislative fiat, to enact into existence a fact which here does not, and cannot be made to, exist in actuality, and the result is the same, unless we are ready to overrule the *Schlesinger case*, as we are not; for that case dealt with a conclusive presumption and the court held it invalid without regard to the question of its technical characterization. This court has held more than once that a statute creating a presumption which operates to deny a fair opportunity to rebut it violates the due process clause of the Fourteenth Amendment. For example, *Bailey* v. *Alabama*, 219 U. S. 219, 238 et seq. (1911); *Manley* v. *Georgia*, 279 U. S. 1, 5–6 (1928). 'It is apparent,' this court said in the *Bailey case* (p. 239), 'that a constitutional prohibition cannot be transgressed indirectly by the creation of a statutory presumption any more than it can be violated by direct enactment. The power to create presumptions is not a means of escape from constitutional restrictions.'" (Id., at 328–9.) Cf. *Morrison* v. *California*, 291 U. S. 82, 90 (1934) *Heiering* v. *City Bank Farmers Trust Co.*, 295 U. S. 123 (1935) (granting cert.) and the dissenting opinions of Holmes, J., in *Keller* v. *United States*, 213 U. S. 138, 149–150 (1909) and *Bailey* v. *Alabama*, 219 U. S. 219, 248 (1911) clearly regarding the creation of an "irrebuttable or" "conclusive" presumption as a change in substantive law.

[33] See supra note 24.

[34] E. g., *Schechter Corp.* v. *United States*, 295 U. S. 495 (1935) (involving the whole N. I. R. A. structure); *Panama Refining Co.* v. *Ryan*, 293 U. S. 388 (1935) (involving the control of the petroleum industry); *Railroad Retirement Board* v. *Alton Railroad Co.*, 295 U. S. 330 (1935) (holding unconstitutional the Railway Pension Act.) As to the chaotic situation resulting from the attack on the constitutionality of the processing taxes under the A. A. A., see the argument of the Solicitor-General (reported in the N. Y. Times, Oct. 24, 1935, at 2) before the Supreme Court in support of a motion to hasten the latter's hearing the case of the *United States* v. *Hoosac Mills;* the petition for certiorari in that case was granted by the Supreme Court, October 14, 1935 (353 C. C. H. paragraph 9000, p. 9018).

In the light of the foregoing decisions, rash indeed appears the professorial prophesy published in January 1935: "That the Supreme Court of the United States will uphold all the recovery legislation and most of the official action thereunder is the conclusion reached by those commentators whose writings reveal what I consider to be the view generally accepted by informed persons as to the relative importance, in the decision of constitutional cases, of the written Constitution, the doctrines of constitutional law, and the statesmanship of the judges." (D. B. Maggs, The Constitution and Recovery Legislation in Radin and Kidd, Legal Essays in Tribute to Orrin Kip McMurray (1935) 399. Compare H. L. McBain, To the Supreme Court: Vital New Deal Issues, in the N. Y. Times. Nov. 17, 1935, Magazine section, at 4, 5.

[35] See *Trade Mark Cases*, 100 U. S. 82, 95 (1879).

[36] See Report of the Commissioners Appointed to Revise the Statutes Relating to * * * Trade-Marks, etc., Sen. Doc. No. 20, 56th Cong., 2d Sess. (1902) 58. *Cf.* Letter from a Philadelphia manufacturer printed in the Columbian Sentinel of Boston, on December 24, 1791 [reprinted in Schechter, Historical Foundations of Trade-Mark Law, op. cit. supra, note 13, at 132, 133]:

"It is with real pleasure and satisfaction that I behold the application of the proprietors of the sail cloth manufactory in the town of Boston to the Congress of the United States, for an act to secure them against the losses they are likely to sustain by persons counterfeiting their marks on sail cloth of an inferior quality. * * *

"There is no greater check to this laudable spirit of enterprise, industry, and home manufacture, than that of imposters fraudulently counterfeiting of marks, and imposing and selling bad and spurious articles for good, real and genuine. It effectually cools the ambition of excelling and becoming serviceable to one's country, and is highly prejudicial to the good repute of our manufacturers instead of to increase our commerce. * * *

"A general act of Congress obviating these difficulties, and providing for the prevention of offenses of this kind, and for the due punishment of the perpetrators of such infamy and baseness, experience daily convinces me would be of universal utility, and is a very desirable thing in this country."

Digitized by Google

Jefferson's testimony, incidentally, is significant here not merely because he was Jefferson [37] but because by reason of his duties under the Patent Act of 1790, he was fully cognizant of the patent system then in vogue. Because he kept the patent records and examined personally every application filed during his term, he has appropriately been called "the first administrator of the patent system in this country." [38] If, as such administrator, he had felt that congressional trade-mark legislation was improper because trade-marks were not specifically enumerated under article 1, section 8, of the Constitution, which gives Congress power to legislate concerning copyrights and patents, he would undoubtedly have qualified his report to the House. But even apart from this historical background, it would seem that under the canons of interpretation of the commerce clause laid down by the Supreme Court, the present vital role of trade marks in interstate commerce should justify substantive legislation for their complete protection. Paraphrasing the language of Chief Justice Hughes in sustaining the power of Congress to regulate radio communications under the commerce clause, no State lines divide commerce in trade-marked articles and national regulation is not only appropriate, but it is essential to the efficient use of trade-marks.[39] Congress has repeatedly been held to have the power to enact "all appropriate legislation" for the "protection and advancement" of commerce; "to adopt measures to promote its growth and insure its safety"; to "foster, protect, control, and restrain" it.[40] Congress "has the power to go beyond the general regulations of commerce which it is accustomed to establish", and "to descend to the most minute directions if it shall be deemed advisable. * * *." [41] It may "adopt not only means necessary but convenient" to the exercise of this power "and the means may have the quality of police regulations." [42]

As far back as 1877 it was held that "The powers thus granted are not confined to the instrumentalities of commerce * * * known or in use when the Constitution was adopted, but they keep pace with the progress of the country and adapt themselves to the new developments of time and circumstances. * * * They were intended for the government of the business to which they relate, at all times and under all circumstances." [43] The underlying principle was succinctly reaffirmed in 1934 by Mr. Chief Justice Hughes, when, in sustaining the validity of the Minnesota Mortgage Moratorium Act, he stated:

"It is no answer to say that this public need was not apprehended a century ago, or to insist that what the provision of the Constitution meant to the vision of that day it must mean to the vision of our time. If by the statement that what the Constitution meant at the time of its adoption it means to-day, it is intended to say that the great clauses of the Constitution must be confined to the interpretation which the framers, with the conditions and outlook of their time, would have placed upon them, the statement carries its own refutation. It was to guard against such a narrow conception that Chief Justice Marshall uttered the

[37] In 1898 the comment on Jefferson's Report by the Commissioners appointed to Revise the Trade-Mark Act was:

"We deem the report of Jefferson conclusive on the question of the connection between the regulation of commerce under the Constitution and the securing 'to every manufactory an exclusive right to some marks on its wares proper to itself.' Jefferson was intimately acquainted with the causes, mainly commercial, which led to the adoption of the Constitution. * * *

"That there was not sufficient demand at the time of Jefferson's report or for seventy-nine years afterwards for a law to put into effect his recommendations does not at all modify the authority of the report on the subject of the power of the Congress." See Report of the Commissioners, cited supra, note 36, at 58–59.

[38] G. A. Weber, The Patent Office, Its History, Activities and Organization (Service Monographs of the U. S. Gov't. No. 31, 1924) 4.

[39] *Cf. Federal Radio Commission* v. *Nelson Bros. Co.*, 289 U. S. 266, 279 (1933).

[40] See *Houston & Texas Railway* v. *United States*, 234 U. S. 342, 351 (1914); *Texas & N. O. R. Co.* v. *Railway Clerks*, 281 U. S. 548, 570 (1930).

[41] See *Gloucester Ferry Co.* v. *Pennsylvania*, 114 U. S. 196, 215 (1885).

[42] *Hoke and Economides* v. *United States*, 227 U. S. 308, 323 (1913). In this, as in most of the modern decisions dealing with the powers of Congress under the commerce clause, the distinction between what is "incidental" and what is "necessary" to an effective exercise of these powers is rather vague. Indeed from recent legislation and the judicial interpretations thereof, it would appear that the terms "convenience" and "necessity" are used by legislative draftsmen alternatively or cumulatively and that such use of "convenience" has the sanction of constitutional law provided that the scope and test of convenience is not too arbitrary and unreasonable. Thus in *Federal Radio Commission* v. *Nelson Bros. Co.*, 289 U. S. 266 (1933), Chief Justice Hughes in upholding the constitutionality of the amended Radio Commission Act, and the requirement under the act that the Federal Radio Commission "from time to time, as public convenience, interest, or necessity requires" must grant licenses, remarked: "This criterion is not to be interpreted as setting up a standard so indefinite as to confer an unlimited power." Compare *N. Y. Central Securities Co.* v. *United States*, 287 U. S. 12, 24 (1932). This requirement is to be interpreted by its context, by the nature of radio transmission and reception, by the scope, character, and quality of services, and, where an equitable adjustment between States is in view, by the relative advantages in service which will be enjoyed by the public through the distribution of facilities.. For approval of the constitutionality of this practice of granting licenses "as public convenience, interest, or necessity requires," see also *Panama Refining Co.* v. *Ryan*, 293 U. S. 388, 428 (1935); *Schechter Corp.* v. *United States*, 295 U. S. 495, 540 (1935).

[43] See *Pensacola Tel. Co.* v. *Western Union Telegraph Co.*, 96 U.S. 1, at 9 (1877).

Digitized by Google

memorable warning,—'We must never forget that it is a Constitution we are expounding.' " [44]

Whether we describe trade-marks as "necessities", "instrumentalities", "facilitating agencies", or "police marks in aid" of interstate commerce, there should be little difficulty in sustaining Federal substantive legislation "in furtherance of a governmental purpose to secure fair and uniform business practices," [45] to assure to trade-mark owners the preservation of their identity, and to afford the public some guarantee that its wants will be satisfied.[46] Mr. Chief Justice Hughes has said that "The power of Congress extends not only to the regulation of transactions which are part of interstate commerce, but to the protection of that commerce from injury." [47] Therefore, even if trade-marks are not in and of themselves the objects of interstate commerce, their relation to the promotion, the production, the progress and the protection of commerce is of so vital and close a nature that any infringement or other misuse of or injury to them, like the issuance of fraudulent and fictitious bills of lading, would constitute such "obstructions to interstate commerce" as to lie clearly within the rule just stated.[48]

If Congress, under the commerce clause, can control the labelling and misbranding of food and drugs under the Pure Food Acts,[49] if it can, through an administrative body created by it, prevent unfair competition and the deception of the public generally through false or misleading labels,[50] if it can go further and generally, as the Supreme Court has said, "regulate commerce to the extent of forbidding and punishing the use of such commerce as an agency to promote immorality, dishonesty, or the spread of any evil or harm to the people of other States from the State of origin",[51] it would be strange indeed if Congress had to remain impotent

[44] See *Home Building & Loan Association* v. *Blaisdell*, 290 U. S. 398, 442–443 (1934).

[45] See *Federal Press Co.* v. *McLean*, 291 U. S. 17, 23 (1934), per Mr. Justice Stone.

[46] As to the psychological relation of a trade-mark to the wants of the public, even though the source or origin of the trade-marked article is anonymous, see *supra* p. 64, and Schechter, supra note 14, 40 Harv. L. Rev. at 814 ff. for an extended discussion. The stake of both the consuming public and of trade competitors in the prevention of misbranding in interstate commerce has recently been emphasized by the Supreme Court. Thus, in *Federal Trade Commission* v. *Algoma Lumber Co.*, 291 U. S. 67 (1934), the Court, per Mr. Justice Cardozo, said:

"The courts must set their faces against a conception of business standards so corrupting in its tendency. The consumer is prejudiced if upon giving an order for one thing, he is supplied with something else, *Federal Trade Comm.* v. *Royal Milling Co.*, 288 U. S. 212, 216; *Carlsbad* v. *W. T. Thackeray & Co.*, 57 Fed. 18. In such matters, the public is entitled to get what it chooses, though the choice may be dictated by caprice or by fashion or perhaps by ignorance. Nor is the prejudice only to the consumer. Dealers and manufacturers are prejudiced when orders that would have come to them if the lumber had been rightly named, are diverted to others whose methods are less scrupulous." (*Id.* at 78.)

Similarly, in *Federal Trade Commission* v. *Royal Milling Co.*, 288 U. S. 212 (1933) the court, distinguishing the facts in that case from those in *Federal Trade Commission* v. *Klesner*, 280 U. S. 19 (1929) (a small purely private controversy of questionable merit between two parties in the District of Columbia) said, per Mr. Justice Sutherland: "If consumers or dealers prefer to purchase a given article because it was made by a particular manufacturer or class of manufacturers, they have a right to do so, and this right cannot be satisfied by imposing upon them an exactly similar article, or one equally as good, but having a different origin. Here the findings of the commission, supported by evidence, amply disclose that a large number of buyers, comprising consumers and dealers, believe that the price or quality or both are affected to their advantage by the fact that the article is prepared by the original grinder of the grain. The result of respondents' acts is that such purchasers are deceived into purchasing an article which they do not wish or intend to buy, and which they might or might not buy if correctly informed as to its origin. We are of opinion that the purchasing public is entitled to be protected against that species of deception, and that its interest in such protection is specific and substantial." (*Id.* at 216, 217.)

[47] See *Schechter Corp.* v. *United States*, 295 U. S. 495, 544 (1935).

[48] In *United States* v. *Ferger*, 250 U. S. 199 (1919) White, C. J., in discussing the power of Congress to prohibit "obstructions to interstate commerce" and to punish the fraudulent makings of spurious interstate bills of lading, said:

"At the outset confusion in considering the issue may result unless obscurity begotten by the form in which the contention is stated be dispelled. Thus both in the pleadings and in the contention as summarized by the court below it is insisted that as there was and could be no commerce in a fraudulent and fictitious bill of lading, therefore the power of Congress to regulate commerce could not embrace such pretended bill. But this mistakenly assumes that the power of Congress is to be necessarily tested by the intrinsic existence of commerce in the particular subject dealt with, instead of by the relation of that subject to commerce and its effect upon it. We say mistakenly assumes, because we think it clear that if the proposition were sustained it would destroy the power of Congress to regulate, as obviously that power, if it is to exist, must include the authority to deal with obstructions to interstate commerce (*In re Debs*, 158 U. S. 564) and with a host of other acts which, because of their relation to and influence upon interstate commerce, come within the power of Congress to regulate, although they are not interstate commerce in and of themselves. It would be superfluous to refer to the authorities which, from the foundation of the Government have measured the exertion by Congress of its power to regulate commerce by the principle just stated, since the doctrine is elementary and is but an expression of the text of the Constitution, art I., sec. 8, clause 18" (at 202–203).

Cf. United Mine Workers v. *Coronado Co.*, 259 U. S. 344, 408 (1922); Ribble, The Current of Commerce (1933) 18 Minn. L. Rev. 296, 305, 314.

[49] *Hippolite Egg Co.* v *United States*, 220 U. S. 45 (1911); *McDermott* v. *Wisconsin*, 228 U. S. 115 (1913); 7 *Cases* v. *United States*, 239 U. S. 510 (1916); *Weigle* v. *Curtice Bros. Co.*, 248 U. S. 285 (1919).

[50] *Federal Trade Commission* v. *Winsted Hosiery Co.*, 258 U. S. 483 (1922); *Federal Trade Commission* v. *Royal Milling Co.*, 288 U. S. 212 (1933); *Federal Trade Commission* v. *Algoma Co.*, 291 U. S. 67 (1934); *Federal Trade Commission* v. *R. F. Keppel & Bros., Inc.*, 291 U. S. 304 (1934).

[51] See *Brooks* v. *United States*, 267 U. S. 432, 436 (1925) per Taft, C. J.

Digitized by Google

and helpless to create a system of trade-mark ownership and protection which would be effective to curb the unscrupulous and ingenious rapacity of trade-mark piracy.[52]

The insuperable obstacle to any Federal regulation of trade-marks has been thought to be the well-established doctrine [53] that trade-marks emanate from and exist solely by the grace of the sovereignty of the several States. It is argued that no substantive national legislation could constitutionally be enacted that would, in any way, affect these creations of the States. The answer to that objection would seem to have been unequivocally given in the *Minnesota Rate cases:* [54]

"There is no room in our scheme of government for the assertion of State power in hostility to the authorized exercise of Federal power. The authority of Congress extends to every part of interstate commerce, and to every instrumentality or agency by which it is carried on, and the full control by Congress of the subjects committed to its regulations is not to be denied or thwarted by the commingling of interstate and intrastate operations. This is not to say that the Nation may deal with the internal concerns of the State as such, but that the execution by Congress of its constitutional power to regulate interstate commerce is not limited by the fact that intrastate transactions may have become so interwoven therewith that the effective government of the former incidentally controls the latter. This conclusion necessarily results from the supremacy of the national power within its appointed sphere. * * *" [55]

We have seen [56] that, from the standpoint of actual commercial realities, commerce in the United States today is, or is consistently striving to become, national or interstate and not intrastate. If this be so, the mere fact that in the past trade-mark rights have emanated from the several States, should not, under a realistic system of trade-mark protection, permit whatever trade-marks of wholly intrastate businesses and whatever purely intrastate trade-mark rights have existed in the past, to prevent an adequate and effective Federal trade-mark statute from operating effectively, even though, in the course of operation of such Congressional legislation intrastate trade-marks or rights may incidentally be affected.[57] In enacting substantive trade-mark legislation with appropriate penalties for its violation, Congress would not only be protecting both trade-mark owners and the consuming public, but would also incidentally and legitimately be giving a severe jolt, if not a coup de grace, to the activity in the field of intrastate trade-mark legislation, much of which has been found to be "pernicious and misleading." [58]

---

[52] For the confusion arising out of a conflict in the use of the same trade-mark by different owners in different States, and for the factual and constitutional problems arising out of the protection of the projection of a trade mark beyond the State of its origin for the legitimate expansion of the owner's trade, see Schechter, supra, note 14, 40 Harv. L. Rev. at 824; *Hanover Star Milling Co.* v. *Metcalf*, 240 U. S. 403 (1916); *United Drug Co.* v. *Rectanus Co.*, 248 U. S. 90 (1918); *Sweet Sixteen Co.* v. *Sweet "16" Shop*, 15 F. (2d) 920 (C. C. A. 8th, 1926); *Buckspan* v. *Hudson's Bay Co.*, 22 F. (2d) 721 (C. C. A. 5th, 1927), *cert. denied*, 276 U. S. 628 (1928); *R. H. Macy & Co.* v. *Macys, Inc.*, 39 F. (2d) 186 (N. D. Okla. 1930).

Based upon the theory that registration can only be "procedural" there have been two solutions of this territorial problem offered, i. e., (1) so-called "plural registration", providing that by consent a mark may be registered by various applicants for limited portions of the territory of the United States. See proposed provision of the law and opposition thereto by United States Trade Mark Association, Joint Hearings before Committee on Patents on S. 2679, 68th Cong., 2d Sess. (1925) 23, 132–133. See also memoranda filed by other opponents thereto, id. at 100. (2) The other solution provides, as for instance in § 18 (h) of H. R. 2828, 71st Cong., 2d Sess. (1930) that:

"The remedy of injunction against infringement of a registered trade mark may extend throughout the United States or any lesser territory, as may be determined by the court according to the circumstances of the case, and need not be limited to be merely coextensive with the territory within which the owner has used such registered trade mark; and the court may give the plaintiff the benefit of all other remedies named in this section." See Hearings before the Committee on Patents on H. R. 2828, 71st Cong., 2d Sess. (1930) at 9. This same provision was included in the Vestal Bill for 1932, § 18 (h), and in the Perkins Bill, H. R. 11592, 62d Cong. 1st sess. (1932) § 18 (h). For a view opposing such registration see Hearings, supra, at 24–25.

[53] See *Hanover Star Milling Co.* v. *Metcalf*, 240 U. S. 403, 425–26 (1916); *United Drug Co.* v. *Rectanus Co.*, 248 U. S. 90, 99 (1918); *Ingenohl* v. *Olsen*, 273 U. S. 541, 544 (1927); *U. S. Printing Co.* v. *Griggs & Co.*, 279 U. S. 156 (1929).

[54] 230 U. S. 352 (1913).

[55] *Id.* at 399.

[56] See supra p. 68–69.

[57] *Cf. Houston & Texas Railway* v. *United States*, 234 U. S. 342, 353 (1914). See also *Stafford* v. *Wallace*, 258 U. S. 495, 522 (1922); *Texas* v. *Eastern Texas Railroad Co.*, 258 U. S. 204, 217 (1922); *Missouri* v. *Kansas Gas Co.*, 265 U. S. 298, 308 (1924); *Public Utilities Commission* v. *Attleboro Company*, 273 U. S. 83, 88–9 (1927); *Schechter Corp.* v. *United States*, 295 U. S. 495, 544 (1935).

[58] See 1935 American Bar Association Report, at 13, adopting Report of the Committee on Trade Marks of the Association of the Bar of the City of New York; H. D. Nims and S. L. Whitman, Trade Mark Menace (1935) 30 Bull. U. S. T. M. Ass'n 157; Testimony of Fenning, A. C., Hearings, supra, note 15, at 69 ff. For the classical illustration of the practical difficulties of the conflict between intrastate trade mark rights and Federal registration, *cf. United Drug Co.* v. *Rectanus Co.*, 248 U. S. 90 (1918).

Digitized by Google

III. What Congressional Legislation Concerning Trade-Marks Is Desirable?

It is thus highly desirable that any future congressional legislation dealing with trade marks be frankly and avowedly based upon the assumption that "substantive" and not merely "procedural" law is thereby being enacted. In construing the present "procedural" legislation, the courts are keenly aware of the paradox confronting them. On the one hand, they describe the function of the Commissioner of Patents in administering the Trade-Mark Act as purely "administrative in character" and the jurisdiction of the appellate court (the Court of Customs and Patent Appeals) as "purely statutory and * * * limited in the same way that the Commissioner is limited"; [59] any equitable jurisdiction in either of the tribunals is uniformly disavowed.[60] On the other hand, with equal emphasis, it is insisted that the trade-mark registration law should be construed in aid or furtherance of, and not in defeat of, the development of fair trade.[61] Even under a procedural registration act, holds the Supreme Court, "The law of trade marks is but a part of the broader law of unfair competition" and "to the extent that the contrary does not appear from the statute, the intention was to allow the registration of such marks as that law, and the general law of unfair competition, of which it is a part, recognized as legitimate."[62] Captain Gulliver, on his voyage to Brobdingnag, observed that: "No law of that country must exceed in words the number of letters in their alphabet, which consists only in two and twenty * * *. They are expressed in the most plain and simple terms, wherein those people are not mercurial enough to discover above one interpretation; and to write a comment upon any law is a capital crime."[63] Unfortunately such is the frailty of our civilization that few of our statutes can be so simplified. From the foregoing study, however, it may be briefly posited that if a registration statute (whether "procedural" or, a fortiori, "substantive") is concededly in furtherance of and not in defeat of, the general principles of equity applicable to the law of trade-marks, it is, of course, of fundamental importance that registration thereunder should only be permitted to trade marks which, in the contemporaneous opinion of courts of equity are not liable to cause confusion with previously existing trade-marks. By permitting registration Congress

[59] *B. F. Goodrich Co.* v. *Kennelworth Mfg. Co.*, 40 F. (2d) 121, 122 (C. C. P. A. 1930) per Garrett, Associate Judge, citing *Postum Cereal Company* v. *California Fig Nut Company*, 272 U. S. 693 (1927).

[60] Thus, in *Proctor & Gamble Company* v. *J. L. Prescott Co.*, 77 F. (2d) 98, 103 (C. C. P. A. 1935) the court said, per Bland, Associate Judge: "This Patent Office cancelation proceeding is governed by the terms of the statute, and its terms are not indefinite. It is intended to afford a means of canceling certain registrations, among them registrations which should not have been allowed. Registration is based upon the right of the registrant to the exclusive use of the mark sought to be registered. Equity frequently permits more than one person to use the same mark, since the conduct of the parties may affect the exclusive right to use. We have frequently pointed out this difference between our jurisdiction and that of the court of equity." *Cf. I. E. Palmer* v. *Nashua Mfg. Co.*, 34 F. (2d) 1002, 1004–5 (C. C. P. A. 1929); *Trustees etc.* v. *James McCreary & Co.*, 49 F. (2d) 1068, 1070 (C. C. P. A. 1931); *Leschen & Sons Rope Co.* v. *Am. Steel & Wire Co.*, 55 F. (2d) 455, 459 (C. C. P. A. 1932).

[61] See *American Trading Company* v. *Heacock*, 285 U. S. 247, 258 (1932) (per Mr. Chief Justice Hughes). The Court of Customs and Patent Appeals has repeatedly interpreted the statute in accordance with equitable principles. Thus, in the leading case of *California Packing Corporation* v. *Tillman & Bendel, Inc.*, 40 F. (2d) 108, 111 (C. C. P. A. 1930), the court said, per Bland, Associate Judge: "Congress, therefore, by the use of the words 'merchandise of the same descriptive properties', could not be presumed to have authorized the registration of a trade mark for public use which use could be prevented by resort to the common law. [See Hopkins, Trade-Marks, Trade-names and Unfair Competition (4th ed. 1924) 49.] While in courts of equity there may be principles of law applied in actions concerning unfair trade practices and unfair competition, growing out of trade-marks, which are not applicable in proceedings like that at bar, the law, nevertheless, must be the same in both jurisdictions regarding the question of the probability of confusion. It is inconceivable that Congress, in its efforts to lessen confusion, deceit, and mistake in connection with the use of trade-marks, which must be regarded by the courts as prima facie evidence of ownership, intended to authorize the registration of a trade-mark which was invalid at common law and thus arm the registrant with a weapon, impotent for good but virile for mischief." In *B. F. Goodrich Co.* v. *Hockmeyer*, 40 F. (2d) 99, 103 (C. C. P. A. 1930) the court said, per Hatfield, Associate Judge: "If, as the court said in the above case, citing *United Drug Co.* v. *Rectanus Co.*, 248 U. S. 90, 97, 39 S. Ct. 48, 63 L. Ed. 141; *Hanover Star Milling Co.* v. *Metcalf*, 240 U. S. 403, 413, 414, 36 S. Ct. 357, 60 L. Ed. 713, 'The law of trade marks is but a part of the broader law of unfair competition' (*id.*), the general purpose of which is to prevent one person from passing off his goods or his business as the goods or business of another, and, if the general principles of equity applicable to the law of trade-marks 'were in mind when Congress came to enact the registration statute,' it would seem to be obvious that the provisions of section 5 (15 U. S. C. A., Sec. 85), under consideration here, should not be given a literal construction, but, except where a contrary intention clearly appears from the statute, should be construed *in harmony with the general principles of equity applicable to the law of trade-marks.*" In *In re Plymouth Motor Corporation*, 46 F. (2d) 211 (C. C. P. A. 1931) the Court said: "To the extent that Congress undertook, in the registration act, specifically to define what marks 'shall not be refused registration' and what marks 'shall not be registered', it merely sought to embody in the statute the principles of the common law, largely as the same has been interpreted and applied by the courts throughout the centuries." (*Id.* at 212.) See also *Sunmaid Raisin Brewers* v. *American Grocer Co.*, 40 F. (2d) 116, 118 (C. C. P. A. 1930); *B. F. Goodrich Co.* v. *Kenilworth Mfg. Co.*, 40 F. (2d) 121, 122 (C. C. P. A. 1931); *The Celotex Company* v. *Chicago Panelstone Co.*, 49 F. (2d) 1051, 1052 (C. C. P. A. 1931); *Trustees, etc.* v. *James McCreary & Co.*, 49 F. (2d) 1068, 1070 (C. C. P. A. 1931)

[62] See *American Foundries* v. *Robertson*, 269 U. S. 372, 381 (1926), per Sutherland, J.

[63] Swift, Gulliver's Travels (Modern Library ed. 1931) 153.

Digitized by Google

has, in the past, desired and should, in the future, determine to curb and regulate, not to increase unfair competition. The rational test of the efficacy of a trade-mark statute is whether or not it limits registration to those trade marks which would be entitled to protection in equity.

The actual basis upon which trade marks are today protected in equity *is*, like so many other doctrines of a living and developing jurisprudence, not easily delimited or defined. The diversion of custom from the owner of the trade mark is no longer the sole criterion. Two epoch-making judicial utterances only 4 years apart stand out as milestones in the rapid development of this branch of law. In the *Vogue case* (1924) it was said that "there is no fetish in the word 'competition.' The invocation of equity rests more vitally upon the unfairness." [64] In 1928, although the liberal doctrine of the *Vogue case* appears to have been distinctly unpopular with important sections of the legal profession,[65] in the case of *Yale Elec. Corp.* v. *Robertson*,[66] Circuit Judge Learned Hand extended the doctrine of the *Vogue case*, in words which have become a classical enunciation of the prevailing modern judicial point of view:

"The law of unfair trade comes down very nearly to this—as judges have repeated again and again—that one merchant shall not divert customers from another by representing what he sells as emanating from the second. This has been, and perhaps even more now is, the whole law and the prophets on the subject, though it assumes many guises. Therefore it was at first a debatable point whether a merchant's goodwill, indicated by his mark, could extend beyond such goods as he sold. How could he lose bargains which he had no means to fill? What harm did it do a chewing gum maker to have an ironmonger use his trade mark? The law often ignores the nicer sensibilities.

"However, it has of recent years been recognized that a merchant may have a sufficient economic interest in the use of his mark outside the field of his own exploitation to justify interposition by a court. His mark is his authentic seal; by it he vouches for the goods which bear it; it carries his name for good or ill. If another uses it, he borrows the owner's reputation, whose quality no longer lies within his own control. This is an injury, even though the borrower does

[64] See *Vogue Co.* v. *Thompson-Hudson Co.*, 300 Fed. 509, 512 (C. C. A. 6th, 1924). It was held in this case that the use of the word "Vogue" and the letter "V" as a trade mark for hats constituted unfair competition with the publisher of the "Vogue" magazine. The theory of the Circuit Court of Appeals, in so holding, was stated to be: "In this case the reasonable probability of injury to plaintiff through defendants' misrepresentation is clear, even if it has not actually occurred. Plaintiff's magazine is so far an arbiter of style, and the use of plaintiff's trade mark upon defendants' hats so far indicates that the hats were at least sponsored and approved by the plaintiff, that the same considerations which make the misrepresentation so valuable to defendants make it pregnant with peril to plaintiff. It seems not extreme to say, as plaintiff's counsel do, that persistence in marking under this trade-mark articles of apparel which are unfit, undesirable, or out of style would drive away thousands of those who customarily purchase plaintiff's magazine." (*Ibid.*)

A recent case strikingly illustrates the importance of applying the equity rules governing trade marks and unfair competition to registration applications. In *Meredith Publishing Co.* v. *O. M. Scott & Sons Co.*, 458 O. G. 3 (Patent Office, June 14, 1935), the plaintiff sought to register the notation "Better Homes" for use on lawn grass and seeds. The granting of his application was opposed by the publishers of the magazine "Better Homes and Gardens." The mark was nevertheless registered, and the Patent Office, per Spencer F. A. C. in affirming the decision of the Examiner of Trade-Mark Interferences, said, on the question of whether the goods involved were of "the same descriptive properties"—"on the other hand, confusion can exist, as indeed it does in the case at bar, between goods that are entirely different where the notation is the same and is distinctive. For example, if collar buttons were put out under such names as 'Vaseline' or 'Coca Cola' some one would be led to believe that the proprietors of those well-known marks stood behind the new product. To repeat * * * I do not believe this is such confusion as was contemplated by the framers of the act and I further am of the opinion that in order for an opposition to be sustained both similarity in goods and similarity in notations are essential." (*Id.* at 4.) The *Vogue case* was not cited.

[65] As early as January 1925, in the Joint Hearings before the Committees on Patents on S. 2679, 68th Cong., 2d Sess. (the Vestal bill of that day) in discussing the advisability of a provision of that bill, evidently framed on the basis of the Vogue decision, the late Mr. A. W. Barber, representing the United States Trade-Mark Association and various clients, in denouncing the doctrine of the Vogue decision, said: "It might better be called the "vague" case. * * *" In discussing the meaning of the words "goods of the same descriptive character" he went on to say: "If it be true that the words 'goods of the same descriptive character' originally meant nothing, it is equally true of these words that they may mean anything, and I, Mr. Chairman, am very much afraid of those words. * * * I, * * * do not subscribe to the theory of legislation that has the theory of scrapping a term that has been the subject of adjudication for 20 years, and starting with a new word that is more ambiguous than the present one, and placing upon the courts and the applicants for trade marks the burden of saying what those words mean, and spending another 20 years in interpreting them." (*Id.* at 129–132.) In the following hearing the Boston Patent Law Association, opposing the provision of the Vestal bill of their day for the rejection of registration of a mark because a similar mark had been previously used on a different class of goods, and in arguing that there had only been two or three recent decisions on the point, stated:

"We much prefer to allow this phase of the law, which is of recent origin and has received consideration in only a very few cases, to be worked out and developed by the courts rather than to attempt to engraft it, before its limitations have been definitely worked out at common law, upon a trade-mark registration act, thus putting the development of the law into the hands of Patent Office tribunals, which are ill adapted to deal with such a subject and which have no authority to settle the question finally in any case." *Hearings* before Committee on Patents on H. R. 6248, 69th Cong., 1st Sess. (1926) 97.

[66] 26 F. (2d) 973 (C. C. A. 2d, 1928).

Digitized by Google

not tarnish it, or divert any sales by its use; for a reputation, like a face, is the symbol of its possessor and creator, and another can use it only as a mask. And so it has come to be recognized that, unless the borrower's use is so foreign to the owner's as to insure against any identification of the two, it is unlawful."[67]

This philosophy of the protection of trade-marks has recently been reconsidered by Judge Learned Hand in a case[68] where plaintiff had for more than 50 years made a continuous use of the name "Waterman" on fountain pens, and defendant, whose name was Gordon, advertised and sold his razor blades as Waterman blades. In affirming a decree for the plaintiff, Judge Hand set a limit to the doctrine of the *Vogue* and the *Yale cases*: "The goods," he wrote, "on which the supposed infringer puts the mark may be too remote from any that the owner would be likely to make or sell. It would be hard, for example, for the seller of a steam-shovel to find ground for complaint in the use of his trade mark on a lipstick."[69] Although in so ruling, Judge Hand did not go as far in the functional concept of a trade-mark as did the New York court in the *Tiffany case* or the German court in the *Odol case*[70] there remains a rationale of trade-mark protection which, if applied in congressional legislation and Patent Office administration would greatly aid in formulating a sound basis for trade-mark registration, or rather for refusing trade-mark registration on equitable principles.

The amendment to the Vestal bill recommended to the House Committee on Patents by the writer in 1932 endeavors to crystallize the contemporaneous equitable basis of preventing unfair competition and trade-mark piracy. It reads:

"When such previously used trade-mark (1) is applied to merchandise or services[71] of the same descriptive properties, or (2) is applied to merchandise

---

[67] *Id.* at 973-974.

[68] *L. E. Waterman & Co.* v. *Gordon*, 72 F. (2d) 272 (C. C. A. 2d, 1934.).

[69] Id. at 273.

[70] See supra, note 14. If, under the doctrine of the *Tiffany* and *Odol cases* the same trade mark may not be used on jewelry and motion pictures, or upon mouthwash and steel railroad ties, it would seem that the same would be true of steam shovels and lipsticks.

[71] The desirability of the registration of so-called "service marks" (i. e., trade-marks for services as distinguished from trade marks on goods) has long been recognized by the legal profession. Thus Nims [op. cit. supra note 10, at 601-602], in discussing the refusal to register a trade mark of a service corporation for repairing and dyeing fabrics, states: "A trade mark must be applied or affixed to goods. Mere use of the trade mark in connection with the owner's business will not be sufficient to entitle him to protection against infringement. * * * However, it is possible that, with the growth in importance of service marks, they may be accepted for registration. It seems possible fairly to construe this section [i. e., § 1 of the act of 1905, 33 Stat. 724, 15 U. S. C. A. § 81 (1927)] so as to permit such registration."

The Patent Office and the appellate tribunal, the Court of Customs and Patent Appeals, as well as its predecessor, the Court of Appeals of the District of Columbia, have, both prior and subsequent to the statement of Mr. Nims above quoted, steadily refused to recognize the registrability of service marks. These tribunals insist that "to establish a right to the registration of a trade mark * * * it must have been actually applied to vendible goods. * * *." *Gray* v. *Armand Co.*, 24 F. (2d) 878 (App. D. C., 1928); in re *Gregg & Son, Inc.*, 24 F. (2d) 898, 899 (App. D. C. 1928); in re *Toledo Porcelain Enamel Products Co.*, 58 F. (2d) 423, 425-6, C. C. P. A. (1923); cf. *Diedreich* v. *W. Schneider Wholesale Wine & Liquor Co.*, 195 Fed. 35 (C. C. A. 8th, 1912), cert. denied, 232 U. S. 726 (1914). For Patent Office decisions see ex parte *Dinks L. Parish Laundry Corp.*, 156 M. D. 246 (1929); ex parte *Western Union Telegraph Co.*, 146 M. D. 321, 15 T. M. Rep., 139 (1924); ex parte *Rex Agency*, (1929) C. D. 61; 389 O. G. 3; ex parte *The Union Deposit Co.*, 156 M. D. 500 (1930); *McBride's Theatre Ticket Offices, Inc.*, (1931) C. D. 1, 156 M. D. 634; ex parte *Corn Exchange National Bank & Trust Co.*, 156 M. D. 689 (1931); *American Bleached Goods Co., Inc.* v. *Defiance Mfg. Co.*, opposition number 10-315, briefly reported in United States Daily, Mar. 3, 1932, at 4; ex parte *Jerry C. Pugh*, 159 M. D. 444; 25 T. M. Rep. 629 (1935).

Various provisions in proposed legislation have included the registration of service marks and the protection thereof against infringement upon the same basis (rather than as being) as "trade marks used upon goods" [e. g., see American Bar Association Trade Mark bill, S. 2679, 68th Cong., 2d sess. (1925) § 24; H. R. 2828, 71st Cong., 2d sess. (1930) §23; H. R. 7118, 72d Cong. 1st sess. (1932) § 23]. In the 1935 American Bar Association report at 13, it is likewise recommended "that service marks should be included." It will be noted that in H. R. 11592, 72d Cong., 1st sess. (1932) the special § 23 of its predecessor, H. R. 7118, was eliminated, and instead of making special provision for the registration of service marks "subject to the same provisions as appear in sec. 2 thereof, relating to trade marks, so far as the same may be applicable * * *" and instead of stating that "when registered they shall be entitled to the same protection and remedies against infringement as provided herein in the case of trade marks used upon goods," service marks are placed in precisely the same category as trade marks and their registration provided for accordingly. Services are today designated or distinguished to as great a degree by trade marks or trade names as are goods. Broadcasting, news reporting, airplane transportation, stenography, theater ticket service, insurance and surety service, laundry, taxi, cleaning, dyeing and valet services are only a few of those services to which trade marks become affixed. Service marks are now protected in courts of equity from unfair competition; their owners should likewise be further protected by being permitted to register such marks as trade marks in the Patent Office. § 23 of H. R. 7118, mentioned above, by isolating the service marks, attempts to accomplish by indirection that which it seems to me can either be done directly or not at all. It is designed to permit the registration of service marks, but carefully describes a service mark as "any trade name or device"—not as a trade mark. In this connection see also the definition of the term "trade mark" in §30, 42, lines 7-14, of H. R. 7118, with which cf. H. R. 11592, § 30, p. 42, lines 12 ff. This matter of the registrability of service marks is but another instance, it seems to me, of the desirability of a frank recognition of the extension of congressional power to legislate "substantively" concerning trade marks.

Digitized by Google

or services of such other properties, quality, or reputation[72] or to merchandise or services so distributed or conveyed to the purchasing public, or (3) was at the time of its registration a coined or invented or fanciful or arbitrary mark,[73]

"so that the use of applicant's mark is likely to cause confusion or mistake or to deceive purchasers or users thereof as to their source or origin or otherwise to injure the good will, reputation, business, credit or securities[74] of the owner of the previously used trade mark,

"it shall constitute prima-facie grounds for refusing registration." [75]

IV. Conclusion

A recent and most readable decision[76] involves the misleading use by one William Gordon of the name Gordon (standing alone) in connection with the vending of gin—a product which the plaintiff, a British corporation, had been distilling and selling under the name Gordon since 1769. This was, it seems, the third time that the defendant had run afoul of the law of unfair competition. At the conclusion of his opinion enjoining the defendant's piracy of plaintiff's trade mark, District Judge Clark said:

"In conclusion, we record our surprise at counsel's apparent distaste for our suggestions from the bench that we intended to attempt 'the introduction of a little ethics in American business.' We should have supposed that the business history of the past 10 years made such an attempt rather appropriate. We do not feel that it is particularly harsh to question the ethical perceptions of an individual who seems unconscious of the misleading impression created by the use of the British coat-of-arms on an American product." [77]

From the standpoint of the author of Transcendental Nonsense and the Functional Approach, mentioned at the outset,[78] the question whether a trade mark on gin should or should not be permitted by the courts to be thus pirated would appear to be socially irrelevant or, if decided at all, to be determined in the negative. At worst, it would be only one of those "petty things, of lying, stealing * * * in their retail forms * * * of ugly manners." [79] However, this is a problem which, even if solvable, space will not permit an attempt to solve here. Its perplexities will be dealt with in the second part of this paper.

Frank I. Schechter.

New York City.

[72] E. g., *Northam Warren Corp.* v. *Universal Cosmetic Co.*, 18 F. (2d) 774 (C. C. A. 7th, 1927); *Duro Co.* v. *Duro Co.*, 27 F. (2d) 339 (C. C. A. 3d, 1928); *Kotabs, Inc.* v. *Kotex Co.*, 50 F. (2d) 810 (C. C. A. 3d, 1931), cert. denied, 284 U. S. 665 (1931); *Standard Oil Co. of New Mexico, Inc.* v. *Standard Oil Co. of California*, 56 F. (2d) 973 (C. C. A. 10th, 1932); *L. E. Waterman & Co.* v. *Gordon*, 72 F. (2d) 272 (C. C. A. 2d, 1934); *Holt* v. *Metropolitan Refining Co., Inc.*, 9 F. Supp. 662 (E. D. N. Y. 1935); *Long's Hat Stores Corp.* v. *Long's Clothes, Inc.*, 224 App. Div. 497, 231 N. Y. Supp. 107 (1st Sept. 1928).

[73] For typical decisions see cases cited in Schechter, supra note 14, at 828–830; *Mantle Lamp Co. of America* v. *Alladin Mfg. Co.*, 78 F. (2d) 426, 428–429 (C. C. A. 7th. 1935) cert. denied, 56 Sup. Ct. 173 (1935) (involving Alladin on lamps); *Holt* v. *Metropolitan Refining Co., Inc.*, 9 F. Supp. 662, 666 (E. D. N. Y. 1935), (involving Rust-I-Cide on rust removers) and the cases cited therein; cf. discussion of the *Tiffany* and *Odol cases*, and of the British proposed "defensive trade mark", supra, note 14.

[74] For decisions holding that, quite apart from diversion of trade, or other injury to the good will of the plaintiff, misuse of trade marks, resulting in injury to the credit or other financial standing of securities issued by the owner of the trade mark or in possible diminution of their value will be enjoined, see *British-American Tobacco Co., Ltd.* v. *British-American Cigar Stores Co.*, 211 Fed. 933, 935 (C. C. A. 2d, 1914); *Akron Overland Tire Co.* v. *Willys-Overland Co.*, 273 Fed. 674, 676 (C. C. A. 3d, 1921); *Buckspan* v. *Hudson Bay Co*, 22 F. (2d) 721, 723 (C. C. A. 5th, 1927), cert. denied, 276 U. S. 628 (1928); *Hudson Motor Car Co.* v. *Hudson Tire Co.*, 21 F. (2d) 453, 456 (D. N. J. 1927); *Armour & Co.* v. *Master Tire & Rubber Co.*, 34 F. (2d) 201, 203 (S. D. Ohio, 1925); *Lincoln Motor Co.* v. *Lincoln Automobile Co.*, 44 F. (2d) 812, 817 (N. D. Ill. 1930) *Standard Oil Co. of New Mexico* v. *Standard Oil Co. of California*, 56 F. (2d) 973 (C. C. A. 10th, 1932); *Standard Oil Co., of Colorado* v. *Standard Oil Co.*, 72 F. (2d) 524 (C. C. A. 10th, 1934), cert. denied, 293 U. S. 620 (1934); *Household Finance Co.* v. *Household Finance Co.*, 11 F. Supp. 3 (D. W. Va., 1935); *Yellow Cab Corporation* v. *Korpeck*, 120 Misc. 499, 198 N. Y. Supp. 864 (Sup. Ct. 1923); *F. W. Woolworth & Co., Ltd.*, v. *Woolworths Australasia, Ltd.*, 47 Rep. Pat. Cas. 337, 345 (Ch. Div. 1930); cf. *Certain-Teed Products Corp.* v. *Philadelphia & Suburban Mortgage Guarantee Co.*, 49 F. (2d) 114 (C. C. A. 3d, 1931) adopting the opinion of the lower court that the owner of "Certain-Teed" trade mark for roofing and building materials is not entitled to enjoin defendant whose business is buying and selling mortgages, from using the slogan "A guaranteed mortgage is a Certain-Teed income." The lower court held that defendant's use, of this slogan "is comparatively unobtrusive."

[75] See the Perkins bill, H. R. 11592, 72d Cong., 1st sess. (1932) § 2(d), p. 3, line 24, to p. 4, line 11. It will be observed that seemingly contrary to the constitutional views as to substantive as distinguished from merely procedural legislation, indicated above, the words "prima facie" grounds for refusing registration were there used by the writer. They were used intentionally because I did not then feel that the reasoning of the Odol decision would at that time be acceptable to either legislators or lawyers. The Tiffany decision, following the reasoning of the Odol case, had not as yet been handed down. If I were redrafting the above quoted section at this time I should be inclined to omit the "prima facie" modification.

[76] *Tanqueray Gordon & Co., Ltd.* v. *Gordon*, 10 F. Supp. 852 (D. N. J. 1935), appeal dismissed, 77 F. (2d) 998 (C. C. A. 3d, 1935).

[77] See 10 F. Supp. at 854.

[78] F. S. Cohen, supra note 14.

[79] F. S. Cohen, Ethical Systems and Legal Ideals (1933) preface, p. x.

Digitized by Google

FISH, RICHARDSON & NEAVE,
New York, January 13, 1936.

Hon. WILLIAM I. SIROVICH,
Committee on Patents, House of Representatives,
Washington, D. C.

DEAR SIR: Referring to my letter to you of December 23, 1935, and your reply of December 27, 1935, the information has now been collected which Mr. Swope, president of the General Electric Co., was asked to furnish when testifying before the Committee on Patents in New York on October 15, 1935.

Mr. Swope is now away and will not return for a month or more. You may wish the information before that time, so I am giving it to you in this letter.

The figures in parentheses refer to the pages of the typewritten report of his testimony.

"How many companies make up the General Electric system?" (P. 140.)

Attached is a list of the General Electric affiliates (companies of which General Electric Co. holds over 50 percent stock ownership) as of December 31, 1934; of these 77 companies, 40 were operating outside of the United States. This list is copied from a report furnished to the Securities and Exchange Commission.

"What is the total capitalization of all the companies in the system?" (P. 141.)

On December 31, 1934, it was $382,387,910.

The General Electric Co.'s annual report was asked for. (P. 141.)

The report of December 31, 1934, is furnished herewith.

"How many patents does it (General Electric Co.) own?" (P. 142.)

Between 8,000 and 9,000 patents.

"How many patents owned or controlled by the General Electric Co. are joined into a patent pool or cross-licensing agreement?" (P. 144.)

Between 500 and 2,000 patents.

The General Electric Co. has no list of its patents involved in patent pool or cross-licensing agreements, and it would be difficult to prepare any reasonably complete and accurate list. For example, the cross-license agreement with the Radio Corporation of America grants rights under General Electric Co. patents in the field of radio purposes, but the patents are not listed in the agreement. There are about 1,000 General Electric Co. patents which relate primarily to this field, but there are many patents not directed to radio purposes at all which may have some use in the radio purpose field which would come under the license.

Similarly, the cross-license agreement with the Babcock & Wilcox Co. relates to mercury boilers, without listing the patents of either company. There are between 25 and 30 General Electric patents particularly directed to inventions which clearly come under the agreement and others which may come under it.

In the license agreements relating to incandescent lamps and machines and processes for their manufacture, hereinafter referred to, about 250 existing patents were listed, and additional patents have issued since the list was printed, bringing the number to a little over 300.

"Under what patents do they (the incandescent-lamp licensees) pay you royalties?"

"Would you be willing to furnish copies of the licensing agreements?" (P. 155.)

A list of patents for incandescent lamps and machines and processes for their manufacture appears in the copies of the B license—large incandescent lamps, and B license—miniature incandescent lamps, furnished herewith. There is also furnished herewith a copy of the electric-lamp license between General Electric Co. and Westinghouse Electric & Manufacturing Co.

"What are the patents under which you are now manufacturing or licensing—do you know the total number of them?" (P. 160.)

The patents specified in license agreements that provide for payment of royalties to General Electric Co. (other than incandescent-lamp patents, which are listed as stated above) are set forth in a list furnished herewith.

A list is also furnished herewith of 2,485 patents, the numbers of which have been marked on apparatus made and sold by the General Electric Co.

"Which of those patents have ever been adjudicated in the higher court, as to their validity?" (P. 161.)

The following have been passed upon and sustained in the circuit court of appeals:

Abbott, 1367341, 6 F. (2d) 376; Sargent & DeReamer, 1567863, 63 F. (2d) 764; Rice, 1334118, 19 F. (2d) 290; Pacz, 1410499, decision by Court of Appeals for Ninth Circuit December 20, 1935, *General Electric* v. *Anraku et al.*, not yet reported.

NOTE.—The Mitchell & White patent 1423956 for the tipless incandescent lamp was before the court of appeals for the third circuit in *General Electric Co.*

Digitized by Google

v. *Eisler et al.* (20 F. (2d) 33), where the court held there was no infringement but said:

"But, as we view it, Jaeger did not anticipate and invalidate what Mitchell & White disclosed."

A list of licensees under General Electric Co. patents was asked for. (P. 164.)

The list is furnished herewith, which is not complete but is reasonably so. It is believed to include all licensees from whom any report may be required under the license.

There may be between 50 and 200 licensees, not listed, who were granted free, nonexclusive licenses under the issues of interferences in connection with the settlement of the interferences. There are a number of licensees who have been granted licenses by the Radio Corporation, in which licenses the General Electric Co. appears as one of the licensors and under which licenses the General Electric Co. collects no royalty. For example, there are a few over 200 radio broadcasting station licensees who make no reports and pay no royalties.

Respectfully submitted.

CHARLES NEAVE,
Counsel for General Electric Co.

AFFILIATED COMPANIES AS OF DECEMBER 31, 1934 (S. E. C. BASIS)

[Companies indented are direct subsidiaries of those companies under which they are indented]

Canadian General Electric Co., Ltd., Toronto, Canada.
Carboloy Co., Inc., Detroit, Mich.
East Erie Commercial Railroad, Erie, Pa.
Edison General Electric Appliance Co., Inc., Chicago, Ill.
Electric Appliances, Inc., San Francisco, Calif.
Electric Household Appliances, Inc., Dallas, Tex.
Electrical Housekeeping, Inc., Cleveland, Ohio.
Electrical Securities Corporation, New York, N. Y.
Elmira Foundry Co., Inc., Elmira, N. Y.
Erie Improvement Co.[1]
General Electric Contracts Corporation, New York, N. Y.
    Electric Acceptance Corporation, New York, N. Y.
G. E. Employees Securities Corporation, Jersey City, N. J.
General Electric Realty Corporation, Schenectady, N. Y.
    General Electric Realty Co. of Texas, Dallas, Tex.
    General Electric Realty Co. of Indiana, Fort Wayne, Ind.
    Schenectady Realty Co., Schenectady, N. Y.
General Electric Supply Corporation, Bridgeport, Conn.
    Pacific States Electric Co.[1]
General Electric Vapor Lamp Co., Hoboken, N. J.
General Electric X-Ray Corporation, Chicago, Ill.
    General Electric Raios-X, South America, Rio de Janeiro, Brazil.
    Victor X-Ray Corporation (New York).[1]
    Victor X-Ray Corporation, Ltd. (London), London, England.
    Victor X-Ray Corporation, South America (Mexico).[1]
    Victor X-Ray Corporation of Canada, Ltd., Toronto, Canada.
International General Electric Co., Inc., Schenectady, N. Y.
    China General Edison Co., Inc., Shanghai, China.
    General Electric, South America (Argentina), Buenos Aires, Argentina.
    General Electric Appliances, South America (Argentina), Buenos Aires, Argentina.
    General Electric, South America (Brazil), Rio de Janeiro, Brazil.
    Lojas General Electric, South America, Rio de Janeiro, Brazil.
    General Electric Co. of Cuba, Havana, Cuba.
    General Electric, South America (Mexico), Mexico City, Mexico.
    General Electric (Philippine Islands), Inc., Manila, P. I.
    International General Electric, South America, Schenectady, N. Y.
    International General Electric Co. of New York, Ltd., London, England.
    International General Electric Co. (India), Ltd., Bombay, India.
    International General Electric Co. of Puerto Rico, San Juan, P. R.
    Mexico General Electric Co.[1]
    South African General Electric Co., Ltd., Johannesburg, Transvaal.
Keystone Appliances, Inc., Harrisburg, Pa.
Locke Insulator Corporation, Baltimore, Md.
Loughborough Mining Co., Ltd., The.[1]

[1] Inactive subsidiaries.

Digitized by Google

Maqua Co., The, Schenectady, N. Y.
Midwest Electric Appliances, Inc., Kansas City, Mo.
Monowatt Electric Corporation, The, Bridgeport, Conn.
Pacific Electric Manufacturing Corporation, San Francisco, Calif.
Southern Appliances, Inc., New Orleans, La.
Tennessee Appliances, Inc., Nashville, Tenn.
Trumbull Electric Manufacturing Co., The, Plainville, Conn.
Drendell-Trumbull Electric Manufacturing Co., San Francisco, Calif.
Plainville Realty Co., Plainville, Conn.
Trumbull Electric Manufacturing Co., The (Pacific division), Seattle, Wash.
Walker Dishwasher Corporation, Chicago, Ill.
Warren Telechron Co., Ashland, Mass.
Electric Time Co., Inc. (New York), New York, N. Y.

Twenty foreign subsidiaries are omitted from this list as their names were not disclosed to the Securities and Exchange Commission.

LIST OF PATENTS OWNED BY OR LICENSED TO GENERAL ELECTRIC CO.—PATENTS MARKED AS OF OCTOBER 15, 1935

(Numbers preceded by * indicate patents owned by others with license to General Electric Co.)

We have 2,485 patents marked, of which 1,772 are General Electric patents and 713 others.

Nov. 12, 1918

*1284524
*1284623
*1286394
*1286395
*1286994
1287265
1287367
1287545
1289593
1289823
1289996

January 1919

*1290382
1290938
1290945
1291078
1291106
*1293781
1294250
*1294252
1294422
*1294466
*1294555
1294627
1294694
*1294966
1295498
1297120
1297121
1297133
1297161
1297174
1297188
*1297240
1297249
1297260
1297835
1297857

January 1919

1297878
1297884
1298471
1298524
1298556
1298613
1299017
1299936
1301640
1301735
1302060
*1302851
*1303417
*1303579
1304178
1304184
1304239
1304257
1304283
1304451
1304469
1304477
1305726
1306545
1306555
1306594
1306624
1306643
*1307510
*1307579

July 1919

1310040
1310042
1310049
1310054
1310060
1310061
1310063

July 1919

1310067
1310097
1310109
1310138
1310299
*1312454
*1313004
1313093
1313094
1313099
1313188
1313666
1313671
1313736
1313756
*1314250
1315069
*1315673
1315774
1315791
1315809
1315815
1315822
1315827
1315867
1315939
1316967
1316975
1316985
1317002
1317003
1320874
1321042
*1321438
*1322734
1323751
1323765
1323798
1323799

July 1919

1323810
1323811
*1325865
*1325878
*1325879
1326014
1326025
1326029
1326120
*1326437
1326690
1326871

January 1920

*1328283
*1328467
1328473
1328525
1328610
1328797
*1329283
*1329405
1330627
1331065
1331067
1331068
1331086
*1331144
1331874
1331896
1331897
1331915
1331928
1331936
1331940
*1333744
1334104
1334118
1334126

Digitized by Google

January 1920

*1334133
1334134
1334144
1334149
*1334423
1334774
1334792
1334799
1334869
1334936
*1334943
1336399
1337062
1337080
1337098
1337105
1337885
1337895
1337915
1337942
1338641
1339466
1339962
1339998
1340004
1340005
1341006
1341486
*1341579
*1342885
1342999
1343039
*1343306
*1343307
*1343308
*1343562
1343996
*1344144
1344260
*1345066

July 1920

1345712
1345730
1345786
1345796
1347309
1347327
1347335
1347760
1347768
1347776
1347781
1347783
1347787
*1349252
1349873
*1350571
*1350752
1350924
1350925
1350936
1350937
1350941
*1351897
1352247
1352249
1352250
1352278
1352292
1352307
1352360
1353028
*1353550
1353665
1353684
1353691
1353711
*1353815
*1353971
*1353976
*1354134
*1354750
*1354939
1355193
*1356178
*1356763
1356935
1357197
1357688
1357726
1358397
1358409
*1359324
1359889
1360752
1362375
*1362060
1362437
1362497
1362588
1363319
1363814

January 1921

1365566
1365638
*1365665
*1365898
1366627
*1367229
1367341
1367341
*1367343
1368108
1368398
*1369403
*1370731
1371761
1373896
1373910
1373920
1373928
1374654
1374656
1374679
1374711
*1375447
*1375739
1375991
1376003
1376011
1376020
*1377405
1378454
1378464
1378519
1378557
1378559
1378566
*1379172
1379481
1379510
*1379526
1380942
1380983
*1381085
1381580
*1382387
1382872
1382873
1382878
1382936

July 1921

1384108
1385873
*1385973
*1386731
1386828
1386834
1386838
1386849
1386861
1386877
1387984
1388248
*1388450
1390036
*1390066
1391289
1393520
1393550
1394044
1394056
1394121
1394144
1394518
1394910
1394937
*1394938
1394976
1394982
1396563
*1397862
*1398665
1398981
1398982
*1399466
1399968
*1400376
1400817
1400824
*1401121
1401685

January 1922

*1402931
*1403475
*1403932
1406502
1405542
*1408118
1408211
1408989
*1409502
1409529
*1409658
1410499
*1410960
*1411121
1411619
*1411814
1412002
1412636
1412782
1412817
1413418
1413420
1413425
*1414801
1415320
1415321
*1415505
*1415797
*1419114
*1419153
*1419530
*1419754
1419797
1419803
1419876
1420407
1420408
*1420895
*1420896

July 1922

1421740
*1421754
1421894
1421923
1421931
1422439
*1422837
1423299
1423956
1423957
1423996
1424027
*1424065
*1425065
*1425638
1425781
1425843
*1426754
*1426826
1426940
*1429956
1430850
1430867
1431308

Digitized by Google

July 1922

*1431423
*1431993
*1432022
1432411
1432434
1432435
1432442
*1432867
1434689
1434700
1434758
*1437021
*1437122
1437290
*1438612
*1438969
*1439323
*1439979
1439990

January 1923

1441550
*1442146
*1422147
*1442417
*1442439
1442851
1444438
1444445
1444458
1444480
*1445278
*1445707
1445978
1445994
*1446752
*1447773
1448005
1448009
*1448216
*1448240
*1448437
*1448550
1449251
1449705
1449725
1449871
1449878
*1450246
1450413
1450749
*1452337
*1452339
1453491
1453498
1453595
*1453980
*1453982
*1454011
*1456082
1456087
1456100
1456104
1456107
1456110

January 1923

*1456305
*1456505
*1456528
*1456529
*1456538
1456595
*1458949
*1459412
*1459417
*1459419
1459967
1459988
1460062

July 1923

*1461117
*1461118
*1461140
*1461359
*1461360
1461571
*1461921
1462321
1462337
1462340
1462346
1462350
*1463630
*1463860
1464101
*1464104
1465087
1465332
1465961
1466312
1467972
1468116
*1470128
1470506
1470508
1470899
*1471012
1471316
1471893
1471913
1472001
*1472470
1472477
*1472503
*1472583
1472716
*1473433
1475162
1475185
1475212
1475213
1475267
*1476376
1477367
1477405
1477781
1477782
1477834
*1477868
*1477869
*1478072

January 1924

*1479776
*1479778
*1480219
1480899
1480904
*1481021
*1483273
1483432
1483433
*1484411
*1484605
1485352
1487301
1487311
1487315
1487320
1487345
1487353
1487492
1487515
1488919
*1489433
1490408
1490419
1490442
1490708
*1490732
1490899
*1491302
*1491362
1491386
1491396
1491423
*1491425
1491450
*1491772
*1491774
*1492000
*1493217
1494208
1494221
1494293
1494322

July 1924

*1494927
1494938
1494939
1494940
1494975
1495020
*1495045
*1495429
*1495827
*1495936
*1496958
1497312
*1498695
1498891
1498908
1499178
*1499949
1500787
1500837
1501017

July 1924

1501026
1501027
1501028
1501239
1501661
1501726
1501734
1501831
*1502090
1502489
*1502493
*1502647
1502903
1502904
1502907
*1502924
1502931
1503090
1503091
1503977
1503980
1503981
1504014
*1504083
1504193
*1504537
*1504602
1505629
*1505630
1505647
1505924
1505929
*1505980
*1506160
1506409
1506468
1506483
*1506552
*1507016
*1507017
1508151
1508152
1508251
1508359
1508688
1508689
1508690
1508691
1508710
1508711
1508738
1508742
1508746
1509758
*1510985
1511075
1511717
*1511841
1512182
1512203
1512221
1512235
*1512493
1514570
*1514735

Digitized by Google

July 1924

*1514736
*1516195
1517234
1518020
1518612
1518619
1518624
1518625
1518639
*1520580
*1520680
*1520865
*1520994

January 1925

*1521852
1522173
1522175
1522187
1522190
1522206
1522221
1522988
1522991
1522992
*1523367
1523776
*1524930
1525840
1526027
1526306
*1526311
*1526775
*1527250
*1527641
*1527645
*1528079
1529325
1529597
1530259
1530929
1530963
*1530981
1531039
*1531805
1531917
1531966
1532003
1532004
1532015
1532038
1533647
1533655
1533677
*1534681
1534716
1534724
1535807
1535835
1535916
1535924
*1536549
1536772
1536774
1536821

January 1925

*1536855
*1536915
1536944
1537036
1537352
1537353
1537371
1537374
1537407
*1537536
1537671
*1537708
1537719
1537737
1537756
*1537863
*1537921
*1539605
1539670
1539684
1539812
*1539871
*1540317
*1540628
1540669
1540693
1541582
1541584
1541618
*1541660
*1543370
*1544081
1544293
1544536

July 1925

1544921
*1545256
*1545591
1546173
*1546269
1546349
1546352
1546353
1546879
1546885
1546900
*1547000
*1547001
*1547002
*1547375
*1547623
*1547715
1548656
*1548696
1548733
1548799
1549449
1549525
1549587
*1549590
1549597
1550165
1550180
1550189

July 1925

1550199
*1550768
*1550994
*1551336
1551365
1551512
*1552007
1554024
1554664
1554698
1554702
1554718
1555768
*1556857
1558436
1558437
*1558707
1559085
1559103
1559104
*1559418
*1559524
*1559679
*1560056
1560308
*1560332
1560440
*1560740
1560951
*1561437
*1561640
*1563610
1564690
1564804
*1565151
*1565321
*1565505
*1565857
*1565887
1566935
1566939
1566995
1567016
1567024
1567030
1567844
1567863
1567864

January 1926

1568694
1568731
1568748
*1568970
*1569385
1569723
1570597
*1571458
*1571948
1572682
1572695
*1573374
1574587
*1574780
1576102

January 1926

1576119
1576155
1576162
1576187
1576189
*1578660
1579092
*1579562
*1579952
1580800
1580802
1580811
1581876
1581902
*1582441
1583496
1583578
1583592
1583598
1583599
1583610
1584703
1585448
1585630
*1586883
*1586884
1588171
1588204
*1588731
*1588738
1589924

July 1926

1590030
1590036
1590065
*1591175
1591460
*1591707
*1591772
1592344
1592347
*1592934
1593389
1593392
1593400
1594058
1594067
*1594124
1595853
1595966
1595972
*1596198
1597453
1597463
*1597465
1597488
1597489
*1597865
1599418
1600033
1600048
1600060
*1600436
*1601075

Digitized by Google

July 1926

1601934
*1602398
*1602486
*1602510
*1602525
*1602526
*1602527
*1603014
1603035
1603050
1603060
1603067
1603085
*1603137
1604104
*1605001
*1607582
1608278
1610080
1610744
1610867
1611014
*1611848
1612114
1612117
1612118
1612120
*1612151
*1612438

January 1927

1614113
1614145
1614159
1614168
*1615654
1615662
*1615664
1615669
1615670
*1616102
1617133
*1617428
*1617874
1617974
*1618017
1618117
1618741
1618766
1618771
1618797
1618807
1620411
*1620455
*1620495
1620504
1620511
1620528
1620555
1620556
1620619
1621360
*1622170
1622531
*1623561

January 1927

1623780
1623842
1623851
1624736
*1625296
1625464
1626213
*1626221
*1626391
1626467
1626469
1626495
1626498
1628463
*1628917
1629293
1629332
1629462
1631646
1631672
1631673
1631679
1631711
*1631713
1632615
1633804
1633805
1633812
1633833

July 1927

*1634663
*1634705
1635049
1635064
*1635829
1636527
1637038
1637042
1637043
*1637050
1637909
*1638131
1638322
*1639708
1638372
*1639385
*1640335
1640424
1640437
1640438
1640439
1640447
1641658
1641659
1641665
1641724
1641758
*1642861
1643178
*1644335
1645099
1645119
1646213
1646215

July 1927

1646219
1648249
*1648289
1648684
1648686
1648688
1648741
*1648958
*1649098
1649566
1650232
1650626
*1650634
*1650664
1651876
1651889
1652134
1652879
1652882
1652904
1652923
1652928
1652969
1653078
1653102
*1653366
*1654303
1654518

January 1928

1654937
1654949
1654950
1654987
1654988
1654989
1655040
1655261
1655389
*1655665
*1655811
1657249
*1657455
*1658323
*1658340
*1658341
1658342
*1658346
1658653
1658664
1658695
1658703
1659106
1659549
*1661058
1661839
1661842
*1662031
1662032
*1662107
*1662511
1664090
1664097
1664104
1665841

January 1928

1665871
1665893
1665897
1666433
1666435
1666471
1666490
1667586
1667587
*1667595
1667617
1667621
*1667636
1667652
1668365
1668388
*1668703
*1668724
*1668897
1669112
1669113
1669114
1669119
1669120
1669125
1669129
1669132
1669134
1669148
1669157
1669162
*1669518
1670071
1670073
1670093
*1671205
*1671378
1671969
*1672233
1672664
1672666
1672669
1672703
1672675
1672706
1672716
1672721
*1672725
1673676
*1673712
*1673716
1673752
1674482

July 1928

*1675848
*1675918
1676313
1676314
1676315
1676316
1676971
1676974
*1676978
1677007

Digitized by Google

July 1928

1677008
1677681
1677702
1677713
1677720
*1678001
*1679723
1680679
1680691
1680701
1680708
*1680748
*1680749
1680754
1681514
*1681591
*1681908
1683132
1683196
1683210
*1683211
1684137
1684138
1684241
*1684242
1684268
*1684716
*1685642
1685656
1685665
1685667
1685669
1685671
1685677
*1686570
*1686667
*1687013
*1687165
*1687220
*1687245
1687504
1687505
1687508
1687510
1687512
1687513
1687551
*1687657
1688693
1689187
1689188
1689499
1689503
1689513
1689518
*1689821
1691395
*1691446
*1692317
1693303
1693306
1693307
1693316
1693319
1693323
1693327

July 1928

1694264
1694277
1694282
1694291
1694307
*1694928
1694977
1694979
*1694981
1694990
*1695506
*1695899
1695946
1695947
*1696103
1696177
1696566
1696590
1696593
1696601
*1696613
1696615
1696617

January 1929

*1697886
*1698014
*1698051
1698289
1698299
1698306
1698309
1698316
1698706
1699103
1699110
1699125
*1701251
1701343
1701362
1701372
1701379
1701440
*1701759
*1704726
*1705323
1706113
1706114
1706140
1706171
1706172
1706184
1706193
*1707423
*1707424
*1707550
1707617
1708003
1708772
1708814
1708859
1708887
1708961
1708995
1710681

January 1929

*1710845
1710939
*1711430
1711742
*1712026
1713148
*1712994
1713173
1713179
1713194
1713215
1713226
1713249
1714012
*1715671
*1715691
1717192
1717213
1717219
1717251
*1717269
*1717270
1717292
1717301
1717307
*1717317
1717658
*1718123
*1718175
*1718206
1718478
1718529
1718531
1718537
1718676
*1718716

July 1929

*1718946
1719852
1719866
1719877
1719888
1719890
*1719988
1721405
1721419
*1721570
*1721840
*1722094
1722167
*1722237
*1723060
*1723061
*1723062
1723103
1723840
1723872
1723888
1723908
1723912
1723920
1723933
*1724482
1724776

July 1929

1724838
1725174
1725472
1725695
1726392
1726478
1728003
1728004
1728019
1728020
*1728021
1728819
1728853
1728895
1729704
1729715
*1729937
1730443
*1730873
1731166
1731218
*1731297
1731884
1731890
1732296
1732987
1733834
*1734038
*1734132
1734892
1734907
1734912
1734925
1734930
1734931
1736635
*1736852
*1738269
1738406
1738420
1738430
1738446
*1739958
1739384
1740331
1740332
1740343
1740357
1740367
*1741173
1741200
1741222
1742072
1742109

January 1930

*1742558
*1742581
*1742906
1742935
*1743073
*1743322
1743760
1743773
1743775

Digitized by Google

January 1930

1743798
*1743973
1745159
1745180
1743181
*1746808
1747938
*1748026
1748754
1749688
1749728
1751334
*1751344
1751400
1751403
1751412
1752094
1752127
1752213
1752806
1752866
*1753219
1754158
1754179
1755051
1755083
1755084
1755091
1755095
1755117
1755139
1755865
1755975
1756865
1756878
1756882
1756894
1756921
1756922
1758775
1758782
1758803
1758815
1758816
1760523
1760532
1760537
1760543
1760545
*1761117
1761760
1761776
1761783
*1765000
1765227
1765298
*1765696
1765887
*1768290
1768385
*1768386
*1768422
1768432
1768452
1768461

July 1930

1770334
1770811
1770839
1771297
1771349
1771375
1771909
1771919
1771929
*1771946
*1772436
*1773292
1773613
1773687
*1774129
1774440
1774461
1774946
1774966
1775028
1775525
1776125
1776128
1776138
1776149
1776153
*1776637
1776708
1776716
1776719
*1777253
*1777256
1778456
1778457
*1778458
1778697
1779659
1780121
1780133
1780666
1780684
1782514
1783036
1783050
1783234
1783900
1783904
1784639
1784643
1784649
1785569
*1785656
1785718
1786292
1786303
*1786422
*1787220
1787291
1787292

January 1931

*1787943
*1788513
*1788926
*1788927
*1789014
1789177
1789187
1790153
1790718
1791446
1792272
*1792276
1792292
*1792376
1793384
1794283
1794315
*1794950
*1795180
1795181
1795207
1795214
1795240
*1795274
*1796449
1796990
1796993
1797009
1797029
1797030
1797060
1797960
1797976
*1798486
*1799850
1800018
*1801099
1801106
1801107
1801133
*1801843
*1802030
1802178
1803163
1804317
1804330
1805485
1805486
1805492
1806197
1806198
1806199
*1806281
1806295
1806330
1807441
*1808407
1808528
1808533
1808541
1808549
1808568
1808583
1809661
*1809927
1810591
1810596
1810615

January 1931

1810624
*1811095
*1812103
1812748
1812776

July 1931

1813743
*1813776
1813802
1813820
1813889
1814826
1814869
1814871
*1815561
*1815633
*1815634
*1815635
*1815717
1815791
1815803
1815823
1815832
1815842
1816755
1816749
1816799
1817795
1818787
1818803
1818822
*1819472
1819881
1819882
1820809
1821765
1821796
1821804
1822742
1823731
1823841
1824704
*1825034
*1825079
1825591
1827565
*1827626
1827648
1827656
1827657
1828559
1828635
1828659
1829610
*1830164
1830533
1830541
1830548
1830597
1830613
*1830938
1831558
1831564

Digitized by Google

July 1931

1831568
1831582
1832695
1832703
1832707
1832721
1832751
1833736
1833849
*1834041
*1834432
1834774
1834795
1834803
1835156
*1835761
*1836180
1836790
1836823
1836838
1836845
1837897
1837975
1837977
1838819
1839038
1839078
1839095
1839166
1839185

January 1932

*1839481
1839922
1840145
*1840282
1841122
*1841158
1841162
*1842937
1842958
1842963
1842967
1842972
*1843476
1843728
1843743
1844683
1844699
1844705
1844710
1845789
*1845997
*1845998
1846887
*1847124
1847875
1847881
1847905
1847936
1847950
1848852
1848853
1848902

January 1932

*1849651
1849824
1849842
1849848
1849930
1850702
1850858
1851721
1851739
1852808
1852812
1852813
1852814
1852816
1852817
1852826
1852829
1852857
*1852865
1853964
1854007
1854952
1854966
1855885
*1855887
1855890
1857128
1857137
*1857178
1857182
1857194
1857196
1857215
1857220
*1858072
1859082
1859088
1859115
1859260
*1859614
1860154
1860158
1860165
1860183
*1860556
*1861404
*1862233
1862357
1862365
1863403
1863414
1863415
1863421
*1864678
1865273
1865410

July 1932

*1865449
1866347
1866367
1867384
1867394
1867398

July 1932

1867407
1867419
*1868443
*1869017
*1869058
*1869089
1869118
1869140
1869185
1869209
*1869308
*1869323
1869328
1869341
1869998
1870047
*1870551
1871393
1871410
1871437
1871472
1872530
*1873026
1873652
1873797
1874297
1874753
*1874785
*1874886
*1874936
*1875021
1875217
*1875219
1875280
1876515
*1878212
*1878558
1879388
1879561
1880092
*1880937
*1883111
1883663
1883839
*1883861
*1883862
1883912
1883927
1884140
1884432
1886682
1888070
1888071
1888075
1888836
1888846
*1889349
1889439
1889604
1889608
1889612
1889616
*1890302
1890327
1890344

July 1933

1891084
1891101
*1891357
*1891703
1891920
1891946
*1892397
*1892400
*1892552
*1892557

January 1933

*1893178
*1893180
1893354
1893772
1893873
1893874
1894113
1894117
1894197
*1894225
1894810
1894821
1894822
1894837
1895330
1895355
1895357
1895370
1895376
1895915
1895942
1895947
*1895983
1896074
1896093
*1896513
*1896780
1896841
1896847
1896849
1896850
1896855
1896856
1896857
1897260
1897850
1898060
1898068
1898827
1899540
1899556
1899591
*1900472
1900559
1900593
1900595
1901577
1901578
1901620
1901653
1902463
1902464

Digitized by Google

January 1933

1902480
1902481
1902484
1902488
1902490
1902492
1902494
1902498
1902501
1902510
1902792
*1902542
1904423
*1904472
1904485
1904487
1904559
1904561
1904565
1904594
1905689
1905710
1905790
1905801
1906463
1906476
1906812
1906820
1906829
*1907478
*1907723
*1909051
1910204
1911042
1911063
1912003
1912006
1913176
1913186
1913200
1913201
1913203
1913208
1914207
1914219
1914327
1915059
1915069
1915967
1916014

July 1933

1918030
1918070
1919079
*1919160
1919933
1919935
1919949
1919969
1919970
1919975
1919979
1919980
1919985
1919986
1919991
1919992
1919996
*1920342
1920748
1920764
1920783
1920818
1920845
*1920903
*1921067
1921126
1921127
1921204
*1921432
*1921433
1921687
1921728
1921786
1922862
1923718
1923719
1924318
1924319
1924375
1925881
1925903
*1927681
1927792
1927796
1927812
1928457
1929143
1929218
1929259
1929271
1929272
1929313
*1929836
1930070
1930090
1930303
1930333
*1931036
1931104
1931129
1931373
1931455
1932264
1932278
1932924
1933306
1933346
1933347
1933348
*1933581
1934419
1934483
1935413
1935415
1935428
1935432
1935442
1935448
1935595

July 1933

1936419
*1936423
1936469
*1937108
1937352
1937370
1937371
1937375
1937377
1937431
1938382
1938408
1938431
1939435
1940311
1940318
*1940854
1941377

January 1934

1942052
1942059
1942063
1942074
1942079
*1942260
*1943086
*1943087
1943096
*1943394
1944044
1944084
1944090
1944107
1944730
1944740
1944764
1944988
*1945040
1945389
*1946147
1946282
1946299
1947172
*1947182
1947189
1947224
1947236
1947240
1947291
1948350
1950199
1950200
1951124
1952153
1952185
1952188
*1952826
*1953554
*1953781
1953789
1953805
1953812
1954142
*1954147

January 1934

1954661
1955545
1955560
1955701
1955702
*1955800
1956136
*1956409
*1956410
1957220
1957223
*1957232
*1957233
1957237
*1957752
1958243
1958245
1958250
1958260
1959173
1959196
1959200
1960050
1960057
1960060
1960066
1960067
*1961381
1961780
1961805
1961813
1961822
*1962059
1962902
1962929
1963846
1964454
1964464
1964525
1964548
1964684

July 1934

1965329
1965359
1965361
1965371
1965416
1965428
1965432
1967091
1967852
1967869
1967880
1967887
1967888
*1968060
1968569
1968574
1968600
1968629
1969495
1969517
1969518
1969532

Digitized by Google

July 1934

1969536
*1969544
1969708
1970393
1970423
1971189
1971196
1971199
1971212
1971833
1971840
1972688
*1973037
*1973097
1973265
*1973437
1973520
1973538
*1974297
1974298
1974312
1974983
1974984
1974991
*1975217
1975564
1975569
1976488
1976557
*1977394
*1977999
1978165
1979096
1979102
1979108
1979928
1979953
1979954
1979970
1980799
1980830
1981528
1982350
1982386
*1983306
1983331
1983362
1983386
1995065
1985070
1985087

January 1935

1985978
1985982
1985986
1986003
1986031
1986608
1986610
1986619
1987438
1987447
1988291

January 1935

1988299
1988319
1988927
*1988958
1989483
*1990351
1990366
1990766
1991910
1992268
*1992787
1992835
*1992836
1993612
1993613
1994320
1994321
1994324
1994325
1995144
1995162
1895185
1995875
*1995879
1995884
1995894
1996599
1996605
1996606
1997478
1998325
1998938
1998940
1998947
1998958
1999852
1999880
2001513
2001567
2002371
2002372
2002444
2003990
2003991
2004004
2004769
2004771
2004781
2004792
2004998
2005496
*2006097
2006173
2006179
2006231
2006321

July 1935

2006928
2006966
2006992
2007757
2007772
2008511

July 1935

2008524
2008537
2008540
2009120
2009121
2009124
2009166
2009383
*2009790
*2009791
2009792
2009813
2009853
2009979
2010695
2010710
2010711
2010721
2010722
2011779
2012821
2014960
2016149
*2016917

Reissue

14545

1918

*14572
14891
14927
*14967
*15115
15278
*15441
*15469
15495
*15538
*15727
15838
*16031
16121
16126
*16195
16201
*16383
16540
*16654
16667
*16803
16966
17061
17062
*17068
17108
*17171
*17245
*17247
*17355
*17356
*17358
*17359

1918

*17612
*17909
17953
18169
18398
*18579
*18621
18678
*18916
19034
*19630

Design

1922

*61605

1923

62570
63050

1924

*64335
65569

1925

67655
68207
68575

1926

69660
*69769
*70287
*70632
*70633
*72336
*72495
*73439
*74574
*74619
75769
75823
*76548

1929

77680
*77779
78973
80225

1930

80310
81004
*81068
81420
81582
*81691
*81692
81788
82407

Digitized by Google

1931

83058
83208
*83642

1932

86308
*86426
*86428
*86430
*86804
*87078
*87236

1932

*87237
87321
*87655
*87939
*87940
88082
*88437
*88438

1933

*89076
89736

1933

89993
89994
90042

1934

91983
92049
92690
92691
*92765
92958
92959
93619

1934

92979
*94062

1935

94322
94558
94559
94892
94986
95451
96422
96497
96782

General Electric Co. patents (other than lamp patents) specifically listed in license agreements providing for royalty payments. Numbers of letters patent follow:

1287217
1287441
1287542
1289823
1290930
1294422
1294627
1297188
1306559
1304283
1304469
1310060
1310067
1313078
1313094
1313205
1313666
1313671
1315939
1316955
1316975
1320874
1323836
1325265
1330707
1331940
1334799
1337040
1337072
1337105
1339466
1344260
1344941
1348646
1350925
1350936
1352235
1352307
1353684
1357688
1367341
1374711
1378526
1388645
1390243
1393520
1393550
1394935
1400824
1404004
1404268
1408000
1414180
1415321
1422553
1423956
1425851
1430854
1432442
1441527
1443193
1444454
1456107
1456110
1456438
1457701
1459967
1461571
1462350
1462362
1465474
1465822
1471315
1471316
1471317
1472518
1472716
1475177
1475190
1477367
1477797
1481606
1488919
1489528
1490742
1491385
1493247
1497332
1498034
1498273
1501017
1501078
1503982
1505145
1506636
1508358
1508656
1510328
1512191
1512240
1512923
1519498
1522204
1522271
1522988
1522991
1527250
1528581
1531039
1532077
1535835
1537353
1537875
1539810
1540174
1542863
1543497
1544906
1548799
1549615
1550153
1551333
1552184
1554720
1555204
1558437
1563744
1564849
1567592
1567839
1567863
1567864
1568702
1574562
1579051
1580809
1581902
1583496
1487466
1589094
1589164
1589298
1592276
1593392
1594069
1603063
1603878
1611526
1619692
1619758
1620155
1621341
1622594
1623825
1628415
1633805
1634969
1640434
1641732
1648686
1650897
1652893
1654948
1655261
1655389
1658713
1659590
1668365
1672664
1675271
1684268
1689693
1694291
1703643
1703644
1703645
1703646
1703647
1703648
1706171
1706172
1708785
1713200
1717196
1717250
1719866
1721367
1721416
1723846
1728909
1731166
1733039

Digitized by Google

1740343	1830533	1897260	1968556
1742097	1833798	1898790	1968569
1742971	1833861	1898840	1970393
1748026	1834864	1899548	1971818
1751403	1835922	1899591	1971907
1751781	1835965	1900537	1975569
1756857	1836180	1901577	1977325
1760546	1841147	1901578	1978233
1760583	1843768	1902463	1979148
1768432	1847484	1902464	1979928
1770851	1847950	1902477	1980151
1770877	1848437	1902487	1981535
1772743	1848438	1902507	1981536
1774461	1849817	1904595	1986024
1774849	1849846	1905691	1989551
1783054	1850702	1905803	1993520
1783234	1852826	1912016	1995878
1783364	1857079	1918151	1996710
1786844	1857178	1919935	1999004
1790152	1860164	1921756	2001525
1790153	1860793	1931373	2004769
1794222	1866372	1931455	2007765
1794300	1867383	1933312	2010710
1797060	1869308	1933313	
1799134	1872530	1933347	*Reissue*
1801133	1879528	1933348	
1803174	1888075	1935413	17061
1805473	1888849	1936470	17062
1805513	1889923	1943114	18889
1806197	1892397	1943124	19057
1806198	1892400	1944730	
1806199	1892551	1947274	*Design*
1810615	1893376	1950182	
1812811	1893873	1951225	89993
1819881	1893874	1952097	89994
1819882	1894836	1956723	92690
1823731	1895396	1964864	94322
1829623	1896841	1965329	
1829648	1896857	1967091	

Patents are not listed in the following licenses:

License granted to Cameron Surgical Specialty Co. under patents on cauterodyne apparatus—defined as "apparatus used for surgical operations comprising a source of high frequency oscillations and means for applying the high frequency oscillations developed by said source to the flesh of a patient to produce an incision therein." Does not include right to make vacuum tubes.

License granted to Burdick Corporation under patents on electromedical apparatus defined as "apparatus adapted to be used for medical and surgical purposes, comprising a source of high frequency oscillations and means for applying the high frequency oscillations developed by said source to human or animal flesh." Does not include right to make vacuum tubes.

License to Atlantic Precision Co. to manufacture apparatus for measuring or indicating variations in thickness during the process of manufacture of products such as pulp products, felt, paper and textiles, rubber, glass, celluloid products, artificial and natural leather, rope, cellophane, etc., etc.

License granted to Leeds and Northrup under patents covering vacuum tubes, and the use of vacuum tubes as amplifiers, detectors, and oscillators for use in electrical measuring instruments and devices particularly adapted for laboratory use, and uses for which instruments of high degree of precision are required.

License granted to Babcock & Wilcox Co. under patents covering Mercury Boiler Constructions and the like, sold and used for process purposes.

Digitized by Google

LICENSEES OF GENERAL ELECTRIC CO.

Air Conditioning & Eng. Corporation.
Ajax Electrothermic Corporation.
Allen-Bradley Co.
Allis-Chalmers Co.
American Blank Co.
American Cyanamid Co.
American Electrical Works.
American Instrument Co.
American Steel & Wire Co.
American Telephone & Telegraph Co.
American Transformer Co.
Ames, B. C. Co.
Anaconda Wire & Cable Co.
Arrow-Hart & Hegeman Electric Co.
Atlantic Precision Instrument Co.
Atwood & Morrill Co.
Automatic Reclosing Circuit Breaker Co.
Babcock & Wilcox Co.
Bakelite Corporation.
Baldwin-Southwark Corporation.
Bausch & Lomb Optical Co.
Beaver Manufacturing Co.
Beck, Koller & Co.
Bigelow Co.
Blaw-Knox Co.
Brooklyn Edison Co.
Bryant Electric Co.
Burdick Corporation.
Busch-Sulzer Bros. Diesel Engine Co.
Cameron Surgical Specialty Co.
Carboloy Co.
Central Electric Co.
Central Steel & Wire Co.
Champion Switch Co.
Chicago Miniature Lamp Works.
Chicago Pneumatic Tool Co.
Chicago Steel & Wire Co.
Circle F. Manufacturing Co.
Cleveland Electric Illuminating Co.
Commonwealth Edison Co.
Condit Electric Manufacturing Co.
Consumers Gas & Electric Light & Power Co.
Consolidated Electric Lamp Co.
Continental Diamond Fibre Co.
Controweld Corporation.
Cook Electric Co.
Cooper Oven Thermostat Co.
Cooper Products, Inc.
Cornell Dubilier Corporation.
Corning Glass Works.
Crouse Hinds Co.
Cutler-Hammer Manufacturing Co.
Delta-Star Electric Co.
Detroit Lubricator Co.
Dravo Contracting Co.
Dubilier Corporation.
Duncan Electric Manufacturing Co.
du Pont de Nemours & Co., E. I.
Duquesne Light Co.
Earl, Moffat & Co.
Economic Lamp Co.
Edison Electric Appliance Co.
Edison Electric Illuminating Co., Boston.
Electrical Facilities, Inc.
Electrical Products, Consolidated.
Electric Arc Cutting & Welding Co.

Digitized by Google

Electric Controller & Manufacturing Co.
Electric Furnace Co.
Electric Machinery Manufacturing Co.
Electric Power & Equipment Corporation.
Electric Sorting Machine Co.
Electric Vacuum Cleaner Co.
Elevator Supplies Co., Inc.
Elkon Works.
Fairbanks, Morse & Co.
Ferro Enamel Corporation.
Ferrous Magnetic Corporation.
Fessenden Ellis Co.
Fibre Conduit Co.
Fisher Scientific Co.
Frigidaire Corporation.
Frostoff Co., Inc.
Gamewell Co.
General Cable Corporation.
General Electric Vapor Lamp Co.
General Household Utilities Co.
General Motors Corporation.
General Radio Co.
Gibbs, Thomas B. & Co.
Glidden Co.
Green Fuel Economizer Co.
Grigsby-Grunow Co.
Habirshaw Cable & Wire Corporation.
Hagan, George J. Co.
Handy & Harman.
Haughton Elevator & Machine Co.
Hilliard Corporation.
Hinde & Dauch Paper Co.
Holcroft & Co.
Holophane Co., Inc.
Hoof, J. C. Co.
Horton Manufacturing Co.
Hubbell, Harvey, Inc.
Hygrade-Sylvania Corporation.
Indiana Steel & Wire Co.
Ingersoll-Rand Co.
International Derrick & Equipment Co.
International Filter Co.
International Motor Co.
International Nickel Co.
International Paper Co.
ITE Circuit Breaker Co.
Jefferson Electric Co.
Johns Manville Co.
Jones-Dabney Co.
Journal Box Servicing Corporation.
Kenworthy, Chas. F., Inc.
Kentucky Electric Lamp Co.
Kimble Glass Co.
Kollsman Instrument Co., Inc.
Leeds & Northrup Co.
Lehigh Structural Steel Co.
Locke Insulator Corporation.
Lubri-Zol Corporation.
Magnetic Analysis Corporation.
Majestic Manufacturing Co.
Mallory, P. R. Co.
Memco Engineering & Manufacturing Co.
Metro-Goldwyn-Mayer Corporation.
Mica Insulator Co.
Milwaukee Railway & Light Co.
Mines Equipment Co.
Minneapolis Honeywell Regulator Co.

Digitized by Google

Mole Richardson, Inc.
Moloney Electric Co.
Nachfolger, E. Leybold's A. G.
Narragansett Electric Lighting Co.
National Carbon Co.
Neon, Claude, Displays, Inc.
Neon, Claude, Electric Products Corporation.
Neon, Claude, Federal Co.
N. Y. Edison Co.
Nineteen Hundred Corporation.
Okonite-Callender Cable Co.
Oliver Iron Mining Co.
Paraffine Companies, Inc.
Pass & Seymour, Inc.
Peerless Ice Machine Co.
Penn Electric Switch Co.
Philadelphia Electric Co.
Pioneer Instrument Co., Inc.
Pratt & Lambert, Inc.
Public Service Co. of New Jersey.
Radio Corporation of America.
Raybestos Manhattan, Inc.
Ramet Corporation.
Resinous Products & Chemical Co.
Rochester Gas & Electric Corporation.
Rockwell, W. S. Co.
Roebling's Sons Co., John A.
Sangamo Electric Co.
Scheepers, John, Inc.
Semet-Solvay Engineering Corporation.
Servel, Inc.
Signal Service Co.
Simmons Co.
Simonds Saw & Steel Co.
Simplex Wire & Cable Co.
Smith, A. O. Corporation.
South Bend Current Controller Co.
Sperry Gyroscope Co.
Square D Co.
Standard Transformer Co.
Stanley Works.
Submarine Signal Co.
Sun-A-Sured, Inc.
Surface Combustion Corporation.
Swindell-Dressler Corporation.
Thomson Electric Welding Co.
Thomson-Gibb Electric Welding Co.
Thwing Instrument Co.
Tokheim Oil Tank & Pump Co.
Toledo Scale Manufacturing Co.
Transglo Corporation.
Tung-Sol Lamp Works, Inc.
Una Welding Co., Inc.
Union Elcctric Light & Power Co.
Union Gas & Electric Co.
U. S. A.
Utica Gas & Electric Co.
Valentine & Co.
Valspar Corporation.
Vanadium Co.
Waltham Watch Co.
Warren Telechron Co.
Wean Engineering Co.
Weber Elcctric Co.
Western Electric Co.
Westinghouse Electric & Manufacturing Co.
Weston Electrical Instrument Co.
Yale & Towne Manufacturing Co.

Digitized by Google

FORTY-THIRD ANNUAL REPORT, GENERAL ELECTRIC CO., 1934

General Electric Co., earnings and dividends per share of common stock, 1899–1934

Year	Earnings [1]	Cash dividends paid	Stock dividends declared
1899	$27.46	$3.00	
1900	30.99	7.50	
1901	44.80	8.00	
1902	30.02	8.00	66⅔ percent in common stock.[2]
1903	17.76	8.00	
1904	14.59	8.00	
1905	15.17	8.00	
1906	15.52	8.00	
1907	10.17	8.00	
1908	7.37	8.00	
1909 [3]	9.96	8.00	
1910	16.66	8.00	
1911	14.55	8.00	
1912	16.20	8.00	30 percent in common stock.
1913	12.88	8.00	
1914	11.03	8.00	
1915	11.56	8.00	
1916	18.31	8.00	
1917	26.50	9.00	2 percent in common stock.
1918	14.93	8.00	4 percent in common stock.
1919	20.93	8.00	Do.
1920	16.62	8.00	Do.
1921	12.92	8.00	Do.
1922	14.86	8.00	5 percent in special stock.[4]
1923	18.40	8.00	Do.[4]
1924	21.13	8.00	5 percent in special stock (d) and 1 share of Electric Bond & Share Securities Corporation stock.
1925	20.49	8.00	5 percent in special stock.[4]
1926:[5]			
Old		4.00	
New	6.14	1.50	$1 in special stock.[4]
1927	6.41	4.50	
1928	7.15	5.00	
1929	8.97	6.00	
1930:[5]			
Old		1.50	
New	1.90	1.20	
1931	1.33	1.60	
1932	.41	.85	1/6 share of Radio Corporation of America common stock.
1933	.38	.40	
1934	.59	[6].55	

[1] Profit available for dividends on common stock per share of average common stock outstanding.
[2] To restore a 40 percent reduction in common stock made in 1898.
[3] 11 months.
[4] Special stock, par value $10 per share, paying 6 percent annual dividends.
[5] Number of shares of common stock increased 4 for 1 in May 1926, and again in January 1930.
[6] Dividends declared amounted to 60 cents, that for the last quarter being paid Jan. 25, 1935.

Statement of income and earned surplus

	1934	1933
Net sales billed	$164,797,317.19	$136,637,268.03
Costs, expenses, and all charges except depreciation and interest	145,716,209.84	123,585,652.40
	19,081,107.35	13,051,615.63
Depreciation of plant and equipment	7,335,997.07	6,179,511.26
Net income from sales	11,745,110.28	6,872,104.37
Income from other sources:		
Interest and dividends from affiliated companies and miscellaneous investments [1]	5,608,910.72	4,376,970.69
Interest on marketable securities	1,339,881.37	717,342.24
Interest on bank balances and receivables	742,831.12	1,266,460.44
Royalties and sundry revenue	655,462.34	606,574.85
	8,347,085.55	6,967,348.22
Total income	20,092,195.83	13,839,452.59

[1] For General Electric Co.'s proportion of the undistributed earnings or losses of affiliated companies, see p. 9.

Digitized by Google

Statement of income and earned surplus—Continued

	1934	1933
Interest charges	$366,152.26	$409,713.72
Net income for the year	19,726,043.57	13,429,738.87
Earned surplus at beginning of year	117,621,616.44	122,224,719.74
	137,347,660.01	135,654,458.61
Revaluation of investments	1,195,792.85	3,920,209.62
	136,151,867.16	131,734,248.99
Regular 6 percent cash dividends on special stock	2,575,074.00	2,575,056.75
Accrued dividend of 15 cents a share on special stock, payable Apr. 15, 1935	643,770.15	
Premium on special stock	4,292,963.50	
Earned surplus available for dividends on common stock	128,640,059.51	129,159,192.24
Cash dividends on common stock	17,306,379.30	11,537,575.80
Earned surplus at end of year	111,333,680.21	117,621,616.44

Balance sheet, Dec. 31, 1934, and 1933

ASSETS	1934	1933
Current assets:		
Cash	[1] $58,667,466.42	$60,901,643.87
Marketable securities, at the lower of par or market	[1] 49,282,533.00	50,976,864.16
Accounts and notes receivable, less reserves:		
Customers' accounts	10,566,640.27	11,594,524.34
Affiliated companies' accounts	3,821,206.54	3,487,891.24
Other accounts	1,994,237.11	1,685,273.24
Customers' notes	2,900,023.03	1,539,758.05
Other notes	68,500.00	33,430.90
Installation work in progress, less reserve	3,947,307.20	3,527,922.54
Inventories, at the lower of cost or market, less reserves	51,313,973.01	45,467,409.19
	182,561,886.58	179,214,717.53
Less advance collections on contracts	5,292,836.64	3,900,323.36
Total current assets	177,269,049.94	175,314,394.17
Other assets:		
Accounts and notes receivable not current, less reserves	1,467,835.65	2,268,763.47
Loans to employees, less reserves	115,127.06	277,795.53
Advances to employees for traveling expenses	122,574.54	125,807.13
Prepaid expenses	141,433.16	225,107.12
Total other assets	1,846,970.41	2,897,473.25
Investments:		
Affiliated companies (including advances):		
International General Electric Co., Inc	51,140,924.00	61,860,300.00
Investment companies	56,190,795.35	49,856,490.35
Manufacturing, selling, real estate, and other companies	42,439,472.20	33,559,051.82
Miscellaneous:		
In portfolio	6,501,951.01	7,651,581.77
In escrow [2]	2,698,769.00	1,754,917.00
Total investments	158,971,911.56	154,682,340.94
Fixed assets:		
Plant and equipment, at cost	186,645,688.55	191,640,236.87
Less depreciation reserves	146,793,494.65	149,397,744.11
	39,852,193.90	42,242,492.76
Patents and franchises	1.00	1.00
Total fixed assets	39,852,194.90	42,242,493.76
	377,940,126.81	375,136,702.12

[1] Amount required for retirement of special stock on Apr. 15, 1935. $47,866,368.65.
[2] Deposited as guaranties under State compensation laws and under contracts.

Digitized by Google

Balance sheet, Dec. 31, 1934, and 1935—Continued

	1934	1933
LIABILITIES AND CAPITAL		
Current liabilities:		
Accounts payable	$5,730,806.92	$4,385,522.40
Taxes, pay rolls, and other secured items	5,591,395.41	4,813,893.49
Due to affiliated companies	525,000.00	575,000.00
Cash dividends unpaid:		
Special stock:		
Regular fourth quarter	643,770.15	643,765.95
Payable Apr. 15, 1935	643,770.15	
Common stock—regular fourth quarter	4,326,595.20	2,884,394.90
Total current liabilities	17,461,337.83	13,302,576.74
Accounts payable subsequent to 1 year	587,221.10	626,762.08
Collections under employees' plans	2,759,859.96	3,904,690.80
Charles A. Coffin Foundation	400,000.00	400,000.00
Reserves for self-insurance, workmen's compensation, etc	6,687,332.00	4,863,323.85
General reserve	9,154,051.21	9,154,051.21
Debenture bonds 3½ percent due 1942 (to be retired Aug. 1, 1935,) at 105 percent and accrued interest)	2,047,000.00	2,047,000.00
Premium on special stock (to be retired Apr. 15, 1935)	4,292,963.50	
Special stock (6-percent cumulative): Authorized 5,500,000 shares, par value $10; issued 4,292963½ shares (to be retired Apr. 15, 1935)	42,929,635.00	42,929,635.00
Common stock and earned surplus:		
Common stock (authorized 29,600,000 shares no par value; issued 28,845,927$^{39}/_{100}$ shares)	180,287,046.00	180,287,046.00
Earned surplus	111,333,680.21	117,621,616.44
Total common stock and earned surplus	291,620,726.21	297,908,662.44
	377,940,126.81	375,136,702.12
Contingent liabilities: Employees' home ownership plan	837,800.00	1,180,925.00

This and other contingent liabilities are covered by the general reserve.

PEAT, MARWICK, MITCHELL & CO.,
ACCOUNTANTS AND AUDITORS,
New York, March 4, 1935.

TO THE BOARD OF DIRECTORS OF THE GENERAL ELECTRIC CO.,
New York City.

DEAR SIRS: We have made an examination of the balance sheet of the General Electric Co. as at December 31, 1934, and of the statement of income and earned surplus for the year 1934. In connection therewith, we examined or tested accounting records of the company and other supporting evidence and obtained information and explanations from officers and employees of the company; we also made a general review of the accounting methods and of the operating and income accounts for the year, but we did not make a detailed audit of the transactions.

We have confirmed the cash and securities by count and inspection or by certificates which we have obtained from the depositaries. We have made independent examinations of the accounts of the International General Electric Co., Inc., G. E. Employees Securities Corporation, General Electric Realty Corporation and General Electric Contracts Corporation, on which we have separately reported. The accounts of Electrical Securities Corporation have been examined and reported upon by other public accountants. No examination has been made by us of other companies which are controlled through stock ownership, but balance sheets of these companies have been submitted to us. The amounts at which the Investments in affiliated companies (including advances) are carried are based on the accounts thus examined and the balance sheets submitted, and including Miscellaneous Investments, in our opinion, are conservatively stated.

We have scrutinized the accounts and notes receivable and believe that full provision has been made for probable losses through bad and doubtful debts.

Certified inventories of merchandise, work in progress, and materials and supplies have been submitted to us and we have satisfied ourselves that these inventories have been taken in a careful manner, that ample allowance has been made for inactive and obsolete stocks and that they are conservatively stated at not in excess of cost or market, whichever is lower. Provision has also been made for probable allowances or additional expenditures on completed contracts.

Digitized by Google

Expenditures capitalized in the plant and equipment accounts during the year were properly so chargeable as representing additions or improvements. Adequate provision has been made in the operating accounts for repairs, renewals, and depreciation.

In our opinion, based upon such examination, the accompanying balance sheet and related statement of income and earned surplus fairly present, in accordance with accepted principles of accounting consistently maintained by the company during the year under review, its position at December 31, 1934, and the results of its operations for the year.

Yours truly,

PEAT, MARWICK, MITCHELL & Co.

SCHENECTADY, N. Y., *March 25, 1935.*

To the Stockholders of the General Electric Co.:

Orders received amounted to $183,660,303 during 1934, compared with $142,770,791 during 1933, an increase of 29 percent.

Sales billed (representing shipments) amounted to $164,797,317 during 1934, compared with $136,637,268 during 1933, an increase of 21 percent.

Statistics compiled by the United States Department of Commerce indicate that your company continued to secure substantially the same proportion of the total business available to the industry.

CURRENT ASSETS

Cash and marketable securities.—Cash and marketable securities amounted to $107,949,999.42 on December 31, 1934, compared with $111,878,508.03 at the close of 1933. Marketable securities, valued at the lower of par or market, amounted to $49,282,533, and consisted of $30,900,533 of United States Government obligations or those guaranteed by the Government, and $18,382,000 of Federal Intermediate Credit Bank notes and high-grade State and municipal obligations. Approximately 99 percent of the entire portfolio comes due within 5 years.

Approximately $47,866,400 of cash will be required to retire the special stock, including the accrued dividend, on April 15, 1935.

Inventories.—Inventories in factories and warehouses and on consignment have been valued, in accordance with the custom of your company, at the lower of cost or market. After deducting reserves for slow moving and obsolete stocks and contingencies, they were carried at $51,313,973.01, compared with $45,467,409.19 at the end of 1933. The increase of 13 percent resulted from a 29 percent greater volume of orders received, and from a larger amount of unfilled orders at the end of the year.

OTHER ASSETS

Restricted balances in closed banks at the end of 1933 amounted to $2,750,326, against which reserves of $1,261,990 had been set up to cover possible ultimate losses. These balances were reduced by dividends and adjustments to $1,436,351 at the end of 1934, against which there were reserves of $713,539. Losses realized during 1934 amounted to $219,956.

Loans to employees have been substantially reduced, and all except $3,563 were fully secured. The unsecured portion was covered by a reserve of equal amount. There were no loans to officers or directors of the company.

INVESTMENTS

General.—Revaluation of investments resulted in a charge to earned surplus of $1,195,792.85 (p. 3), leaving a final valuation of $158,971,911.56, compared with $154,682,340.94 at the end of 1933.

Investments in and advances to affiliated companies (which are all companies controlled through stock ownership) are carried on the books at an amount which is adjusted annually by charges or credits to surplus to reflect changes in their net worth, determined on the same general basis of accounting as that followed by the General Electric Co.

All other securities of an investment character are adjusted either to market prices, where there is an established market, or to estimated fair values, where no market exists, but the principle is followed of not valuing any group in excess of its cost.

Foreign currencies are converted at or below the rates current on December 31, 1934, and not in excess of the par of exchange existing in March 1933. The

Digitized by Google

general principle followed is to convert gold currencies at former parity, and currencies not on a gold basis, or where exchange or transfer restrictions exist, at rates which are lower than the "nominal" rates, to provide a reasonable margin of safety.

Interest and dividends received from affiliated companies in the United States, from Canadian General Electric Co., Ltd., and from International General Electric Co., Inc., are included in the "Statement of income and earned surplus" as part of "Interest and dividends from affiliated companies and miscellaneous investments." Total income from affiliated companies and miscellaneous investments amounted to $5,608,910.72, which included dividends of $4,314,200.86 received from affiliated companies. Your company's proportionate share in the excess of losses over undistributed earnings of these companies for 1934 was approximately $75,000, and this amount has been provided for in the revaluation of investments.

Income from affiliated companies and miscellaneous investments was 3.6 percent of the average value of such investments at the beginning and end of the year, compared with 2.8 percent for 1933.

The companies reviewed in succeeding paragraphs represent 90 percent of the value of your company's investments in affiliated companies, and contributed 93 percent of the net income derived therefrom.

Foreign business.—International General Electric Co., Inc., which conducts the export and foreign business of your company outside of Canada, had a profit available for interest on capital advances and dividends of $2,263,549 for 1934 compared with $2,302,499 for 1933. Interest on capital advances and cash dividends paid in 1934 amounted to $2,143,986, compared with $1,500,000 in 1933. International General Electric Co.'s proportionate share in the excess of undistributed earnings over losses of its affiliated companies for 1934 was approximately $1,300,000.

Canadian General Electric Co., Ltd., reported a profit of $989,166 for 1934, compared with $635,176 for 1933. Cash dividends were paid at an annual rate of 7 percent ($3.50 a share) on the preference stock, and 6 percent ($3 a share) on the common stock.

G. E. Employees Securities Corporation.—Earnings of G. E. Employees Securities Corporation were $1,505,920 for 1934, compared with $1,724,680 for 1933. Cash dividends were paid at an annual rate of 8 percent ($8 a share) on the preferred stock, and in the amount of $800,000 on the common stock. Further information pertaining to this corporation appears on page 15.

United Electric Securities Co.—United Electric Securities Co. was liquidated in 1934. Electrical Securities Corporation purchased its more important assets, consisting principally of stocks, bonds and notes, at market prices where there was an established market, and at prices determined by an independent appraisal where there was no established market. The amount realized by your company from the liquidation was $16,658,884, which was $2,015,117 less than the amount at which the investment was valued on your company's books. This difference was taken into account in the revaluation of investments.

Electrical Securities Corporation.—Your company increased its permanent investment in Electrical Securities Corporation by taking 250,000 additional shares of its no par value common stock for $6,250,000, and by adding $6,000,000 to its paid in capital surplus. Your company also advanced $4,645,000, for which notes of Electrical Securities Corporation are held.

Earnings of Electrical Securities Corporation were $2,302,981 for 1934, compared with $2,250,551 for 1933. Cash dividends were paid at an annual rate of $5 a share on the preferred stock, and in the amount of $1,219,000 on the common stock.

General Electric Contracts Corporation.—Your Company advanced $6,675,000 to General Electric Contracts Corporation in 1934 to finance the growth of the installment financing business, making a total of $11,100,000 invested in this corporation at the end of the year.

Gross volume of contracts purchased was $17,034,153 during 1934, compared with $6,580,473 during 1933, and operations resulted in a net profit, after all charges except interest, of $217,879.

General Electric Realty Corporation.—The largest holding of the General Electric Realty Corporation is the General Electric Building in New York City, which houses the New York executive and sales offices and the New York offices of a number of affiliated companies. Rental for space occupied by your company is charged at market rates which are considerably below those previously paid in other locations. Other tenants bring the occupancy to a point where, in

Digitized by Google

1934, after full depreciation and other charges, there was a small return on the investment.

FIXED ASSETS

Plant and equipment

Cost, Dec. 31, 1933		$191, 640, 236. 87
Added during 1934		5, 263, 322. 47
		196, 903, 559. 34
Dismantled, sold, or otherwise disposed of during 1934		10, 257, 870. 79
Cost, Dec. 31, 1934		186, 645, 688. 55
Depreciation reserves, Dec. 31, 1933	$149, 397, 744. 11	
Added by charges to income during 1934	7, 335, 997. 07	
Proceeds from sales, etc., during 1934	317, 624. 26	
	157, 051, 365. 44	
Less cost of equipment dismantled, sold, or otherwise disposed of during 1934	10, 257, 870. 79	
		146, 793, 494. 65
Net book value, Dec. 31, 1934		39, 852, 193. 90

COLLECTIONS UNDER EMPLOYEES' PLANS

Collections under the unemployment emergency plan, formerly included in the balance sheet under this head, have been transferred to the General Electric employees' unemployment pension plan trust, thus accounting for most of the reduction from $3,904,690.80 to $2,759,859.96.

DEBENTURE BONDS

The board of directors voted, on December 28, 1934, to retire all outstanding bonded indebtedness of your company on August 1, 1935. This consists of $2,047,000 of 3½-percent gold debenture bonds, issued August 1, 1902, due August 1, 1942, and redeemable at 105 percent and accrued interest.

CAPITAL STOCK AND DIVIDENDS

There were no changes during the year in the special or common stock outstanding. Regular quarterly cash dividends of 15 cents a share on the special stock were declared. Four quarterly cash dividends of 15 cents each were declared on the common stock, that for the last quarter being paid on January 25, 1935.

The board of directors voted, on Devember 28, 1934, to retire all of the outstanding special stock of the company on April 15, 1935, at $11 a share and accrued dividends. Notice to this effect has been mailed to stockholders.

There are outstanding 4,292,963½ shares of special stock with a par value of $10 each. Payment of the retirement price of $11 a share and the accrued dividend of 15 cents will require approximately $47,866,400. This amount will be taken from current funds, and will leave sufficient cash for the operation of the business. Because of the prevailing low interest rates, and the absence of all interest on demand deposits, it is estimated that the company will save, by retirement of this special stock, the greater part of the dividends thereon, which amount annually to more than $2,575,000. The saving will accrue to the benefit of the holders of its common stock.

All of the special stock was originally distributed to holders of common stock as stock dividends. Approximately 65 percent of the outstanding shares of special stock are owned by holders of common stock.

STOCKHOLDERS

On December 28, 1934, there were 196,248 stockholders, compared with 188,316 on December 29, 1933. Of the 196,248 on December 28, 1934, 184,973 owned common stock and 11,275 owned special stock only.

Digitized by Google

ORGANIZATION CHANGES

George F. Baker requested that his name should not be presented for reelection as a director at the annual meeting on April 17, 1934.

Francis D. Bartow was elected a director on October 26, 1934, to fill an existing vacancy.

Robert Treat Paine, 2d, resigned as a director on November 23, 1934.

Theodore W. Frech resigned as vice president in charge of the incandescent lamp department on May 25, 1934. Mr. Frech remains with the company in an advisory capacity.

The following vice presidents were elected on May 25, 1934:

Hardage L. Andrews, in charge of activities connected with the electrification of steam railroads.

Joseph E. Kewley, in charge of the incandescent lamp department.

Roy C. Muir, in charge of the engineering department.

Earl O. Shreve, in association with Vice President John G. Barry, in charge of the commercial activities of the apparatus and supply business.

Charles E. Tullar, in charge of the patent department

William O. Batchelder, manager of the central district, was elected a commercial vice president on May 25, 1934, and will continue to have charge of commercial activities in that district.

EMPLOYEES AND PAY ROLL

The average number of employees of your company, not including those of affiliated companies, was 49,642 in 1934, compared with 41,560 in 1933. Total earnings of these employees amounted to $75,227,000 for 1934, and $55,287,000 for 1933, and average annual earnings per employee were $1,515 and $1,330 respectively, an increase of 13.9 percent.

Average annual earnings of employees for 1934 decreased 5.8 percent from 1923, compared with a decrease of 20.6 percent in the cost of living, according to the index of the National Industrial Conference Board.

Between March 1, 1933 (approximately the low), and December 31, 1934 (the high in 1934), the number of employees on the pay roll increased 36.7 percent, and the total annual pay-roll rate increased from $47,604,000 to $81,300,000, or 71 percent.

GENERAL PROFIT SHARING AND EXTRA COMPENSATION

The stockholders, at the annual meeting on April 17, 1934, authorized a supplementary compensation plan for employees in other than important and supervisory positions, now known as the general profit sharing plan, and approved the continuance of the extra compensation plans for employees in important and supervisory positions, including the executive officers.

Nothing was earned for 1934 under the general profit sharing plan. Under the extra compensation plans some departments earned in excess of 8 percent of the average investment. In these departments $854,627 is payable to 352 employees for 1934, compared with $824,696 payable to 295 employees for 1933. Nothing was earned for 1934 by any general executive not associated with a particular department.

EMPLOYEE PLANS

Group life and disability insurance.—At the close of 1934, approximately 49,200 employees were insured for $61,000,000 under the policy paid for by the company, and for $82,000,000 under the additional insurance plan paid for by employees, a total of $143,000,000.

Death and disability benefits paid during 1934 amounted to $1,124,508, consisting of $322,008 of company insurance and $802,500 of additional insurance. Since the inauguration of the first plan in 1920, payments aggregating $11,275,567 have been made, partly as death benefits to the families of 4,753 deceased employees, and partly as disability benefits to 716 employees.

Home ownership.—Three homes were acquired by employees under the home-ownership plan in 1934. During the past 11 years 2,735 homes, representing a value of $20,238,000, have been acquired or built by employees under the plan, which provides that second mortgages held by banks and other institutions may be guaranteed by the General Electric Co.

The total amount of mortgage guaranties was $5,280,474, which had been reduced by payments and adjustments to $837,800 at the close of 1934.

Total losses sustained by your company under this plan during its 11 years of operation have amounted to $112,365, of which $51,836 was incurred in 1934.

Digitized by Google

Savings.—During 1934 all of the outstanding 6-percent bonds of the G. E. Employees Securities Corporation were exchanged for 5-percent bonds or redeemed. The employee-owners of the 5-percent bonds will receive additional payments, up to a maximum of 2 percent, dependent upon and varying with the earnings of General Electric Co. when earnings reach or exceed 6 percent of its total common stock and earned surplus. No additional payment was earned or paid for 1934.

No offering of bonds has been made to employees since the enactment of the Securities Act of 1933. The savings of employees which were invested in bonds of the G. E. Employees Securities Corporation during its 11 years of existence have been of inestimable value, as they were utilized by many employees during the last few years. Despite substantial redemptions, 13,773 employees and former employees and their heirs, and the additional pension and stabilization of employment trusts, owned bonds on December 31, 1934, having a total value of $28,104,780, compared with 20,136 employees and $34,847,010, respectively, on December 31, 1933.

Pension and life retirement.—Company pension and life retirement payments aggregating $2,626,629 (the larger share of which was paid by the pension trust) were made during 1934 to 3,473 retired employees. Pension and life retirement payments, amounting to $13,041,666, have been made since the inauguration of the first plan in 1912. On December 31, 1934, there were 3,291 on the pension and life retirement rolls, whose average age was 67.1 years, whose average active service to date of retirement was 29.5 years, and whose average annual payment was $788.

The General Electric pension trust held assets of $23,021,649 on December 31, 1934, compared with $23,248,756 on December 31, 1933.

The additional pension plan has been established for 6½ years, during which period $273,795 has been added from this source to the amounts paid under the company pension plan. Payments made by employees to the additional pension trust, plus interest and less withdrawals, amounted to $6,000,812, which stood to the credit of 45,872 employees on December 31, 1934.

Assets of the General Electric pension trust and of the additional pension trust, title to which is vested in the respective trustees, are not included in the balance sheet of your company.

Employees unemployment pension plan.—The history of the General Electric employees unemployment pension plan and the unemployment emergency plan, since the inception of the original plan in 1930, has been given in former annual reports.

Administration of the plan is vested in boards of administrators, one-half of whose members are elected by and represent the employee participants, and the other half are appointed by the president and represent the company.

After months of study by the boards of administrators at the several works, the normal plan was amended to incorporate changes suggested by the experience of the past 4 years, and on November 1, 1934, the emergency was declared at an end and the amended normal plan became effective.

The fundamental principles of the original plan remain unchanged. One of the most important changes, urged by employees and adopted by the boards of administrators, provides for participation in the plan, as a mutual condition of employment, of all employees of the company except groups for which other protection against unemployment is provided by the company pursuant to law or otherwise, and salaried employees receiving more than $50 a week.

The company continues to give the plan its financial support, paying into the fund an amount equal to that paid by all employees. From the inauguration of the first plan in June 1930, to December 31, 1934, collections amounted to $6,047,000 as follows: $1,691,000 from employees eligible for benefits under the plan, $1,190,000 from other employees, $2,881,000 from the company, and $285,000 from retired employees, interest, etc. During the same period $3,288,000 was distributed as benefits, $646,000 was loaned (of which $279,000 has been repaid), and, on December 31, 1934, there was $2,392,000 in the trust fund.

Employment guarantee.—During 1934 the incandescent lamp department, under its stabilization of employment plan, guaranteed to employees compensated by hourly or piecework rates, and with 2 or more years of service, 62 percent of normal maximum hours prescribed by the code of the National Electrical Manufacturers Association, less time lost through illness and emergencies beyond

Digitized by Google

the control of the company. Approximately 3,000 employees were covered by this guarantee. During the 4 years that a guarantee of employment has been in effect, the employees have accumulated $116,733 in a trust fund for savings which is part of the plan. The plan has been renewed for 1935 with modifications making it available to all employees in the department with one or more years of service, except those receiving more than $50 a week

CHARLES A. COFFIN FOUNDATION

The following awards were made during 1934 under the provisions of the foundation:

The committee of the Edison Electric Institute awarded the Charles A. Coffin Medal to the Hartford (Conn.) Electric Light Co. for having made, during the previous year, distinguished contribution to the development of electric light and power for the convenience of the public and the benefit of the industry.

In addition to the medal, $1,000 was given to the Employees' Club of the Hartford Electric Light Co.

The committee representing the American Institute of Electrical Engineers, the Society for the Promotion of Engineering Education, and the National Academy of Sciences awarded Charles A. Coffin Fellowships to eight graduates of American colleges who desired to carry on postgraduate research work and who needed and were found worthy of assistance. Since the creation of the foundation 97 fellowships, aggregating $59,500, have been granted to 79 individuals (18 having received fellowships 2 years in succession).

A study of the fellowships granted has shown that of the 45 men to whom fellowships were awarded during the period 1923–29, the names of 27 appear in American Men of Science. Although the foundation has existed for only 12 years, many of the recipients of the fellowships have already made distinguished contributions in the field of research.

The advisory committee of your company awarded 32 Charles A. Coffin Foundation Certificates of Merit, accompanied by honorariums in cash, to employees for meritorious work and distinguished service. This group comprised 5 workmen in the shops, 1 tool designer, 9 foremen, 11 engineers, and 6 members of the commercial and administrative organizations.

The report of the independent auditors, attesting to the correctness of the financial statements, appears on page 6.

By order of the board of directors.

OWEN D. YOUNG, *Chairman.*
GERARD SWOPE, *President.*

BOARD OF DIRECTORS

Gordon Abbot, Charles F. Adams, Francis D. Bartow, Thomas Cochran, George P. Gardner, Francis L. Higginson, Jesse R. Lovejoy, Henry C. McElDowney, George F. Morrison, Marsden J. Perry, Seward Prosser, E. Wilbur Rice, Jr., Henry M. Robinson, Philip Stockton, Bernard E. Sunny, Gerard Swope, Burton G. Tremaine, Clarence M. Woolley, Owen D. Young.

OFFICERS

E. Wilbur Rice, Jr., honorary chairman of the board; Owen D. Young, chairman; Gerard Swope, president.

Honorary vice presidents: Cummings C. Chesney, Jesse R. Lovejoy, George Morrison, Burton G. Tremaine.

Vice presidents: Edwin W. Allen, Hardage L. Andrews, Charles W. Appleton, John G. Barry, William R. Burrows, Joseph E. Kewley, Roy C. Muir, Darius E. Peck, Theodore K. Quinn, Earl O. Shreve, Charles E. Tullar, Willis R. Whitney, Charles E. Wilson.

William D. Coolidge, director of the research laboratory; Samuel L. Whitestone, comptroller; Robert S. Murray, treasurer; William W. Trench, secretary.

Commercial vice presidents: Howel H. Barnes, Jr., William O. Batchelder, James A. Cranston, William J. Hanley, Charles K. West.

Charles Neave, counsel.

Digitized by Google

B. LICENSE—LARGE INCANDESCENT LAMPS

GENERAL ELECTRIC COMPANY, LICENSOR, AND _____ LICENSEE, _____, 193__

Agreement, made this first day of_____, 193__, between Electric Company, a New York Corporation, hereinafter referred to Licensor, and _____, a_____ poration, hereinafter referred to as the Licensee.

RECITALS

Whereas the Licensor is the owner of, or has the right to grant license the United States Letters Patent enumerated in Schedule A hereto attac made part hereof, and is also the owner of various applications for Patent, all of which relate to, or to the manufacture of, incandescent lamps (as hereinafter defined), and

Whereas the Large Tungsten Lamp License Agreement, dated _____ 19__, with all amendments thereto between the Licensor and Licensee wi terms, expire in the year 1934, (said License with the amendments there sometimes hereinafter referred to as the Large Tungsten Lamp License),

Whereas the Licensor for years has continuously expended effort ar sums of money in research and development work on incandescent lamp automatic machinery and processes for the manufacture of such lamps s stantial improvements have resulted therefrom, not only in better qua higher efficiency of the lamps themselves, but also in savings in the costs c facture and in lowered selling prices to the public; and certain Unite patents have been issued to, and are owned by, the Licensor on said impro in incandescent electric lamps, the inventions of which are embodied in the products now being manufactured and sold by both the Licensor Licensee, among which patents are:

1410499, March 21, 1922 (Pacz).
1423956, July 25, 1922 (Mitchell & White).
1498908, June 24, 1924 (Fink).
1621360, March 15, 1927 (Falge).
1687510, October 16, 1928 (Pipkin).

and certain United States patents have issued to, and are owned by, the I on said automatic machinery and processes, the inventions of which used by the Licensor, and some or all of which are now used by the Lice the manufacture of lamps, among which patents are:

	Date	Inv
Stem Machine Patents:		
1597439	Aug. 24, 1926	Fagan et
1655140	Jan. 3, 1928	Fagan.
1655141	do	Fagan et
1659613	Feb. 21, 1928	Phelps.
Exhaust and Sealing:		
1662045	Mar. 6, 1928	Patterso
1210620	Jan. 2, 1917	Fagan et
1393550	Oct. 11, 1921	Langmu
1742153	Dec. 31, 1929	Stiles et
Basing and Finishing:		
1306643	June 10, 1919	Swan.
1724631	Aug. 13, 1929	Fagan et
1708756	Apr. 9, 1929	Do.
Filament Mounting:		
1733881	Oct. 29, 1929	Illingwo
1733882	do	Do.
Filament Coiling: 1771927	July 29, 1930	Do.
Hot Cut Flare:		
1546352	July 14, 1925	Rippl.
1546353	do	Rippl et

And whereas, the Licensee desires definite assurance, by way of license may continue to make, use, and sell incandescent electric lamps under the Li patents after said Miniature Tungsten Lamp License expires; the Licensee such assurance at this time in order that it may more effectively make plan future conduct of its business, and

Digitized by Google

Whereas the Licensor is willing to accede to said requests of the Licensee, but without increasing the quantity of lamps which the Licensee has heretofore been licensed to make, use, and sell under said Large Tungsten Lamp License, and only upon and under the terms and conditions hereinafter set forth,

Now, therefore, it is agreed as follows:—

ART 1. TERMINATION OF PRIOR LICENSE

Said Large Tungsten Lamp License agreement dated_____, 19__, and all amendments thereto, shall terminate as of_____, 193__, and each party is hereby relieved of all obligations accruing thereunder after said date, except the payment of royalties and the purchase price of materials and parts accruing up to that date; and the rights and obligations of the parties hereto, with reference to incandescent lamps, shall from and after said date be those set forth in this agreement.

Each party does hereby release and discharge the other from all claims and demands whatever, to the date hereof, which in any manner arise or grow out of said Large Tungsten Lamp License Agreement between the parties hereto, except royalties owing thereunder by the Licensee to the Licensor, and except obligations for the purchase price of materials and parts purchased by the Licensee from the Licensor.

Provided, however, that contracts (other than said Large Tungsten Lamp License Agreement) heretofore made between the parties hereto for the sale of lamp-making machinery, appliances, and materials to the Licensee shall not be affected hereby, but the rights and obligations of the parties under such contracts shall remain and continue in full force and effect.

ART. 2. DEFINITIONS

(A) The Licensor uses and proposes to use, in the regular transaction of its business, schedules describing the Style, large or miniature, the Classification, vacuum or gas filled, and the Size, based on wattage or candle-power of the lamps manufactured and sold by it, which schedules are subject to change by the Licensor from time to time. The expression "lamp" or "incandescent lamp" when used in this agreement has reference only to the Miniature Style of the incandescent lamp of either Classification and varying sizes, for the manufacture and for the sale of which this license is granted by the Licensor to the Licensee. The Style and the Classification to which a lamp belongs shall be determined by the definitions or descriptions thereof in said schedules of the Licensor as they shall exist at the time when such lamp is sold.

(B) An incandescent lamp is defined for the purposes of this agreement and for the entire term thereof as any such so-called miniature Style lamp, the primary purpose of which is to convert electric energy into light by the passage of an electric current through a solid metallic or non-metallic filament, in a hermetically sealed enclosure, and is intended for use mainly as an illuminant, and provided that the light produced by the lamp is due to the resistance offered by such filament to the passage of electric current therethrough; and, provided further, this definition shall not include vaccum lamps of the ordinary carbon filament type and designed to give approximately 3.4 lumens per watt.

(C) The expression "patents" wherever used, includes patent applications and and patents to issue on such applications.

(D) The term "net sales" as used herein shall mean the amounts paid or owing to the parties hereto respectively, on account of incandescent lamps sold and shipped, after deducting the compensation, if any, paid to factors or other similar agents to whom lamps have been consigned for sale.

ART. 3. LICENSES

(A) This license and agreement relates to, and to machines and processes for the manufacture of, incandescent lamps as herein defined, and the rights herein granted under patents shall extend only so far as the patented inventions relate to incandescent lamps or are usable therein or in the manufacture thereof; and no rights are herein granted to use the patented inventions for any other purpose.

(B) The Licensor hereby grants to the Licensee, under all United States patents relating to or to the manufacture of incandescent lamps which it now or hereafter owns or controls or under which it has or may have the right to grant such license, subject to the herein contained provisions, exceptions, and limitations, all of which are conditions of such grant, a non-exclusive license to make large Style incandescent lamps in the territory covered by patents of the

Digitized by Google

United States, and to use the same in said territory, and to sell the lamps so made in and for use in said territory, but only to an amount not greater than that hereinafter specified.

(C) This license is limited to net sales of large Style incandescent lamps in and for use in the territory aforesaid in each calendar year to an amount expressed in dollars which shall not exceed an amount equal to _____ per cent (____%) of the net sales of the Licensor during that year in and for use in the United States of large Style incandescent lamps embodying or made in accordance with or by the use of any of the inventions with reference to which license is hereby granted by the Licensor.

This license is further limited to the manufacture in each calendar year of incandescent lamps to the number necessary to provide for such amount of sales.

The amount of sales hereby licensed is sometimes hereinafter referred to as licensed amount.

To enable the Licensee to observe this Section, the Licensor will, within forty (40) days after the end of each calendar month, mail a statement of the licensed amount for that month, to the Licensee and to an independent firm of certified public accountants (herein referred to as the accountants). Within forty (40) days after the end of each calendar year, the Licensor will similarly mail to the Licensee and to the accountants a statement of the licensed amount for that year.

The accountants shall, semiannually, inspect the Licensor's records and verify it statements of the licensed amount for the preceding six-month period, and shall promptly, by notice to both parties, correct any error, if any, which appears in Licensor's statement of said licensed amount. The reports of the Licensor, when verified and/or corrected by the accountants, shall be conclusive upon both parties hereto for all purposes hereof.

Whenever, by the expiration of patents or otherwise, any incandescent lamps are no longer licensed hereunder, and no machine, method, process, or appliance by the use of, or in accordance with which the same are made, is licensed hereunder, such lamps shall be omitted from the Licensor's and Licensee's computations and reports of sales for the purposes of this agreement.

In computing the licensed amount aforesaid, the export business of the Licensor shall be excluded. Domestic sales for export by the Licensor to its subsidiary or subsidiaries engaged in exporting shall also be excluded except where the lamps so sold are not actually exported.

In computing the net sales of the Licensee account shall be taken of all amounts paid or owing to the Licensee either directly or indirectly, as, for example, if its lamps are sold to or through a person, firm or selling company substantially controlling or controlled by or closely associated with the Licensee or in which the Licensee is interested, the amounts paid or owing to the person, firm or company so selling the Licensee's lamps shall be taken as those paid or owing to the Licensee.

The licensed amount for the calendar year 19__, shall be computed on the Licensor's net sales for the entire year; and the Licensee's sales during the entire year 19__ shall be regarded as having been made under this license.

Lamps shall be regarded as sold when they are billed out, or if not billed out, then when they are delivered, or when they are paid for, if they are paid for before delivery. Lamps shall also be regarded as sold if they are used, employed or disposed of in any manner other than by sale. In such case the lamps so used, employed or disposed of shall be taken as sold at the Licensee's average selling price for similar lamps during the month in which the lamps were reported as so used, employed or disposed

If, because of a general price reduction or reductions in the incandescent lamp industry, the Licensee shall make actual adjustments with merchandising customers with respect to the price of lamps previously sold by the Licensee to such customers, the amounts so paid or credited by the Licensee to such customers may be deducted from the Licensee's report of net sales for the month in which such adjustment is made; provided, however, that the foregoing shall not apply to adjustments with consuming purchasers.

If the Licensor shall make a change or changes in its schedules whereby lamps are transferred from its Large Style schedule to its Miniature Style schedule, the Licensor's net sales of the lamps so transferred shall thereafter be included in computing the Licensee's licensed amount, deducting therefrom, however, the Licensor's net sales of lamps which the Licensor shall have transferred from its Miniature Style schedule to its Large Style schedule. The Licensee's license to make and sell the lamps so transferred from the Licensor's Large Style schedule to the Licensor's Miniature Style schedule shall not be affected by such transfer.

Digitized by Google

If the net sales of the Licensee in any calendar year shall be less than its licensed amount for such year (exclusive of additions which may be made thereto because of a shortage in the preceding year as herein provided) the Licensee may in the next succeeding calendar year sell, under this license, an additional amount of incandescent lamps equal to the amount of such shortage (but not more than ten percent (10%) of the licensed amount for the calendar year in which the shortage occurred). The right to make such sales in addition to the licensed amount is not cumulative and may be exercised only in the calendar year immediately following the calendar year in which the shortage occurred. .

The Licensee agrees that it will endeavor to confine its yearly manufacture and sale of lamps, under this license, to the amount licensed for that year; and agrees that the sale by it in any calendar year of lamps to an amount ten percent (10%) in excess of its said licensed amount shall constitute a breach of this agreement for which this license may be cancelled by the Licensor as provided in Article VII, Section B. The Licensee agrees to pay additional royalty on all excess over five percent (5%) as provided in the paragraph marked "Second" Section C, Article V hereof, whether or not the Licensor shall cancel the License.

It is agreed that the provisions with respect to the limitation upon the amount of lamps licensed to be manufactured and sold hereunder are of the essence of this agreement, and that in the absence of such provisions and limitations the Licensor would not have granted this license.

(D) No license is granted to manufacture lamp bulbs, glass tubing or cane glass or lamp bases, but the Licensee shall be free to manufacture or purchase bulbs, tubing, cane glass or bases, provided that such manufacture or the bulbs, tubing, cane or bases, so manufactured or purchased do not infringe patent rights of the Licensor.

(E) No license is granted under foreign patents; no license is granted to export incandescent lamps or to sell lamps for export; and no license is granted to sell any part of an incandescent lamp (as distinguished from the complete lamp), or any machine, appliance, or material, or any part thereof, covered by or made in accordance with or by the use of any of the inventions with reference to which license is hereby granted by the Licensor.

(F) Except to the extent and except as otherwise herein provided, the Licensee is itself licensed to manufacture solely for its own use in the conduct of its business as a manufacturer of incandescent lamps under this License and not otherwise, any lamp-making machinery and/or appliance and/or materials covered by any patent and/or patents included in this license or to purchase the same in each case, solely for such use, but from such others only as are licensed by the Licensor to manufacture them for sale. If, as and when such manufacturers are licensed, their names will be communicated to the Licensee.

(G) The Licensee is licensed to refill burned out incandescent lamps and sell such refilled lamps treating them as new lamps for all the purposes of this license, provided that all trade-marks and names on the burned out lamps be completely obliterated and the word "Renewed" be plainly and conspicuously etched on the bulbs of such renewed lamps.

(H) As part consideration for the granting of this License, the Licensee hereby grants to the Licensor without further consideration a nonexclusive, divisible license, with the right to grant sublicenses, to make, use, and sell incandescent lamps of all kinds, types, and sizes, whether miniature or not, and machines, appliances and materials for the manufacture of such incandescent lamps, within and throughout the entire United States of America, its territories and possessions, under any and all patents or patent rights which the Licensee and/or its officers and directors now own or control or which it or they may hereafter own or control during the term of this agreement for the life of the patents respectively. This license from the Licensee shall not terminate with the termination of this Agreement, but shall extend to the end of the term of the patents respectively. The license thus granted may be extended by the Licensor to, and if so extended shall enure to the benefit of, any other licensee to the extent to which, and for the period for which, the said other licensee has granted or shall grant the Licensor a similar license of the same or less scope for the same territory or any portion thereof.

(I) In so far as the Licensor is required by contract to demand of the Licensee non-exclusive licenses, under foreign patents, the Licensee will grant such licenses under any foreign patent it may own.

(J) The Licensor shall be under no obligation to supply the Licensee with machinery, appliances, materials, information, or assistance of any sort except as specifically set forth herein.

Digitized by Google

(K) The admission of validity implied by the acceptance of the licenses herein granted is limited to the life of the licenses and to the fields of use for which said licenses are granted.

This admission shall not continue with respect to any claim which shall have been held invalid by a Court of final jurisdiction, or by a lower court from the decision of which no appeal or other proceeding is taken within the time provided by law, provided, however, that if the Licensor proceeds promptly and in good faith with further litigation designed and intended to sustain the validity of such claim and it is thereafter held valid, whether in the same or another circuit, such claim shall for the purpose of this agreement be regarded as valid.

ART. IV. PATENT MARKING, TRADE MARKS, ETC.

(A) The Licensee agrees to comply with the reasonable requirements of the Licensor as to marking on lamps manufactured under this license and on packages containing such lamps the dates and/or the numbers of the patents under which this license is granted and applicable to such lamps, and as to including in such packages notices, in form approved by the Licensor, relating to such patents. The Licensee agrees that neither the Licensor's name nor its marks "G. E.", "MAZDA", "Edison", or "National" nor any of its other trade-marks or brands nor the name of any of the trade-marks or brands of any of its other licensese, nor a simulation of any of these, shall be used in connection with the advertisement or sale of or be placed upon any lamps manufactured under this license. The Licensee further agrees that it will not handle or deal in lamps covered by any patents included herein which falsely bear or are sold under any name or trade-mark, or simulation thereof, either of the Licensor or any of its licensees. It is the intent of the parties that the Licensee's business shall rest entirely on its own good will and not in any part on the good will of others operating under the same patents. And to this end the Licensee covenants not to advertise or sell incandescent lamps bearing the mark "G. E.", "MAZDA", "Edison", "National", or any other mark or brand used by the Licensor, or any of its other licensees, in connection with or as a part of any entire order for or sale of the Licensee's lamps or as an inducement to obtain such order or to make such sale.

Provided, however, that the Licensee may describe its product on cartons and advertising matter as "Licensed under General Electric Company's Incandescent Lamp Patents" where all of said words are in type of the same size and face, and no part of said phrase appears more prominently than the rest, and where the name of the Licensee appears in full and in larger or more prominent type than is used in said phrase.

And provided, further, that lamps purchased by the Licensee from another Licensee (holding a License from the Licensor in the same form as this License) under Section E of Article V hereof may bear a trade-mark or brand of the Licensee by which such lamps were manufactured, if placed thereon by such other licensed manufacturer, and may be advertised and sold under such trade-mark or brand.

(B) The Licensee agrees to mark on every incandescent lamp manufactured by it hereunder, the word ---------- (and/or such other trade-mark or brand as the Licensee shall have given hereunder notice to the Licensor that it has adopted), by etching, stamping, or in some other permanent form, and no lamps shall be deemed to have been manufactured or sold by the Licensee hereunder, and no lamp shall be a licensed lamp, unless it bears one of said marks.

ARTICLE V

(A) The Licensee shall deliver to the Licensor reports when called for by the Licensor, on such forms as may be established from time to time by the Licensor, containing full information and description of the number of lamps of each Style and Classification and wattage or candle-power manufactured or sold by the Licensee, and also any other facts which may be helpful in determining whether the terms of this license have been carried out. The Licensee agrees that it will keep full and accurate books of account with reference to its manufacture, sale, use and shipment of all incandescent lamps covered by this License, and that such books shall, at all reasonable times during business hours, be open to the inspection of any certified public accountant selected by the Licensor for the purpose of verifying the statements to be made under this agreement, and that its manufacturing premises and storerooms shall likewise be open to any representative of the Licensor for the purpose of investigating and ascertaining the facts as to the Licensee's manufacture of lamps licensed hereunder and generally for investigating the Licensee's operations to the extent necessary to determine whether the Licensee is performing its obligations under this Agreement.

Digitized by Google

(B) The Licensee shall, on or before the last day of each month, deliver to the Licensor a sworn statement on forms provided by the Licensor, giving full information and description of the number, Style, Classification and wattage or candlepower of all lamps "sold" by it hereunder during the preceding calendar month. This report shall also give the net sales of such lamps by the Licensee, and the amounts which would have been received by it if such lamps had been sold at the Licensor's minimum net prices to purchasers under contract other than Central Station Lighting Companies less an additional five per cent (5%) discount, as ascertained from the regular schedules of the Licensor in force during the period and furnished to the Licensee as hereinafter provided. The Licensee shall, on or before the tenth of the following month, pay to the Licensor the amounts due for royalties for the month covered by said report.

Within ninety days from the first day of each January, beginning January, 193--, there shall be a final settlement for the preceding year of the royalties and amounts due or paid on lamps sold during the preceding year on the basis herein set forth, taking adjustments into consideration.

Lamps with respect to which no payments shall have been made by the customer, (or on which the full payment shall have been refunded) because they are lost or damaged in transit or are not accepted by the customer and which are actually returned as defective, may with the consent of the Licensor be deducted from the report of the month in which they are so returned, except in cases where they are returned in one month and the full payment is refunded in a later month, in which case they may be deducted from the report of the said later month.

(C) The amounts on which all royalties shall be computed (except the additional royalty provided for in paragraph marked Second, hereof), hereinafter called the "royalty amounts," shall be determined by applying to the Classifications of lamps sold hereunder by the Licensee, the Licensor's minimum net prices to purchasers under contract, other than Central Station Lighting Companies, applicable respectively to such Classifications as ascertained from the Licensor's regular schedules from time to time in force. Such schedules now in force are annexed hereto and marked Schedule B, and new schedules will be furnished to the Licensee from time to time as changes may be made therein, and when so furnished shall stand as Schedule B for the period during which they are in force by the Licensor. No restriction is placed on the prices at which the Licensee may sell lamps hereunder and it is agreed that the purpose of Schedule B is not to fix prices at which the Licensee shall sell lamps but to fix a basis for computing royalties to be paid by the Licensee.

The Licensee shall pay royalty with respect to all incandescent lamps "sold" as above defined which embody or are made in accordance with or by the use of any invention or any unexpired patent now or hereafter issued under which license is or may be acquired hereunder, as follows:

First, a royalty of three and one-third per cent (3⅓%) of the "royalty amounts" determined as above.

Second, an additional royalty of twenty per cent (20%) of the net sales of the Licensee in excess of five per cent (5%) over the Licensee's licensed amount for that calendar year.

Third, with respect only to patents, if any, hereafter acquired by the Licensor, and/or under which it has a right to grant licenses, under which royalties are payable by it, in addition to the above stipulated royalties, the amounts required to be paid out by the Licensor as royalties because of the Licensee's operations.

(D) If the royalties payable by the Licensee for any month are all actually received by the Licensor from the Licensee within the time specified, if proper reports are promptly made, and if this Agreement is observed in all other respects by the Licensee, the Licensor will accept ninety percent (90%) of said royalty "First", as above ascertained, as full payment with respect to such royalty for said month, but unless the royalties and reports are actually received by the Licensor on or before the day when the same are due, said royalty "First" will not be satisfied and discharged except on payment of the full amount thereof; provided, however, that a report or royalty remittance will be deemed to have been actually received by the Licensor if the post mark on the envelope containing same shows that said report or royalty payment was deposited in the United States mail, duly stamped and addressed, on or before the date when due.

(E) This license is intended to empower the Licensee to manufacture incandescent lamps itself and to use and sell the incandescent lamps so manufactured, in accordance with the various provisions hereof. If the Licensee purchases from other licensees of the Licensor licensed to make and sell such incandescent lamps, to an amount not exceeding ten percent (10%) of the net sales by the

Digitized by Google

Licensee of incandescent lamps in that calendar year, it shall report the same as a part of its licensed amount and pay royalty thereon, in all respects as though they had been manufactured by the Licensee itself under this Agreement, and the licensee from whom the purchases were made is not required to report such sales as a part of its licensed amount nor pay royalties thereon.

The foregoing limited exemption from reporting and paying royalties on sales to another licensee shall not be enlarged by indirect methods, such, for example, as (but without limiting the generality of the foregoing), by making a contract for the sale of lamps in the name of the Licensee but in part for the account of another Licensee as undisclosed principal, or by delivering, under a sale contract made by the Licensee, lamps manufactured by another licensee, the Licensee acting therein as agent for such other licensee.

ART. VI. NOTICES

Notices hereunder may be served on the Licensor by registered letter addressed to the Manager of the Incandescent Lamp Department of the General Electric Company, Nela Park, Cleveland, Ohio; and notices hereunder may be served on the Licensee by registered letter addressed to it at .....

Either party may be at any time by notice so served on the other change its address for this purpose, as given above, to any place in the United States where it maintains its principal office or principal lamp sales office.

ART. VII. TERM AND TERMINATION

(A) This Agreement shall continue in force until December 31, 1944, unless previously terminated as herein provided.

(B) If the Licensee fails to make reports or payments as provided for hereunder or violates any other covenant of this agreement on the part of the Licensee to be performed or observed (unless the Licensor has waived such breach in writing), the Licensor may serve notice of such breach or action upon the Licensee, and unless such breach is fully repaired or a demand for arbitration given as hereinafter provided within thirty days from the receipt of the notice by the Licensee, the Licensor (unless such breach has been waived by it in writing) may serve notice of cancellation. On service of such notice of cancellation this contract shall *ipso facto* terminate.

(C) The Licensee may at will cancel and terminate this agreement by giving the Licensor six months' notice in writing.

(D) If notice of the breach or action complained of be given by the Licensor to the Licensee under Section (B) of this Article VII, and if the question of such breach or action be thereafter submitted to arbitration as hereinafter provided, then the termination of this agreement shall await the award of the arbitrators. If the arbitrators, or a majority of them, shall determine that the Licensee has sold, in any calendar year, lamps of the character covered by this license to an amount ten percent or more in excess of its licensed amount for such year, and/or that the Licensee has failed to make reports and payments as provided for hereunder and/or otherwise violated any covenant of this agreement, then (unless the breach has been waived by the Licensor in writing) this agreement shall terminate *ipso facto* as of the date of such award. Provided, however, that if the breach or breaches so found and determined by the arbitrators shall not include the sale by the Licensee, in any calendar year, of lamps of the character covered by this license to an amount ten percent or more in excess of its licensed amount for such year, then the cancellation and termination of this agreement shall not take effect until the expiration of ten days after the date of such award. If during such period of ten days the Licensee shall fully repair each and every breach so determined by the arbitrators, then such award shall be deemed to have been fully performed and satisfied by the Licensee, and this agreement shall not terminate by reason of such breach.

(E) It is recognized that any termination of this agreement puts an end to the Licensee's license, and that thereupon the machines theretofore purchased or made hereunder by or for the Licensee become unlicensed. Lamps and parts on hand also become unlicensed.

(F) On any termination of this agreement the Licensee agrees promptly to make reports required hereunder to the date of such termination and to pay within thirty days after such termination all amounts due to the Licensor hereunder.

Digitized by Google

(G) No delay or omission of the Licensor to exercise or enforce any right or power, or seek a remedy accruing upon any default or upon any breach by the Licensee of any agreement, term or provision herein contained, shall impair any such right, power or remedy, or shall be construed to be a waiver of any such default or breach, or to be an acquiescence therein, and every right, power and remedy of the Licensor may be exercised from time to time as may be deemed expedient by the Licensor.

(H) If the Licensee shall sell, in any calendar year, lamps of the character covered by this license to an amount in excess of its licensed amount for that year, or shall fail to make reports or payments provided for or required hereunder, or otherwise violates any covenant of this agreement, then and in any such case the acceptance by the Licensor of any royalty from the Licensee and/or the furnishing by the Licensor of any parts or materials to the Licensee, and/or any failure of the Licensor to enforce its rights or seek its remedies, during such calendar year or during the first six months of the succeeding calendar year, shall not be deemed or held to be a waiver by the Licensor of its rights to cancel and terminate this agreement or to require arbitration under Article VIII hereof. Nor shall any such acceptance of royalty or furnishing of parts or materials by the Licensor during the pendency of any arbitration proceeding under said Article VIII, or within thirty (30) days after the award of the arbitrators therein, be deemed or held to be a waiver of any right or remedy of the Licensor growing out of the default or violation of this agreement submitted to such arbitration.

ART. VIII. ARBITRATION

Any controversy arising under or out of or concerning any term or covenant of this agreement, shall, at the option of either party hereto, be submitted to arbitration in the City of New York under and pursuant to the arbitration law of the State of New York and the provisions of the Civil Practice Act relative to arbitration and to the following conditions so far as consistent therewith:

Either party may give written notice of his desire for arbitration by registered mail sent to the other party at his last known address, and in such notice shall nominate an individual to act as arbitrator. Within ten days after the receipt of such notice the other party shall nominate another individual to act as arbitrator. Within five days thereafter the two arbitrators shall select a third arbitrator to act with them. In case of their failure to agree upon such a third arbitrator, either party may call upon the president or acting president for the time being of the Chamber of Commerce of the State of New York to name the third arbitrator, and if either party shall fail to name the arbitrator to be selected by him, the said president or acting president may also select such arbitrator, all such selections to have the same force and effect as if the parties had themselves agreed upon the nomination. All arbitrators shall be impartial and shall have no business connection with any of the parties. The power to designate arbitrators herein by the officer of the Chamber of Commerce shall be regarded as irrevocable.

Upon the selection of the three arbitrators they shall meet promptly, and take oaths, before a notary public or other officer authorized to administer oaths, faithfully to discharge their duties as such arbitrators; they shall give full and fair opportunity to each party to present its evidence in the presence of the others, to examine and cross-examine witnesses, and to be represented by counsel if desired. The procedure shall in all respects be in accordance with the law of the State of New York, but nothing herein contained shall prevent the arbitrators at their discretion, for the convenience of themselves or the parties or witnesses, from holding hearings at any point within or without the State of New York. They may, in their discretion, receive evidence in such form as they desire, including the form of affidavits or authenticated copies of documents, and may administer oaths to witnesses.

The arbitrators shall make their award promptly and in writing and signed by them or any two of them. The concurrence of any two in the award shall be sufficient. The award shall include the fixing and determination of the expense of arbitration, including the fees of the arbitrators and the determination of what proportion of the expense up to the entire amount shall be borne by either party. Duplicate copies of the award shall be furnished both parties.

Judgment upon the award may be entered in any court of record in the State of New York.

Each party does hereby irrevocably designate the secretary for the time being of the Chamber of Commerce of the State of New York as his agent within the State of New York to receive any notice or other paper relating to the enforcement of any of the provisions of this clause, including notice of application to

Digitized by Google

confirm, vacate, or modify any award which may be rendered, and/or to enter judgment thereon, or to enforce this provision for arbitration.

Notwithstanding the provision herein that the city of New York shall be the place and the laws of the State of New York shall govern the arbitration, if for any reason such provisions are not legally enforceable, nevertheless the agreement to arbitrate herein shall be regarded as substantial and, to the extent and in the form permitted by the rules of any jurisdiction in which it may be enforced, shall be made effective, the intention hereof being to make the said provision valid, irrevocable, and enforceable.

ARTICLE IX

This agreement shall be binding upon and inure to the benefit of the parties hereto and the successors and assigns of the Licensor. This agreement shall not be assignable or divisible by the Licensee without the written consent of the Licensor. Any attempt on the part of the Licensee to assign or divide without such consent shall constitute a breach of the agreement within the meaning of Section (B) of Article VII. Similarly it shall constitute a breach if the Licensee without the written consent of the Licensor passes into the control of or assumes control of or is operated in the interest of any other manufacturer of incandescent lamps or any consumer of or dealer in incandescent lamps, or if the Licensee and any such manufacturer, dealer, or consumer become substantially owned or controlled by the same interests.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be executed and their seals to be hereto attached at New York, N. Y., on the day and year first above written.

GENERAL ELECTRIC COMPANY,
By ----------,
Vice President.

Attest:

----------,
Assistant Secretary.

Attest:

By ----------

Schedule A

No.	Name	Date	Title
1197705	Winne	Sept. 12, 1916	Incandescent Electric Lamp.
1210738	Janvier	Oct. 17, 1916	Method and Apparatus for Shaping Filaments.
1203343	Hughes	Oct. 31, 1916	Insulating Device.
1205002	Marshall	Nov. 1, 1916	Process of Exhausting Lamps.
1206333	Keyes	Nov. 28, 1916	Electric Lamps.
1206686	Fagan	do	Method of Uniting Wires of Different Sizes.
1210620	Fagan and Quackenbush	Jan. 2, 1917	Exhausting Machine.
1212793	March	Jan. 16, 1917	Packing for Incandescent Lamp Bulbs and Similar Articles.
1213852	Fagan and Quackenbush	Jan. 30, 1917	Welding Machine.
1213975	Taylor	do	Projection Apparatus.
1223958	Geisel	Apr. 24, 1917	Metallic Filament Incandescent Electric Lamp.
1227659	Quackenbush and Smedley.	May 29, 1917	Wire Coiling Apparatus.
1229474	Kenyon	June 12, 1917	Headlight.
1229538	Slater	do	Automobile Lamp.
1230869	Coolidge	June 26, 1917	Method of Making Incandescent Lamps.
1231416	Needham	do	Manufacture of Incandescent Lamps.
1234060	Mackay	July 17, 1917	Incandescent Electric Lamp.
1237210	Langmuir	Aug. 14, 1917	Method of Producing Vacuums.
1237611	Brownlee	Aug. 21, 1917	Terminal Connections for Electric Lamps.
1237653	Keyes	do	Method of Cleaning and Renewing Electric Lamps.
1238575	Schluter	Aug. 28, 1917	Method of Producing Filament Supports for Incandescent Lamps.
1239413	Mackay	Sept. 4, 1917	Incandescent Lamp.
1240700	Friederich	Sept. 18, 1917	Incandescent Tungsten Lamp.
1245600	La France	Nov. 6, 1917	Labeling Machine.
1246118	Langmuir	Nov. 13, 1917	Incandescent Lamp.
1247068	Benbow	Nov. 20, 1917	Filament.
1249978	Mackay	Dec. 11, 1917	Incandescent Lamp.
1250770	Beach	Dec. 18, 1917	Lamp Protector.
1250815	Dorsey and Blake	do	Incandescent Lamp.
1265575	Wright	May 7, 1918	Method of Shaping Filaments.
1265665	Jacoby	do	Leading-in Conductor.
1268647	Van Keuren	June 4, 1918	Do.

Digitized by Google

Schedule A—Continued

No.	Name	Date	Title
1269510	Richardson	June 11, 1918	Bulb for Electric Headlights.
1269520	Blau	do	Manufacturing of Incandescent Lamps.
1270843	Keyes	July 2, 1918	Electric Lamp.
1270856	Malley	do	Support for Electric Lamp Filament.
1271483	Langmuir	do	Incandescent Lamp.
1273629	do	July 23, 1918	Method of Exhausting Incandescent Lamps.
1273758	Fink and Koerner	do	Leading-in Conductor.
1275926	Hughes	Aug. 13, 1918	Method of Shaping Wire.
1284648	Gill	Nov. 12, 1918	Manufacturing of Incandescent Lamps.
1288916	Keyes	Dec. 24, 1918	Seal for Electric Apparatus.
1289993	Winne	Dec. 31, 1918	Method of Perforating Glass.
1291209	Skaupy	Jan. 14, 1919	Electric Gas or Vapor Lamp.
1992482	Keyes	Jan. 28, 1919	Electric Lamp.
1923441	Houskeeper	Feb. 4, 1919	Combined Metal and Glass Structure and Method of Forming Same.
1297879	Lorenz	Mar. 18, 1919	Electric Controlling Device.
1928533	Marshall	Mar. 25, 1919	Apparatus for Shaping Filaments.
1298569	Le Rossignol	do	Apparatus for Exhausting Incandescent Lamps.
1301079	Van Keuren	Apr. 15, 1919	Incandescent Lamp.
1306259	Keyes	June 10, 1919	Electric Lamp.
1306643	Swan	do	Apparatus for Basing Incandescent Lamps.
1306912	Keyes	June 17, 1919	Electric Lamps.
1308907	do	July 8, 1919	Manufacturing of Molybdenum Tungsten Wire.
1312513	Beach	Aug. 12, 1919	Incandescent Lamp Wrapper.
1313337	Schinnscholl	Aug. 19, 1919	Electric Lamp Carrier.
1315783	Le Rossignol	Sept. 9, 1919	Method and Apparatus for Manufacturing Incandescent Lamp Bulbs.
1317492	Hamburger and Lely	Sept. 30, 1919	Electric Incandescent Lamp.
1320874	Langmuir	Nov. 4, 1919	Vacuum Pump.
1326121	Van Keuren	Dec. 23, 1919	Lamp Manufacture.
1331085	Anderson	Feb. 17, 1920	Leading-in Conductor.
1331937	Luckiesh and Dewey	Feb. 24, 1920	Daylight Glass Lamp.
1339998	Wright	May 11, 1920	Shaped Filament.
1342993	Fink	June 8, 1920	Alloy.
1357724	Randall and Reser	Nov. 2, 1920	Electric Lamp for Projecting Apparatus.
1359134	Wetmore	Nov. 16, 1920	Stem and Mount for Incandescent Lamp Filaments.
1360152	Swan	Nov. 23, 1920	Basing Incandescent Lamps.
1361652	Wetmore	Dec. 7, 1920	Welding Apparatus.
1375920	Strickland	Apr. 5, 1921	Mounting for Incandescent Lamps.
1386880	Lorenz	Aug. 9, 1921	Frosted Glass and Method of Making the Same.
1393550	Langmuir	Oct. 11, 1921	Method and Means for Obtaining High Vacua.
1401664	Beman	Dec. 27, 1921	Optical Checking Apparatus.
1403727	Zabel and Reakes	Jan. 17, 1922	Wire Cleaning Method.
1410499	Pacz	Mar. 21, 1922	Metal and Its Manufacture.
1410665	Finckh	Mar. 28, 1922	Process of Exhausting and Sealing Electrical Glow Lamps and the Like.
1419816	Cammen	June 13, 1922	Multiple Filament Incandescent Lamp.
1423338	Laise	July 18, 1922	Alloy & Method of Producing Same.
1423956	Mitchell and White	July 25, 1922	Tipless Incandescent Lamp and Similar Article.
1424067	Beman	do	Gauge for Lamps.
1427870	Van Keuren	Sept. 5, 1922	Hermetical Seal.
1430118	Le Rossignol	Sept. 26, 1922	Process and Apparatus for Sealing Lamps.
1436717	Goucher	Nov. 28, 1922	Incandescent Electric Lamps and the Like.
1445811	Wetmore	Feb. 20, 1923	Apparatus for Exhausting Incandescent Electric Lamps and Similar Articles.
1463504	Frank et al	July 31, 1923	Printing Machine.
1464101	Luckiesh	Aug. 7, 1923	Coating for Electric Lamps.
1468073	Pacz	Sept. 18, 1923	Tungsten Alloy.
1468084	Salz	do	Device for Incandescent Lamps.
1477618	Wetmore	Dec. 18, 1923	Welded Joint.
1491436	Strickland	Apr. 22, 1924	Incandescent Lamp.
1496457	Fonda	June 3, 1924	Filament and Like Bodies.
1498908	Fink	June 24, 1924	Evacuated Container.
1508242	Partzsch	Sept. 9, 1924	Vacuum Gauge.
1531265	Devers	Mar. 24, 1925	Sealed-in Conductor.
1536833	Fagan and Rippl	May 5, 1925	Tube Feeding Apparatus.
1539672	Holst	May 26, 1925	Electric Light Installation for Alternating Current.
1540537	Burrows	June 2, 1925	Method of Making Lamp Mounts and Similar Articles.
1541596	Skaupy et al	June 9, 1925	Filament for Incandescent Lamps and other Apparatus.
1542390	Houskeeper	June 16, 1925	Vacuum Pump.
1546352	Rippl et al	July 14, 1925	Glass Severing Apparatus.
1546353	do	do	Automatic Flare Machine.
1547394	Hoyt	July 28, 1925	Leading-in Wires for Electric Incandescent Lamp and Similar Devices.
1547395	do	do	Sealing-in Wires.
1549476	Finckh	Aug. 11, 1925	Electric Glow Lamp and Its Manufacture.
1551527	Pirani	Aug. 25, 1925	Apparatus for Preparing Electric Lamps.
1552128	Ettinger et al	Sept. 1, 1925	Incandescent Lamp and the Like.
1558524	Winninghoff	Oct. 27, 1925	Sealing Device.
1560265	Lely	Nov. 3, 1925	Incandescent Electric Lamps for Projection Purposes.

Digitized by Google

Schedule A—Continued

No.	Name	Date	Title
1560936	Force	Nov. 10, 1925	Mercury Vapor Device.
1560981	De Graaf and Lely	do	Manufacture of Incandescent Lamps.
1566848	Fonda	Dec. 22, 1925	Incandescent Lamp.
1569095	Laise	Jan. 12, 1926	Body of High Electron and Light Emission and Process of Making Same.
1573601	Fuller	Feb. 16, 1926	Article Containing Visible Temperature Records and Method of Obtaining Records.
1575994	Laise	Mar. 9, 1926	Leading-in Wire and Gas Tight Seal and Method of Making Same.
1576221	Rippl	do	Machine for Making Flares.
1588179	Friederich	June 8, 1926	Leading-in Wire for Glass Vessels.
1591113	Buttolph	July 6, 1926	Method of and Apparatus for Electric Welding.
1591833	Jarman	do	Method of and Machine for Forming Filaments.
1591910	Burnap	do	Incandescent Lamp.
1591911	Halvorson	do	Do.
1594057	Fonda	July 27, 1926	Electric Incandescent Lamp Device.
1597439	Fagan et al	Aug. 24, 1926	Apparatus for Feeding Glass Parts.
1600072	Skaupy and Gaides	Sept. 14, 1926	Light Diffusing Glassware.
1600203	Campbell	do	Incandescent Lamp.
1601902	Bol	Oct. 5, 1926	Sealing Off Machine.
1610062	Lokker et al	Dec. 7, 1926	Electric Lamp.
1615666	Wright	Jan. 25, 1927	Method of and Apparatus for Forming Filaments.
1620447	Donovan	Mar. 8, 1927	Apparatus for Making Incandescent Lamps and Similar Articles.
1620523	De Jong et al	do	Hook Forming and Inserting Machine.
1621359	Fagan et al	Mar. 15, 1927	Glass Working Machine.
1621360	Falge	do	Incandescent Lamp.
1623784	Fonda	Apr. 5, 1927	Incandescent Filament.
1624762	Ruttenauer et al	Apr. 12, 1927	Reflector Lamp.
1628410	Koning	May 10, 1927	Exhausting Machine.
1628456	Foulke	do	Metal Filament.
1631377	Loebe and Grossmann	June 7, 1927	Sealing-off Device.
1631378	Martin	do	Do.
1631379	Maurer	do	Sealing-off Torch.
1632647	Fonda	June 14, 1927	Incandescent Lamp.
1632769	Severin	do	Filament for Incandescent Lamps or Similar Articles.
1635055	Paez	July 5, 1927	Alloy Filament.
1637034	Bergmans	July 26, 1927	Coiled Filament Incandescent Lamp.
1637037	De Jong	do	Wire Spool and Carrier.
1638369	Skaupy	Aug. 9, 1927	Colored Incandescent Lamp Bulb.
1640442	De Jong	Aug. 30, 1927	Stem Making Machine.
1640458	Ledig et al	do	Apparatus for Unfitting Tubing.
1641761	Ibele	Sept. 6, 1927	Cement for Incandescent Lamp Filaments.
1644712	De Graaff	Oct. 11, 1927	Electric Lamps.
1646258	Raus et al	Oct. 18, 1927	Stem Forming Machine.
1648677	De Boer	Nov. 8, 1927	Incandescent Electric Lamp.
1648679	Fonda	do	Incandescent Lamp.
1648690	Jacoby	do	Method of Making Long Crystal Tungsten Filaments.
1650602	Burnap	Nov. 29, 1927	Stem for Incandescent Lamp.
1650605	Campbell	do	Method of Mounting Filaments.
1651865	Blake and Geiger	Dec. 6, 1927	Apparatus for Making Incandescent Lamps and Similar Articles.
1655140	Fagan	Jan. 3, 1928	Stem Making Macine.
1655141	Fagan et al	do	Do.
1655279	McGowan	do	Mount Making Machine.
1655290	Phelps et al	do	Machine for Treating Hollow Glass Articles.
1655466	Inman	Jan. 10, 1928	Method and Apparatus for Treating Filaments.
1655488	Wolff	do	Electric Incandescent Lamp.
1655502	Holst	do	Incandescent Electric Lamp.
1659613	Phelps and Raus	Feb. 21, 1928	Method and Apparatus for Making Stems.
1659749	Skaupy	do	Electric Incandescent Lamp and Method of Manufacturing its Illuminating Body.
1661866	Zabel	Mar. 6, 1928	Apparatus for Cutting Wire Into Lengths.
1662027	Se Graaff	do	Tungsten Product and its Manufacture.
1662045	Patterson	do	Lamp Making Machine.
1667601	Maurer	Apr. 24, 1928	Exhaust-Tube Remover.
1670292	Blau et al	May 22, 1928	Tungsten Filament and Method of Making it.
1670716	Donovan	do	Heat Deflector for Incandescent Lamps and Similar Devices.
1672857	Blake et al	June 5, 1928	Coating for Glass Surfaces.
1673731	Brindle	June 12, 1928	Method of and Mechanism for Feeding Beads.
1674527	Shepherd	June 19, 1928	Tension Device for Coiling Machines.
1676302	Van der Pool	July 10, 1928	Exhaust Machine.
1684949	Donley	Sept. 18, 1928	Incandescent Lamp Bulb.
1687496	Henkel et al	Oct. 16, 1928	Incandescent Lamp.
1687504	Moffit et al	do	Precision Basing Machine for Incandescent Lamps and Similar Articles.
1687510	Pipkin	do	Electric Lamp Bulb.
1687530	Van Horn et al	do	Automatic Cut-out for Electric Incandescent Lamps.
1688777	Bergmans et al	Oct. 23, 1928	Gas-Filled Electric Incandescent Lamp.
1688783	Burrows	do	Electric Lamp.

Digitized by Google

Schedule A—Continued

No.	Name	Date	Title
1694265	Inman	Dec. 4, 1928	Method and Apparatus for Treating Filaments.
1694997	Van Horn	Dec. 11, 1928	Base for Incandescent Lamps or Similar Articles.
1696594	Cartun	Dec. 25, 1928	Electric Incandescent Lamp.
1698302	Goss	Jan. 8, 1929	Coating Method.
1698321	Staudenmeir et al	do	Apparatus for Handling Fragile Articles.
1701348	Wright	Feb. 5, 1929	Apparatus for Marking Glass Articles.
1701388	Remane	do	Method of and Apparatus for Sealing-in Incandescent Lamps and Similar Articles.
1701541	Ray	Feb. 12, 1929	Construction of Incandescent Lamps.
1706182	Pipkin	Mar. 19, 1929	Colored or Diffusing Coating for Incandescent Lamps and Similar Articles.
1707675	Loebe et al	Apr. 2, 1929	Lamp Making Machines.
1708743	Skaupy et al	Apr. 9, 1929	Vitreous Composition.
1708756	Fagan et al	do	Machine for Making Incandescent Lamps and Similar Articles.
1708788	do	do	Apparatus for Coloring Glass Inclosures.
1710428	Mey	Apr. 23, 1929	Method and Machine for Manufacturing Incandescent Lamps and Similar Articles.
1717283	Van Horn et al	June 11, 1929	Incandescent Electric Lamp.
1718487	Pipkin	June 25, 1929	Apparatus for Frosting Glass Articles.
1721383	Fonda	July 16, 1929	Metal Composition.
1721384	do	do	Electric Lamp.
1722161	Strickland	July 23, 1929	Method of and Apparatus for Making Incandescent Lamps and Similar Articles.
1722176	Cartun	do	Incandescent Lamp.
1722180	Falge	do	Two-Filament Incandescent Lamp.
1722195	Bumstead et al	do	Method of Electric Welding Wires.
1723021	Fagan	Aug. 6, 1929	Package for Fragile Articles.
1723862	Jacoby	do	Process for the Manufacture of Drawn Tungsten Wires.
1723920	Cartun	do	Electric Incandescent Lamp.
1724831	Fagan et al	Aug. 13, 1929	Precision Basing Machine for Incandescent Lamps and Similar Articles.
1726365	Pirani	Aug. 27, 1929	Lamp Filament.
1726480	Fehse	do	Method of and Apparatus for Making Concentrated Filaments.
1728034	Bol	Sept. 10, 1929	Exhaust Head.
1728048	Flaws	do	Method of and Apparatus for Mounting Filaments.
1728814	Van Liempt	Sept. 17, 1929	Manufacture of Ductile Bodies from Highly-Refractory Metals.
1731843	De Graaff	Oct. 15, 1929	Apparatus for Cleaning Wire.
1733076	Smithells	Oct. 22, 1929	Filament Support and Method of Making it.
1733881	Illingworth	Oct. 29, 1929	Automatic Machine for Manufacturing Electric Incandescent Lamps and Similar Articles.
1733882	do	do	Method of and Apparatus for Mounting Filaments.
1734900	Friederich	Nov. 5, 1929	Leading-in Wire for Glass Vessels.
1736766	Burrows	Nov. 19, 1929	Apparatus for Making Incandescent Lamps.
1736767	do	do	Method of Making Incandescent Lamps.
1740391	Campbell	Dec. 17, 1929	Incandescent Lamp Mount.
1742153	Stiles et al	Dec. 31, 1929	Sealing Machine for Incandescent Lamps and Similar Articles.
1742966	Müller	Jan. 7, 1930	Wire Feeder.
1749084	Wright	Mar. 4, 1930	Electric Soldering Machine.
1749719	Reiter et al	do	Do.
1751407	Hurwitz	Mar. 18, 1930	Electric Lamp for Beacon Lights.
1751410	Koning	do	Anchor Inserting Machine.
1751419	Phelps	do	Method and Apparatus for Mounting Filaments.
1751434	Wildeboer	do	Filament Mounting Machine.
1752828	Zabel	Apr. 1, 1930	Method and Apparatus for Mounting Filaments.
1752895	de Jong	do	Do.
1760507	Loebe et al	May 27, 1930	Basing Machine for Incandescent Lamps and Similar Devices.
1765242	Reiter	June 17, 1930	Lamp Bulb.
1765357	Regenstreif	do	Filament Mounting Machine.
1768424	Sittel	June 24, 1930	Stamping Device for Incandescent Lamps and Similar Articles.
1769840	Johnson	July 1, 1930	Method of Making Electric Lamps.
1771915	Campbell et al	July 29, 1930	Method and Apparatus for Testing Lamps.
1771927	Illingworth	do	Coiling Machine for Fine Wire.
1771957	Hamner	do	Electric Lamp.
1783806	Loebe et al	Dec. 2, 1930	Bulb Feeder for Sealing-In Machines.
1788228	Berkenvelder	Jan. 6, 1931	Feeding Device.
1788231	Ceader et al	do	Incandescent Lamp and Mounting Therefor.
1788957	Phelps	Jan. 13, 1931	Method and Apparatus for Making Incandescent Lamps and Similar Articles.
1791378	Regenstreif	Feb. 3, 1931	Method and Machine for Mounting Coiled Filaments.
1791427	do	do	Bulb Feeder for Sealing-In Machines.
1794733	do	Mar. 3, 1931	Soldering Machine for Incandescent Lamps and Similar Devices.
1795181	Phelps	do	Incandescent Lamp and Similar Device.
1795195	Blom	do	Filament Mounting Machine.

Digitized by Google

Schedule A—Continued

No.	Name	Date	Title
1797031	Van Horn et al	Mar. 17, 1931	Protective Device for Electrical Devices.
1799743	Gooskens et al	Apr. 7, 1931	Manufacture of Electric Incandescent Lamps or Similar Devices.
1800012	Foulke	do	Filament for Incandescent Lamps.
1800037	Wiegand	do	Tubular Incandescent Lamp.
1801102	Mulder	Apr. 14, 1931	Method and Apparatus for Coiling Wire.
1801108	Reufel et al	do	Filament Support Making and Inserting Machines.
1801119	Soepnel et al	do	Wire Feeding Mechanism.
1804349	Langmuir	May 5, 1931	Incandescent Lamp.
1809661	Wright	June 9, 1931	Electric Lamp.
1812776	Donovan et al	June 30, 1931	Bulb Shaping Device.
1812745	Gordon	do	Lamp.
1815779	Koref et al	July 21, 1931	Coiled Filament and Process of Making It.
1815784	Ledig	do	Winding Head for Filament Mounting Machine.
1816683	Ledig et al	July 28, 1931	Filament Mountaing Machine.
1817746	Gooskens et al	Aug. 4, 1931	Basing Apparatus.
1817783	Tsuyuki	do	Method and Apparatus for Inside Coating Bulbs.
1820827	Pirani	Aug. 25, 1931	Construction of Electric Devices.
1821894	Otaka	Sept. 1, 1931	Automatic Mount Making Machine for Incandescent Lamps and Similar Articles.
1829756	Noddack et al	Nov. 3, 1931	Homogeneous Body Consisting of Rhenium.
1830598	Fagan	do	Method and Apparatus for Coloring Lamps.
1832677	Wildeboer	Nov. 17, 1931	Base Centering Device.
1832689	Campbell	do	Incandescent Lamp or Similar Article.
1832751	Thomas	do	Base for Electric Lamps and Similar Articles.
1834781	Inman et al	Dec. 1, 1931	Method for Treating Filaments.
1852840	Fuwa et al	Apr. 5, 1932	Method of Strengthening Frosted Glass Articles.
1853947	van der Poel et al	Apr. 12, 1932	Apparatus for Straightening Lead Wires.
1854943	Kunath	Apr. 19, 1932	Filament Feeding Apparatus.
1854970	Agte	do	Electric Lamp and the Illuminating Body used therein.
1854988	Fuwa	do	Electric Lamp Bulb.
1857165	Severin et al	May 10, 1932	Cut Out for Series Lamps.
1857182	Donovan et al	do	Method of and Apparatus for Soldering.
1857203	Van Liempt	do	Leading-In Conductor.
1859092	Hurwitz	May 17, 1932	Base for Incandescent Lamps and Similar Devices.
1859661	Falge	May 24, 1932	Three Filament Lamp.
1861271	Herre	May 31, 1932	Stem Making Machine.
1862351	Hagiwara	June 7, 1932	Feeding Device for Glass Articles.
1867418	Muller et al	July 12, 1932	Apparatus for Feeding Wires.
1869998	Cartun	Aug. 2, 1932	Incandescent Lamp.
1873776	McNeil et al	Aug. 23, 1932	Method of Basing Vacuum Tubes and Similar Articles.
1888851	Donovan et al	Nov. 22, 1932	Device for Feeding Glass Articles.
1888855	Fuller	do	Package for Incandescent Lamps and Similar Articles.
1889598	Force	Nov. 29, 1932	Incandescent Electric Lamp.
[1] 88782	Healey	Dec. 27, 1932	
1898784	Mey	Feb. 21, 1933	Stem Making Machine.
1899587	Quesseque	Feb. 28, 1933	Incandescent Electric Lamp.
1900463	Pipkin	Mar. 7, 1933	Bulb and Method of Coloring.
1904105	Van Liempt et al	Apr. 18, 1933	Method of Making Non-sag coiled Filaments.

[1] Design.

ADDITION TO SCHEDULE A

In addition to the patents above listed in this Schedule A, the General Electric Company is licensed under United States Patents Nos. 1241512, 1330702, 1329639, and 1329640, and has a right to grant licenses thereunder except in the railway light signal field. The said license to General Electric Company contains the following provision:

"For the purpose of this agreement, a railway light signal is a railway signal of the type wherein an electric lamp together with optical projecting means constitutes the means for giving indications both in daylight and in darkness.

"The term railway light signal as used in this agreement is to include signals located at the intersection of railways and highways to warn highway traffic of the approach of railway cars or trains, but the said term does not include a signal used for the control of general traffic on public highways and streets."

Therefore, said Patents Nos. 1241512, 1330702, 1329639 and 1329640 may be regarded as a part of Schedule A, but no rights for the field of railway light signals as above defined are granted thereunder.

Digitized by Google

Further patents to be added to schedule A

No.	Name	Date	Title
1640867	Workman	Aug. 30, 1927	Electric Incandescent Lamp.
1905791	Brown et al	Apr. 25, 1933	Apparatus for Sorting Rods and Tubes.
1906819	Severin	May 2, 1933	Incandescent Lamp and Similar Device.
1907532	Flaws, Jr	May 9, 1933	Mount Making Machine.
1907533	do	do	Method of and Apparatus for Mounting Filaments.
1911046	Wright	May 23, 1933	Apparatus for Basing Incandescent Lamps and Similar Articles.
1925857	Van Liempt	Sept. 5, 1933	Electric Incandescent Lamp.
1925986	Geiger et al	do	Electric Lamp or Similar Device.
1929294	Van Der Poel	Oct. 3, 1933	Apparatus for Feeding Filaments for Incandescent Lamps.
1929313	Illingworth	do	Apparatus for Tipping-off Incandescent Lamps and Similar Devices.
1930316	Ledig et al	Oct. 10, 1933	Method and Apparatus for Mounting Filaments on the Conductive Supports of Electric Incandescent Lamps.
1930326	Thomas	do	Cut-Out for Incandescent Lamps and Similar Articles.
1934435	Lessmann	Nov. 7, 1933	Cut-Out Device for Electric Lamps.
1934457	Van Liempt	do	Cut-Out.
1942069	Setoguchi et al	Jan. 2, 1934	Apparatus for Cutting Wire into Lengths.
1944825	Millner	Jan. 23, 1934	Electric Incandescent Lamp.
1946279	Friederich et al	Feb. 6, 1934	Cut-Out for Incandescent Electric Lamps and Similar Devices.
1947207	Lessmann	Feb. 13, 1934	Electric Incandescent Lamp.
1947243	Born	do	Electric Lamp.
1957242	Berger	May 1, 1934	Incandescent Lamp Filament.
1958243	Illingworth	May 8, 1934	Apparatus for Feeding Wires.
1958254	Van Der Poel	do	Apparatus for Separating a Single Cylindrical Article from a Quantity of Such Articles.
1960066	Rippl	May 22, 1934	Method of and Apparatus for Soldering Bases.
1960067	do	do	Method of and Apparatus for Applying Solder.
1962902	Kunath	June 12, 1934	Method of and Apparatus for Feeding Filaments.
Re: 19216	Pipkin	June 19, 1934	Colored or Diffusing Coating for Incandescent Lamps and Similar Articles.
1967852	Wright	July 24, 1934	Electric Lamp.
1967878	Geiger et al	do	Incandescent Lamp or Similar Device.
1969511	Herre et al	Aug. 7, 1934	Apparatus for Automatically Feeding Bulbs.
1980840	Wright et al	Nov. 13, 1934	Seal for Electric Lamps and Similar Articles.
1983362	Geiger et al	Dec. 4, 1934	Electric Incandescent Lamp.
1985075	Bird	Dec. 18, 1934	Packing Container for Various Articles.
1985915	Chelioti	Jan. 1, 1935	Electric Incandescent Lamp.
1987427	Watson	Jan. 8, 1935	Electric Lamp.
1988290	Wright	Jan. 15, 1935	Incandescent Lamp and Similar Device.
1988291	Yamashita	do	Leading-In Wire and Method of Making Same.
1988933	Asakawa	Jan. 22, 1935	Electric Safety Lamp.
1988955	Nehmert	do	Method of and Apparatus for Coating Incandescent Lamp Filaments and Similar Articles.
1990375	Hahn	Feb. 5, 1935	Apparatus for Cutting Glass.
1991223	Ledig et al	Feb. 12, 1935	Packing Machine.
1992037	Mulder	Feb. 19, 1935	Apparatus for Stamping Articles Having Curved Surfaces.
1992797	Zabel	Feb. 26, 1935	Method of and Apparatus for Treating Filaments.
1992798	do	do	Method of Treating Leading-In Wire.
1992844	Severin et al	do	Cut-Out for Electric Lamps.
1995148	Illingworth	Mar. 19, 1935	Precision Electric Lamp and Method of Manufacturing Thereof.
1995863	Prideaux	Mar. 26, 1935	Electric Lamp.
1998958	Flaws, Jr	Apr. 23, 1935	Connection for Filament and Lead Wires.
2005496	Donovan et al	June 18, 1935	Apparatus for Feeding Fragile Rods, Tubes, and Similar Articles.
2006140	Honing	June 25, 1935	Illumination.
2006155	Blake	do	Electric Lamp and the Like and its Mounting and Electrical Connection.
2006231	Malloy et al	do	Method of and Apparatus for Sealing Electric Lamps and Similar Articles.
2008503	Herre et al	July 16, 1935	Method of and Apparatus for Uniting Bases to the Glass Bulbs of Electric Incandescent Lamps and Similar Articles.
2009094	Peters	July 23, 1935	Electric Lamp or Similar Device.
2012825	Millner	Aug. 27, 1935	Production of Large Crystal Metal Bodies.
2014220	Asmussen	Sept. 10, 1935	Electric Incandescent Lamp and Similar Device.
2017714	Frech et al	Oct. 15, 1935	Electric Lamp Mounting and Current Supply Connection.
2019331	Andrews	Oct. 29, 1935	Electric Incandescent Lamp.
2020130	Astor	Nov. 5, 1935	Vehicle Headlight Lamp.
2020964	Reiter et al	Nov. 12, 1935	Apparatus for Testing and Assorting Electric Incandescent Lamps.
2021001	Donovan et al	do	Sealing-In Method and Apparatus.
2021758	Van Horn	Nov. 19, 1935	Electric Lamp.
2025565	Blau	Dec. 24, 1935	Incandescent Lamp.
2025579	Donovan et al	do	Exhausting and Gas Filling Machine.

Digitized by Google

SCHEDULE B (Licensor's Prices)

ELECTRIC LAMP LICENSE

GENERAL ELECTRIC COMPANY AND WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY, JANUARY 1, 1927

Agreement made as of the 1st day of January 1927, but actually executed this _____ day of _____ 1928, between General Electric Company, a New York corporation (hereinafter called the Licensor), and Westinghouse Electric & Manufacturing Company, a Pennsylvania corporation (hereinafter called the Licensee);

Whereas the Licensor is the owner of, or has the right to grant licenses under, the United States Letters Patent enumerated in Schedules A and A-1 hereto attached, and is also the owner of various applications for Letters Patent, all of which relate to, or to the manufacture of, electric lamps (as hereinafter defined); and

Whereas the existing license dated March 1, 1912, from the Licensor to the Licensee relating to incandescent electric lamps will, by its terms, expire a few years hence; and

Whereas, during the past few years, not only have valuable improvements in electric lamps been made by the Licensor, but in addition thereto automatic machinery and new manufacturing processes, invented and developed by the Licensor, have resulted in substantial improvements including savings in the costs of manufacture of electric lamps and in lowered selling prices thereof to the public, and the Licensee desires definite assurance, by way of license, that it will not be deprived of the use and benefit of said improvements in electric lamps and said automatic machinery and new processes when said license of March 1, 1912, expires; the Licensee desiring such assurance at this time in order that it may more effectively make plans for the future conduct of its business; and

Whereas said license of March 1, 1912, is limited to those lamps in which the light-giving element is an incandescing filament, but the Licensor is now carrying on experimental and development work with electric lamps having light-giving elements of other kinds, and the Licensee desires rights with reference to such other electric lamps; and the Licensee also desires an increase in the quantity of lamps which it may sell at a royalty rate of one percent (1%); all of which said requests of the Licensee the Licensor is willing to grant, but only upon and under the terms and conditions hereinafter set forth,

Now, therefore, it is agreed as follows:

(1) All existing license agreements relating to electric lamps between the parties hereto (other than an agreement dated October 3, 1916, relating to so-called dumet wire) shall be cancelled and terminated as of January 1, 1927, and each party is hereby relieved of all obligations accruing thereunder after said date, except the payment of royalties due up to that date; and the rights and obligations of the parties hereto, with reference to electric lamps, shall from and after said date be those specified in this agreement.

DEFINITIONS

(2) This license and agreement relates to, and to machines and processes for the manufacture of, electric lamps as hereinafter defined, and the rights herein granted under patents shall extend only so far as the patented inventions relate to electric lamps or are usable therein or in the manufacture thereof; and no rights are herein granted to use the patented inventions for any other purpose.

(3) An electric lamp is for the purpose of this agreement defined as any device the primary purpose of which is to convert electric energy into light within the visible spectrum, not including, however, the so-called arc or enclosed arc lamps which do not have hermetically sealed containers. Electric lamps coming within this main definition are classified as follows:

Class A: All types of lamps coming within the foregoing main definition of electric lamps which are not included in Class B.

Class B: The Cooper-Hewitt mercury vapor lamp which has for the cathode a vaporizable reconstructing body of liquid mercury, the light coming from an arc springing from said cathode.

Digitized by Google

(4) The terms "Licensor" and "Licensee" as used herein refer to and include, for those companies, respectively, all controlled subsidiary or operating companies, branches, factories, and departments engaged in the manufacture or sale of electric lamps, and the terms and conditions hereof shall apply to any individuals, firms, associations, trustees, or corporations who may succeed to the business of either of the parties hereto.

(5) The term "net sales" as used herein means the amounts paid or owing to the parties hereto, respectively, on account of electric lamps sold and shipped, after deducting the compensation, if any, paid to agents, such sales being figured on the basis of the provisions of Schedule B which is hereto attached.

(6) The term "United States" as used herein means the United States of America, its territories and dependencies, including Alaska, the Hawaiian Islands, the Panama Canal Zone, Porto Rico, and the Virgin Islands, but not the Philippines.

LICENSES

(7) The Licensor hereby grants to the Licensee, subject to the hereinafter contained provisions, all of which are conditions of such grant, a non-exclusive license under

the United States patents specified in Schedules A and A-1 and any United States patents which may issue on the applications above referred to, and under any United States patents and applications which the Licensor may, now or during the term of this license, own or control or under which it has or may have the right to grant such license, for improvements in electric lamps and improvements in machines, appliances or processes for the manufacture of such lamps,

to make, use, and sell said electric lamps (and to refill burned out electric lamps and to sell such refilled lamps) in and for use in the United States (and for export, but only as hereinafter provided), and only to the extent specified in Article 8 hereof.

This license is nonassignable, indivisible, and nontransferable, except to successors to substantially the entire electric lamp business (including good will) of the Licensee.

No license is herein granted under foreign patents; and no license is granted to export electric lamps, or sell lamps for export, except to countries to which the Licensor would itself have a right to export them, and no license is granted to sell filaments or other parts of lamps, nor to manufacture lamp bulbs, tubing, or cane glass.

(8) This license is limited

(1) to the sale of Class A electric lamps in and for use in the United States in each calendar year to an amount expressed in dollars which shall not exceed the amount represented by the following percentages of the aggregate net sales during that year by the Licensor and the Licensee in and for use in the United States of Class A electric lamps (other than vacuum lamps of the ordinary carbon filament type as known to the trade at the date of this agreement, and designed to give approximately 3.4 lumens per watt) embodying or made in accordance with or by the use of any of the inventions with reference to which license is hereby granted by the Licensor, so long as patents for such inventions continue in force, namely:

Calendar Year	Percentage
1927	22.4421
1928	23.4421
1929	24.4421
1930 and each year thereafter	25.4421

(2) to the sale of Class B lamps in and for use in the United States in each calendar year to an amount expressed in dollars which shall not exceed the amount represented by percentages of the aggregate net sales during that year by the Licensor and Licensee in and for use in the United States, of Class B electric lamps embodying or made in accordance with or by the use of any of the inventions with reference to which license is hereby granted by the Licensor so long as patents for such inventions continue in force, such percentages to be numerically the same as the foregoing percentages applying to Class A electric lamps.

Digitized by Google

If in any calendar year during the period January 1, 1927 to December 31, 1930, the Licensee shall not have sold under this license Class A or Class B electric lamps up to the full amount herein licensed for that year (exclusive of additions which may be made thereto because of a shortage in the preceding year as herein provided), the Licensee may in the next succeeding calendar year sell, under this license, an additional amount of electric lamps of the class in which the shortage occurred equal to the amount of such shortage in that calendar year (but not more than five per cent (5%) of the licensed amount of such class of electric lamps for the calendar year in which the shortage occurred). If in any calendar year after 1930 during the term of this license there shall be a shortage of the kind mentioned, the Licensee may in the next succeeding calendar year sell, under this license, an additional amount of electric lamps of the class in which the shortage occurred equal to the amount of such shortage in that calendar year (but not more than three per cent (3%) of the licensed amount of such class of electric lamps for the calendar year in which the shortage occurred). The right to make such sales in addition to the licensed amount is not cumulative and may be exercised only in the calendar year immediately following the calendar year in which the shortage occurred.

(9) The Licensor agrees to use all reasonable efforts to prevent infringement of the patents under which royalties are payable under this license.

(10) The Licensee agrees to comply with the reasonable requirements of the Licensor as to marking, on lamps manufactured under this license and on packages containing such lamps, the dates and/or the numbers of the patents under which this license is granted, and applicable to such lamps and as to including in such packages notices, in form approved by the Licensor, relating to such patents.

(11) As a part consideration for the granting of the foregoing license, the Licensee hereby grants to the Licensor a nonexclusive license under

> the United States patents which the Licensee now owns or controls and under those which may issue on pending applications now owned or controlled by it, and under any United States patents and applications which the Licensee may, now or during the term of this license, own or control, or under which it has or may have the right to grant such license, for improvements in electric lamps and improvements in machines, appliances or processes for the manufacture of electric lamps,

to make, use and sell said electric lamps (and to refill burned out electric lamps and to sell such refilled lamps) in and for use in the United States (and for export but only as hereinafter provided).

This license is non-assignable, indivisible and non-transferable, except to successors to substantially the entire electric lamp business (including good will) of the Licensor, and except also as provided in Article 12 hereof. This license shall continue for the period during which the license from the Licensor to the Licensee remains in force.

No license is herein granted under foreign patents; and no license is granted to export electric lamps, or sell such lamps for export, except to countries to which the Licensee would itself have a right to export them, and no license is granted to sell filaments or other parts of lamps except to other lamp licensees of the Licensor, and then only to the extent such other licensees are licensed, or authorized to be licensed, hereunder. No license is granted to manufacture lamp bulbs, tubing or cane glass.

(12) The Licensee authorizes and empowers the Licensor to grant to the Licensor's present incandescent lamp Licensees (hereinafter designated "B Licensees") for the term of this License agreement (but only so long as they remain Licensees of the Licensor) non-exclusive sublicenses, subject to the limitation of Article 11 hereof, under the United States patents under which the Licensor receives licenses from the Licensee under Article 11 hereof, to make, use and sell electric lamps in and for use in the United States only up to an amount equal to the amount which each said "B Licensee" shall be on December 31, 1927, licensed to sell in each year under its existing license from the Licensor, and only if, and so long as, a license under the present and future patents (relating to, or to the manufacture of, electric lamps) of the "B Licensee" or "B Licensees" inures hereunder to the benefit of the Licensee. The Licensee reserves the right to cancel any such sub-licenses that may be granted by the Licensor in the event that such "B Licensee" shall exceed, by an amount exceeding 10% in any calendar year, the amount which it shall be on December 31, 1927, licensed to sell under its existing license from the Licensor during such calendar year, and the Licensor shall make each such sub-license subject to the foregoing reservation. No authority is conferred upon the Licensor to grant any sub-license to any new

Digitized by Google

Licensee of the Licensor, the authority aforesaid being limited to the granting of sub-licenses to the existing "B Licensees" of the Licensor (or their assignees) to the extent of the licensed amounts as of December 31, 1927, under their existing licenses. All sub-licenses granted under the foregoing authority shall terminate *ipso facto* upon any termination of this electric lamp license agreement, and all sub-licenses granted under said authority shall so provide.

(13) The admission of validity implied by the acceptance of the licenses herein granted is limited to the life of the licenses and to the fields of use for which such licenses are granted.

ROYALTIES

(14) The Licensee agrees to pay to the Licensor, as a royalty or license fee, an amount equal to one percent (1%) of the net sales of the Licensee of lamps of the kind covered by this license (other than vacuum lamps of the ordinary carbon filament type as known to the trade at the date of this agreement and designed to give approximately 3.4 lumens per watt) sold and shipped during the term of this agreement for use either in or outside of the United States and embodying or made in accordance with or by use of any of the inventions with reference to which license is herein granted by the Licensor, so long as patents for such inventions continue in force.

(15) It being recognized and agreed that sales by the Licensee in and for use in the United States in excess of the amount herein licensed would result not only in a loss to the Licensor of the profit which would have accrued to it had the sales been made by it, but also in a substantial and unascertainable loss to its business and good will, which total loss is believed to exceed thirty percent (30%) of the net sales so made, it is hereby agreed and provided that if during any calendar year, the sale of either Class A or Class B electric lamps by the Licensee shall be in excess of the amount of Class A or Class B electric lamps, respectively, herein licensed (including additions, if any, which may be made thereto because of a shortage in the year next preceding, as provided in Article 8) the Licensee shall, within forty-five days after the expiration of such calendar year, pay to the Licensor an amount equal to thirty percent (30%) of the net sales so made of either Class A or Class B electric lamps, or both, in excess of the amount licensed for that calendar year (including the additions thereto under Article 8, if any), as compensation to the Licensor for its loss. The foregoing provision shall not, however, be construed as authorizing or permitting the Licensee to sell or offer to sell electric lamps in excess of the amount licensed (including the additions thereto under Article 8, if any) on tender or payment of said amount; and it is agreed that neither the above provision for such payment of said amount, nor its payment, nor any suit or action to recover the same shall be a bar to an injunction in favor of the Licensor in the event of a breach or threatened breach by the Licensee by selling electric lamps in excess of the amount licensed (including the additions thereto under Article 8, if any).

(16) (*a*) Whenever, by the expiration of patents, or by the adjudication of their invalidity by a final appellate court or by a court of competent jurisdiction from which no appeal is taken, any electric lamps are no longer licensed hereunder, such lamps shall be omitted from the Licensee's and Licensor's computations and reports of sales for the purpose of this agreement, unless and until some other appellate court or the United States Supreme Court shall have held such patents, or any of them, to be valid, and no royalty shall be payable with respect to such sales, unless such lamps are manufactured by the use of processes or machinery covered by other subsisting patents hereunder and the Licensor requires (as it is hereby given the option to do) that such lamps shall therefore be reported and/or royalty paid thereon.

(*b*) Some of the electric lamps licensed hereunder and in which the light is produced by the flow of electric current through a gas vapor or other conductive atmosphere may constitute an integral part of a lighting apparatus or device sometimes sold as a unit at a single price for the whole device and consisting of the lamp (which is the light giving element and is sometimes called the bulb or tube) combined with auxiliary apparatus and equipment, which consists of the electrical apparatus permanently associated with and connected to the lamp and forming an integral part of said lighting device, which is essential to and takes part in the starting and maintenance of a flow of current through the lamp, said auxiliary apparatus and equipment being patented by and manufactured under or embodying the inventions of patents listed in Schedule A–1. It is agreed that the licenses granted in Articles 7 and 11 hereof shall extend to and include such patented auxiliary apparatus or equipment and shall be granted under the inventions and

Digitized by Google

patents listed in Schedule A–1 and corresponding inventions and patents of the Licensee, but the provisions of Articles 8, 14, 15, 17, 18, 19, and 22 of this agreement shall not apply to such patented auxiliary apparatus and equipment. Where an electric lamp (viz., a bulb or tube) is sold as an integral part of such lighting apparatus or device, at a single price for the whole, only the electric lamp shall be included, in the Licensee's and Licensor's computations and reports of sales for the purpose of this agreement, exclusive of the other parts of the lighting apparatus or device, and the price at which such electric lamp shall be included in such computations and reports shall be the price of such lamp in accordance with Schedule B.

REPORTS AND PAYMENT OF ROYALTIES

(17) Each party agrees that it will keep full and accurate books with reference to its manufacture, sales, and shipments of all electric lamps sold and shipped by it, and that such books shall, at all reasonable times in business hours, be open to the inspection of public accountants designated and employed by the other party or of representatives mutually agreed upon, so far as may be necessary for the purpose of verifying the statements to be made under this agreement. Each party shall make to a person to be designated by the Licensor the reports called for in attached Schedule "B" and such reports shall be open to the inspection of the other party. The reports received by the Licensor from sub-Licensees under the Licensee's patents under the authority hereof, shall also be open to the inspection of the Licensee's public accountants or of the said representatives mutually agreed upon.

(18) The Licensor and the Licensee shall on or before the last day of each month render to each other a sworn statement, on forms designated by the Licensor, showing the kinds and net selling prices of all electric lamps (other than vacuum lamps of the ordinary carbon filament type as known to the trade at the date of this agreement and designed to give approximately 3.4 lumens per watt) embodying or made in accordance with or by the use of any of the inventions with reference to which license is herein granted by the Licensor, sold and shipped for use in the United States, and the total net value of such lamps sold and shipped for use outside of the United States, during the next preceding calendar month. Within forty-five days after the first of January, April, July, and October in each year, the Licensor shall render to the Licensee a bill for the royalties or license fees due on the sales of electric lamps made by the Licensee during the three calendar months next preceding, which royalty or license fees the Licensee agrees to pay in each case within ten days from the date of rendering the bill.

(19) Within forty-five days from the first day of each January, there shall be a final settlement for the preceding year of the royalties or license fees due or paid on electric lamps sold and shipped during the year, on the basis hereinbefore set forth, taking adjustments into consideration.

PRICES, TERMS OF SALE, ETC.

(20) The license hereby granted by the Licensor is granted on the express condition that the Licensee's prices, terms, and conditions of sale for use in United States of the electric lamps (other than vacuum lamps of the ordinary carbon filament type as known to the trade at the date of this agreement and designed to give approximately 3.4 lumens per watt) made under the license herein granted to the Licensee, shall, as long as such lamps, respectively, or their processes of manufacture continue to be covered by patents, be those fixed from time to time and followed by the Licensor in making its sales, and the Licensee agrees to maintain such prices, terms and conditions of sale as to such lamps. The prices, terms, and conditions of sale, as at present in force, are those set forth in Schedule B, and the Licensee is licensed to sell such lamps only in accordance with said Schedule, and only under the Licensor's form of contract, i. e., the "Contract for Purchase of Incandescent Lamps" set forth in Schedule B (or another contract form containing equivalent provisions and no provisions inconsistent therewith) and in compliance with the General Sales Rules in said Schedule named, and upon making the reports called for in said Schedule B, and at prices not lower than those set forth in said Schedule, with the discounts not greater than those set forth on the discount sheet of said Schedule, and in all respects on terms and conditions no more favorable to the purchaser than those set forth in said Schedule.

(21) The said Schedule B may be changed by the Licensor from time to time, upon reasonable notice in writing to the Licensee, and, as changed, it shall be binding upon the Licensee. But not less than one year's written notice shall be

Digitized by Google

given before any change shall go into effect which shall change the discount schedule in Schedule B so as to change the relative differences, between the various discounts given to those purchasing in different volumes, or change the relative volumes of purchases upon which the various discounts are based; and not less than two years written notice shall be given before any change shall go into effect which shall change said discount schedule so as to increase the volume of the purchases upon which the maximum discount shall be based; and not less than thirty days written notice shall be given before any other change in Schedule B shall go into effect.

(22) The Licensor now appoints as agents, for the sale of a portion of its electric lamps (other than vacuum lamps of the ordinary carbon filament type as known to the trade at the date of this agreement and designed to give approximately 3.4 lumens per watt), persons, firms and companies who sell the Licensor's said lamps to consumers through their own salemen, and proposes to continue such agency appointments and sales. And this license is granted only upon and is subject to the condition that the Licensee shall not interfere with such portion of the Licensor's business in such lamps carried on in this manner by offering to allow or allowing the Licensee's agents greater compensation that that allowed by the Licensor to its agents, as specified in said Schedule B or by offering to allow or allowing the Licensee's agents terms and conditions more favorable to the agent than those set forth in said Schedule, or by appointing as agents persons or companies of whom the Licensor affirmatively disapproves as being irresponsible representatives for handling the type of electric lamps covered by this agreement that the Licensee distributes through agents.

EXCHANGE OF INFORMATION

(23) It is the intention of this agreement that the Licensee shall, during the term of this agreement or until the Licensee gives notice of its intention to surrender its license under the provisions of Article 28, be entitled to receive from the Licensor complete information as to new inventions and developments (after patent applications have been filed) and as to technical and manufacturing methods and costs, machinery and processes employed by the Licensor in the manufacture of electric lamps embodying or made in accordance with the inventions present and future with reference to which royalties are or may be payable under this agreement, and with respect to future improvements on such lamps, machinery and processes so that the Licensee may fully secure the benefits and advantages of the inventions which it is licensed to use in making such lamps; and the Licensor shall be entitled to receive corresponding information from the Licensee. To that end, the accredited representatives of each party shall be permitted to study in the factories of the other, the methods, machinery, and processes employed in practicing said inventions and in the development and manufacture of such lamps and there obtain the benefit of the other's experience in such development and manufacture of such lamps, and each party agrees to render to the other all reasonable assistance in securing the information to which the other is entitled under the provisions hereof, and will also exchange with the other statements of the cost of operating such machines and practicing said processes, and all other elements of cost relating to the development and manufacture of electric lamps. None of the information received by the Licensee under the provisions of this agreement shall be communicated to others except with the written consent of the Licensor, nor shall it be utilized by the Licensee or by others with its knowledge and consent outside the United States; provided, however, that the Licensee may, under like restrictions, disclose such information to the Canadian Westinghouse Company.

SETTLEMENT OF CONTROVERSIES AND ASCERTAINMENT OF DAMAGES

(24) In case there arises under this agreement any controversy which the parties are unable to adjust between themselves, it shall be settled by arbitration pursuant to the Arbitration Law of the State of New York, in the following manner:

Either party may, by notice in writing served on the other, appoint one arbitrator and call upon the other to appoint a second arbitrator within thirty days after the receipt of such notice; and each party agrees that upon receipt of any such notice it will so appoint an arbitrator. The two arbitrators thus appointed shall, within thirty days after the appointment of the one last appointed jointly, appoint a third arbitrator. In the event that a second arbitrator shall not be

Digitized by Google

appointed as above provided, or the two arbitrators first appointed shall fail to appoint a third arbitrator, either party may call upon the president or acting president of the New York State Chamber of Commerce to appoint an arbitrator or arbitrators, as the case may require, and any such appointment shall have the same force and effect as if the parties themselves had made it. The controversy shall be submitted to the three arbitrators in such manner as they shall direct, and they shall have the power to decide the matter in controversy and to determine what, if any, amount shall be paid by either party to the other as liquidated damages for any breach of this agreement, and each party agrees to pay to the other any damages that may be assessed by the arbitrators. The parties shall be entitled to be heard before the arbitrators who, in addition, shall have power to examine the books and records of both parties referred to in Article 17 hereof. The decision of the arbitrators or the decision of a majority of them rendered in writing shall be final, conclusive, and binding upon the parties. The award shall include the fixing and determination of the expense of arbitration, including the fees of the arbitrators and the determination of what proportion of the expense up to the entire amount shall be borne by either party.

(25) The damages for violation of the provisions of this agreement, requiring that the Licensee shall not sell or offer to sell within the United States, electric lamps of the types covered by and made under this license, at prices lower or on terms or conditions more favorable to the purchaser than those which are or may be from time to time established by the Licensor, shall be determined by the Arbitrators and the damages shall be an amount equal to twenty-five per cent (25%) of the total value, at the prices established under this agreement, of the lamps involved in each transaction. Similarly, the damages shall be determined by the Arbitrators in case of sales of lamps by the Licensor at prices lower or on terms and conditions more favorable to the purchaser than those established by the Licensor for sales by the Licensee, and the damages shall be an amount equal to 25% of the total value, at the prices established under this agreement, of the lamps involved in each transaction, but if the Licensor has made or makes, with others than the Licensee, agreements containing obligations similar to the foregoing, the Arbitrators may apportion among the several licensees the damages, payable by the Licensor, the intent being that the Licensor shall pay damages only once with reference to any one transaction. The foregoing provision shall not, however, be construed as permitting either party to sell or offer to sell lamps in violation of the provisions of this agreement, on tender or payment of liquidated damages so determined; but it is agreed that there being in such case no adequate remedy at law an injunction may be sought against further violation thereof.

The damages for violation by either party of the provisions of Article 22 of this agreement shall likewise be determined by the arbitrators and shall be an amount equal to twenty-five percent (25%) of the total value, at the prices established by this agreement, of the lamps sold by any agent who is allowed or offered greater compensation or more favorable terms and conditions than those set forth in the Licensor's Schedule.

TERM AND TERMINATION OF LICENSES

(26) This agreement is binding upon and shall inure to the benefit of the parties hereto and of their controlled companies and the successors and assigns of each of them, except as otherwise herein provided, and is to continue in full force until the date of expiration of the Licensor's patents listed in Schedule "A" and patents to issue upon applications of the Licensor now pending under which a license is granted hereunder, unless previously terminated as herein provided.

(27) If the Licensee shall wilfully violate or shall wilfully refuse or fail to substantially perform any of the provisions or conditions of this agreement, and in such manner as to show intentional disregard thereof, the Licensor may cancel and terminate this agreement by giving sixty days' notice in writing to the Licensee, provided, however, that the Licensee shall have the right within such sixty days to give notice of its desire to have submitted to arbitration the question of whether there has been such a breach, making its appointment of one arbitrator in such notice, and thereupon such question shall be submitted to arbitration under the arbitration provisions of this agreement, and the termination of this agreement shall await the award of the arbitrators. If the arbitrators, or a majority of them, shall determine that the Licensee has wilfully violated or has wilfully refused or failed to substantially perform any of the provisions or

Digitized by Google

conditions of this agreement, and in such manner or to such extent as to show intentional disregard thereof, then this agreement shall terminate *ipso facto* sixty days from the date of such report of the arbitrators.

The sale by the Licensee in any calendar year of electric lamps licensed hereunder to an amount equal to five per cent (5%) or more in excess of the amount licensed for such year (including additions, if any, which may be made thereto because of a shortage in the year next preceding as provided in Article 8) shall be deemed and held to be a wilful violation of this agreement and an intentional disregard thereof. If during any calendar year the reports of sales made by the Licensee to the Licensor, pursuant to Article 18 hereof, indicate that the Licensee is likely to exceed its licensed amount for such year, the Licensor shall, by written notice mailed to the Licensee, call the attention of the Licensee thereto, and the giving of such notice shall be a condition precedent to the right of cancellation provided for in this Article 27, because of sales in excess of the licensed amount.

(28) The License herein granted may be surrendered by the Licensee on two years' notice in writing, provided that such notice is not given earlier than eight years from January 1, 1927.

(29) If the Licensor grants to others licenses under its said patents, and patents to issue upon applications, to make, use, and sell electric lamps upon terms and conditions other than those herein specified, it shall advise the Licensee promptly thereof and shall give the Licensee full information as to the terms and conditions thereof and the Licensee shall have the option of surrendering this license and agreement and of taking a license in such other form and subject to the conditions therein named.

(30) The various remedies provided for in this license shall be construed as cumulative and none of them as exclusive of the others or of any remedies allowed by law. No delay or failure of the Licensor to exercise any right or power accruing in the event of any default or breach of the Licensee hereunder shall be construed to be a waiver of any such default or an acquiescence therein, nor a waiver of any subsequent default or an acquiescence therein.

In witness whereof, the parties hereto have caused this instrument to be executed by their officers thereunto duly authorized and their corporate seals to be hereunto attached, on the day and year first above written.

GENERAL ELECTRIC COMPANY,
By ——— ———, *Vice President.*

Attest:

———— ———, *Asst. Secretary.*

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY,
By ——— ——— *President.*

Attest:

———— ———, *Secretary.*

Schedule A

No.	Name	Date	Title
947983	Weintraub	Feb. 1, 1910	Purifying Tantalum.
951232	Bresler	Mar. 8, 1910	Process of Forming Elastic Anchors for Incandescent Lamp Filaments.
955442	Simon	Apr. 19, 1910	Machine for Forming Incandescent Lamp Mounts.
955461	Howell	do	Method of Manufacturing Filaments for Incandescent Lamps.
958180	Shilling	May 17, 1910	Method of Producing Tantalum.
959930	Graybill	May 31, 1910	Automatic Flanging Machine.
960441	Thomson	June 7, 1910	Production of Fine Metal Tungsten.
960962	Kuzel	do	Metallic Filament Electric Glow Lamp.
963234	Marshall	July 5, 1910	Cementing Machine.
963872	Coolidge	July 12, 1910	Lamp Filament.
964692	Rice, Jr	July 19, 1910	Incandescent Electric Lamp.
969064	Kuzel	Aug. 30, 1910	Process of Manufacturing Articles with Use of Colloids.
969109	do	do	Solder for Incandescent Lamp Filaments.
973625	Burrows	Oct. 25, 1910	Exhausting Machine.
973703	Robertson	do	Incandescent Electric Lamp.
974296	Remane, Gottschalk, and Hurwitz	Nov. 1, 1910	Electric Glow Lamp.
979363	Arsem	Dec. 20, 1910	Chemical Process.
980703	Thomson	Jan. 3, 1911	Incandescent Lamp.
980767	Fagan	do	Machine for Forming Loops for Supporting Filaments of Electric Lamp.
980843	Schroter	do	Mounting of Conductors.
982873	Regenstreif	Jan. 31, 1911	Current Conductor.

Digitized by Google

Schedule A—Continued

No.	Name	Date	Title
985386	Blau	Feb. 28, 1911	Production of Divided Metals.
985387	do	do	Method of Manufacturing Metallic Illuminating Bodies for Electric Incandescent Lamps.
985502	do	do	Apparatus for Making Metallic Filament for Incandescent Electric Lamps.
988148	Steinmetz	Mar. 28, 1911	Manufacturing of Filaments for Incandescent Lamps.
988329	Glaser	Apr. 4, 1911	Method of Connecting Incandescent Lamp Filaments with Metallic Current Supply Wires.
989549	Burrows	Apr. 11, 1911	Filament Mounting Machine.
991578	Whitney	May 9, 1911	Incandescent Electric Lamp .
994010	Langmuir	May 30, 1911	Method of and Apparatus for Producing Exhausted Vessels.
994425	Remane	June 6, 1911	Method of Anchoring Filaments.
994690	do	do	Electric Incandescent Lamp.
995077	Merritt	June 13, 1911	Incandescent Lamp.
996374	Swan	June 27, 1911	Soldering Machine.
996420	Marshall	do	Manufacturing of Lamp Filament.
996936	Massey	July 4, 1911	Apparatus for Evacuating Incandescent Lamp Bulbs.
997413	Remane	July 11, 1911	Electric Incandescent Lamp.
998067	Appleberg	July 18, 1911	Terminal for Incandescing Conductors.
1001382	Gardner	Aug. 22, 1911	Filament Mounting.
1001630	do	Aug. 29, 1911	Do.
1002662	Fagan	Sept. 5, 1911	Machine for Making Hooks.
1006198	Frech, Jr	Oct. 17, 1911	Seal for Sectional Leading-in Wires.
1006620	Appleberg	Oct. 24, 1911	Tungsten Furnace.
1008588	Coolidge	Nov. 14, 1911	Filament.
1008762	Whitney	do	Metal Working.
1010165	Merritt	Nov. 28, 1911	Incandescent Lamp.
1010295	do	do	Do.
1010456	Schaller	Dec. 5, 1911	Method of Evacuating Vacuum Apparatus.
1010866	Coolidge	do	Process of Making Composite Conductors.
1010914	Howell	do	Machine for Treating Filaments.
1011396	Abbott, Jr	Dec. 12, 1911	Method of and Apparatus for the Treatment of Lamp Filaments.
1011586	Criggal	do	Apparatus for Making Electric Lamp Bases.
1011523	Swan	do	Lamp Making Machine.
1011708	Appleberg	do	Treating Tungsten.
1011771	Glaser	do	Supporting Frame for Incandescent Lamps with Metal Filaments.
1013124	Burrows	Jan. 2, 1912	Machine for Making Incandescent Lamps.
1013572	Suman	do	Method of Shaping Filaments.
1013599	Hand	do	Incandescent Filament.
1013859	Burrows	Jan. 9, 1912	Filament Support.
1013914	Whitney	do	Attaching Filaments to Leading-in Wires.
1013915	do	do	Metal Filament Lamp.
1013958	Schroter	do	Shaping and Mounting Filaments.
1013962	Skaupy	do	Filament Connection.
1013965	Steinmetz	do	Filament Supports for Incandescent Lamps.
1017280	Von Bolton	Feb. 13, 1912	Process of Increasing the Ductility of Metallic Tungsten.
1017546	Howell	do	Filament Support.
1018502	Just & Hanaman	Feb. 27, 1912	Incandescent Bodies for Electric Lamps.
1019391	Weintraub	Mar. 5, 1912	Boronized Conductor & Method of Manufacturing.
1019457	Graybill	do	Automatic Stem Making Machine.
1022182	Dempster	Apr. 2, 1912	Method of Wire Drawing.
1022482	Howell	Apr. 9, 1912	Filament Connection.
1022543	Glaser	do	Holder for Lamp Filaments.
1022553	Howell	do	Method of Fusing Lamp Filament to Leading-in Wires.
1022554	do	do	Welding Filaments to Metal Wires.
1023290	Arsem	Apr. 6, 1912	Reduction of Oxids.
1023295	Bresler	Apr. 16, 1912	Manufacturing of Metallic Filaments for Incandescent Electric Lamps.
1023305	Ferguson	do	Filament Apparatus.
1023307	Glaser	do	Incandescent Lamp.
1023315	Hunter	do	Metal Filament.
1023316	Hurwitz	do	Apparatus for Drawing Wires.
1023357	Beckwith	do	Mounting Filaments.
1023371	Fuller	do	Electric Furnace.
1024185	Dempster	Apr. 23, 1912	Machine for Forming Filaments.
1024898	Howell	Apr. 30, 1912	Filament Support.
1024923	Bresler	do	Process of Drying Cement Clamps for Filaments of Electric Lamps.
1025469	Hunter	May 7, 1912	Tubular Metallized Filaments.
1025499	Whitney	do	Process of Making Incandescent Lamps.
1026343	Coolidge	May 14, 1912	Manufacturing of Refractory Conductors.
1026344	do	do	Binder for the Manufacturing of Refractory Conductors.
1026345	do	do	Apparatus for Treating Filaments.
1026382	do	do	Metal Filament.
1026383	do	do	Do.
1026384	do	do	Do.

Digitized by Google

Schedule A—Continued

No.	Name	Date	Title
1026392	Hansen	May 14, 1912	Incandescent Lamp Filament.
1026428	Coolidge	do	Tungsten Purification.
1026429	do	do	Refractory Conductor.
1027165	Wood	May 21, 1912	Method of Treating Filaments.
1028636	Thatcher	June 4, 1912	Method of Exhausting Vessels.
1030666	Kuzel	June 25, 1912	Process of Manufacturing Incandescent Lamp Filaments.
1031710	Hanaman	July 9, 1912	Process of Connecting Filaments and Feed Wires for Electric Incandescent Lamps.
1031842	Fagan	do	Air and Gas Burner.
1032476	do	July 16, 1912	Seal for Sectional Leading-in Wires.
1032562	Moore	July 16, 1912	Vacuum Tube Lamp.
1034722	Merritt	Aug. 6, 1912	Incandescent Lamp.
1034949	Arsem	Aug. 6, 1912	Producing Metal Filaments.
1037268	Kuzel	Sept. 3, 1912	Process of Manufacturing Incandescent Bodies.
1038613	Ludecke	Sept. 17, 1912	Metal Filament Incandescent Lamps.
1040333	Howell	Oct. 8, 1912	Filament Support.
1041769	Fuller	Oct. 22, 1912	Apparatus for Grinding and Sorting Powders.
1041817	Krause	do	Metallic Filament Lamp.
1045943	Burrows	Dec. 3, 1912	Machine for Handling Incandescent Lamp Bulbs.
1046780	Hanaman	Dec. 10, 1912	Connection between Metallic Filaments and Feed Wires of Electric Incandescent Lamps.
1047502	Coolidge	Dec. 17, 1912	Art of Manufacturing Lamp Filaments.
1049786	Weintraub	Jan. 7, 1913	Incandescent Lamp.
1057088	Poag and Kirk	Mar. 25, 1913	Shaping Filaments.
1062281	Howell	May 20, 1913	Forming Machine for Tungsten Filaments.
1062305	Steinmetz	do	Incandescent Lamp.
1062836	Merritt	May 27, 1913	Do.
1063504	Burrows	June 3, 1913	Welding Machine.
1071174	Von Pirani	Aug. 26, 1913	Process of Working Refractory Metals.
1071568	Pacz	do	Manufacturing of Incandescent Bodies of Tungsten.
1075563	Hansen	Oct. 14, 1913	Metal Filaments.
1076590	Liebmann	Oct. 21, 1913	Method of Drawing Refractory Wires.
1077479	Klein	Nov. 4, 1913	Device Adapted to Show Whether an Electric Incandescent Lamp Has Been in Use.
1077674	Coolidge	do	Production of Refractory Conductors.
1077696	Fuller	do	Working Tungsten.
1077827	do	do	Process of Treating Tungsten.
1082012	Davis	Dec. 23, 1913	Incandescent Lamp.
1082933	Coolidge	Dec. 30, 1913	Tungsten and Method of Making Same for Use as Filaments of Incandescent Electric Lamps and for Other Purposes.
1084629	Hansen	Jan. 20, 1914	Zirconium Lamp—Filament.
1085098	Arsem	Jan. 27, 1914	Production of Metallic Thorium.
1088094	Richardson	Feb. 24, 1914	Electric Headlight.
1089757	Frech, Jr.	Mar. 10, 1914	Tungsten Manufacture.
1089759	Gardner	do	Filament Mounting.
1089786	Von Pirani	do	Method of Working Refractory Metals.
1091616	Arsem	Mar. 31, 1914	Graphite Conductor.
1093197	Morrison	Apr. 14, 1914	Method of Welding Lamp Filaments.
1093203	Von Pirani	do	Method of Preforming Refractory Material Prior to Rolling.
1094745	Phelps	Apr. 28, 1914	Electric Incandescent Lamp.
1094774	Berliner	do	Process of Making Incandescent Electric Lamps.
1096414	Coolidge	May 12, 1914	Electric Furnace.
1096866	Schinnerling	May 19, 1914	Process of Drawing Wire and Apparatus for Same.
1099704	Hurwitz	June 9, 1914	Manufacturing of Metallic Illuminating Bodies for Electric Incandescent Lamps.
1099721	Von Pirani	do	Incandescent Lamp.
1101168	Dwyer	June 23, 1914	Perforating and Tabulating Machine.
1105050	Whitney	July 28, 1914	Support for Filaments.
1106971	Remane	Aug. 11, 1914	Filament Mounting.
1110303	Kreusler	Sept. 8, 1914	Method of Manufacturing Alloys of Tungsten and Other Highly Refractory Metals Related to it.
1113745	Blau	Oct. 13, 1914	Electric Glow Lamp.
1118402	Dickenschied	Nov. 24, 1914	Electric Incandescent Lamp.
1119642	Rothacker	Dec. 1, 1914	Glass Manipulating Mechanism.
1120492	Hino	Dec. 8, 1914	Electric Lamp.
1126233	Langmuir	Jan. 26, 1915	Vacuum Gauge.
1128120	Fagan	Feb. 9, 1915	Machine for Manipulating Glass Rods and Forming Spiders Therewith.
130197	Rafn	Mar. 2, 1915	Process for Producing Tungsten Powder.
1131189	Weintraub	Mar. 9, 1915	Joining Lamp Filaments to Current Supply Wires.
1132277	Marshall	Mar. 16, 1915	Lamp-Making Machine.
1135154	Fritz Blau	Apr. 13, 1915	Process of Removing Carbon from Pressed Bodies of Tungsten.
1139668	Gerdien & Pirani	May 18, 1915	Electric Incandescent Lamp.
1141133	Mensing	June 1, 1915	Gas Tight Seal.
1142172	Jacoby	June 8, 1915	Method of Treating Conductors.
1143493	Borzychowski	June 15, 1915	Apparatus for Mounting Filaments.
1144114	Feurlein and Von Pirani	June 22, 1915	Process of Mounting Metallic Filaments on Filament Carriers of Incandescent Lamps.

Digitized by Google

Schedule A—Continued

No.	Name	Date	Title
1145213	Femane	July 6, 1915	Device for Incandescent Lamps with Metal Filaments.
1149188	Dickenschied	Aug. 10, 1915	Incandescent Lamp.
1151273	Jost	Aug. 24, 1915	Contract Feeding Mechanism for Base-Making Machines.
1154081	Weintraub	Sept. 21, 1915	Leading-in Conductor.
1154514	Jacoby	do	Incandescent Lamp.
1156492	Remane	Oct. 12, 1915	Method of Drawing Refractory Materials for Incandescent Lamps.
1156650	Wright	do	Basing Incandescent Lamps.
1157288	Blau	Oct. 19, 1915	Manufacture of Fine Refractory Metal Wires.
1157995	Mackay	Oct. 26, 1915	Incandescent Lamp.
1159111	Skaupy	Nov. 2, 1915	Do.
1160661	do	Nov. 16, 1915	Do.
1160745	Merritt	do	Filament Support.
1161822	Keyes	Nov. 23, 1915	Terminal Connections for Electric Lamps.
1161823	do	do	Terminal Connections for Lamp Filaments.
1163329	Edison	Dec. 7, 1915	Filament for Incandescent Electric Lamps.
1164614	Keyes	Dec. 14, 1915	Filament for Incandescent Lamps.
1165884	La France	Dec. 28, 1915	Glass Working Machinery.
1166464	Liebmann	Jan. 4, 1916	Method of Maintaining the Efficiency of Metallic Filament Lamps.
1168050	Benbow	Jan. 11, 1916	Wire Drawing.
1176602	Remane	Mar. 21, 1916	Metallic Filament Electric Incandescent Lamp.
1179009	Just	Apr. 11, 1916	Method of Producing Malleable and Ductile Bodies of Tungsten or Tungsten Alloy.
1180159	Langmuir	Apr. 18, 1916	Incandescent Electric Lamp.
1188186	do	June 20, 1916	Incandescent Lamp.
1188194	Moore	do	Gaseous Conductor Lamp.
1188196	Needham	do	Incandescent Lamp.
1189996	Orange	July 4, 1916	Incandescent Electric Lamp.
1191552	Aeuer	July 18, 1916	Making Tungsten Filaments.
1194906	Walling	Aug. 15, 1916	Method and Apparatus for Sintering Metal.
1197705	Winnie	Sept. 12, 1916	Incandescent Electric Lamp.
1201738	Janvier	Oct. 17, 1916	Method and Apparatus for Shaping Filaments.
1202534	Keyes and Brownlee	Oct. 24, 1916	The Production of Metallic Tungsten.
1202535	do	do	Do.
1203343	Hughes	Oct. 31, 1916	Insulating Device.
1205002	Marshall (d'c'd)	Nov. 1, 1916	Process of Exhausting Lamps.
1206333	Keyes	Nov. 28, 1916	Electric Lamps.
1206686	Fagan	do	Method of Uniting Wires of Different Sizes.
1267704	Helfgott	do	Method of Producing Malleable Tungsten.
1208629	Oberlander	Dec. 12, 1916	Metal Filament Manufacture.
1210237	Walker et al	Dec. 26, 1916	Feeding Mechanism for Lamp Base Machines.
1210238	do	do	Feeding Mechanism for Base-Making Machines and the Like.
1210620	Fagan and Quackenbush	Jan. 2, 1917	Exhausting Machine.
1212793	March	Jan. 16, 1917	Packing for Incandescent Lamp Bulbs and Similar Articles.
1213852	Fagan and Quackenbush	Jan. 30, 1917	Welding Machine.
1213974	Taylor	do	Projection Apparatus.
1213975	do	do	Do.
1223958	Geisel	Apr. 24, 1917	Metallic Filament Incandescent Electric Lamp.
1227659	Quackenbush and Smedley.	May 29, 1917	Wire Coiling Apparatus.
1229474	Kenyon	June 12, 1917	Headlight.
1229538	Slater	do	Automobile Lamp.
1230869	Coolidge	June 26, 1917	Method of Making Incandescent Lamps.
1231416	Needham	do	Manufacture of Incandescent Lamps.
1234060	Mackay	July 17, 1917	Incandescent Electric Lamp.
1237210	Langmuir	Aug. 14, 1917	Method of Producing Vacuums.
1237611	Brownlee	Aug. 21, 1917	Terminal Connections for Electric Lamps.
1237653	Keyes	do	Method of Cleaning and Renewing Electric Lamps.
1238575	Schluter	Aug. 28, 1917	Method of Producing Filament Supports for Incandescent Lamps.
1239413	Mackay	Sept. 4, 1917	Incandescept Lamp.
1240700	Friederich	Sept. 18, 1917	Incandescent Tungsten Lamp.
1245600	La France	Nov. 6, 1917	Labeling Machine.
1246118	Langmuir	Nov. 13, 1917	Incandescent Lamp.
1247068	Benbow	Nov. 20, 1917	Filament.
1249978	Mackay	Dec. 11, 1917	Incandescent Lamp.
1250770	Beach	Dec. 18, 1917	Lamp Protector.
1250815	Dorsey and Blake	do	Incandescent Lamp.
1265575	Wright	May 7, 1918	Method of Shaping Filaments.
1265665	Jacoby	do	Leading-in Conductor.
1267827	Whitney	May 28, 1918	Electric Discharge Device.
1268647	Van Keuren	June 4, 1918	Leading-in Conductor.
1268685	Coolidge	do	Electric Resistance Furnace.
1269510	Richardson	June 11, 1918	Bulb for Electric Headlights.
1269520	Blau	do	Manufacturing of Incandescent Lamps.
1270842	Keyes	July 2, 1918	Production of Metallic Tungsten Powder.
1270843	do	do	Electric Lamp.

Digitized by Google

Schedule A—Continued

No.	Name	Date	Title
1270856	Mailey	July 2, 1918	Support for Electric Lamp Filament.
1271245	Recklinghausen	do	Seal for Vapor Electric Apparatus.
1271483	Langmuir	do	Incandescent Lamp.
1273629	do	July 23, 1918	Method of Exhausting Incandescent Lamps.
1273758	Fink and Koerner	do	Leading-in Conductor.
1275926	Hughes	Aug. 13, 1918	Method of Shaping Wire.
1279415	Orange	Sept. 17, 1918	Electric Lamp.
1280704	Fuller	Oct. 8, 1918	Treatment of Tungsten Filament.
1280825	Pacz	do	Process of Treating Drawn Metal.
1284648	Gill	Nov. 12, 1918	Manufacturing of Incandescent Lamps.
1288916	Keyes	Dec. 24, 1918	Seal for Electric Apparatus.
1289993	Winnie	Dec. 31, 1918	Method of Perforating Glass.
1290930	Devers	Jan. 14, 1919	Incandescent Arc Lamp.
1291209	Skaupy	do	Electric Gas or Vapor Lamp.
1292482	Keyes	Jan. 28, 1919	Electric Lamp.
1293116	do	Feb. 4, 1919	Drawing Wire Filaments for Incandescent Electric Lamps.
1293117	do	do	Production of Metallic Tungsten.
1293441	Housekeeper	do	Combined Metal and Glass Structure and Method of Forming Same.
1297825	Fuller	Mar. 18, 1919	Metal Drawing Die.
1297879	Lorenz	do	Electric Controlling Device.
1298533	Marshall	Mar. 25, 1919	Apparatus for Shaping Filaments.
1298569	Le Rossignol	do	Apparatus for Exhausting Incandescent Lamps.
1299017	Pacz	Apr. 1, 1919	Metal and Its Manufacture.
1301079	Van Keuren	Apr. 15, 1919	Incandescent Lamp.
1306259	Keyes	June 10, 1919	Electric Lamp.
1306559	Orange	do	Inclosed Arc Device.
1306568	Weintraub	do	Method of Producing Pure Elements.
1306643	Swan	do	Apparatus for Basing Incandescent Lamps.
1306912	Keyes	June 17, 1919	Electric Lamps.
1308907	do	July 8, 1919	Manufacturing of Molybdenum Tungsten Wire.
1310067	Devers	July 15, 1919	Inclosed Arc Device.
1312513	Beach	Aug. 12, 1919	Incandescent Lamp Wrapper.
1313337	Schinnscholl	Aug. 19, 1919	Electric Lamp Carrier.
1315783	Le Rossignol	Sept. 9, 1919	Method and Apparatus for Manufacturing Incandescent Lamp Bulbs.
1316967	Moore	Sept. 23, 1919	Gaseous Conduction Lamp.
1317492	Hamburger and Lely	Sept. 30, 1919	Electric Incandescent Lamp.
1320874	Langmuir	Nov. 4, 1919	Vacuum Pump.
1323836	Coolidge	Dec. 2, 1919	Method of Removing Gases and Apparatus Produced Thereby.
1326121	Van Keuren	Dec. 23, 1919	Lamp Manufacture.
1331085	Anderson	Feb. 17, 1920	Leading-in Conductor.
1331937	Luckiesh and Dewey	Feb. 24, 1920	Daylight Glass Lamp.
1339998	Wright	May 11, 1920	Shaped Filament.
1341986	Keyes	June 1, 1920	Wire Drawing Machinery.
1342993	Fink	June 8, 1920	Alloy.
1357724	Randall and Reser	Nov. 2, 1920	Electric Lamp for Projecting Apparatus.
1359134	Wetmore	Nov. 16, 1920	Stem and Mount for Incandescent Lamp Filaments.
1359135	do	do	Apparatus for Making Leading-in Wires for Incandescent Lamps.
1360152	Swan	Nov. 23, 1920	Basing Incandescent Lamps.
1361652	Wetmore	Dec. 7, 1920	Welding Apparatus.
1365499	Kelley	Jan. 11, 1921	Surface—Alloyed Metal.
1373920	Strickland	Apr. 5, 1921	Mounting for Incandescent Lamps.
1377982	Keyes	May 10, 1921	Manufacturing of Molybdenum—Tungsten Alloy.
1386880	Lorenz	Aug. 9, 1921	Frosted Glass and Method of Making the Same.
1393520	Friederich	Oct. 11, 1921	Inclosed Arc Device and Starting the Same.
1401664	Beman	Dec. 27, 1921	Optical Checking Apparatus.
1403727	Zabel and Reakes	Jan. 17, 1922	Wire Cleaning Method.
1410499	Pacz	Mar. 21, 1922	Metal and Its Manufacture.
1410665	Finck	Mar. 28, 1922	Process of Exhausting and Sealing Electrical Glow Lamps and the Like.
1419816	Cammen	June 13, 1922	Multiple Filament Incandescent Lamp.
1422553	Friederich	July 11, 1922	Inclosed Arc Lamp and Method of Starting the Same.
1423338	Laise	July 18, 1922	Alloy and Method of Producing Same.
1423956	Mitchell and White	July 25, 1922	Tipless Incandescent Lamp and Similar Article.
1424067	Beman	do	Gauge for Lamps.
1427870	Van Keuren	Sept. 5, 1922	Hermetical Seal.
1430118	Le Rossignol	Sept. 26, 1922	Process and Apparatus for Sealing Lamps.
1436717	Goucher	Nov. 28, 1922	Incandescent Electric Lamps and the Like.
1445811	Wetmore	Feb. 20, 1923	Apparatus for Exhausting Incandescent Electric Lamps and Similar Articles.
1453594	Mitchell and White	May 1, 1923	Sealing in Machine.
1453595	do	do	Manufacturing of Incandescent Electric Lamps and other Similar Articles.
1456102	Fogler	May 22, 1923	Chemical Apparatus.
1463504	Frank et al	July 31, 1923	Printing Machine.
1464101	Luckiesh	Aug. 7, 1923	Coating for Electric Lamps.
1468073	Pacz	Sept. 18, 1923	Tungsten Alloy.
1468084	Salz	do	Device for Incandescent Lamps.
1475192	Marshall	Nov. 27, 1923	Sealing-in Machine.

Digitized by Google

Schedule A—Continued

No.	Name	Date	Title
1477618	Wetmore	Dec. 18, 1923	Welded Joint.
1491436	Strickland	Apr. 22, 1924	Incandescent Lamp.
1496457	Fonda	June 3, 1924	Filament and Like Bodies.
1498908	Fink	June 24, 1924	Evacuated Container.
1504036	Fogler	Aug. 5, 1924	Method of Preparing Oxids of Tungsten and Similar Materials.
1508241	Pacz	Sept. 9, 1924	Metal and its Manufacture.
1508242	Partzh	do	Vacuum Gauge.
1529323	Skaupy et al	Mar. 10, 1925	Closed Arc Lamp.
1531036	Skaupy	Mar. 24, 1925	Glow Lamp.
1531265	Devers	do	Sealed-in Conductor.
1531966	Mackay	Mar. 31, 1925	Electric Glow Device.
1536740	Akeroyd	May 5, 1925	Feeding Mechanism for Base Making Machines.
1536833	Fagan and Rippl	do	Tube Feeding Apparatus.
1537680	Klahre	May 12, 1925	Incandescent Arc Device.
1539672	Holst	May 26, 1925	Electric Light Installation for Alternating Current.
1540537	Burrows	June 2, 1925	Method of Making Lamp Mounts and Similar Articles.
1541596	Skaupy et al	June 9, 1925	Filament for Incandescent Lamps and Other Apparatus.
1542390	Housekeeper	June 16, 1925	Vacuum Pump.
1546352	Rippl et al	July 14, 1925	Glass Severing Apparatus.
1546353	do	do	Automatic Flare Machine.
1546899	Jacoby	July 21, , 925	Method and App. for Transforming Crystalline Structures of Drawn Tungsten Wire.
1547394	Hoyt	July 28, 1925	Leading-in Wires for Electric Incandescent Lamps and Similar Device.
1547395	do	do	Sealing-in Wires.
1549476	Finckh	Aug. 11, 1925	Electric Glow Lamp and its Manufacture.
1549716	Skaupy et al	do	Electric Gas Lamp with Glow Discharge.
1551524	Freiderich	Aug. 25, 1925	Electric Lamp.
1551527	Pirani	do	Apparatus for Preparing Electric Lamps.
1552128	Ettinger et al	Sept. 1, 1925	Incandescent Lamp and the Like.
1558000	Fernberger	Oct. 20, 1925	Method of Making Tungsten Wires.
1558524	Winninghoff	Oct. 27, 1925	Sealing Device.
1559799	Smithells	Nov. 3, 1925	Manufacture of Tungsten.
1560265	Lely	do	Incandescent Electric Lamps for Projection Purposes.
1560936	Force	Nov. 10, 1925	Mercury Vapor Device.
1560981	D Graaf and Lely	do	Manufacture of Incandescent Lamps.
1565724	Fonda	Dec. 15, 1925	Filament and Method of Manufacture thereof.
1566848	do	Dec. 22, 1925	Incandescent Lamp.
1569095	Laise	Jan. 12, 1926	Body of High Electron and Light Emission and Process of Making Same.
1571717	Graner	Feb. 2, 1926	Process for Manufacturing Metal Caps for Electric Incandescent Lamps.
1573601	Fuller	Feb. 16, 1926	Article Containing Visible Temperature Records and Method of Obtaining Records.
1575994	Laise	Mar. 9, 1926	Leading-in Wire and Gas Tight Seal and Method of Making Same.
1576221	Rippl	do	Machine for Making Flares.
1585497	Just	May 18, 1926	Process of Manufacturing Ductile Tungsten.
1588179	Friederich	June 8, 1926	Leading-in Wire for Glass Vessels.
1591113	Buttolph	July 6, 1926	Method of and Apparatus for Electric Welding.
1591833	Jarman	do	Method of and Machine for Forming Filaments.
1591910	Burnap	do	Incandescent Lamp.
1591911	Halvorson	do	Do.
1593381	Blau	July 20, 1926	Tungsten Arc Lamp.
1594057	Fonda	July 27, 1926	Electric Incandescent Lamp Device.
1597439	Fagan et al	Aug. 24, 1926	Apparatus for Feeding Glass Parts.
1600072	Skaupy and Gaides	Sept. 14, 1926	Light Diffusing Glassware.
1600076	Suzuki	do	Electrodeposition of Metallic Chromium.
1600203	Campbell	do	Incandescent Lamp.
1600843	Pirani	Sept. 21, 1926	Tungsten Arc Lamp.
1600862	Bahr	do	Do.
1601902	Bol	Oct. 5, 1926	Sealing Off Machine.
1601931	Van Arkel	do	Manufacture of Bodies from Metals Having High Melting Points.
1603087	Mackey	Oct. 12, 1926	Electric Discharge Device.
1608267	Force	Nov. 23, 1926	Arc Device.
1608268	Found et al	do	Electric Discharge Device and Method of Operation.
1610062	Lokker et al	Dec. 7, 1926	Electric Lamp.
1610077	Devers	do	Do.
1610892	Skaupy et al	Dec. 14, 1926	Electric Gas Lamp with Glow Discharge.
1615666	Wright	Jan. 25, 1927	Method of and Apparatus for Forming Filaments.
1617161	Koref & Hoffman	Feb. 8, 1927	Process of Preparing Metals.
1617979	Zebrowski	Feb. 15, 1927	Tungsten Arc Lamp.
1620397	Samson	Mar. 8, 1927	Incandescent Electrode Device.
1620447	J. F. Donovan	do	Apparatus for Making Incandescent Lamps and Similar Articles.
1620523	De Jong et al	do	Hook Forming and Inserting Machine.
1621359	Fagan et al	Mar. 15, 1927	Glass Working Machine.
1621360	Falge	do	Incandescent Lamp.
1623761	Skaupy	Apr. 5, 1927	Electric Lamp.

Digitized by Google

Schedule A—Continued

No.	Name	Date	Title
1623784	Fonda	Apr. 5, 1927	Incandescent Filament.
1623836	Graner	do	Metal Cap for Electric Incandescent Lamp and its Manufacture.
1624762	Ruttenauer et al	Apr. 12, 1927	Reflector Lamp.
1628410	Koning	May 10, 1927	Exhausting Machine.
1628456	Foulke	do	Metal Filament.
1629313	Ruttenauer	May 17, 1927	Inclosed Arc Lamp.
1629345	Koref	do	Device for Transforming the Crystalline Structnre o Wires.
1631377	Loebe and Grossmann	June 7, 1927	Sealing-off Device.
1631378	Martin	do	Do.
1631379	Maurer	do	Sealing-off Torch.
1632578	Babr	June 14, 1927	Arc Lamp of the Sealed Type.
1632647	Fonda	do	Incandescent Lamp.
1632769	Severin	do	Filament for Incandescent Lamps or Similar Articles.
1635055	Pacz	July 5, 1927	Alloy Filament.
1635793	Koref et al	July 12, 1927	Method of Working Refractory Metals.
1637034	Bergmans	July 26, 1927	Coiled Filament Incandescent Lamp.
1637037	De Jong	do	Wire Spool and Carrier.
1638369	Skaupy	Aug. 9, 1927	Colored Incandescent Lamp Bulb.
1640428	Skaupy et al	Aug. 30, 1927	Electrode for Electric Discharge Devices.
1640442	De Jong	do	Stem Making Machine.
1640443	Devers	do	Electrical Discharge Device.
1640450	Ihln	do	Arc Light.
1640458	Ledig et al	do	Apparatus for Unfitting Tubing.
1641761	Ibele	Sept. 6, 1927	Cement for Incandescent Lamp Filaments.
1644712	De Graaff	Oct. 11, 1927	Electric Lamp.
1646258	Rous et al	Oct. 18, 1927	Stem-Forming Machine.
1648677	De Boer	Nov. 8, 1927	Incandescent Electric Lamp.
1648679	Fonda	do	Incandescent Lamp.
1648690	Jacoby	do	Method of Making Tong Crystal Tungsten Filaments.
1650602	Burnap	Nov. 29, 1927	Stem for Incandescent Lamp.
1650605	Campbell	do	Method of Mounting Filaments.
1650631	Koref and Alterthum	do	Process of Preparing Tungsten.
1651865	Blake and Geiger	Dec. 6, 1927	Apparatus for Making Incandescent Lamps and Similar Articles.
1652981	Graner	Dec. 13, 1927	Electric Light Equipment.
1655140	J. T. Fagan	Jan. 3, 1928	Stem Making Machine.
1655141	J. T. Fagan et al	do	Do.
1655279	McGowan	do	Mount Making Machine.
1655290	Phelps et al	do	Machine for Treating Hollow Glass Articles.
1655466	Inman	Jan. 10, 1928	Method and Apparatus for Treating Filaments.
1655488	Wolff	do	Electric Incandescent Lamp.
1655502	Holst	do	Incandescent Electric Lamp.
1658568	Moore	Feb. 7, 1928	Method and Apparatus for Maintaining Gaseous Conduction Charges.
1659613	Phelps and Raus	Feb. 21, 1928	Method and Apparatus for Making Stems.
1659749	Skaupy	do	Electric Incandescent Lamp and Method of Manufacturing its Illuminating Body.
1662027	Graaff	Mar. 6, 1928	Tungsten Product and its Manufacture.
1662045	Patterson	do	Lamp Making Machine.

Schedule A-1

989269	Hewitt	Apr. 11, 1911	Vapor Electric Apparatus.
990853	Flichtner	May 2, 1911	Adjustable Supports for Vapor Lamps.
990879	von Keller	do	Tilting Lamps.
998175	Hewitt	July 18, 1911	Method of and Apparatus for Starting and Operating Mercury Vapor Apparatus.
1008391	Thomas	Nov. 14, 1911	Method of Controlling Capor Electric Apparatus.
1008998	do	do	Vapor Electric Lamp.
1009025	do	do	Controlling Vapor Electric Devices.
1009939	do	Nov. 28, 1911	Manufacture of Vapor Electric Apparatus.
1012706	Potter	Dec. 26, 1911	Gas or Vapor Electric Lamp and Heater Connected Therewith.
1014705	Hewitt	Jan. 16, 1912	Vapor Electric Lamp and Connection.
1014965	do	do	Do.
1018642	Thomas	Feb. 27, 1912	Seal for Vapor Devices.
1025464	Hewitt	May 7, 1912	Vapor Electric Apparatus.
1030178	do	June 18, 1912	Apparatus for the Electrical Production of Light.
1030262	Hewitt and Rogers	do	Gas or Vapor Electric Apparatus.
1030302	Hewitt	June 25, 1912	Gas or Vapor Electric Lamp.
1031890	Thomas	July 9, 1912	Starter for Vapor Apparatus.
1031931	Hewitt	do	Starter for Vapor Electric Apparatus.
1048762	Thomas	Dec. 31, 1912	Methods of Cooling Vapor Electric Apparatus.
1052057	Hewitt	Feb. 4, 1913	Vapor Electric Devices.
1052583	do	Feb. 11, 1913	Protecting Device for Vapor Apparatus.
1052584	do	do	Cooling Device for Vapor Electric Apparatus.

Digitized by Google

Schedule A–1—Continued

No.	Name	Date	Title
1054257	Thomas	Feb. 25, 1913	Vapor Electric Apparatus.
1064685	Hewitt	June 10, 1913	Electric Lighting Apparatus.
1064686	do	do	Gas or Vapor Electric Apparatus.
1064687	do	do	Vapor Electric Device.
1064688	do	do	Electric Lighting Apparatus.
1064689	do	do	Vapor Electric Device.
1064690	do	do	Automatic Starting Device for Vapor Lamps.
1064691	do	do	System of Electrical Distribution.
1069696	do	Aug. 12, 1913	Starting Device for Vapor Apparatus.
1070345	von Keller	do	Apparatus for Operating Mercury Vapor Lamps.
1078641	Pole	Nov. 18, 1913	Mercury Vapor Apparatus.
1078859	Keyes	do	Do.
1079341	Hewitt	Nov. 25, 1913	Method of Starting Electric Lighting Apparatus.
1079342	Hewitt and Rogers	do	Electric Gas or Vapor Lamps.
1079343	Hewitt	do	Electric Lighting.
1079344	do	do	Electrical Production of Light.
1079379	Thomas	do	Outfit for A. C. Vapor Lamps.
1079380	do	do	Circuit Interrupter.
1079926	Bastian	do	Electric Vapor Apparatus.
1091180	Baker	Mar. 24, 1914	Mercury Vapor Apparatus.
1091222	Hewitt	do	Method for the Electrical Production of Light.
1091244	Recklinghausen	do	Electrodes for Gas or Vapor Electric Apparatus.
1097320	Hewitt	May 19, 1914	Methods of Electrical Transmission.
1097547	do	do	Directional Current Arresters.
1110543	do	Sept. 15, 1914	Starting and Controlling Device for Electric Vapor Apparatus.
1110544	do	do	Electrodes for Vapor Apparatus.
1110547	do	do	Methods of Transmitting and Utilizing Electric Currents.
1110548	do	do	Starting and Controling Devices for Electric Vapor Apparatus.
1110551	do	do	Starting and Operating Vapor Electric Devices.
1110552	do	do	Vapor Electric Device.
1110553	do	do	Starting Devices for Mercury Vapor Electric Apparatus.
1110555	do	do	Vapor Electric Device.
1110559	do	do	Vapor Electric Lamp and Connections.
1110562	do	do	Electrical Production of Light.
1110574	Recilinghausen	do	Electrodes for Gas or Vapor Electric Apparatus.
1110576	Von Recklinghausen	do	Means for Improving a Vacuum.
1110582	Thomas	do	Single Phase Gas or Vapor Electric Apparatus.
1110585	do	do	Controlling Devices for Vapor Apparatus.
1110587	do	do	Alternating Current Vapor Lamp.
1110589	do	do	Alternating Current Vapor Device.
1110591	do	do	Method of and Apparatus for Starting Vapor Devices.
1110601	do	do	Cooling Devices for Vapor Electric Apparatus.
1110602	do	do	Vapor Electric Apparatus Adapted for Operation in Series.
1110607	Bastian	do	Vapor Electric Apparatus.
1110608	do	do	Do.
1110609	do	do	Do.
1110617	Flichtner	do	Adjustable Supports for Vapor Lamps.
1110631	von Keller	do	Apparatus for Operating Mercury Vapor Lamps.
1110644	Pole	do	Rectifiers for Lamps.
1110645	do	do	Mercury Vapor Apparatus.
1110687	Hewitt	do	Electrical Distribution by Alternating Currents.
1110780	do	do	Electric Vapor Apparatus.
1110985	Bastian	do	Vapor Electric Apparatus.
1113218	Keyes	Oct. 13, 1914	Quartz Lamps.
1121358	Hewitt	Dec. 15, 1914	Vapor Electric Translating Device.
1121360	do	do	Apparatus for Transforming Electrical Energy.
1122185	Bastian	Dec. 22, 1914	Vapor Electric Apparatus.
1144396	Thomas	June 29, 1915	Starters for Vaport Electric Devices.
1153976	do	Sept. 21, 1915	Mercury Vapor Apparatus.
1156257	do	Oct. 12, 1915	Gas or Vapor Electric Apparatus.
1156825	do	do	Do.
1157779	Hewitt	Oct. 26, 1915	Means for Suppressing the Resistance of the Negative Electrode Flame in Vapor Electric Apparatus.
1158842	Pole	Nov. 2, 1915	Protecting Device for Vapor Electric Apparatus.
1158928	Keyes	do	Terminal for Mercury Vapor Apparatus.
1159335	do	do	Seal for Vacuum Apparatus.
1161425	Thomas	Nov. 23, 1915	Alternating Current Vapor Lamps.
1161485	Leblanc	do	Vapor Electric Devices.
1161801	Darmois & Leblanc	do	Vapor Electric Apparatus.
1163665	Hewitt	Dec. 14, 1915	Protecting Device for Vapor Apparatus.
1163707	Thomas	do	Single Phase Gas or Vapor Electric Apparatus.
1163708	do	do	Mercury Vapor Apparatus.
1168439	do	Jan. 18, 1916	System of Constant Current Distribution.
1186993	Keyes	June 13, 1916	Apparatus for Producing Ultra Violet Radiation.
1188576	Thomas	June 27, 1916	Circuit Breakers.
1188577	do	do	Mercury Vapor Apparatus.
1188578	do	do	Do.
1188587	Recklinghausen	do	Vapor Electric Apparatus.

Digitized by Google

Schedule A–1—Continued

No.	Name	Date	Title
1188663	Leblanc	June 27, 1916	Do.
1197628	Hewitt	Sept. 12, 1916	Regulation of Electrical Distribution Systems.
1197629	do	do	Vapor Electric Apparatus.
1197829	Keyes	do	Quartz Lamps.
1197830	do	do	Terminals for Vapor Electric Apparatus.
1198381	Hewitt	do	Vapor Electric Apparatus.
1201530	Thomas	Oct. 17, 1916	Do.
1203812	do	Nov. 7, 1916	Mercury Vapor Apparatus.
1204117	Bastian and Salisbury	do	Mercury Vapor Arc Lamps.
1214613	Thomas	Feb. 6, 1917	Vapor Electric Apparatus.
1224701	Baker	May 1, 1917	Multiple Anode Lamp.
1235699	Keyes	Aug. 7, 1917	Vapor Electric Apparatus.
1235741	Thomas	do	Mercury Vapor Apparatus.
1235742	do	do	System of Constant Current Distribution.
1286316	Hewitt	Dec. 3, 1918	Electric Translating Apparatus.
1286882	do	do	Do.
1295499	do	Feb. 25, 1919	System of Electrical Distribution.
1303273	Evans	May 13, 1919	Electrotherapeutical Device.
1303274	do	do	Do.
1307455	Pole	June 24, 1919	Vacuum Electric Apparatus.
1321432	Hewitt	Nov. 11, 1919	Method of and Apparatus for Transforming Electrical Energy.
1321433	do	do	Gas or Vapor Lamps and Method of Operating Same.
1321434	do	do	Apparatus for Regulating Electric Circuits.
1321435	do	do	Methods of and Means for Creating in a Portion of an Electric Circuit a Falling Electromotive Force Characteristic.
1321436	do	do	Method of and Means for Varying the Frequency of an Oscillating Current.
1321437	do	do	Means for Producing Periodic or Alternating Currents and Controlling the Frequency of Same.
1339914	Barrett	do	Starting Means for Electric Apparatus.
1435192	Anderson	Nov. 14, 1922	Water and Air Cooled Lamp Structure.
1435193	do	do	Water Cooled Lamp.
1459300	Flitner	June 19, 1923	Packing Device.
1461038	Keyes	do	Starter for Electrical Translating Devices.
1472779	Anderson	Nov. 6, 1923	Therapeutic Appliance.
1591112	Buttolph	July 6, 1926	Starting Apparatus for Vapor Lamps.
1591175	Malley, et al	do	Glass Working Machinery.
1607237	Buttolph	Nov. 16, 1926	Mercury Vapor Lamp and Rectifier Starting Apparatus.
1630051	do	May 24, 1927	Electric Lamp.
1630052	do	do	Water Cooled Lamp.
1630053	do	do	Vapor Lamp.
1630054	do	do	Water Cooled Lamp.
1630055	do	do	Do.
1630056	do	do	Do.
1630090	Malley	do	Electric Lamp Outfit.
1630233	Buttolph	do	Light for Microscopes and the like.

----------, 1928.

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY,
150 Broadway, New York, N. Y.

GENTLEMEN: Referring to the incandescent lamp license granted to you dated as of January 1, 1927, it is understood that the General Electric Company may appoint the Graybar Electric Company and the National Carbon Company, Incorporated, as Agents for the sale of its lamps on a basis of compensation somewhat different from that indicated in the Schedules attached to the above mentioned license, it being understood that the arrangement with the Graybar Electric Company relates and will relate solely to lamps sold under the "Sunbeam" trade mark and that the arrangement with the National Carbon Company,

Digitized by Google

Incorporated relates and will relate solely to lamps of the miniature and decorative types.

This letter forms part of said license agreement dated as of January 1, 1927.

Very truly yours,

GENERAL ELECTRIC COMPANY,
By ----------
Vice President.

Attest:

Asst. Secretary.

Received and Accepted as of January 1, 1927.

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY,
By----------, *President.*

Attest:

Secretary.

June ____, 1928.

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY,
150 Broadway, New York.

GENTLEMEN: In addition to the patents listed in Schedule A of the license agreement between General Electric Company and yourselves, dated as of January 1, 1927, we have a license from the Union Switch & Signal Company for certain fields under the following patents:

United States Patent 1241512 issued October 2, 1917, to C. O. Harrington.
United States Patent 1330702 issued February 19, 1917, to C. O. Harrington.
United States Patent 1329639 issued February 3, 1920, to C. S. Snavely.
United States Patent 1329640 issued February 3, 1920, to C. S. Snavely.

This license is dated August 31, 1927, and contains the following provision:

"The Union Company hereby grants and agrees to grant to the General Company, under all United States patents issued or to be issued covering the existing inventions above referred to, exclusive, transferable and divisible licenses for the terms of said patents with the right to grant sub-licenses, to practice the said inventions and to make, use and sell apparatus and devices embodying any of said inventions for all purposes and all fields of use except for use in railway light signals, which signals are hereinafter defined. It is expressly agreed that no rights are granted to the General Company under this agreement for use of said inventions in railway light signals as hereinafter defined.

For the purpose of this agreement, a railway light signal is a railway signal of the type wherein an electric lamp together with optical projecting means constitutes the means for giving indications both in daylight and in darkness.

The term railway light signal as used in this agreement is to include signals located at the intersection of railways and highways to warn highway traffic of the approach of railway cars or trains, but the said term does not include a signal used for the control of general traffic on public highways and streets."

By virtue of our license to you of January 1, 1927, you are entitled to a license under the above mentioned four patents to the extent that we have the right and power to extend the same to you.

Very truly yours,

GENERAL ELECTRIC COMPANY,
By ----------
Vice President.

AGREEMENT—AMENDING ELECTRIC LAMP LICENSE OF JANUARY 1, 1927

GENERAL ELECTRIC COMPANY AND WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY APRIL 28, 1931

Agreement made as of this first day of January 1931, but actually executed this 28th day of April 1931, between General Electric Company, a New York corporation, and Westinghouse Electric & Manufacturing Company, a Pennsylvania corporation.

Whereas the parties hereto entered into an agreement, dated as of the first day of January 1927, but actually executed the 15th day of June 1928, entitled "Electric Lamp License"; and

Digitized by Google

Whereas the parties desire to include certain ultra-violet ray devices among the electric lamps which are licensed by said agreement, and desire also to modify the provisions of said agreement with respect to the export of lamps or the sale thereof for export;

Now therefore, it is mutually agreed by and between the parties hereto that—

(*a*) the first sentence of Article 3 of said Electric Lamp License be and the same hereby is amended to read as follows:

"An electric lamp is for the purpose of this agreement defined as any device the primary purpose of which is to convert electric energy into light within the visible spectrum and/or into ultra-violet radiations of wave lengths not less than 1,000 Angstrom units; but not including the so-called arc or enclosed arc lamps which do not have hermetically sealed containers"; and

(*b*) The last sentence of Article 7 of said Electric Lamp License be and the same hereby is amended to read as follows:

"No license is herein granted under foreign patents; and no license is granted to export electric lamps, or sell lamps for export, except to countries to which the Licensor would itself have a right to export them (or to countries to which on May 1, 1931, the Licensor had such right to export or sell for export), and no license is granted to sell filaments or other parts of lamps, nor to manufacture lamp bulbs, tubing, or cane glass."

All the remaining provisions of said Electric Lamp License shall be and remain in full force and effect.

In witness whereof the parties hereto have caused this instrument to be executed by their officers thereunto duly authorized and their corporate seal to be hereto attached on the day and year first above written.

GENERAL ELECTRIC COMPANY,
By CHARLES W. APPLETON, *Vice President.*

Attest:
[SEAL] L. W. MOSHER, *Assistant Secretary.*

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY,
By S. A. MERRICK, *President.*

Attest:
[SEAL] WARREN H. JONES, *Secretary.*

STANDARD OIL DEVELOPMENT CO., LINDEN, N. J.,
26 Broadway, New York, January 17, 1936.

COMMITTEE ON PATENTS,
Room 1015, New House Office Building, Washington, D. C.
(Attention of the chairman.)

GENTLEMEN: We regret that reply to your letter of November 6 was delayed, owing to the time required to review this subject, until after the investigation was formally closed. Nevertheless, as requested in your letter of January 13, we now reply to your questions seriatim:

1. Attached hereto are lists of patents owned by Standard Oil Co. (New Jersey) and this company, which we believe to be complete up to January 1, 1936. It should be understood that in addition to these lists a small number of patents are owned by other operating subsidiaries of Standard Oil Co. (New Jersey). To make the list absolutely complete as covering all of the operating subsidiaries would require considerable time and put us to some expense. We would prefer not to attempt to do this unless you consider its absolutely essential for your present purposes.

2. We regret that there is no way of determining the exact extent to which the total number of patents owned and controlled by the Standard Oil Co. (New Jersey) and its subsidiaries are used by any of them at any particular time. We can say that it is not the policy to take out or acquire patents except on inventions relating to our own business and in the expectation of using these inventions. No records are kept, however, corelating the actual use of the patented invention with the patent itself. In a rapidly advancing art, such as the refining of oil, many inventions which seem promising never get into practical use. Often inventions become obsolete before the patents issue and in a large proportion of cases the inventions are obsolete before expiration of the patents. We have no exact data which would permit us to answer the question any more definitely than the foregoing.

3. We enclose copy of the constitution and bylaws of Standard Oil Co. (New Jersey) and this company.

Digitized by Google

4 and 5. This company and other subsidiaries of Standard Oil Co. (New Jersey) are parties to a very large number of agreements relating to or referring to patent rights, or in which patent rights enter in one manner or another. So far as we know there are none of these agreements which would correspond to the definition of the term "patent pool" as this term is generally defined; that is, a complete merger of the ownership of patent rights of a group of patentees in a certain field of invention or industry. We attach copies of various forms of agreements, listed below, to which Standard Oil Co. (New Jersey) and Standard Oil Development Co. are parties, and which range from simple cross-licensing agreements involving only two parties, up to the Hydro Patents Co.'s agreements which involve the hydrogenation patent rights of a very large percentage of the United States oil refining industry.

Agreement dated July 22, 1935, with Chemical Construction Corporation.

Agreement dated July 1, 1933, with Cuno Engineering Corporation.

Agreement dated March 28, 1934, Petroleum Distillation Corporation.

Agreement dated September 1, 1935, Gas Polymerization Processes.

Agreement dated October 27, 1933, H. C. Technique.

Agreement dated July 27, 1933, escrow and licenses, Gray Processes Corporation.

Agreement dated July 1, 1935, mutual licensing plan, Hydro Patents Co.

We believe the agreements enclosed are sufficient in number and range to illustrate fully the various types of patent agreements to which Standard Oil Co. (New Jersey) and this company are parties.

By way of comment, we would say that our general policy has been to endeavor to maintain complete independence with regard to our right to license or enforce our own patent rights.

6. We regret that it is impossible to give a complete answer to this question and impossible to give even an approximately complete answer without a great deal of expense and delay.

7. So far as we know, no patent rights involved in any of the agreements to which we are parties are used as a basis for charter or corporation franchises.

8. The technical employees of this company and other operating subsidiaries of Standard Oil Co. (New Jersey) who are in positions which are likely to result in their working out improvements applicable to our business are quite generally employed under term agreements giving the company the option to purchase all rights in their inventions relating to the business of the company, for a small agreed-upon consideration and with additional provision for compensation to the employee for any services he may be called upon to perform in connection with the securing or enforcement of the assigned patent rights after he has left the employ of the company.

9. We regret that it is impossible to make a complete list, as required by this question, for the reason that in many cross license agreements the license passes automatically under all patent rights of the licensor within a defined field. In most instances the licensor does not provide or maintain a complete list of such patent rights and, therefore, we as licensees have no adequate way of determining the full extent of the protection afforded. The legal effect of most of these cross-license agreements is that of a covenant-not-to-sue, and there is no need for a complete list of all of the actionable rights under which suit might be brought, since the agreement avoids all litigation between the parties in the defined field.

10 and 11. We do not know of any agreements to which we are a party as to which these questions would be directly pertinent. The nearest example of which we can think is the set of agreements, enclosed, referring to the Hydro Patents Co. At the time this plan of passing control of the hydrogenation patent rights in the United States to the American oil industry was formulated, an invitation to join in the formation of the Hydro Patents Co. was extended by Standard I. G. Co. to all the oil-refining companies in the United States which were listed in the then latest Bureau of Mines Report as having 20,000 barrels per day or more of complete refining capacity. A total of 22 companies having that capacity were so listed. Of these companies 18 accepted the invitation and identified themselves with the Hydro Patents Co. Due to changed economic conditions which have made the general use of the hydrogenation process for the intended purposes of oil refining uneconomic in the United States up to the present time, there has been no application made by any additional companies to join the original companies in this group.

Digitized by Google

The decision to invite to participate in the original group only those companies having 20,000 barrels or more of complete refining capacity was based on the fact that an economical hydrogenation unit for general oil refining at that time was believed to be not less than 5,000 barrels per day and no refiner having less than 20,000 barrels per day capacity would have been justified in considering the installation of such a large unit. No restrictions were placed upon the original group which would have prevented changing the plan if subsequent developments indicated that the process could be used on a smaller scale.

12. We believe that consideration might profitably be given to an amendment enlarging the scope of the recording statute to permit or require the recording of all instruments under which any patent right or license other than a simple nonexclusive, nontransferable license passes.

Much can be said in favor of such legislation if it does not attempt to achieve impracticable ends but is limited strictly in its purpose of creating a reliable complete public record of the beneficial ownership or control of all rights under patents other than simple immunities from suit.

Very truly yours,

FRANK A. HOWARD.

Active patents in name of Standard Oil Co. (New Jersey) Nov. 22, 1935

Patent no.	Date	Inventor	Title
1300816	Apr. 15, 1919	E. B. Cobb	Process of desulfurizing petroleum oils.
1315623	Sept. 9, 1919	do	Process for treatment of petroleum oils.
1317372	Sept. 30, 1919	C. M. Husted	Apparatus for treating fuller's earth and similar materials.
1321281	Nov. 11, 1919	L. Burgess	Process for producing aluminum chloride.
1322762	Nov. 25, 1919	E. B. Cobb	Making low-boiling oil from higher boiling petroleum or related oil.
1322878	do	do	Do.
1357224	Nov. 2, 1920	do	Process of desulfurizing oils.
1357225	do	do	Process of desulfurizing petroleum oils.
1357559	do	R. A. Heilenday	Globe holder.
1378536	May 17, 1921	E. J. Flynn	Outage gage.
1379523	May 24, 1921	L. Burgess	Process of reducing aluminum oxide.
1386077	Aug. 2, 1921	E. A. Rudigier	Method of distillation of oil.
1387835	Aug. 16, 1921	E. B. Cobb	Process of purifying hydrocarbon oils.
1387868	do	C. I. Robinson	Purifying hydrocarbon oils.
1388517	Aug. 23, 1921	E. B. Cobb	Manufacture of viscous water-white oils and other decolorized products of petroleum.
1388832	do	do	Manufacture of medicinal oils and other viscous decolorized products of petroleum.
1391757	Sept. 27, 1921	H. E. Buc	Production of pentochlor acetone.
1391758	do	do	Art of chlorination.
1394921	Oct. 25, 1921	E. C. McKenzie-Martyn and F. A. Howard.	Priming Device.
1401113	Dec. 20, 1921	L. Burgess	Process for treating residues resulting from the treatment of hydrocarbon with aluminum chloride.
1403198	Jan. 10, 1922	C. I. Robinson	Treating spent Fuller's earth.
1405183	Jan. 31, 1922	L. Burgess	Process for the production of anhydrous aluminum chloride.
1405286	do	E. M. Clark	Art of Pressure Distillation.
1410797	Mar. 28, 1922	do	Do.
1413005	Apr. 18, 1922	E. B. Cobb	Process of desulfurizing petroleum oils.
1413260	do	E. M. Clark	Process of Distilling Crude Petroleum and Products Thereof.
1413864	Apr. 25, 1922	M. D. Mann, Jr.	Purifying alcoholic liquid.
1413899	do	E. M. Clark	Refining of petroleum oil.
1413907	do	H. L. Gerstenberger	Metallic Drums.
1415232	May 9, 1922	C. Ellis	Process of Cracking oils under pressure.
1415351	do	F. A. Howard, C. I. Robinson, and J. M. Jennings.	Prevention of evaporation of stored liquids.
1415352	do	F. A. Howard and J. M. Jennings.	Prevention of evaporation.
1422583	July 11, 1922	R. B. Lebo	Process of purifying higher secondary alcohols.
1423719	July 25, 1922	J. M. Jennings	Stable foam for preventing the evaporation of stored liquids.
1423720	do	do	Foam covering for preventing the evaporation of stored liquids.
1423721	do	do	Do.
1431259	Oct. 10, 1922	C. I. Robinson	Recovery of byproducts of petroleum refining.

Digitized by Google

Patents assigned to Standard Oil Development Co.

DESIGN PATENTS

Patent no.	Inventor	Date	Patent no.	Inventor	Date
65274	Frank A. Howard and Almeda Barr Howard	July 22, 1924	91332	Guy L. Rosebrook	Jan. 9, 1934
76456	Robert S. Brenner and John Scott	Oct. 2, 1928	91333	do	Do.

CLASS 1—ASPHALT

1673533	Edward A. Rudigier	June 12, 1928	1951790	Roy A. Curran	Mar. 20, 1934
1842106	Nathaniel E. Loomis	Jan. 19, 1932	1973294	Erik Mutter	Sept. 11, 1934
1926523	Stewart C. Fulton and Vladimir Kalichevsky	Sept. 12, 1933	1973509	Charles M. Baskin	Do.
			1999178	do	Apr. 30, 1935
1939391	Roy A. Curran	Dec. 12, 1933	2010423	Alfred A. Wells	Aug. 6, 1935

CLASS 2—ALCOHOL

1455072	Hyym E. Buc	May 15, 1923	1820907	Hyym E. Buc	Sept. 1, 1931
1524192	Matthew D. Mann, Jr	Jan. 27, 1925	1865024	Robert B. Lebo	June 28, 1932
1593304	Carl O. Johns	July 20, 1926	1870815	do	Aug. 9, 1932
1601404	Matthew D. Mann, Jr	Sept. 28, 1926	1911829	do	May 30, 1933
1657505	Claude S. Hudson	Jan. 31, 1928	2012993	Per K. Frolich	Sept. 3, 1935
1676700	Warren K. Lewis	July 10, 1928			

CLASS 3—CARBON

1577481	Otis G. Messenger	Mar. 23, 1926	1767357	James B. Garner	June 24, 1930

CLASS 4—CLEANING TANKS AND DRUMS

1666865	Leroy V. Robbins	Apr. 17, 1928	1735462	John F. Johnson	Nov. 12, 1929
1681886	Otto C. Runge	Aug. 21, 1928	1745804	Felix J. Martinez	Feb. 4, 1930
1718924	John Stewart Harrison	June 25, 1929	1939394	Walter C. Harpster	Dec. 12, 1933
1722188	George W. Wheat	July 23, 1929			

CLASS 5—CRACKING—IN GENERAL

1478102	Edgar M. Clark, Nathaniel E. Loomis, James R. Carringer	Dec. 18, 1923	1686490	Frank A. Howard	Oct. 2, 1928
			1710404	Edgar M. Clark, Frank A. Howard	Apr. 23, 1929
1525916	Edgar M. Clark	Feb. 10, 1925	1757579	Nathaniel E. Loomis	May 6, 1930
1566828	do	Dec. 22, 1925	1767455	Frank A. Howard	June 24, 1930
1578802	do	Mar. 30, 1926	1822862	Nathaniel E. Loomis, Louis Burgess	Sept. 8, 1931
1580994	Frank A. Howard	June 1, 1926			
1609023	do	Nov. 30, 1926	1865195	Warren K. Lewis	June 28, 1932
1612289	do	Dec. 28, 1926	1933048	Stewart P. Coleman	Oct. 31, 1933
1615384	Frank A. Howard, Edgar M. Clark, James R. Carringer	Jan. 25, 1927	1944419	Per K. Frolich, Benjamin C. Boeckeler	Jan. 23, 1934
			1954991	James B. Garner, Rolla W. Miller, George B. Leyden	Apr. 17, 1934
1623061	Otis G. Messenger	Apr. 5, 1927			
1634833	Frank A. Howard	July 5, 1927			
1640938	Frank A. Howard, Nathaniel E. Loomis	Aug. 30, 1927	1956567	Carleton Ellis	May 1, 1934
			1956573	Robert T. Haslam	Do.
1649532	Frank A. Howard	Nov. 15, 1927	1956603	Abraham White	Do.
1651115	Edgar M. Clark, Nathaniel E. Loomis, Frank A. Howard	Nov. 29, 1927	1981826	Edward B. Peck, Carl E. Kleiber	Nov. 20, 1934
			2002534	Per K. Frolich	May 28, 1935

CLASS 6—CRACKING-TUBE AND TANK

1545949	Carleton Ellis	July 14, 1925	1725434	Louis J. Walsh	Aug. 20, 1929
1648967	Alexander C. Spencer	Nov. 15, 1927	1756563	Louis Link	Apr. 29, 1930
1656710	Edward A. Rudigier	Jan. 17, 1928	1760136	Frank A. Howard	May 27, 1930
1656724	James R. Carringer	Do.	1767283	William L. Gomory	June 24, 1930
1659948	George E. Fox	Feb. 21, 1928	1767298	Warren K. Lewis	Do.
1670037	Frank A. Howard, Nathaniel E. Loomis	May 15, 1928	1767360	John S. Harrison	Do.
			1785274	Nathaniel E. Loomis, Albert H. Tomlinson, Frank A. Howard	Dec. 16, 1930
1676694	Frank A. Howard	July 10, 1928			
1676826	do	Do.			
1681899	do	Aug. 21, 1928	1809174	Nathaniel E. Loomis	June 9, 1931
1694262	do	Dec. 4, 1928	1809185	Harold Sydnor	Do.

Digitized by Google

Patents assigned to Standard Oil Development Co.—Continued

CLASS 6—CRACKING-TUBE AND TANK—Continued

Patent no.	Inventor	Date	Patent no.	Inventor	Date
1812658	Nathaniel E. Loomis	June 30, 1931	1919691	Charles Ringgold Ewing, Thomas Montgomery	July 25, 1933
1833650	Louis Link	Nov. 24, 1931	1933507	Edward B. Peck	Oct. 31, 1933
1842096	Frank A. Howard, Nathaniel E. Loomis	Jan. 19, 1932	1934049	Frank H. Edson	Nov. 7, 1933
1842104	Nathaniel E. Loomis, Merle R. Meacham	Do.	1934067	Frank A. Howard	Do.
1851429	Frank A. Howard	Mar. 29, 1932	1948391	Thomas Montgomery, John C. Morrison	Feb. 20, 1934
1857759	Nathaniel E. Loomis	May 10, 1932	1966113	George M. Booth, Richard W. Tryon	July 10, 1934
1860966	Harold Sydnor	May 31, 1932	1998248	Nathaniel E. Loomis	Apr. 16, 1935
1865027	Nathaniel E. Loomis	June 28, 1932	1998402	A. C. Spencer, and Eric W. Luster	Do.
1870855	Eric W. Luster	Aug. 9, 1932	2002530	Frank H. Edson	May 28, 1935
1877060	Jackson R. Schonberg	Sept. 13, 1932	2006188	H. Sydnor	June 25, 1935
1899889	Charles D. Bayne	Feb. 28, 1933	2015733	do	Oct. 1, 1935
1899895	Frank A. Howard	Do.			
1900116	Nathaniel E. Loomis, Albert H. Tomlinson	Mar. 7, 1933			

(No class 7)

CLASS 8—DEWAXING AND SWEATING

1528427	Edgar M. Clark, Frank A. Howard	Mar. 3, 1925	1760096	Clarence A. Ward	May 27, 1930
1714228	Warren K. Lewis	May 21, 1929	1789347	Jules Verner	Jan. 20, 1931
1718672	Clarence A. Ward	June 25, 1929	1936181	Clarence A. Ward	Nov. 21, 1933
1746198	Nathaniel E. Loomis, Warren K. Lewis	Feb. 4, 1930	1978361	Gustav A. Beiswenger	Oct. 23, 1934
			1993256	Allan Berne-Allen, Jr	Mar. 5, 1935
			2008674	do	July 23, 1935

CLASS 9—DISTILLATION—IN GENERAL

1582123	Edgar Milton Clark	Apr. 27, 1926	1767299	Nathaniel E. Loomis	June 24, 1930
1594957	Frank A. Howard, Edgar M. Clark	Aug. 3, 1926	1767331	Daniel R. Weller, Louis Link	Do.
1606075	Frank A. Howard	Nov. 9, 1926	1791937	Jackson R. Schonberg	Feb. 10, 1931
1613754	Frank A. Howard, Nathaniel E. Loomis	Han. 11, 1927	1822606	Frank A. Howard, Warren K. Lewis, Henry M. Noel	Oct. 11, 1932
1621229	David M. Allan	Mar. 15, 1927	1911836	Nathaniel E. Loomis	May 30, 1933
1625984	Edgar M. Clark	Apr. 26, 1927	1915436	Thomas V. Moore, Henry D. Wilde, Jr	June 27, 1933
1661189	Merle R. Meacham	Mar. 6, 1928	1939382	Gustav A. Beiswenger	Dec. 12, 1933
1676724	Arman E. Becker	July 10, 1928	1955246	Louis Link	Apr. 17, 1934
1697195	Warren K. Lewis, Nathaniel E. Loomis	Jan. 1, 1929			
1741895	Daniel R. Weller, Louis Link	Dec. 31, 1929			

CLASS 10—DISTILLATION—VACUUM

1730112	Arman E. Becker, Jackson R. Schonberg	Oct. 1, 1929	1786639	Harry C. Wiess	Dec. 30, 1930
1753149	Henry H. Hewetson	Apr. 1, 1930	1791940	Alexander C. Spencer	Feb. 10, 1931
			1877987	Jackson R. Schonberg	Sept. 20, 1932

CLASS 11—DISTILLATION—FRACTIONATION

1595642	Edgar M. Clark, Frank A. Howard	Aug. 10, 1926	1806571	Frank A. Howard, Nathaniel E. Loomis	May 19, 1931
1609007	Daniel R. Weller, Louis Link	Nov. 30, 1926	1842097	do	Jan. 19, 1932
1626346	Warren K. Lewis	Apr. 26, 1927	1843560	Frank A. Howard	Feb. 2, 1932
1644324	James R. Carringer	Oct. 4, 1927	1843570	Eric W. Luster	Do.
1646619	Nathaniel E. Loomis, Warren K. Lewis	Oct. 25, 1927	1877811	Stewart P. Coleman	Sept. 20, 1932
1672849	Warren K. Lewis, Alfred A. Wells	June 5, 1928	1899897	Nathaniel E. Loomis	Feb. 28, 1933
1694259	Henry H. Hewetson	Dec. 4, 1928	1904144	Paul E. Kuhl	Apr. 18, 1933
1694272	Nathaniel E. Loomis	Do.	1904196	Seward R. Bolles	Do.
1735470	Henry M. Noel	Nov. 12, 1929	1904213	Charles Ringgold Ewing, Thomas Montgomery	Do.
1746197	Warren K. Lewis	Feb. 4, 1930	1911832	Warren K. Lewis	May 30, 1933
1756032	Nathaniel E. Loomis	Apr. 29, 1930	1915681	Eric W. Luster	June 27, 1933
1767341	Frederick B. Bimel	June 24, 1930	1919594	Warren K. Lewis	July 25, 1933
1789339	Warren K. Lewis	Jan. 20, 1931	1919599	Jackson R. Schonberg	Do.
1796256	William J. Seeland	Mar. 10, 1931	1934101	Daniel E. Stines	Nov. 7, 1933
1797145	Frank A. Howard, Nathaniel E. Loomis	Mar. 17, 1931	2006186	do	June 25, 1935
			2007117	Peter J. Wiezevich	July 2, 1935
			2015725	John W. Packie	Oct. 1, 1935

Digitized by Google

Patents assigned to Standard Oil Development Co.—Continued

CLASS 12—ENGINES

Patent no.	Inventor	Date	Patent no.	Inventor	Date
1461300	George Winchester, Frank A. Howard	July 10, 1923	1679286	Vladimir M. Zaikowsky	July 31, 1928
1552995	Edward C. McKenzie-Martyn	Sept. 8, 1925	1756897	Earle W. Evans	May 13, 1930
1605966	do	Nov. 9, 1926	1781147	Vladimir M. Zaikowsky	Nov. 11, 1930
1623053	Frank A. Howard, and James R. Wright	Apr. 5, 1927	1781148	do	Do.
1648929	Vladimir M. Zaikowsky	Nov. 15, 1927	1788076	Vladimir Michel Zaikowsky	Jan 6, 1931
1654110	Henry M. Brown	Dec. 27, 1927	1788077	Vladimir M. Zaikowsky	Do.
1664375	Frank A. Howard	Mar. 27, 1928	1803102	Earle W. Evans	Apr. 28, 1931
1676827	Frank A. Howard, and Thomas R. Parker	July 10, 1928	1812841	Ralph A. Van Eaton	June 30, 1931
1676828	do	Do.	1860837	Frank A. Howard	May 31, 1932
			1869456	Vladimir M. Zaikowsky	Aug. 2, 1932
			1870675	Earle W. Evans	Aug. 9, 1932
			1904429	do	Apr. 18, 1933

CLASS 13—FURNACES

1599010	Robert T. Haslam	Sept. 7, 1926	1832449	George B. Cook	Nov. 17, 1931
1767297	Warren K. Lewis, and Nathaniel E. Loomis	June 24, 1930	1869626	Alexander C. Spencer	Aug. 2, 1932
1821326	Jackson R. Schonberg	Sept. 1, 1931	1993283	George Potts	Mar. 5, 1935

CLASS 14—GASOLINE FROM GAS

1496061	Nathaniel E. Loomis	June 3, 1924	1806571	Frank A. Howard and Nathaniel E. Loomis	May 19, 1931
1594915	Horace M. Weir	Aug. 3, 1926	1809167	Frederick W. Isles	June 9, 1931
1694272	Nathaniel E. Loomis	Dec. 4, 1928	1869611	Henry J. Nichols, Jr., and Paul E. Kuhl	Aug. 2, 1932
1727303	Frank A. Howard	Sept. 3, 1929	1869681	Per K. Frolich	Do.
1730152	Warren K. Lewis	Oct. 1, 1929	1877914	Warren K. Lewis	Sept. 20, 1932
1789470	Nathaniel E. Loomis	Jan. 20, 1931	1919594	do	July 25, 1933
1797145	Frank A. Howard and Nathaniel E. Loomis	Mar. 17, 1931	1976802	Henry J. Nichols, Jr., and Paul E. Kuhl	Oct. 16, 1934
1799619	Henry J. Nichols, Jr. and Eric W. Luster	Apr. 7, 1931			

CLASS 15—LUBRICANTS

1552669	Arman E. Becker and Lawrence D. Hislop	Sept. 8, 1925	1815022	Garland H. B. Davis	July 14, 1931
1559289	Robert L. Sibley	Oct. 27, 1925	1820963	Edgar M. Clark	Sept. 1, 1931
1562138	Arman E. Becker	Nov. 17, 1925	1860798	F. W. Abrams	May 31, 1932
1590800	do	June 29, 1926	1888974	Arman E. Becker	Nov. 29, 1932
1596574	do	Aug. 17, 1926	1917875	Garland H. B. Davis	July 11, 1933
1616829	John Walter Saybolt	Feb. 8, 1927	1934043	do	Nov. 7, 1933
1619074	Herbert L. Johnson	Mar. 1, 1927	1943806	Arman E. Becker, Reginald G. Sloane	Jan. 16, 1934
1628646	Arman E. Becker	May 17, 1927	1943808	Lawrence G. Benton, Howard R. Tate, Edward R. Lewtas	Do.
1628647	do	Do.	1963239	George M. Maverick	June 19, 1934
1715892	do	June 4, 1929	1966050	Reginald G. Sloane	July 10, 1934
1721762	do	July 23, 1929	1966111	Arman E. Becker, William S. Davis, Jr.	Do.
1750134	Edward A. Rudigier	Mar. 11, 1930	2015748	Per K. Frolich	Oct. 1, 1935
1789331	Arman E. Becker	Jan. 20, 1931			
1795491	Herbert L. Johnson	Mar. 10, 1931			
1812766	Arman E. Becker	June 30, 1931			

CLASS 16—INSECTICIDES AND GERMICIDES

1727305	Warren Moore, Hyym E. Buc	Sept. 3, 1929	1877875	Marion B. Hopkins	Sept. 20, 1932
1755178	Dudley H. Grant	Apr. 22, 1930	1933077	Nicholas A. Sankowsky	Oct. 31, 1933
1877851	do	Sept. 20, 1932	1934057	Dudley H. Grant	Nov. 7, 1933
			1940646	do	Dec. 19, 1933

CLASS 17—MOTOR FUELS

1589685	Frank A. Howard	June 22, 1926	1985613	Gordon McIntyre, Ernst. G. Ulbricht	Dec. 25, 1934
1757837	Carl O. Johns	May 6, 1930	1996075	Warren K. Lewis, Brian Mead	Apr. 2, 1935
1757838	do	Do.	2004094	H. G. M. Fischer, C. E. Gustafson	June 11, 1935
1820983	Nathaniel E. Loomis	Sept. 1, 1931			
1904433	Herbert G. M. Fischer, Clifford E. Gustafson	Apr. 18, 1933			

Digitized by Google

Patents assigned to Standard Oil Development Co.—Continued

CLASS 18—ORGANIC COMPOUNDS

Patent no.	Inventor	Date	Patent no.	Inventor	Date
1436377	Hyym E. Buc	Nov. 21, 1922	1858822	Per K. Frolich	May 17, 1932
1436378	do	Do.	1869681	do	Aug. 2, 1932
1436940	do	Nov. 28, 1922	1870816	Warren K. Lewis	Aug. 9, 1932
1440683	Carl O. Johns, Hyym E. Buc	Jan. 2, 1923	1877291	Per K. Frolich, Philip L. Young	Sept. 13, 1932
1442520	Hyym E. Buc	Jan. 16, 1923	1904452	Robert T. Haslam	Apr. 18, 1933
1541430	Matthew D. Mann, Jr	June 9, 1925	1948287	Hyym E. Buc, Reuben Schuler	Feb. 20, 1934
1555451	Hyym E. Buc	Sept. 29, 1925	1954985	Hyym E. Buc	Apr. 17, 1934
1555452	do	Do.	1963257	John C. Bird, Raphael Rosen	June 19, 1934
1588027	Marion B. Hopkins	June 8, 1926	1976790	Warren K. Lewis, Per K. Frolich	Oct. 16, 1934
1612131	Charles A. Kraus, Conral C. Callis	Dec. 28, 1926	1981819	Peter J. Wiezevich, James M. Whiteley, Jr	Nov. 20, 1934
1628050	do	May 10, 1927	1988753	Sherman S. Shaffer, Egi V. Fasce	Jan. 22, 1935
1639947	do	Aug. 23, 1927	1993259	Hyym E. Buc	Mar. 5, 1935
1651666	Hyym E. Buc	Dec. 6, 1927	1993270	Per K. Frolich, Floyd L. Miller	Do.
1655908	Charles A. Kraus, Conral C. Callis	Jan. 10, 1928	1993271	do	Do.
1690075	do	Oct. 30, 1928	1993287	William Seaman	Do.
1694268	do	Dec. 4, 1928	1995612	John R. Huffman, James M. Whiteley Jr	Mar. 26, 1935
1697245	do	Jan. 1, 1929	1996001	William Seaman, George L. Matheson	Do.
1726945	Hyym E. Buc, Woodman W. Clough	Sept. 3, 1929	1998404	Peter J. Wiezevich, Anthony H. Gleason	Apr. 16, 1935
1735486	Philip L. Young	Nov. 12, 1929	2001715	Herbert G. M. Fischer	May 21, 1935
1767291	Stephen A. Kiss	June 24, 1930	2002533	Per K. Frolich, James W. Pugh	May 28, 1935
1767363	Marion B. Hopkins	Do.	2006198	Per K. Frolich, Peter J. Wiezevich	June 25, 1935
1808155	Hyym E. Buc	June 2, 1931	2009712	Per K. Frolich	July 30, 1935
1808168	Marion B. Hopkins	Do.			
1812714	James W. Pugh, Ernest Tauch, Thomas E. Warren	June 30, 1931			
1838032	Peter J. Wiezevich, Richard E. Tannich	Dec. 22, 1931			
1844536	Francis M. Archibald, Robert B. Lebo	Feb. 9, 1932			

CLASS 18-A—RESINS

1917869	John C. Bird	July 11, 1933	1948442	Carleton Ellis	Feb. 20, 1934
1948267	Marion B. Hopkins	Feb. 20, 1934	1981824	Stewart C. Fulton	Nov. 20, 1934

CLASS 19—PRODUCTION

1473348	Frank A. Howard	Nov. 6, 1923	1858847	Philip L. Young	May 17, 1932
1678592	James B. Garner, George B. Leyden	July 24, 1928	1861013	Frank A. Howard	May 31, 1932
1694274	John I. McKean	Dec. 4, 1928	1877915	Warren K. Lewis	Sept. 20, 1932
1806499	Leo Ranney, Charles O. Fairbank	May 19, 1931	1877916	do	Do.
1812267	Warren K. Lewis	June 30, 1931	1911819	Silas E. Evans	May 30, 1933
1837839	Beal W. Shankland, Allen T. Duncan	Dec. 22, 1931	1970741	do	Aug. 21, 1934
			1973650	Joseph A. O'Brien	Sept. 11, 1934
			1981817	Everett P. Weatherly, Jr	Nov. 20, 1934
			2011206	Dirk J. Vandermeer	Aug. 13, 1935

CLASS 19-A—PRODUCTION—OIL MINING

1634235	Leo Ranney	June 28, 1927	1811561	Leo Ranney	June 23, 1931
1634236	do	Do.	1812305	do	June 30, 1931
1660818	do	Feb. 28, 1928	1842098	Frank A. Howard	Jan. 19, 1932
1667269	do	Apr. 24, 1928	1851446	Leo Ranney	Mar. 29, 1932
1770952	do	Feb. 5, 1929	1870869	Leo Ranney, Lester C. Uren	Aug. 9, 1932
1722679	do	July 30, 1929	1884858	Leo Ranney	Oct. 25, 1932
1735481	Lester C. Uren	Nov. 12, 1929	1884859	do	Do.
1804692	Charles F. Jackson	May 12, 1931			
1811560	Leo Ranney	June 23, 1931			

CLASS 19-B—PRODUCTION—GEOPHYSICAL PROCESSES AND APPARATUS

1861229	Ludwig W. Blau	May 31, 1932	1960891	Ludwig W. Blau	May 29, 1934
1878029	Orley H. Truman	Sept. 20, 1932	1963252	Orley H. Truman	June 19, 1934
1888976	Ludwig W. Blau	Nov. 29, 1932	1966112	Ludwig W. Blau	July 10, 1934
1911137	do	May 23, 1933	1988527	Orley H. Truman	Jan. 22, 1935
1919917	Orley H. Truman	July 25, 1933	1998345	do	Apr. 16, 1935
1943850	do	Jan. 16, 1934	2016264	Ludwig W. Blau	Oct. 1, 1935
1951716	Russell H. Varian	Mar. 20, 1934	2017084	Harold A. Wilson	Oct. 15, 1935

Digitized by Google

Patents assigned to Standard Oil Development Co.—Continued

CLASS 20—SLUDGE

Patent no.	Inventor	Date	Patent no.	Inventor	Date
1597292	Edward A. Rudiger	Aug. 24, 1926	1811535	Hyym E. Buc, Howard R. Tate	June 23, 1931
1642060	Louis Burgess	Sept. 13, 1927	1832461	August Holmes, Louis Burgess	Nov. 17, 1931
1676687	Stewart P. Coleman, Wayne S. Hughes	July 10, 1928	1838030	Matthew D. Mann, Jr., August Holmes	Dec. 22, 1931
1694280	Raymond E. Powell	Dec. 4, 1928	1841876	Hyym F. Buc	Jan. 19, 1932
1707506	Hyym E. Buc	Apr. 2, 1929	1892650	Stewart P. Coleman, John A. Coleman	Dec. 27, 1932
1720821	Stewart P. Coleman	July 16, 1929	1981799	Hyym E. Buc	Nov. 20, 1934
1767344	Louis Burgess, Hyym E. Buc	June 24, 1930			
1785242	Arman E. Becker, Reginald G. Sloane	Dec. 16, 1930			

CLASS 21—TREATING—IN GENERAL

1640720	Leon W. Parsons, Stewart P. Coleman	Aug. 30, 1927	1892655	Reginald K. Stratford	Dec. 27, 1932
1660294	Ralph T. Goodwin	Feb. 21, 1928	1896470	Karl T. Steik	Feb. 7, 1933
1660295	do	Do.	1914999	George M. Maverick, George L. Matheson	June 20, 1933
1668941	Louis Burgess	May 8, 1928	1917895	William Henry McGrath	July 11, 1933
1669379	Carl F. Pester	Do.	1934068	Edward M. Jolly, Charles C. Swoope	Nov. 7, 1933
1686491	Wayne S. Hughes, James Harrop	Oct. 2, 1928	1943811	William C. Child, Gustav A. Beiswenger	Jan. 16, 1934
1760129	Herbert G. M. Fischer	May 27, 1930	1943822	Paul J. Harrington	Do.
1791941	Karl T. Steik	Feb. 10, 1931	1951787	William C. Child, Gustav A. Beiswenger	Mar. 20, 1934
1812589	Ralph T. Goodwin	June 30, 1931	1954959	Reginald K. Stratford, William P. Doohan	Apr. 17, 1934
1857761	Warren Lee McCabe, Brian Mead	May 10, 1932	1960461	Reginald K. Stratford	May 29, 1934
1860823	Reginald K. Stratford	May 31, 1932	1981818	Thomas C. Whitner, Jr.	Nov. 20, 1934
1865001	Ralph T. Goodwin	June 28, 1932	2007114	Reginald K. Stratford	July 2, 1935
1876994	Matthew D. Mann, Jr.	Sept. 13, 1932	2009710	Ralph T. Goodwin	July 30, 1935
1877614	Reginald K. Stratford, Herbert H. Moor	Do.	2013040	David F. Edwards, John V. Starr	Sept. 3, 1935
1878022	Reginald K. Stratford	Sept. 20, 1932			
1882887	John C. Pope	Oct. 18, 1932			
1886647	Stewart P. Coleman	Nov. 8, 1932			

CLASS 21-A—TREATING CLAY

1686493	Warren K. Lewis	Oct. 2, 1928	1915433	Matthew D. Mann, Jr., Francis M. Archibald	June 27, 1933
1753171	Nathaniel E. Loomis	Apr. 1, 1930	1970796	Gustav A. Beiswenger	Aug. 21, 1934
1768342	Reginald K. Stratford	June 24, 1930	1997938	Nathaniel E. Loomis	Apr. 16, 1935
1801942	Reginald K. Stratford, Gordon McIntyre	Apr. 21, 1931	2000672	Reginald K. Stratford, Charles Leaver	May 7, 1935
1904183	Alfred A. Wells	Apr. 18, 1933			
1911830	Robert B. Lebo	May 30, 1933			

CLASS 22—TREATING—WHITE OIL

1616352	Ernest B. Cobb	Feb. 1, 1927	1785270	Francois Lavirotte	Dec. 16, 1930
1616353	do	Do.	1791926	Hugh F. Gallagher	Feb. 10, 1931
1681895	Louis Burgess	Aug. 21, 1928	1803140	Karl T. Steik, Harold A. Cassar	Apr. 28, 1931
1707187	Ernest B. Cobb, August Holmes	Mar. 26, 1929	1831265	Jackson R. Schonberg	Nov. 10, 1931
1733597	August Holmes	Oct. 29, 1929			

CLASS 23—TREATING—SULFUR

1521278	Edgar M. Clark	Dec. 30, 1924	1838029	Frederick W. Isles	Dec. 22, 1931
1525140	Matthew D. Mann, Jr., Robert B. Lebo	Feb. 3, 1925	1838031	Reginald K. Stratford, Gordon McIntyre, Herbert H. H. Moor	Do.
1609872	James B. Garner, Rolla W. Miller, George A. Shaner	Dec. 7, 1926	1843578	Herbert H. Meier, Oliver H. Dawson	Feb. 2, 1932
1718713	James Simpson	June 25, 1929	1869435	Harold J. Nichols, Jr., Clarence R. Wise	Aug. 2, 1932
1718714	Louis Link, Maurice B. Amis	Do.	1899896	Robert B. Lebo, Herbert G. M. Fischer	Feb. 28, 1933
1767356	Herbert G. M. Fischer	June 24, 1930	1904173	Reginald K. Stratford, William P. Doohan	Apr. 18, 1933
1786246	Edward B. Hunn	Dec. 23, 1930	1904424	William J. Edmonds, Oliver H. Dawson	Do.
1789335	Herbert G. M. Fischer, William J. Addams	Jan. 20, 1931	1915364	Joseph W. Harrell	June 27, 1933
1795278	Herbert G. M. Fischer	Mar. 3, 1931	1976806	Rapheal Rosen, Eugene Lieber	Oct. 16, 1934
1805444	Henry H. Wilson	May 12, 1931			
1832448	Stewart P. Coleman, Brian Mead	Nov. 17, 1931			

Digitized by Google

Patents assigned to Standard Oil Development Co.—Continued

CLASS 24—PROCESSES—MISCELLANEOUS

Patent no.	Inventor	Date	Patent no.	Inventor	Date
1442525	Frank A. Howard	Jan. 16, 1923	1870854	Warren K. Lewis	Aug. 9, 1932
1563061	Emile L. Baldeschwieler	Nov. 24, 1925	1877921	Nathaniel E. Loomis	Sept. 20, 1932
1653147	Louis Burgess	Dec. 20, 1297	1892658	Peter J. Wiezevich	Dec. 27, 1932
1673678	Frank A. Howard	June 12, 1928	1899896	Robert B. Lebo, Herbert G. M. Fischer	Feb. 28, 1933
1678311	Gale L. Adams	July 24, 1928	1911780	Abraham White, Per K. Frolich	May 30, 1933
1758898	Frank A. Howard	May 13, 1930	2002523	Hyym E. Buc	May 28, 1935
1813870	Jules Verner	July 7, 1931			
1868340	Matthew D. Mann, Jr.	July 26, 1932			

CLASS 25—APPARATUS—MISCELLANEOUS

1439397	Harry O. Benton	Dec. 19, 1922	1835646	Robert L. Hague	Dec. 8, 1931
1439415	Charles H. Haupt	Do.	1860825	William F. Thiede	May 31, 1932
1458816	Frank C. Fyke, John E. Hunt	June 12, 1923	1861014	Frank A. Howard	Do.
1464523	Henry L. G. Gerstenberger	Aug. 14, 1923	1864944	Guy L. Rosebrook	June 28, 1932
1469614	Harry O. Benton	Oct. 2, 1923	1877322	Stewart H. Hulse	Sept. 13, 1932
1552742	Frank A. Howard	Sept. 8, 1925	1878052	Amyuit L. Wilson, Stewart H. Hulse.	Sept. 20, 1932
1562991	Edward A. Rudigier	Nov. 24, 1925	1883630	Ralph L. Duff	Oct. 18, 1932
1602287	Alexander C. Spencer	Oct. 5, 1926	1883880	Jacob Lee Cole	Oct. 25, 1932
1611440	Charles H. Haupt	Dec. 21, 1926	1888079	Charles H. Haupt	Nov. 15, 1932
1653360	Frank A. Howard	Dec. 20, 1927	1915460	Amyuit L. Wilson	June 27, 1933
1675173	William L. Gomory	June 26, 1928	1919593	Louis Lassen, William Boehm.	July 25, 1933
1686495	Thomas E. McDaniel	Oct. 2, 1928	1919634	Charles H. Haupt, Allen J. Ely.	Do.
1690072	Cleon R. Johnson	Oct. 30, 1928	1948298	Frank A. Howard	Feb. 20, 1934
1697199	Edward C. McKenzie-Martyn	Jan. 1, 1929	1951741	Victor C. Smith	Mar. 20, 1934
1715854	do	June 4, 1929	1951798	Arthur W. Lawson, Richard A. Dickson	Do.
1725302	Roy A. Riddle, Ward D. Carpenter	Aug. 20, 1929	1955265	Thomas H. Warnock	Apr. 17, 1934
1735461	Charles H. Haupt	Nov. 12, 1929	1971518	Ralph D. Booth, John R. Coffin, Alexander J. Tigges	Aug. 28, 1934
1748222	do	Feb. 25, 1930	1973597	Richard D. Anderson	Sept. 11, 1934
1758909	Herbert B. Coffin	May 13, 1930	1973607	Charles H. Bunn, Jr.	Do.
1767364	Frank A. Howard	June 24, 1930	1973622	James W. Hand	Do.
1776206	Jules Verner	Sept. 16, 1930	1973652	Harrison O. Parsons	Do.
1785230	George A. Shaner, Ralph E. Damp, George G. Donovan	Dec. 16, 1930	1981800	Austin E. Calkins	Nov. 20, 1934
1796789	Frank A. Howard	Mar. 17, 1931	1981825	Clinton H. Miller, Jr.	Do.
1799392	Cyril O. Rhys	Apr. 7, 1931	1998359	Robert Cowan	Apr. 16, 1935
1830776	Amyuit L. Wilson	Nov. 10, 1931	2002565	Ralph D. Booth	May 28, 1935
1832396	Frank A. Howard	Nov. 17, 1931	2006200	Walter C. Harpster	June 25, 1935
1833871	Charles R. Ewing, Thomas Montgomery.	Nov. 24, 1931	2010430	Frank A. Howard, David A. Shepard, Harold W. Fisher	Aug. 6, 1935
1833876	William H. McGrath	Do.	2010435	George L. Matheson	Do.
1834655	Charles E. Shaw	Dec. 1, 1931	2013047	James W. Hand	Sept. 3, 1935
1835645	Robert L. Hague	Dec. 8, 1931			

CLASS 25-A—APPARATUS—MEASURING AND CONTROLLING

1275453	Richard A. Heilenday	Aug. 20, 1929	1926519	Clarence W. Foster	Sept. 12, 1933
1767301	Merle R. Meacham, William J. Seeland	June 24, 1930	1970718	Richard W. Tryon, George M. Booth	Aug. 21, 1934
1833889	Dave P. Carlton, Kenneth Hartley	Dec. 1, 1931	1976783	William E. Harding	Oct. 16, 1934
1852445	Austin E. Calkins, Louis Lassen	Apr. 5, 1932	1988849	Henry G. McBurney	Jan. 22, 1935
1870675	Earle W. Evans	Aug. 9, 1932	1993301	Richard W. Tryon, George M. Booth	Mar. 5, 1935
1870884	Carl Winning	Do.	2002532	Richard E. Flatley	May 28, 1935
1899686	Daniel E. Stines	Feb. 28, 1932	2006191	Richard D. Anderson	June 25, 1935
			0097113	George L. Mateer	July 30, 1935

CLASS 25-B—APPARATUS—FLIT AND MISTOL

1573766	Frank A. Howard, Douglass G. Tomkins	Feb. 16, 1926	1870780	Richard P. Milburn	Aug. 9, 1932
1577505	Douglass G. Tomkins	Mar. 23, 1926	1870822	Franklin C. Nelson	Do.
1843579	Franklin C. Nelson	Feb. 2, 1932	1875325	Harold M. Bowman, Robert W. Fentress	Sept. 6, 1932
1865203	do	June 28, 1932			

Digitized by Google

Patents assigned to Standard Oil Development Co.—Continued

CLASS 26—COMPOSITIONS—MISCELLANEOUS

Patent no.	Inventor	Date	Patent no.	Inventor	Date
1441728	George H. L. Kent	Jan. 9, 1923	1767345	Benjamin F. Carver	June 24, 1930
1443538	Frank A. Howard, George H. L. Kent, James M. Jennings	Jan. 30 1923	1809183	Clarence I. Robinson	June 9, 1931
			1811522	Matthew D. Mann, Jr.	June 23, 1931
			1812507	William J. Zick	June 30, 1931
1485071	Woodman W. Clough, Carl O. Johns	Feb. 26, 1924	1858368	Warren K. Lewis	May 17, 1932
			1919628	Per K. Frolich, Stanley P. Gildersleeve	July 25, 1933
1495308	James M. Jennings	May 27, 1924			
1599006	Louis Burgess	Sept. 7, 1926	1927916	Delbert F. Brown, Hugh C. DeHoff	Sept. 26, 1933
1646731	Claude S. Hudson	Oct. 25, 1927			
1678312	Gale L. Adams	July 24, 1928	1934076	Eugene Lieber	Nov. 7, 1933
1686484	Hyym E. Buc	Oct. 2, 1928	1948287	Marion B. Hopkins	Feb. 20, 1934
1686485	do	Do.	1960192	Frank A. Howard	May 22, 1934
1686486	do	Do.	1988823	Carl Winning, John Tuttle	Jan. 22, 1935
1694097	Marion B. Hopkins, Hyym E. Buc	Dec. 4, 1928	1998598	Francis M. Archibald	Mar. 26, 1935
1699294	William Hoskins	Jan. 15, 1929	1999184	Carleton Ellis	Apr. 30, 1935
1735493	Hyym E. Buc	Nov. 12, 1929	2015739	Carl Winning	Oct. 1, 1935
1749378	Ralph T. Goodwin	Mar. 4, 1930	2016265	Wilfred T. Doherty	Do.

CLASS 27-A.—HYDROGENATION—IN GENERAL

1843880	Warren K. Lewis, Per K. Frolich, Willard C. Asbury	Feb. 2, 1932	1934056	William L. Gomory	Nov. 7, 1933
			1981722	do	Nov. 20, 1934
1851580	Frank A. Howard	Mar. 29, 1932	1981811	Anderson W. Ralston, James R. Wright	Do.
1933108	William L. Gomory	Oct. 31, 1933			

CLASS 27-B.—HYDROGENATION—SOLID CARBONACEOUS MATERIAL

1702899	Frank A. Howard	Feb. 19, 1929			

CLASS 27-C.—HYDROGENATION—PURIFICATION (None)

CLASS 27-D.—HYDROGENATION—MANUFACTURE OF HYDROGEN

1904439	George H. Freyermuth	Apr. 18, 1933	1934029	Willard C. Asbury	Nov. 7, 1933
1904441	George H. Freyermuth, James K. Small, William V. Hanks	Do.	1934075	Warren K. Lewis	Do.
			1943821	William V. Hanks, George H. Freyermuth	Jan. 16, 1934
1904592	Philip L. Young, William V. Hanks, George H. Freyermuth	Do.	1948338	Garland H. B. Davis James A. Franceway	Feb. 20, 1934
			1951774	Robert P. Russell, William V. Hanks	Mar. 20, 1934
1904593	Philip L. Young, William V. Hanks	Do.	1955290	Robert T. Haslam	Apr. 17, 1934
			1970695	George H. Freyermuth	Aug. 21, 1934
1915362	William V. Hanks, James K. Small	June 27, 1933	1998401	David A. Shepard	Apr. 16, 1935
1915363	William V. Hanks, George H. Freyermuth	Do.			

CLASS 27-E.—HYDROGENATION—CATALYSTS

1904218	James A. Franceway	Apr. 18, 1933	1908338	James A. Franceway	May 9, 1933
1904440	George H. Freyermuth, William V. Hanks	Do.			

STANDARD OIL DEVELOPMENT CO.,
26 Broadway, New York, January 7, 1936.

Hon. WILLIAM I. SIROVICH,
Chairman, Committee on Patents,
House of Representatives, Washington, D. C.

DEAR SIR: I have just noted in today's copy of the Daily Oil Digest an announcement that your committee has closed its investigation of the patent pool without touching oil. At the time I read this notice, I was just reviewing a proposed answer to the questionnaire of your committee sent out on November 6. This

Digitized by Google

questionnaire was addressed to Standard Oil Co. (New Jersey), which, although formerly an operating company, has been for the last few years a holding company only.

At the request of Mr. Wellman, general counsel for the holding company, I prepared an answer in behalf of that company which was completed just before Christmas. On considering the matter with Mr. Wellman, however, it was apparent that this answer could not adequately serve the purposes of your committee because for several years past the holding company had not been directly involved in any patent agreements. Mr. Wellman and I, therefore agreed that it would better serve your purposes to disregard the formalities and to prepare an answer in behalf of the Standard Oil Development Co., which is the techincal unit of the Standard Oil Co. (New Jersey) interests and which operates the principal research, development, and patent departments used in the service of the Standard Oil Co. (New Jersey) operating subsidiaries. This last answer is now virtually completed and I would be glad to forward it to you if it can now serve any useful purpose.

I am giving you herewith, however, the only substantial contribution which I feel we can make to your investigation.

We believe that it would be constructive and helpful from every standpoint to amend the patent statutes to permit and require the recording of all instruments under which any patent right or license other than a simple, nonexclusive, nontransferable license passes. Much can be said in favor of such legislation if it does not attempt to achieve impracticable ends by way of purporting to require the recording of the full agreement between the parties connected with the transfer of the patent right or the full consideration therefor. The experience of centuries with real-estate recording statutes in all countries has shown that there is no adequate way of compelling parties who are making commercial trades to disclose to the outside world all of the real considerations which passed between them in connection with the sale or purchase of real estate. Means have always been found in all countries to evade requirements of this kind. I think it would be easier to enforce the prohibition law than to enforce the requirement that the full and true consideration for the purchase or sale of patent rights or any other property of such a speculative character should be recorded.

At first glance, my suggestion does not appear to cover the full scope of your proposal to require the recording of patent-pool agreements. Upon further consideration, however, I hope you will agree that in practice it will have about the same result. A patent pool is a merger in some form of rights or interests under patents. The requirement that all conveyances of rights or interests under patent rights should be publicly recorded will result in making a public record of the existence of the patent pool, the names of all of the parties interested as grantors or grantees and the extent of the control by each of all the patent rights involved. The only thing about the pool which will not be disclosed, therefore, will be the considerations, other than the patent rights, moving between the parties. I appreciate that an argument can be made in favor of the desirability of making a public record of all patent contracts. All these arguments, however, are met by the conclusive answer that it is not practical and never has been practical to achieve full publicity on commercial trades. If legislation is introduced aiming directly at a requirement for the recording of the full text of all patent agreements, all that will be accomplished, I fear, is that the resistance to the passage of such legislation will be greatly increased and, in the end, the practical result will be exactly the same as though the legislation were confined to the simple objective of requiring, under suitable penalty running against the patent itself, the recording of every instrument passing any right or license under a patent of the United States, except simple, nonexclusive licenses or covenants not to sue. It is not necessary to attempt to cover simple licenses because they cannot be instruments of oppression by any possibility, and it is not feasible to cover them because they arise by operation of law, growing out of the relation of parties such as vendor and vendee, lessor and lessee, agent and principal, employer and employee, by estoppel, and by implication under a wide variety of contracts which have nothing to do with patents per se.

I am sincerely desirous of being helpful and if it will be of any service to you to have us complete the details of the questionnaire which we have, or, if there is any further information we can give you, please feel free to call on us.

Very truly yours.

FRANK A. HOWARD.

Digitized by Google

BYLAWS—STANDARD OIL CO. (NEW JERSEY) AS REVISED MAY 25, 1934

ARTICLE I. MEETINGS OF STOCKHOLDERS

1. All meetings of stockholders shall be held at the principal office of the company in New Jersey, or at such other place in the same municipality in which its principal office may be located, or at the office of the company in the city of New York, or at the office of the Corporation Trust Co. in the city of New York, as may from time to time be designated by the board of directors. Unless and until otherwise determined by the board, meetings of stockholders shall be held at the principal office of the company in New Jersey.

2. The annual meeting of stockholders shall be held on the first Tuesday of June in each year if not a legal holiday and, if a legal holiday, then on the next succeeding business day, at which meeting the directors shall be elected.

3. Notice in writing of the annual meeting shall be given to each stockholder of record by mailing the same to him at his address as it appears on the stock books of the company, at least 10 days prior to the meeting.

4. There may be considered and transacted at any annual meeting, without special notice, any business which properly may be brought before a general meeting of stockholders and, if due notice be given, any business may be considered and transacted which, under any of the provisions of the laws of the State of New Jersey, may be considered and transacted at a special meeting of stockholders.

5. Special meetings of stockholders may be called by the board of directors at such times as the board may appoint. The board of directors shall call a special meeting of stockholders within 10 days after a written request to call such meeting, signed by a majority in interest of stockholders, has been filed with the board of directors.

6. Notice in writing of each special meeting, stating the object or objects thereof, shall be given by mailing the same to each stockholder of record at his address as it appears on the stock books of the company, at least 10 days prior to the date of such meeting. The business transacted at special meetings shall be confined to the objects specified in the notice.

7. At any meeting of stockholders, whether annual or special, a majority of stock issued and outstanding and represented by the persons entitled to vote thereon, either in person or by proxy, shall constitute a quorum for the transaction of business unless the representation of a larger number shall be required by law, and in that case the representation of the number so required shall constitute a quorum. If a quorum of stock shall not be so represented, a majority in interest of stockholders present in person or by proxy may adjourn, from time to time, without notice other than by announcement at the meeting, until holders of the amount of stock requisite to constitute a quorum shall attend. At any adjourned meeting at which a quorum shall be present, any business may be transacted which might have been transacted at the meeting as originally called.

8. The board of directors shall have power to close the stock transfer books of the company for a period not exceeding 30 days preceding the date of any meeting of stockholders or the date for payment of any dividend or the date for the allotment of rights or the date when any change or conversion or exchange of capital stock shall go into effect: or, in lieu of closing the stock transfer books as aforesaid, the board of directors may fix in advance a date, not exceeding 30 days preceding the date of any meeting of stockholders, or the date for the payment of any dividend, or the date for the allotment of rights, or the date when any change or conversion or exchange of capital stock shall go into effect, as a record date for the determination of the stockholders entitled to notice of and to vote at any such meeting, or entitled to receive payment of any such dividend, or any such allotment of rights, or to exercise the rights in respect to any such change, conversion or exchange of capital stock, and in such case stockholders of record on the date so fixed shall be exculsively entitled to such notice of and vote at such meeting, or to receive payment of such dividend, or allotment of rights, or exercise such rights, as the case may be, and notwithstanding any transfer of any stock on the books of the company after any such record date fixed as aforesaid.

9. At all elections, the presiding officer of the meeting shall appoint two inspectors who shall receive the proxies, be the judges of the qualifications of the voters, prescribe rules and regulations for voting, collect and count the votes, and report in writing the result of the ballot. Such inspectors shall be sworn to perform their duties faithfully. No candidate for election as director shall be appointed to act as inspector.

Digitized by Google

ARTICLE II. BOARD OF DIRECTORS

1. The business and affairs of the company, subject to the provisions of the statutes of New Jersey, the certificate of incorporation and these bylaws, shall be managed and controlled by a board of directors consisting of 10 members elected by ballot, who shall hold office for 1 year and until others are chosen and qualified in their stead. The number of directors may be increased or decreased from time to time by amendment of these bylaws, but shall never be decreased to less than three. If at any time, except at the annual meeting of the stockholders, the number of directors shall be increased, the additional director or directors may be elected by ballot by the board of directors, to serve until the next meeting of the stockholders or until their successors are elected and qualified. In case of any vacancy in the board of directors by death, resignation or otherwise, the board shall have the power to fill such vacancy for the unexpired term. All directors shall be shareholders in the company.

2. Meetings of the board of directors may be called at the direction of the chairman of the board, of the president or of any vice president whose authority so to do is not restricted, or in the absence of such officers, at the direction of any one of the directors, and may be held at such place or places within or without the State of New Jersey, as from time to time may be designated in the notice.

3. Five of the directors shall constitute a quorum for the transaction of business.

ARTICLE III. EXECUTIVE COMMITTEE

1. The board of directors, by resolution of a majority of the whole board, may appoint three or more directors to constitute an executive committee, which committee, to the extent provided in said resolution, and subject to the provisions of the certificate of incorporation and these bylaws shall have and may exercise during the intervals between the meetings of the board, the powers of the board of directors in the management of the business and affairs of the company and shall have the power to authorize the seal of the company to be affixed to all papers which may require it. Such committee shall meet at such time or times as it may designate and shall make its own rules of procedure. Three members of the committee shall constitute a quorum thereof.

ARTICLE IV. OFFICERS

1. The board of directors at the first meeting after the annual election of directors may elect a chairman of the board and shall elect a president, three or more vice presidents as the board may determine, a treasurer and a secretary. Any two or more of said offices, except the office of president and vice president, may be filled by the same person. The president shall be a director but the other officers need not be members of the board of directors.

2. The board of directors may from time to time appoint such assistant treasurers, assistant secretaries and such other officers or agents as it may deem necessary or advisable for the transaction of the business of the company, who shall perform such duties as may be designated or assigned to them by the board.

3. The chairman of the board shall preside at all meetings of stockholders and directors. He shall have general care and supervision of the affairs of the company and in the absence of the president shall exercise the powers and duties of the president.

4. The president, subject to the board of directors, shall be the chief executive officer of the company. In the absence of the chairman, he shall preside at meetings of the stockholders and directors and exercise the powers and duties of the chairman.

5. In the event of the death, absence or disability of the chairman of the board and the president, one of the vice presidents may be designated by the board of directors to exercise their powers and perform their duties.

6. The secretary, in addition to his statutory duties, shall give notice of all meetings of stockholders and of the board of directors. He shall attend such meetings when practicable; keep true records of the votes at elections and all other proceedings; attest such records by his signature after every meeting; safely keep all documents and papers which shall come into his possession; truly keep the books and accounts of the company appertaining to his office, and present statements thereof when required by the board. He shall perform from time to time such other duties as shall be assigned to him by the board of directors, chairman of the board, president or any vice president. He shall be sworn to the faithful discharge of his duties.

Digitized by Google

The assistant secretaries shall perform such of the duties of the secretary as the directors or the secretary may require.

7. The treasurer, in addition to his statutory duties, shall keep and account for all moneys, funds and property of the company which shall come into his hands, and he shall render such accounts and present such statements to the directors as may be required of him. He shall deposit or cause to be deposited all funds of the company which may come into his hands in such bank or banks as the directors may designate. He shall keep bank accounts in the name of the company and shall exhibit the books and accounts to any director upon application at the office during ordinary business hours. He shall endorse or cause to be endorsed in the name of the company for collection the bills, notes, checks, and other negotiable instruments received by the company. He shall sign, or cause to be signed, all bills, notes, checks, and other negotiable instruments of the company. He shall pay out or cause to be paid out money as the company may require, taking proper vouchers therefore; provided, however, that the directors shall have power by resolution to delegate any of the duties of the treasurer to other officers and to provide by what officers all bills, notes, checks, vouchers, orders, or other instruments shall be signed. The treasurer shall give bond in such sum and with such surety or sureties as may be required from time to time by the board of directors.

The assistant treasurers shall perform such of the duties of the treasurer as from time to time may be delegated to them by the treasurer, except that an assistant treasurer may be appointed to be head of the tax department of the company, in which event the powers and duties of such assistant treasurer shall be limited to tax matters.

8. If any elective office shall become vacant, the directors at any meeting may fill such vacancy.

9. All officers and agents chosen, elected, or appointed by the board of directors shall be subject to removal by the board at any time with or without cause.

ARTICLE V. TRANSFER OF SHARES

1. Shares of stock of the company shall be transferred on the books of the company only by the holder thereof in person or by his duly authorized attorney upon the surrender and cancelation of the certificate or certificates therefor; provided that in case of lost or destroyed certificates, transfer shall be made only after the receipt of a satisfactory bond, if required by the board of directors.

2. The board of directors may appoint a transfer agent and a registrar of transfers, and all stock certificates shall bear the signature of both.

ARTICLE VI. FISCAL YEAR

The fiscal year of the company shall be the calendar year.

ARTICLE VII. CORPORATE SEAL

1. The corporate seal is and until otherwise ordered by the board of directors shall be an impression upon paper or wax bearing the words "STANDARD OIL COMPANY, INCORPORATED UNDER THE LAWS OF NEW JERSEY".

2. The impression of the seal may be made and attested by either the secretary or an assistant secretary for the authentication of contracts and other papers requiring the seal and bearing the signature of the chairman, the president, or one of the vice presidents.

ARTICLE VIII. AMENDMENTS

The board of directors may make, alter, amend, or rescind the bylaws of the company at any meeting.

STATE OF NEW YORK,
County of New York, ss:

I, M. H. Eames, assistant secretary, do hereby certify that the foregoing is a true copy of the bylaws of Standard Oil Co. (New Jersey) as amended to date.

Witness my hand and the seal of the corporation at New York, N. Y., this 3d day of June 1935.

_____,
Assistant Secretary.

Digitized by Google

CERTIFICATE OF INCORPORATION—STANDARD OIL CO. (NEW JERSEY)

(As filed in the office of the Secretary of State of the State of New Jersey Aug. 5, 1882; and amended Mar. 19, 1892, June 16, 1899, Aug. 18, 1919, May 5, 1920, Dec. 20, 1920, Nov. 10, 1922, June 2, 1926, June 7, 1927, and June 5, 1928)

We, Henry M. Flagler, Thomas C. Bushnell, and James McGee, being desirous to form a company under and pursuant to the act of the Legislature of the State of New Jersey, entitled "An act concerning corporations" approved April 7, 1875, and the several acts amendatory thereof and supplemental thereto, do hereby certify:

First. The name of the corporation is Standard Oil Company.

Second. The location of the principal office in the State of New Jersey is at no. 185 Washington Street, in the city of Newark and county of Essex. The name of the agent therein and in charge thereof and upon whom process against this company may be served, is E. C. Haines.

Third. The objects for which this company is formed are: To do all kinds of mining, manufacturing, and trading business; transporting goods and merchandise by land or water in any manner; to buy, sell, lease, and improve lands; build houses, structures, vessels, cars, wharves, docks, and piers; to lay and operate pipe lines; to erect and operate telegraph and telephone lines and lines for conducting electricity; to enter into and carry out contracts of every kind pertaining to its business; to acquire, use, sell, and grant licenses under patent rights; to purchase or otherwise acquire, hold, sell, assign, and transfer shares of capital stock and bonds or other evidences of indebtedness of corporations, and to exercise all the privileges of ownership including voting upon the stocks so held; to carry on its business and have offices and agencies therefor in all parts of the world, and to hold, purchase, mortgage, and convey real estate and personal property outside the State of New Jersey.

Fourth. The total authorized capital stock of the corporation is seven hundred fifty million dollars ($750,000,000), divided into thirty million (30,000,000) shares of the par value of twenty-five dollars ($25) each, all of one class. From time to time such stock may be increased or decreased or one or more additional classes of stock may be created with such preferential, special, or qualified rights as may be determined by the board of directors and the stockholders having voting rights, to the extent and in the manner permitted by the General Corporation Act of the State of New Jersey.

Fifth. The following s a list of the names and residences of stockholders, and of the number of shares held by each: H. M. Flagler, of New York City, one share; Paul Babcock, Jr., of Jersey City, one share; James McGee, of Plainfield, N. J., one share; Thomas C. Bushnell, of Morristown, N. J., one share; John D. Rockefeller, of Cleveland, Ohio; William Rockefeller, of New York City; J. A. Bostwick, of New York City; John D. Archbold, of New York City; O. H. Payne, of Cleveland, Ohio; William G. Warden, of Philadelphia, Pa.; Benjamin Brewster, of New York City; Charles Pratt, of Brooklyn, N. Y.; and H. M. Flagler, of New York City; trustees of Standard Oil Trust, 29,906 shares, of which 21,724 shares are issued for property purchased and necessary for the business of this corporation.

Sixth. The duration of the corporation shall be unlimited.

Seventh. The corporation may use and apply its surplus earnings, or accumulated profits authorized by law to be reserved, to the purchase or acquisition of property, and to the purchase or acquisition of its own capital stock from time to time, to such extent and in such manner and upon such terms as its board of directors shall determine; and neither the property nor the capital stock so purchased or acquired, nor any of its capital stock taken in payment or satisfaction of any debt due to the corporation, shall be regarded as profits for the purpose of declaration or payment of dividends, unless otherwise determined by a majority of the board of directors, or a majority of the stockholders.

The corporation, in its bylaws, may prescribe the number necessary to constitute a quorum of the board of directors which may be less than a majority of the whole number.

The number of directors at any time may be increased or diminished by vote of the board of directors, and in the case of any such increase the board of directors shall have power to elect such additional directors, to hold office until the next meeting of stockholders, or until their successors shall be elected.

The board of directors shall have power to make, alter, amend, and rescind the bylaws of the corporation, to fix the amount to be reserved as working capital,

Digitized by Google

to authorize and to cause to be executed mortgages and liens upon the real and personal property of the corporation; and from time to time to sell, assign, transfer, or otherwise dispose of any or all of the property of the corporation, but no such sale of all of the property shall be made except pursuant to the votes of at least two-thirds of the board of directors.

The board of directors, by resolution passed by a majority of the whole board, may designate three or more directors to constitute an executive committee, which committee, to the extent provided in said resolution or in the by-laws of the corporation, shall have, and may exercise, the power of the board of directors in the management of the business and affairs of the corporation, and shall have power to authorize the seal of the corporation to be affixed to all papers which may require it.

The board of directors from time to time shall determine whether and to what extent, and at what times and places, and under what conditions and regulations, the accounts and books of the corporation, or any of them, shall be open to the inspection of the stockholders; and no stockholder shall have any right of inspecting any account or book or document of the corporation, except as conferred by statute or authorized by the board of directors, or by a resolution of the stockholders.

The board of directors shall have power to hold its meetings, to have one or more offices, and to keep the books of the corporation (except the stock and transfer books) outside of the State, at such places as may be from time to time designated by them.

Any meeting or meetings of stockholders of this corporation may be held outside of the State of New Jersey, but only at the office of the corporation in the city of New York or at the office of the Corporation Trust Co., in the city of New York.

In witness whereof, the said parties have hereunto set their hands and seals this first day of August, A. D. 1882.

H. M. FLAGLER. [SEAL]
T. C. BUSHNELL. [SEAL]
JAS. MCGEE. [SEAL]

STATE OF NEW YORK,
County of New York, ss:

Be it remembered that on this 1st day of August 1882, before the subscriber, a commissioner for the State of New Jersey for taking the acknowledgment and proof of deeds, personally came Henry M. Flagler, Thomas C. Bushnell, and James McGee, known as me to be the subscribers to the foregoing instrument, and the contents thereof being by me first made known to them severally, they and each of them acknowledged that they signed, sealed, and delivered the same as their voluntary act and deed, all of which I certify under my hand and official seal.

[SEAL] JAS. W. HALE.
Comr. for New Jersey in New York.

4 Hanover Street.

Endorsed: "Received in the Hudson County, N. J., clerk's office, August 2, 1882, in clerk's record, no. 3, page 85, &c.

"H. K. VAN HORN, *Clerk*

"Filed August 5, 1882, Henry C. Kelsey, secretary of state."

STATE OF NEW JERSEY,
Department of State,

I, ——— ———, secretary of state of the State of New Jersey, do hereby certify that the foregoing is a true copy of the certificate of incorporation of "Standard Oil Company," formerly the Standard Oil Company of New Jersey, as filed August 5, 1882, and amended March 19, 1892, June 16, 1899, August 18, 1919, May 5, 1920, December 20, 1920, November 10, 1922, June 2, 1926, June 7, 1927, and June 5, 1928, and the endorsements thereon, as the same is taken from and compared with the original now remaining on file in my office and of record therein.

In testimony whereof, I have hereunto set my hand and affixed my official seal at Trenton, this —— day of ———, A. D. 19—.

[SEAL] ——— ———, *Secretary of State.*

Digitized by Google

BY-LAWS OF STANDARD DEVELOPMENT CO.

OFFICES

1. The principal office shall be in the city of Wilmington, county of New Castle, State of Delaware, and the name of the resident agent in charge thereof is the Corporation Trust Co. of America.

The corporation may also have an office in the city of New York, State of New York, and also offices at such other places as the board of directors may from time to time appoint or in the business of the corporation may require.

SEAL

2. The corporate seal shall have inscribed thereon the name of the corporation, the year of its organization, and the words "Corporate Seal, Delaware".

STOCKHOLDERS' MEETINGS

3. All meetings of the stockholders shall be held at the office of the corporation in New York City, N. Y.

4. An annual meeting of stockholders, after the year 1922, shall be held on the 20th day of March in each year, if not a legal holiday, and if a legal holiday, then on the next secular day following, at 2:00 o'clock p. m., when they shall elect by a plurality vote, by ballot, a board of directors, and transact such other business as may properly be brought before the meeting.

5. The holders of a majority of the stock issued and outstanding, and entitled to vote thereat, present in person, or represented by proxy, shall be requisite and shall constitute a quorum at all meetings of the stockholders for the transaction of business except as otherwise provided by law, by the certificate of incorporation or by these bylaws. If, however, such majority shall not be present or represented at any meeting of the stockholders, the stockholders entitled to vote thereat present in person, or by proxy, shall have power to adjourn the meeting from time to time, without notice other than announcement at the meeting, until the requisite amount of voting stock shall be present. At such adjourned meeting at which the requisite amount of voting stock shall be represented any business may be transacted which might have been transacted at the meeting as originally notified.

6. At each meeting of the stockholders every stockholder having the right to vote shall be entitled to vote in person, or by proxy appointed by an instrument in writing subscribed by such stockholder and bearing a date not more than 3 years prior to said meeting, unless said instrument provides for a longer period. Each stockholder shall have one vote for each share of stock having voting power, registered in his name on the books of the corporation, except that no share of stock shall be voted on at any election for directors which has been transferred on the books of the corporation within 20 days next preceding such election. The vote for directors, and, upon the demand of any stockholder, the vote upon any question before the meeting, shall be by ballot. All elections shall be had and all questions decided by a plurality vote.

7. Written notice of the annual meeting shall be mailed to each stockholder entitled to vote thereat at such address as appears on the stock book of the corporation, at least 5 days prior to the meeting.

8. A complete list of the stockholders entitled to vote at the ensuing election, arranged in alphabetical order, with the residence of each, and the number of voting shares held by each, shall be prepared by the secretary and filed in the office where the election is to be held, at least 10 days before every election, and shall at all times, during the usual hours for business, and during the whole time of said election, be open to the examination of any stockholder.

9. Special meetings of the stockholders, for any purpose or purposes, unless otherwise prescribed by statute, may be called by the president, and shall be called by the president or secretary at the request in writing of a majority of the board of directors, or at the request in writing of stockholders owning a majority in amount of the entire capital stock of the corporation issued and outstanding and entitled to vote. Such request shall state the purpose or purposes of the proposed meeting.

10. Business transacted at all special meetings shall be confined to the objects stated in the call.

Digitized by Google

11. Written notice of a special meeting of stockholders, stating the time and place and object thereof, shall be mailed, postage prepaid, at least 3 days before such meeting, to each stockholder entitled to vote thereat at sudh address as appears on the books of the corporation.

DIRECTORS

12. The property and business of this corporation shall be managed by its board of directors, 18 in number. Directors need not be stockholders. They shall be elected at the annual meeting of the stockholders, and each director shall be elected to serve until his successor shall be elected and shall qualify.

13. The directors may hold their meetings and have one or more offices, and keep the books of the corporation, except the original or duplicate stock ledger, outside of Delaware, at the office of the corporation in the city of New York, N. Y., or at such other places as they may from time to time determine.

14. In addition to the powers and authorities by these bylaws expressly conferred upon them, the board may exercise all such powers of the corporation and do all such lawful acts and things as are not by statute or by the certificate of incorporation or by these bylaws directed or required to be exercised or done by the stockholders.

EXECUTIVE COMMITTEE

15. There may be an executive committee of two or more directors designated by resolution passed by a majority of the whole board. Said committee may meet at stated times, or on notice to all by any of their own number. During the intervals between meetings of the board such committee shall advise with and aid the officers of the corporation in all matters concerning its interests and the management of its business, and generally perform such duties and exercise such powers as may be directed or delegated by the board of directors from time to time. The board may delegate to such committee authority to exercise all the powers of the board, excepting power to amend the bylaws, while the board is not in session. Vacancies in the membership of the committee shall be filled by the board of directors at a regular meeting or at a special meeting called for that purpose.

16. The executive committee shall keep regular minutes of its proceedings and report the same to the board when required.

COMPENSATION OF DIRECTORS

17. Directors, as such, shall not receive any stated salary for their services, but by resolution of the board a fixed sum and expenses of attendance, if any, may be allowed for attendance at each regular or special meeting of the board; provided, that nothing herein contained shall be construed to preclude any director from serving the corporation in any other capacity and receiving compensation therefor.

18. Members of special or standing committees may be allowed like compensation for attending committee meetings.

MEETINGS OF THE BOARD

19. The newly elected board may meet at such place and time as shall be fixed by the vote of the stockholders at the annual meeting for the purpose of organization or otherwise, and no notice of such meeting shall be necessary to the newly elected directors in order legally to constitute the meeting; provided, a majority of the whole board shall be present; or they may meet at such place and time as shall be fixed by the consent in writing of all the directors.

20. Regular meetings of the board may be held without notice at such time and place as shall from time to time be determined by the board.

21. Special meetings of the board may be called by the president on 3 days' notice to each director, either personally or by mail or by telegram; special meetings shall be called by the president or secretary in like manner and on like notice on the written request of two directors.

22. At all meetings of the board a majority of the directors shall be necessary and sufficient to constitute a quorum for the transaction of business, and the act of a majority of the directors present at any meeting at which there is a quorum shall be the act of the board of directors, except as may be otherwise specifically provided by statute or by the certificate of incorporation or by these bylaws.

Digitized by Google

OFFICERS

23. The officers of the corporation shall be chosen by the directors and shall be a president, two vice presidents, secretary, and treasurer. The secretary and treasurer may be the same person, and the vice president may hold at the same time the office of secretary or treasurer.

24. The board of directors, at its first meeting after each annual meeting of stockholders shall choose a president and two vice presidents from their own number, and a secretary and a treasurer who need not be members of the board.

25. The board may appoint such other officers and agents as it shall deem necessary, who shall hold their offices for such terms and shall exercise such powers and perform such duties as shall be determined from time to time by the board.

26. The salaries of all officers and agents of the corporation shall be fixed by the board of directors.

27. The officers of the corporation shall hold office until their successors are chosen and qualify in their stead. Any officer elected or appointed by the board of directors may be removed at any time by the affirmative vote of a majority of the whole board of directors.

THE PRESIDENT

28. (*a*) The president shall be the chief executive officer of the corporation; he shall preside at all meetings of the stockholders and directors; he shall have general and active management of the business of the corporation, and shall see that all orders and resolutions of the board are carried into effect.

(*b*) He shall execute bonds, mortgages, and other contracts requiring a seal, under the seal of the corporation; shall keep in safe custody the seal of the corporation, and, when authorized by the board, affix the same to any instrument requiring it, and when so affixed it shall be attested by the signature of the secretary or the treasurer.

(*c*) He shall be ex officio a member of all standing committees and shall have the general powers and duties of supervision and management usually vested in the office of president of a corporation.

VICE PRESIDENT

29. The vice president shall, in the absence or disability of the president, perform the duties, and exercise the powers of the president, and shall perform such other duties as the board of directors shall prescribe.

THE SECRETARY

30. The secretary shall attend all sessions of the board and all meetings of the stockholders and record all votes and the minutes of all proceedings in a book to be kept for that purpose; and shall perform like duties for the standing committees when required. He shall give or cause to be given notice of all meetings of the stockholders, and of the board of directors, and shall perform such other duties as may be prescribed by the board of directors or president, under whose supervision he shall be.

THE TREASURER

31. (*a*) The treasurer shall have the custody of the corporate funds and securities and shall keep full and accurate accounts of receipts and disbursements in books belonging to the corporation and shall deposit all moneys and other valuable effects in the name and to the credit of the corporation, in such depositories as may be designated by the board of directors.

(*b*) He shall disburse the funds of the corporation as may be ordered by the board, taking proper vouchers for such disbursements, and shall render to the president and directors, at the regular meetings of the board, or whenever they may require it, on account of all his transactions as treasurer and of the financial condition of the corporation.

(*c*) He shall give the corporation a bond if required by the board of directors in a sum, and with one or more sureties satisfactory to the board, for the faithful performance of the duties of his office, and for the restoration to the corporation in case of his death, resignation, retirement, or removal from office, of all books, papers, vouchers, money, and other property of whatever kind in his possession or under his control belonging to the corporation.

Digitized by Google

VACANCIES

32. If the office of any director, or of any officer or agent, one or more, becomes vacant by reason of death, resignation, retirement, disqualification, removal from office, or otherwise, the directors then in office, although less than a quorum, by a majority vote, may choose a successor or successors, who shall hold office for the unexpired term in respect of which such vacancy occurred.

DUTIES OF OFFICERS MAY BE DELEGATED

33. In case of the absence of any officer of the corporation, or for any other reason that the board may deem sufficient, the board may delegate, for the time being, the powers or duties, or any of them, of such officer to any other officer, or to any director, provided a majority of the entire board concur therein.

CERTIFICATES OF STOCK

34. The certificates of stock of the corporation shall be numbered and shall be entered in the books of the corporation as they are issued. They shall exhibit the holder's name and number of shares and shall be signed by the president or a vice president and the treasurer or an assistant treasurer, or the secretary or an assistant secretary.

TRANSFERS OF STOCK

35. Transfers of stock shall be made on the books of the corporation only by the person named in the certificate or by attorney, lawfully constituted in writing, and upon surrender of the certificate therefor.

CLOSING OF TRANSFER BOOKS

36. The board of directors may close the transfer books in their discretion for a period not exceeding 30 days preceding any meeting, annual or special, of the stockholders, or the day appointed for the payment of a dividend.

REGISTERED STOCKHOLDERS

37. The corporation shall be entitled to treat the holder of record of any share or shares of stock as the holder in fact thereof and accordingly shall not be bound to recognize any equitable or other claim to or interest in such share on the part of any other person, whether or not it shall have express or other notice thereof, save as expressly provided by the laws of Delaware.

LOSS CERTIFICATES

38. Any person claiming a certificate of stock to be lost or destroyed shall make an affidavit or affirmation of that fact and advertise the same in such manner as the board of directors may require, and shall if the directors so require give the corporation a bond of indemnity, in form and with one or more sureties satisfactory to the board, in at least double the value of the stock represented by said certificate, whereupon a new certificate may be issued of the same tenor and for the same number of shares as the one alleged to be lost or destroyed.

INSPECTION OF BOOKS

39. The directors shall determine from time to time whether, and, if allowed, when and under what conditions and regulations the accounts and books of the corporation (except such as may by statute be specifically open to inspection) or any of them shall be open to the inspection of the stockholders, and the stockholders' rights in this respect are and shall be restricted and limited accordingly.

CHECKS

40. All checks or demands for money and notes of the corporation shall be signed by such officer or officers, person or persons as the board of directors may from time to time designate.

FISCAL YEAR

41. The fiscal year shall begin the first day of January in each year.

Digitized by Google

DIVIDENDS

42. Dividends upon the capital stock of the corporation, when earned, may be declared by the board of directors at any regular or special meeting.

Before payment of any dividend or making any distribution of profits, there may be set aside out of the surplus or net profits of the corporation such sum or sums as the directors from time to time, in their absolute discretion, think proper as a reserve fund to meet contingencies, or for equalizing dividends, or for repairing or maintaining any property of the corporation, or for such other purpose as the directors shall think conducive to the interests of the corporation.

DIRECTORS' ANNUAL STATEMENT

43. The board of directors shall present at each annual meeting, and when called for by vote of the stockholders at any special meeting of the stockholders, a full and clear statement of the business and condition of the corporation.

NOTICES

44. Whenever under the provisions of these bylaws notice is required to be given to any director, officer, or stockholder, it shall not be construed to mean personal notice, but such notice may be given in writing, by mail, by depositing the same in the post office or letter box, in a post-paid sealed wrapper, addressed to such stockholder, officer, or director at such address as appears on the books of the corporation, or, in default of other address, to such director, officer, or stockholder at the general post office in the city of Wilmington, Del., and such notice shall be deemed to be given at the time when the same shall be thus mailed.

Any stockholder, director, or officer may waive any notice required to be given under these bylaws.

AMENDMENTS

45. These bylaws may be altered or amended by the affirmative vote of a majority of the stock issued and outstanding and entitled to vote thereat, at any regular or special meeting of the stockholders if notice of the proposed alteration or amendment be contained in the notice of the meeting, or by the affirmative vote of a majority of the board of directors at any regular or special meeting of the board if notice of the proposed alteration or amendment be contained in the notice of the meeting.

AMENDMENTS ADOPTED DECEMBER 20, 1927

Resolved, That section12 of the bylaws of this corporation providing for 18 directors and for the election of directors at the annual meeting of the stockholders shall be, and the same is hereby, amended to increase the number of directors to such number as may be elected, not exceeding 21, and to provide for the election of directors at special as well as at annual meetings of the stockholders, so that section 12 of said bylaws will read as follows:

"12. The property and business of this corporation shall be managed by its board of directors, composed of such number as may be elected, not exceeding 21. Directors need not be stockholders. They shall be elected at the annual meeting of the stockholders, and resignations of directors may be accepted and vacancies filled at special meetings of the stockholders, and each director shall be elected to serve until his successor shall be elected and shall qualify."

Resolved, That section 19 of the bylaws of this corporation, requiring a majority of the whole board of directors to be present, shall be, and the same is hereby, amended to provide for a quorum instead of a majority, so that section 19 will read as follows:

"19. The newly elected board may meet at such place and time as shall be fixed by the vote of the stockholders at the annual meeting, for the purpose of organization or otherwise, and no notice of such meeting shall be necessary to the newly elected directors in order legally to constitute the meeting, provided a quorum of the whole board shall be present; or they may meet at such place and time as shall be fixed by the consent in writing of all the directors."

Resolved, That section 22 of the bylaws of this corporation providing that a majority of the directors shall constitute a quorum shall be, and the same is

Digitized by Google

hereby, amended to provide for a quorum of 7, so that said section will read as follows:

"22. At all meetings of the board of seven of the directors shall be necessary and sufficient to constitute a quorum for the transaction of business, and the act of a majority of the directors present at any meeting at which there is a quorum shall be the act of the board of directors, except as may be otherwise specifically provided by statute or by the certificate of incorporation or by these bylaws."

Resolved, That section 33 of the bylaws of this corporation providing that a majority of the entire board may authorize the delegation of the powers and duties of any officer shall be, and the same is hereby, amended to provide that a quorum of the board shall concur in such delegation, so that said section will read as follows:

"3. In case of the absence of any officer of the corporation, or for any other reason that the board may deem sufficient, the board may delegate, for the time being, the powers or duties, or any of them, of such officer to any other officer, or to any director, provided a quorum of the entire board concur therein."

AMENDMENTS ADOPTED NOVEMBER 29, 1929

Resolved, That section 23 of the bylaws of this corporation shall be, and the same is hereby, amended to read as follows:

"23. The officers of the corporation shall be chosen by the directors and shall be a president, one or more vice presidents, a secretary, and a treasurer. The secretary and treasurer may be the same person, and a vice president may hold at the same time the office of secretary or treasurer."

Resolved, That section 24 of the bylaws of this corporation shall be, and the same is hereby, amended to read as follows:

"24. The board of directors, at its first meeting after each annual meeting of stockholders, shall choose a president, one or more vice presidents from their own number, and a secretary and a treasurer who need not be members of the board."

Resolved, That section 29 of the bylaws of this corporation shall be, and the same is hereby, amended to read as follows:

"VICE PRESIDENT

"29. In the absence or disability of the president, a vice president shall perform the duties and exercise the powers of the president and shall perform such other duties as the board of directors shall prescribe."

AMENDMENTS ADOPTED MARCH 4, 1931

Resolved, That section 12 of the bylaws of this corporation, as amended, be, and the same hereby is, further amended to read as follows:

"12. The property and business of this corporation shall be managed by its board of directors, composed of such number as may be elected, not exceeding 21. They shall be elected at the annual meeting of stockholders. Resignations of directors may be accepted, and vacancies caused either by resignation or otherwise may be filled by the directors as provided for in section 32 of the bylaws. Each director shall be elected to serve until his successor shall be elected and shall qualify. Directors need not be stockholders."

Resolved, That section 16 of the bylaws of this corporation be, and the same hereby is, amended to read as follows:

"16. The executive committee may keep regular minutes of its proceedings and shall report to the board of directors when required."

AMENDMENTS ADOPTED ON MARCH 20, 1931

Resolved, That section 12 of the bylaws of this corporation, as amended, be, and the same hereby is, further amended to read as follows:

"12. The property and business of this corporation shall be managed by its board of directors, 15 in number. They shall be elected at the annual meeting of stockholders. Resignations of directors may be accepted, and vacancies caused either by resignation or otherwise may be filled by the directors as provided for in section 32 of the bylaws. Each director shall be elected to serve until his successor shall be elected and shall qualify. Directors need not be stockholders."

Digitized by Google

Resolved, That section 19 of the bylaws of this corporation, as amended, be, and the same hereby is, further amended to read as follows:

"19. The newly elected board may meet at such place and time as shall be fixed by the vote of the stockholders at the annual meeting, for the purpose of organization or otherwise, and no notice of such meeting shall be necessary. However, a majority of the directors must be present and voting in order to designate the personnel of the executive committee for the ensuing year."

Resolved, That section 22 of the bylaws of this corporation, as amended, be, and the same hereby is, further amended to read as follows:

"22. At all meetings of the board five of the directors shall be necessary and sufficient to constitute a quorum for the transaction of business, and the act of a majority of the directors present at any meeting at which there is a quorum shall be the act of the board of directors, except as may be otherwise specifically provided by statute or by the certificate of incorporation or by these bylaws."

AMENDMENT ADOPTED MARCH 21, 1932

Resolved, That section 12 of the bylaws of this corporation, as amended, be, and the same hereby is, further amended to read as follows:

"12. The property and business of this corporation shall be managed by its board of directors, 14 in number. They shall be elected at the annual meeting of stockholders. Resignations of directors may be accepted, and vacancies caused either by resignation or otherwise may be filled by the directors as provided for in section 32 of the bylaws. Each director shall be elected to serve until his successor shall be elected and shall qualify. Directors need not be stockholders."

AMENDMENT ADOPTED DECEMBER 27, 1933

Resolved, That section 12 of the bylaws of this corporation, as amended, be, and the same hereby is, further amended to read as follows:

"12. The property and business of this corporation shall be managed by its board of directors, 15 in number. They shall be elected at the annual meeting of stockholders. Resignations of directors may be accepted, and vacancies caused either by resignation or otherwise may be filled by the directors as provided for in section 32 of the bylaws. Each director shall be elected to serve until his successor sha l be elected and shall qualify. Directors need not be stockholders."

AMENDMENT ADOPTED APRIL 26, 1934

Resolved, That section 12 of the bylaws of this corporation, as amended, be, and the same hereby is, further amended to read as follows:

"12. The property and business of this corporation shall be managed by its board of directors, 16 in number. They shall be elected at the annual meeting of stockholders. Resignations of directors may be accepted, and vacancies caused either by resignation or otherwise may be filled by the directors as provided for in section 32 of the bylaws. Each director shall be elected to serve until his successor shall be elected and shall qualify. Directors need not be stockholders."

AMENDMENT ADOPTED APRIL 26, 1934

Resolved, That section 16 of the bylaws of this corporation, as amended, be, and the same hereby is, further amended to read as follows:

"16. The executive committee may keep regular minutes of its proceedings and shall report to the board of directors when required. A quorum of this committee shall consist of not less than two representatives of the supporting interests and not less than one representative of the management group."

STATE OF NEW YORK,
County of New York, ss:

I, M. H. Eames, secretary, do hereby certify that the foregoing is a true and correct copy of the bylaws of Standard Oil Development Co. (name changed Oct. 28, 1927, from Standard Development Co.), as adopted by the incorporators on September 26, 1922, including all amendments to date.

Witness my hand and the seal of the company at New York City this_____ day of_____, 19__.

_____,
Secretary.

Sworn to before me this_____day of_____, 19__.

Digitized by Google

Certificate of Incorporation of Standard Development Co.

First. The name of this corporation is Standard Development Company.

Second. Its principal office in the State of Delaware is located at no. 7 West Tenth Street, in the city of Wilmington, county of New Castle. The name and address of its resident agent is the Corporation Trust Co. of America, no. 7 West Tenth Street, Wilmington, Del.

Third. The nature of the business, or objects or purposes proposed to be transacted, promoted, or carried on are:

To purchase, lease, acquire licenses or rights under, or otherwise obtain, and to hold, own, develop, use, exercise, operate, introduce, and otherwise utilize inventions, improvements, discoveries, devices, rights, formulas, processes, and the like and to secure therefor letters patent or other legal protection of the United States and of any foreign country or countries.

To sell, lease, grant licenses under or otherwise dispose of inventions, improvements, discoveries, devices, rights, formulas, process, and letters patent or other legal protection of the United States and any foreign country or countries.

To manufacture iron, steel, copper, lumber, and any other materials, and all or any articles consisting or partly consisting of iron, steel, copper, wood, or any other materials and all or any products thereof.

To produce, manufacture, buy, sell, deal in, construct, or erect any and all kinds of engines, machinery, tools, implements, motors, castings, and mechanical devices of every kind and character, and any and all materials and supplies of any kind or character connected therewith or a part thereof.

To acquire, print, publish, conduct, circulate, sell, distribute, deliver, or otherwise contract for, and deal in, or with books, magazines, periodicals, journals, pamphlets, and publications of any and every description whatsoever, or to cause the same or any of the above things to be done by others.

To procure in manuscript form from authors or others, scientific and technical works, all or any of them and to buy, sell, copyright, publish, cause to be published, distribute, or otherwise deal in, or with reference to, the same.

To acquire, purchase, hold, own, sell, and lease any land or lands and to construct, erect, operate, equip, produce, maintain, and use manufacturing plants, factories, machine shops, warehouses, office buildings, offices, stores, salesrooms, branch establishments, and all buildings and structures whatsoever, which may seem useful for or conducive to any of the company's objects, and to sell, lease, sublet, rent, or otherwise dispose of any of the aforesaid lands, premises, properties, appurtenances, and appliances, and the products, proceeds, use, or contents thereof.

To manufacture, purchase, or otherwise acquire, own, mortgage, pledge, sell, assign, and transfer, or otherwise dispose of, to invest, trade, deal in and deal with, goods, wares, and merchandise and real and personal property of every class and description.

To acquire, and pay for in cash, stock or bonds of this corporation or otherwise, the good will, rights, assets, and property, and to undertake or assume the whole or any part of the obligations or liabilities of any person, firm, association, or corporation.

To guarantee, purchase, hold, sell, assign, transfer, mortgage, pledge, or otherwise dispose of shares of the capital stock of, or any bonds, securities, or evidence of indebtedness created by any other corporation or corporations organized under the laws of this State or any other State, country, nation, or government, and while the owner thereof to exercise all the rights, powers, and privileges of ownership.

To issue bonds, debentures, or obligations of this corporation from time to time, for any of the objects or purposes of the corporation, and to secure the same by mortgage, pledge, deed of trust, or otherwise.

To purchase, hold, sell, and transfer the shares of its own capital stock; provided, it shall not use its funds or property for the purchase of its own shares of capital stock when such use would cause any impairment of its capital; and provided further, that shares of its own capital stock belonging to it shall not be voted upon directly or indirectly.

To have one or more offices, to carry on all or any of its operations and business and without restriction or limit as to amount to purchase or otherwise acquire, hold, own, mortgage, sell, convey, or otherwise dispose of real and personal property of every class and description in any of the States, Districts, Territories, or Colonies of the United States, and in any and all foreign countries, subject to the laws of such State, District, Territory, colony, or country.

Digitized by Google

In general, to carry on any other business in connection with the foregoing, whether manufacturing or otherwise, and to have and exercise all the powers conferred by the laws of Delaware upon corporations formed under the act hereinafter referred to, and to do any or all of the things hereinbefore set forth to the same extent as natural persons might or could do.

The foregoing clauses shall be construed both as objects and powers; and it is hereby expressly provided that the foregoing enumeration of specific powers shall not be held to limit or restrict in any manner the powers of this corporation.

Fourth. The total authorized capital stock is one million dollars ($1,000,000), divided into ten thousand (10,000) shares of the par value of one hundred dollars ($100) each.

Fifth. The amount of capital stock with which this corporation will commence business is one thousand dollars ($1,000).

Sixth. The names and places of residence of the subscribers to the capital stock and the number of shares subscribed for by each are as follows: T. L. Croteau, Wilmington, Del., 8 shares; M. A. Bruce, Wilmington, Del., 1 share; C. H. Blaske, Wilmington, Del., 1 share.

Seventh. This corporation is to have perpetual existence.

Eighth. The private property of the stockholders shall not be subject to the payment of corporate debts to any extent whatever.

Ninth. In furtherance, and not in limitation of the powers conferred by statute, the board of directors is expressly authorized:

To make and alter the bylaws of this corporation, to fix the amount to be reserved as working capital over and above its capital stock paid in, to authorize and cause to be executed mortgages and liens upon the real and personal property of this corporation:

From time to time to determine whether and to what extent, and at what times and places, and under what conditions and regulations, the accounts and books of this corporation (other than the stock ledger), or any of them, shall be open to inspection of stockholders; and no stockholder shall have any right of inspecting any account, book, or document of this corporation except as conferred by statute, unless authorized by a resolution of the stockholders or directors.

If the bylaws so provide, to designate two or more of its number to constitute an executive committee, which committee shall for the time being, as provided in said resolution or in the bylaws of this corporation, have and exercise any or all of the powers of the board of directors in the management of the business and affairs of this corporation, and have power to authorize the seal of this corporation to be affixed to all papers which may require it.

Pursuant to the affirmative vote of the holders of at least a majority of the stock issued and outstanding, having voting power, given at a stockholders' meeting duly called for that purpose, or when authorized by the written consent of at least a majority of the holders of the voting stock issued and outstanding, the board of directors shall have power and authority at any meeting to sell, lease, or exchange all of the property and assets of this corporation, including its goodwill and its corporate franchises, upon such terms and conditions as its board of directors deem expedient and for the best interests of the corporation.

This corporation may in its bylaws confer powers upon its directors in addition to the foregoing, and in addition to the powers and authorities expressly conferred upon them by the statute.

Both stockholders and directors shall have power, if the bylaws so provide, to hold their meetings, and to have one or more offices within or without the State of Delaware, and to keep the books of this corporation (subject to the provisions of the statutes), outside of the State of Delaware at such places as may be from time to time designated by the board of directors.

Tenth. This corporation reserves the right to amend, alter, change, or repeal any provision contained in this certificate of incorporation, in the manner now or hereafter prescribed by statute, and all rights conferred upon stockholders herein are granted subject to this reservation.

We the undersigned, being each of the original subscribers to the capital stock hereinbefore named for the purpose of forming a corporation to do business both within and without the State of Delaware, and in pursuance of the general corporation law of the State of Delaware, being chapter 65, of the Revised Code of Delaware, and the acts amendatory thereof and supplemental thereto, do make and file this certificate, hereby declaring and certifying that the facts herein stated are true, and do respectively agree to take the number of shares of stock

Digitized by Google

hereinbefore set forth, and accordingly have hereunto set our hands and seals this 23d day of September, A. D. 1922.

In presence of—

HERBERT E. LATTER.
T. L. CROTEAU. [SEAL]
M. A. BRUCE. [SEAL]
C. H. BLASKE. [SEAL]

STATE OF DELAWARE,
County of New Castle, ss:

Be it remembered, that on this 23d day of September, A. D. 1922, personally came before me, Herbert E. Latter, a notary public for the State of Delaware, T. L. Croteau, M. A. Bruce, and C. H. Blaske, parties to the foregoing certificate of incorporation, known to me personally to be such, and severally acknowledged the said certificate to be the act and deed of the signers respectively and that the facts therein stated are truly set forth.

Given under my hand and seal of office the day and year aforesaid.

[SEAL] HERBERT E. LATTER, *Notary Public.*

STATE OF DELAWARE,
Office of Secretary of State:

I, A. R. Benson, Secretary of State of the State of Delaware, do hereby certify that the above and foregoing is a true and correct copy of certificate of incorporation of the Standard Development Co., as received and filed in this office the 25th day of September, A. D. 1922, at 9 o'clock a. m.

In testimony whereof, I have hereunto set my hand and official seal at Dover this 25th day of September in the year of our Lord 1922.

[SEAL] A. R. BENSON, *Secretary of State.*

(Received for record Sept. 26, A. D. 1922. Darlington Flinn, recorder.)

STATE OF DELAWARE,
New Castle County, ss:

Recorded in the recorder's office at Wilmington, in certificate of incorporation, record G, vol. 17, page 125, &c., the 26th day of September, A. D. 1922.

Witness my hand and official seal.

[SEAL] DARLINGTON FLINN, *Recorder.*

CERTIFICATE OF AMENDMENT OF CERTIFICATE OF INCORPORATION OF STANDARD DEVELOPMENT CO.

Standard Development Co., a corporation organized and existing under and by virtue of the provisions of an act of the General Assembly of the State of Delaware, entitled "An act providing a general corporation law," approved March 10, 1899, and the acts amendatory thereof and supplemental thereto, the certificate of incorporation of which was filed in the office of the Secretary of State of Delaware on September 25, 1922, and recorded in the office of the recorder of deeds for New Castle County, State of Delaware, on September 26, 1922, does hereby certify:

First. That at a meeting of the board of directors of said Standard Development Co. duly held and convened, a resolution was duly adopted setting forth an amendment proposed to the certificate of incorporation of said corporation as follows:

That the certificate of incorporation of this corporation be amended by striking out article "First" thereof and by inserting in lieu thereof the following:

"First. The name of this corporation is Standard Oil Development Co.," and declaring said amendment advisable and calling a meeting of the stockholders of said corporation for consideration thereof.

Second. That thereafter, pursuant to the aforesaid resolution of its board of directors, a special meeting of the stockholders of said Standard Development Co. was duly called and held, in accordance with law and the bylaws of said corporation, at 26 Broadway, in the city of New York, State of New York, on the 27th day of October 1927, at 10 o'clock in the forenoon, at which meeting more than a majority of the voting stockholders of said corporation were present in person or by proxy; that at said meeting a vote of the stockholders by ballot in person or by proxy was taken for and against said proposed amendment, which vote was conducted by Wm. F. Quick and C. E. Hill, two judges appointed for that purpose by said meeting; and that at said meeting, by vote conducted

Digitized by Google

as aforesaid, said amendment was adopted pursuant to section 26 of the general corporation law of Delaware, as amended; the persons or bodies corporate holding the majority of the issued and outstanding voting stock of said corporation voting for said proposed amendment, to-wit: 2,500 shares out of the total issue of 2,500 shares were voted for said proposed amendment and no shares were voted against the same, as appears by the certificate made by said judges.

In witness whereof, said Standard Development Co. has caused its corporate seal to be hereunto affixed and this certificate to be signed by C. A. Straw, its vice president, and H. M. McLarin, its secretary, this 27th day of October 1927.

STANDARD DEVELOPMENT CO.,
By C. A. STRAW, *Vice President.*

Seal attest:
H. M. MCLARIN, *Secretary.*
[SEAL]

STATE OF NEW YORK,
County of New York, ss:

Be it remembered that on this 27th day of October A. D. 1927, personally came before me, Albert Abraham, Jr., a notary public in and for the county and State aforesaid, C. A. Straw, vice president of Standard Development Co., a corporation of the State of Delaware, the corporation described in and which executed the foregoing certificate, known to me personally to be such, and he, the said C. A. Straw as such vice president, duly executed said certificate before me and acknowledged the said certificate to be his act and deed and the act and deed of said corporation; that the signatures of the said vice president and of the secretary of said corporation to said foregoing certificate are in the handwriting of the said vice president and secretary of said company respectively and that the seal affixed to said certificate is the common or corporate seal of said corporation, and that his act of sealing, executing, acknowledging and delivering the said certificate was duly authorized by the board of directors and stockholders of said corporation.

In witness whereof, I have hereunto set my hand and seal of office the day and year aforesaid.

ALBERT ABRAHAM, Jr., *Notary Public.*

STATE OF DELAWARE, OFFICE OF SECRETARY OF STATE

I, Charles H. Grantland, Secretary of State of the State of Delaware, do hereby certify that the above and foregoing is a true and correct copy of certificate of amendment of certificate of incorporation of the Standard Development Co., as received and filed in this office the 28th day of October A. D. 1927, at 1 p. m.

In testimony whereof, I have hereunto set my hand and official seal, at Dover, this 13th day of May in the year of our Lord, 1930.

[SEAL] CHARLES H. GRANTLAND,
Secretary of State.

Agreement, made as of the 22d day of July 1935, between Chemical Construction Corporation, a corporation of Delaware, having its principal place of business at 30 Rockefeller Plaza, New York City, hereinafter referred to as Chemical Construction, and Standard Oil Development Co., a corporation of Delaware, having a place of business at Linden, N. J., hereinafter referred to as Standard.

Whereas, an interference no. 70037 has been declared by the United States Commissioner of Patents between an application of Hechenbleikner and Bartholomew, serial no. 531004, filed April 17, 1931, for the process of recovering sulphuric acid from separated sludge acid, owned by Chemical Construction, and an application by Chester L. Read, serial no. 507786, filed January 10, 1931, owned by Standard: And,

Whereas it is the desire of both parties to this agreement that the interference be amicably settled: Now, therefore,

1. Standard hereby grants to Chemical Construction an exclusive license with rights to sublicense (except for the right by Standard to license Standard Oil Co., a corporation of New Jersey, and any of its subsidiaries) under any claim in said Read application, when it matures into a patent, for the full term thereof, and under any claim based on the disclosure of that application, but without granting by implication a license under any claim of any other application or any patent not based on the disclosure of said Read application.

Digitized by Google

2. Standard agrees to give Chemical Construction full information as to the operation of the process of the Read application as it has been practiced at the Bayway Refinery up to the present time.

3. Chemical construction will grant to Standard Oil Co., a corporation of New Jersey, and its subsidiaries, a nonexclusive, nontransferable, royalty-free license under any claim in said Heckenbleikner and Bartholomew application, when it matures into a patent, for the full term thereof, and under any claim based on the disclosure of that application, but without granting by implication a license under any claim of any other application or any patent not based on the disclosure of said Heckenbleikner and Bartholomew application.

4. For the purposes of this agreement, a subsidiary of Standard Oil Co., a corporation of New Jersey, is any company in which said Standard Oil Co. owns or controls, or may in the future own or control, directly or indirectly, fifty (50) percent or more of the stock having the power to vote for directors.

5. The above agreement with regard to licensing in paragraphs 1 and 3 shall be applicable to any Canadian applications corresponding to the applications of Read or Heckenbleikner and Bartholomew above referred to which may exist or which may be applied for.

6. Standard agrees to provide Chemical Construction, on demand, with a concession of priority of the above interference issue by the party Read to the party Heckenbleikner and Bartholomew, assented to by Standard. Chemical Construction agrees to file said concession of priority promptly after the termination of any motions to amend which, in the opinion of patent counsel for the respective parties, may be necessary or desirable.

7. The parties agree after the termination of the interference to proceed with due diligence in the endeavor to obtain United States letters patent based on their applications involved in said interference containing claims adequately protecting the inventions described therein. Each party shall furnish the other with copies of office actions and amendments which issue or are filed during said prosecution. It is agreed, however, that neither party shall be held liable in the event that it fails to obtain a patent as referred to above, or in the case that the patent is held to be invalid.

8. This agreement shall be assignable to the successors to the entire business of the parties but shall not be otherwise assignable.

In witness whereof, the parties have caused this agreement to be signed by their duly constituted officers as of the day and year first above written.

STANDARD OIL DEVELOPMENT CO.,
By WILLIAM E. CURRIE, *Vice President.*

Attest:

[SEAL] W. F. QUICK, *Assistant Secretary.*

CHEMICAL CONSTRUCTION CORPORATION,
By T. C. OLIVER, *Vice President.*

Attest:

[SEAL] W. P. STURTEVANT, *Secretary.*

This agreement, made as of July 1, 1933, by and between Standard Oil Development Co., a corporation organized and existing under the laws of the State of Delaware (hereinafter referred to as Development), party of the first part, Cuno Engineering Corporation, a corporation organized and existing under the laws of the State of Connecticut (hereinafter referred to as Cuno), party of the second part, and Atlas Supply Co., a corporation organized and existing under the laws of the State of Delaware (hereinafter referred to as Atlas), party of the third part.

Witnesseth, in consideration of the premises, the parties hereto have agreed as follows:

I. LICENSE TO CUNO

Development hereby grants to Cuno a license to manufacture and sell filters covered by Letters Patent of the United States No. 1914999, granted June 20, 1933, for improvements in method and composition for filtering used motor oil, or on any division or reissue thereof or on any application for improvements thereon, as follows:

A. The license hereby granted is nonexclusive, except that Cuno shall be offered the opportunity of obtaining exclusive rights before granting a license to others except for such licenses as may be granted for the production of filters by or for Atlas only, which licenses Development may grant at any time without consulting Cuno.

Digitized by Google

B. The term of license hereby granted is a period of five (5) years, but Cuno may cancel upon ninety (90) days' notice in writing to Development at end of any year. All accrued royalties up to effective date of cancelation to be paid by Cuno.

C. Cuno shall pay to Development a royalty of five percent (5%) of the net receipts received by Cuno from the sale of filters manufactured under this license (net after deducting losses, returns, and allowances) payable quarterly, as of the last days of March, June, September, and December, within thirty (30) days after the end of each quarter, but said royalty shall not be less than five cents ($0.05) per filter, except on sales (including sales of Atlas brand filters) to motor or vehicle manufacturers for use as original equipment as to which sales the royalty rate shall be a straight two and one-half percent (2½%) of net receipts, as above provided.

D. As long as Atlas shall purchase its requirements of filters of the type made under this license from Cuno, or from other manufacturers pursuant to the provisions of paragraph 21 of article II hereof:

1. Save for sales to Atlas, Cuno shall not sell filters made under this license except under a Cuno brand, which shall be the same brand for all filters made under this license, and with markings clearly identifying them as manufactured by Cuno, except that on request of Atlas Cuno may manufacture private-brand filters for others, including Atlas, upon terms to be agreed upon between Cuno and Atlas.

2. Cuno shall not, without consent of Atlas, sell comparable or similar filters to others at prices lower than to Atlas, except to motor or vehicle manufacturers for use as original equipment.

E. Development shall pay all patent and litigation costs so far as they pertain to said Letters Patent No. 1914999 or any division or reissue thereof or any application for improvements thereon.

F. Cuno shall keep true records of sales, allowances, returns, losses, etc., and allow Development's authorized representatives to inspect same at reasonable intervals during regular office hours.

G. If said Letters Patent No. 1914999 shall be declared invalid by any court of competent jurisdiction or of such limited scope as to afford no adequate protection to Cuno, royalties shall thereupon cease and the entire agreement terminate, except that Cuno shall complete all orders from Atlas which are at the time in process of production.

H. Changes in this agreement as regards article I may be made at any time by agreement in writing between Development and Cuno.

II. SALES TO ATLAS

Atlas agrees to purchase from Cuno during the term of this agreement its entire requirements of filters for sale in the United States made under the license herein granted (but not including its requirements for fittings or for filters of other types), and Cuno agrees to supply Atlas requirements for such period subject to the following conditions; *provided, however*, if Cuno shall cancel its license with Development pursuant to paragraph B of article I hereof, then Cuno shall give Atlas immediate notice in writing of such cancelation, and this agreement insofar as it provides for sales of filters to Atlas shall automatically terminate on the effective date of such cancelation.

A. Prices and terms to Atlas shall be:

1. Net base prices of filters, supplied to Atlas on orders received until and including January 1, 1934, boxed in corrugated paper cartons without any fittings shall be as as follows:

		Cents
Cuno print no. 2714, price	each	71
Cuno print no. 2715, price	do	75
Cuno print no. 2716, price	do	71
Cuno print no. 2717, price	do	75
Cuno print no. 2714, price	do	75
Cuno print no. 2733, price	do	77
Cuno print no. 2730, price	do	72
Cuno print no. 2731, price	do	75

2. Net prices for filters of different or changed construction supplied to Atlas to be agreed upon between Cuno and Atlas.

Digitized by Google

3. Net prices of fittings shall be:

	Each
⅛-inch steel pipe plugs	$0.004
⅛-inch close brass nipples	.01
⅛-inch brass street ells	.03½
Filler bands, black enameled	.03½

It is understood that Atlas shall have the right to purchase fittings from others at any time if offered by others at a lower price for similar quantity and quality.

4. For each one (1%) percent increase above the present base price of $2 per 100 pounds of cold rolled steel at the mill, add 0.8 percent to all filter base prices under clauses A (1) and A (2) and A (3) hereof.

5. All royalties payable to Development and sales, excise, or other special manufacturers' taxes to be added to billing prices to Atlas.

6. Atlas shall pay Cuno $265 as part cost of fitting up for making 4½-inch diameter filters, said payment will not convey ownership.

7. Terms of payment by Atlas shall be net cash 10th proximo f. o. b. Meriden, Conn.

8. Releases on orders: Except for occasional rush shipments, Atlas shall release shipments in minimum quantities of 50 assorted filters to one address at one time.

9. All costs for art work and cuts for decalcomanias, boxes, wall cards, etc., shall be paid for by Atlas.

10. All costs for printing or special advertising shall be paid for or supplied by Atlas.

11. Except for a secret Cuno designation, no Cuno markings or name shall appear on products made for Atlas' own use.

12. The billing price of filters furnished to Atlas on each order placed after January 1, 1934, shall be on the basis of 11 cents profit added to the then current cost, provided, however, that said billing price, plus all royalties payable to Development and sales, excise or other special manufactures taxes, as referred to in section A–5 hereof, and price of fittings, shall not exceed the lowest price for Cuno brand filters of similar types and sizes sold to others (except to motor and vehicle manufacturers for installation as original equipment) less 10 percent, said price restriction being in consideration of the fact that Cuno will not incur the usual advertising and sales expense incident to sales of Cuno brand filters on sales of Atlas filters hereunder. As of December 31 in each year during the term of this agreement and at the expiration or termination hereof Cuno shall compute the actual cost of all filters sold and delivered to Atlas (except Atlas brand filters sold and delivered to motor or vehicle manufacturers for installation as original equipment) during such year, said actual cost to be computed as hereinafter provided, and if said actual cost plus a profit thereon at the rates hereinafter set forth shall be less than the amount paid to Cuno by Atlas for all filters sold and delivered by Cuno during said year, or lesser period, as the case may be, Cuno will reimburse Atlas for the difference.

Profits shall be computed on the following basis: Add 10 cents per filter when total cost is over 50 cents per filter; add 11 cents per filter when total cost is over 45 cents but not exceeding 50 cents per filter; add 12 cents per filter when total cost is over 40 cents but not exceeding 45 cents per filter; add 13 cents per filter when total cost is under 40 cents per filter.

The billing prices to Atlas and the actual cost plus profit to be used in computing the adjustment above provided for shall be exclusive of items enumerated under section A–5 hereof.

The term cost as defined in this agreement shall mean the manufacturing cost determined by computing the component material, labor, and burden, in accordance with manufacturing specifications, for each type of filter, and an equitable proportion of certain general expenses included under the classification of administrative and selling expenses. The determination of filter costs, including the method of distributing manufacturing burden and general expenses, shall be in accordance with approved accounting principles. Material and labor shall be on the basis of actual prices or amounts paid. Manufacturing burden shall be applied on the basis of normal or standard burden rates according to the production centers through which the product passes; the standard burden thus absorbed being later adjusted to actual at the close of business for each calendar year. The adjustment of over- or under-absorbed manufacturing burden to be expressed as a percentage of the burden absorbed in actual production through the application of the standard burden rates in the proportion that Atlas bears to the total standard burden absorbed.

Digitized by Google

The allocation of general expenses (administrative and selling) after eliminating therefrom those expenses which are incurred solely for the benefit of Cuno, such as advertising, commissions, outward fright and express, credit and collection expenses, traveling expenses, selling expenses in connection with Cuno filters, etc., shall be on the basis which these total actual expenses bear to the relative cost of goods shipped to Atlas and the corresponding cost of all Cuno shipments during the year.

13. If Cuno's price to motor or vehicle manufacturers, for Cuno brand filters for installation as original equipment, shall be less than the price to Atlas hereunder (in force at the time) for Atlas brand filters of the same types and classes, Cuno agrees if requested by Atlas and said motor or vehicle manufacturers, to furnish Atlas brand filters on new and/or additional orders to such motor or vehicle manufacturers at such lower prices, Cuno to receive payment therefor direct from such motor or vehicle manufacturers, and Atlas to receive no compensation on such sales.

14. Cuno reserves the right to change or improve the design and/or construction of filters, from time to time, but as to filters supplied to Atlas such changes shall be subject to approval by Atlas.

15. Cuno reserves the right to reduce the price to Atlas of any model of filter or fitting at any time, and on any quantity without affecting the validity of this agreement.

16. Changes in clauses under II shall be permissible between Cuno and Atlas by agreement in writing.

17. A. Atlas agrees to accept complete deliveries of the first order for 10,000 filters, prior to December 31, 1933, and subsequent orders within 4 months from date of order. Cuno may require up to 4 weeks' notice before starting deliveries on any new order. Atlas shall furnish, upon request by Cuno, detailed manufacturing specifications covering types and quantities required, not less than 3 weeks before deliveries are wanted.

B. Atlas agrees that each order placed with Cuno for filters shall be for a minimum of 10,000 filters. Releases and shipments on these orders shall be in accordance with II A (8) and II A (17).

18. Orders from Atlas are not subject to cancelation without indemnifying Cuno against actual costs incurred plus 20 percent.

19. Cuno agrees that the filters supplied to Atlas shall be of equal quality, as regards materials and workmanship, as the filters sold under the Cuno brand and will replace, without charge, any filters found defective within 3 months after installation, provided same are returned to the factory at Meriden, Conn., transportation charges prepaid.

20. In the event of the cancelation or termination of this agreement for any cause, Cuno shall complete all orders for Atlas which are at the effective date of termination or cancelation in process of production, and Atlas agrees to accept shipment of same within 4 months and to pay for same within the regular terms.

21. If Atlas shall be offered by a reputable manufacturer other than Cuno lower prices for filters of the same construction and types and of equal quality as regards material and workmanship than the prices offered by Cuno for equal quantity and like delivery, Atlas will furnish written proof to Cuno of such offer, and Cuno shall within 30 days after receipt by it of such proof, notify Atlas that it will either supply Atlas with filters at no greater prices than such offered prices, or permit Atlas to purchase filters from such other manufacturer at such lower prices. Such lower prices of such other manufacturer shall be for the furnishing of lots of not less than 10,000 filters for delivery over a period of 4 months.

In the event Cuno shall fail to meet the offered price of such other manufacturer and Atlas shall purchase filters from such other manufacturer, the filters so purchased by Atlas shall be considered as part of Atlas' quantity commitment hereunder and such purchase shall not be considered as a cancelation of this agreement or relieve Cuno from the provisions hereof, provided, however, if Atlas shall order no filters from Cuno hereunder for a continuous period of 6 months, Cuno shall be relieved from the provisions hereof so far as Atlas is concerned

22. Any and all controversies arising under or out of or in connection with or relating to or for the breach of the agreement of which this paragraph is a part, shall be settled by arbitration in accordance with the rules then obtained of the American Arbitration Association, and a judgment of the highest court, State or

Digitized by Google

Federal, having jurisdiction in the premises may be rendered upon any award of an arbitrator or arbitrators hereunder.

In witness whereof the parties hereto have caused this agreement to be executed the day and year first above written.

Attest:

STANDARD OIL DEVELOPMENT CO.,
By FRANK A. HOWARD, *President.*
M. H. EAMES, *Secretary.*

Attest:

CUNO ENGINEERING CO.,
By C. H. CUNO, *President.*
J. J. HANCE, *Witness.*

Attest:

ATLAS SUPPLY CO.,
By A. CALDWELL, *Vice President.*
E. B. FERMAN, *Assistant Secretary.*

LICENSE AGREEMENT RE FRACTIONAL DISTILLATION—PETROLEUM DISTILLATION CORPORATION, THE ATLANTIC REFINING CO., ATLANTIC CO., STANDARD OIL CO. (INDIANA), STANDARD OIL DEVELOPMENT CO., STANDARD OIL CO. (NEW JERSEY), (EACH BEING BOTH LICENSOR AND LICENSEE)

(Executed Mar. 28, 1934)

This agreement, made and entered into as of the 1st day of January 1934, by and between Petroleum Distillation Corporation, a Delaware corporation, hereinafter referred to as Petroleum; the Atlantic Refining Co., a Pennsylvania corporation, and its subsidiary, Atlantic Co., a Maine Corporation, said corporations being hereinafter collectively referred to as Atlantic; Standard Oil Co., an Indiana corporation, hereinafter referred to as Indiana; Standard Oil Development Co., a Delaware corporation and its parent Standard Oil Co., a New Jersey corporation, said corporations being hereinafter collectively referred to as Jersey.

Witnesseth, whereas, each of the parties hereto except Petroleum owns letters patent covering valuable rights in respect of distillation processes and apparatus and,

Whereas, the distillation processes and apparatus used by Atlantic, Indiana, and Jersey respectively, are alleged to infringe letters patent of each of the other parties hereto, except Petroleum, and,

Whereas, each of the parties hereto except Petroleum, is desirous of procuring a release under the distillation patent rights of the other parties hereto for past infringement of their respective fractional distillation patents and Atlantic, Indiana, and Jersey are desirous of procuring licenses for the future use of the distillation patent rights of the other parties hereto, and,

Whereas, Atlantic, Indiana, and Jersey are willing to grant to Petroleum non-exclusive licensing rights under their respective distillation patent rights,

Now, therefore, in consideration of the premises and of the mutual covenants and agreements of the parties hereinafter set forth, the parties have covenanted and agreed and hereby do covenant and agree as follows:

ARTICLE I

Whenever used in this agreement, the following terms shall have the following meanings respectively:

A. The term "petroleum" shall refer and be limited to crude oil, shale oil, and asphalt and hydrocarbon products made therefrom and shall not include natural gas or products actually recovered therefrom except to the extent that such products shall have lost their separate identity by admixture with like products from crude oil, shale oil, or asphalt.

B. The term "fractional distillation" shall refer and be limited to the treatment of petroleum which consists in partial or complete vaporization and/or condensation thereof to obtain one or more products having a boiling range different from that of the starting material; provided that, for the purpose of this agreement, a distillatory operation conducted as an integral part of a pyrogenic process, a hydrogenation process or a process of absorbing and stripping of gases, shall not be regarded as an operation of fractional distillation.

Digitized by Google

C. The term "chemical treating process" shall mean the contacting of petroleum with solid, liquid, or gaseous substances having the property, under the operating conditions, of reacting with or causing interaction of constituents of petroleum.

D. The term "absorbing and stripping of gases" shall mean the segregation of higher boiling hydrocarbons from lower boiling hydrocarbons by contacting gaseous mixtures of the same with an absorption medium having the property, under the operating conditions, of dissolving or otherwise fixing the higher boiling hydrocarbons in such form that they may be subsequently recovered in a more concentrated form as by application of heat, reduced pressure, blowing, or the like.

E. The term "pyrogenic processes" shall mean processes such as cracking and polymerization wherein hydrocarbons are by the influence of the temperature employed essentially changed chemically.

F. The term "hydrogenation processes" shall mean processes involving or not involving pyrogenesis but in which the oil is subjected to the action of hydrogen in the presence or absence of a catalyst to a degree or extent or in a manner to secure definitely determinable hydrogenation.

G. The term "distillation patent rights" shall mean all claims of patents of the United States and foreign countries, and/or transferable rights thereunder, owned or controlled by any of the parties hereto prior to January 1, 1940 (including patents, whether or not applied for or issued prior thereto, for inventions owned or controlled prior to said date) insofar as said claims are limited to processes for or apparatus used in the practise of fractional distillation as hereinabove defined and specifically excluding claims which relate to chemical treating processes.

H. The term "subsidiaries" shall mean:

All corporations of which the parent company owns directly or indirectly more than 50 percent of the stock having the right to vote for directors.

For the purposes of the above definition, the stock owned by the parent company shall be deemed to include all stock having the right to vote for directors and owned directly or indirectly by any of its subsidiaries as defined above.

I. The term "maintaining foreign distillation patents" used herein shall relate to patents granted by countries other than the United States of America, and any dependency to which the patent laws of the United States apply, and shall include the payment of all taxes, fees, assessments or other moneys, working the patents and taking any and all other steps necessary to satisfy the legal requirements of the granting countries and to insure, insofar as a patentee reasonably can, the enforcibility of said foreign patents.

ARTICLE II

Atlantic, Indiana, and Jersey each grants to Petroleum an irrevocable, nonexclusive, nontransferable fully paid right to grant licenses, releases for past infringement and/or immunities from suit, for fractional distillation under its distillation patent rights, such right being for the full term of each such patent, upon terms to be fixed by Petroleum.

ARTICLE III

Each of the parties agrees that, subject to the provisions of article VII hereof, it will at the request of Petroleum bring suits for infringement and/or to restrain the infringement of its distillation patent rights. The cost of such litigation shall be borne by Petroleum and the recoveries, if any, shall be paid to Petroleum.

ARTICLE IV

Atlantic, Indiana, and Jersey each agrees that it will not grant licenses or releases under any of its own distillation patent rights upon which litigation may have been instituted at the expense of Petroleum as herein provided, until it has repaid to Petroleum the amounts expended by Petroleum for such litigation. Except as to the defendant in the litigation in question, however, such restriction shall apply only where the license or release is granted for cash or the equivalent thereof as distinguished from a license or release granted in exchange for a cross-license, or as a part of an agreement relating principally to other matters, or in exchange for rights other than claims for money or securities or evidencies of indebtedness.

Digitized by Google

ARTICLE V

To the extent to which it is empowered to do so under article II hereof, Petroleum hereby releases Atlantic, Indiana, and Jersey and each of them from all claims arising out of past infringement of Petroleum's distillation patent rights and grants to Atlantic, Indiana, and Jersey and each of them an irrevocable, nonexclusive, nontransferable, fully paid license under its distillation patent rights.

ARTICLE VI

A. The responsibility for the filing and prosecution of all United States and foreign applications, present and future, for distillation patents, the claims of which relate primarily to the subject matter of this agreement, shall rest primarily upon the party owning such applications and the prosecution of such applications shall be at the discretion and under the direction and at the expense of said party. Likewise the cost and responsibility of maintaining such foreign distillation patents shall remain primarily upon the party having title thereto, and shall be at the discretion of said party.

B. None of the parties hereto shall be obliged to apply for or prosecute foreign distillation patents or to maintain any of its said foreign patents. But if any party shall decide not to apply for any such patent or prosecute any of said applications or shall desire to allow any of its foreign distillation patents to lapse, it shall give written notice to Petroleum of its intention at least 3 months before the last date upon which the application must be filed, or on which action must be taken in the prosecution thereof, or on which payment must be made without fine or act done to keep such patent valid and enforcible. Upon the receipt of such notice Petroleum, at its own expense, and in the name of the party having title thereto, shall then have the right, but shall not be obliged, to apply for and prosecute foreign distillation patents and to maintain any of said foreign distillation patents. Where any foreign distillation patents are obtained or maintained by Petroleum under this paragraph B licenses may not be granted under such patents by the party having title thereto until it has repaid to Petroleum the amounts expended by Petroleum in maintaining and obtaining such patents in the country or countries covered by the license granted. Thereafter the obligation of maintaining such foreign distillation patents in the country or countries for which such license is granted shall rest upon such party. This restriction, however, shall apply only where the license is granted for cash or the equivalent thereof as distinguished from a license granted in exchange for a cross-license, or as a part of an agreement relating principally to other matters, or in exchange for rights other than claims for money or securities or evidences of indebtedness.

Nothing contained in this Article shall affect the rights of the parties under articles II and V hereof.

ARTICLE VII

Subject to the provisions of article IV and paragraph B of article VI hereof nothing in this agreement shall prevent any of the parties hereto from licensing and/or granting releases or immunities from suit under its own distillation patent rights upon any terms and at any time that it deems fit.

ARTICLE VIII

Each party agrees to use its best efforts to secure compliance with the terms of this agreement by all of its present and future subsidiaries; those who do so comply shall be bound to grant and shall be entitled to receive the licenses granted hereunder, and releases for all operations prior to date of compliance. If notwithstanding such efforts any such subsidiary shall refuse or fail to comply with the terms of this agreement, said noncomplying subsidiary shall be deemed to have renounced the benefits of this agreement, and each party guarantees each other party and its complying subsidiaries against and agrees to hold each other party and its complying subsidiaries harmless from any loss or liability occurring by reason of such noncompliance by any noncomplying subsidiary, provided, however, that each party shall be entitled to offset against any such liability any recovery by any other party or any of its complying subsidiaries against such noncomplying subisidiary for infringement of their respective distillation patent rights; and provided, further, that if any future subsidiary of a party shall have, at the time it becomes a subsidiary, prior obligations which prevent it from complying with the terms of this agreement, it shall be deemed to be a stranger to this agreement, and the party of which it is a subsidiary shall be ipso facto released

Digitized by Google

from its obligation to hold the other parties harmless from resultant loss or liability.

ARTICLE IX

This agreement is binding upon and shall inure to the benefit of the parties hereto and their complying subsidiaries, as above defined, and the successors to and assigns of the distillation patent rights and/or business relating thereto of each of them.

In witness whereof the parties hereto have caused these presents to be signed on their behalves and their corporate seals affixed thereto by their respective officers thereunto duly authorized as of the day and year first above written in six counterpart originals.

PETROLEUM DISTILLATION CORPORATION,
[SEAL] By T. G. DELBRIDGE, *President.*
Attest:
W. F. QUICK, *Assistant Secretary.*

[SEAL] THE ATLANTIC REFINING CO.,
By W. M. IRISH, *President.*
Attest:
B. G. MCKAIN, *Assistant Secretary.*

[SEAL] ATLANTIC CO.,
By JOHN H. STONE, *President.*
Attest:
J. P. HOFFMAN, *Assistant Secretary.*

[SEAL] STANDARD OIL CO. (an Indiana corporation),
By ROBERT E. WILSON, *Vice President.*
Attest:
F. T. GRAHAM, *Secretary.*

[SEAL] STANDARD OIL CO. (a New Jersey corporation),
By E. J. SADLER, *Vice President.*
Attest:
M. H. EAMES, *Assistant Secretary.*

[SEAL] STANDARD OIL DEVELOPMENT CO.,
By WILLIAM E. CURRIE, *Vice President.*
Attest:
M. H. EAMES, *Secretary.*

AN AGREEMENT RE GAS POLYMERIZATION PROCESSES DATED SEPTEMBER 1, 1935, BY AND BETWEEN PHILLIPS PETROLEUM CO., THE M. W. KELLOGG CO., THE TEXAS CO., STANDARD OIL CO. (INDIANA), STANDARD OIL DEVELOPMENT CO.

First. *Parties.*—1. Phillips Petroleum Co., a corporation of the State of Delaware, having a place of business at 80 Broadway, New York, N. Y., on behalf of itself and its subsidiaries (said corporation and its subsidiaries being hereinafter referred to collectively as "Phillips").

2. The Texas Co., a corporation of the State of Delaware, having a place of business at 135 East Forty-second Street, New York, N. Y., on behalf of itself and all other subsidiaries of the Texas Corporation, a corporation of the State of Delaware (said the Texas Co. and said other subsidiaries being hereinafter referred to collectively as "Texas").

3. Standard Oil Co., a corporation of the State of Indiana, having a place of business at 910 South Michigan Ave, Chicago, Ill., on behalf of itself and its subsidiaries (said corporation and its subsidiaries being hereinafter referred to collectively as "Indiana").

4. Standard Oil Development Co., a corporation of the State of Delaware, having a place of business at Linden, N. J., on behalf of itself and all other subsidiaries of Standard Oil Co., a corporation of New Jersey (said Standard Oil Development Co. and said other subsidiaries being hereinafter referred to collectively as "Jersey").

5. The M. W. Kellogg Co., a corporation of the State of Delaware, having a place of business at foot of Danforth Avenue, Jersey City, N. J., on behalf of itself and its subsidiaries (said corporation and its subsidiaries being hereinafter referred to collectively "as Kellogg").

Second. *Recitals and warranties.*—6. Phillips warrants that it owns transferable licensing rights under certain patents, patent applications, and inventions relating to gas polymerization as herein defined.

Digitized by Google

7. Texas warrants that it owns transferable licensing rights under certain patents, patent applications, and inventions relating to gas polymerization as herein defined.

8. Indiana warrants that it owns transferable licensing rights under certain patents, patent applications, and inventions relating to gas polymerization as herein defined.

9. Jersey warrants that it owns transferable licensing rights under certain patents, patent applications, and inventions relating to gas polymerization as herein defined.

10. Kellogg warrants that it owns transferable licensing rights under certain patents, patent, applications and inventions relating to gas polymerization as herein defined.

11. The parties hereto believe that operations under their present patent rights relating to gas polymerization by any of the several parties hereto or by their licensees may constitute infringement of patent rights of some one or more of the other parties hereto and that it will be advantageous to the members of the petroleum refining industry to be able to acquire, without increase or duplication of royalties, a single license under all their patent rights relating to gas polymerization, whereby gas polymerization operations may be carried on under any or all of said patent rights. These parties would, therefore, compose their differences and avoid litigation and, at the same time, promote the art of gas polymerization.

12. Phillips, Texas, Indiana, and Jersey, respectively, desire to obtain licenses for gas polymerization under the patent rights of all of the other parties hereto.

Third. *The agreement.*—13. In consideration of the recitals and warranties hereinabove set forth and the mutual convenants hereinafter set forth, the parties hereto covenant and agree as follows:

14. For the purposes of this agreement: (*a*) The term "gas polymerization" shall mean the conversion by pyrogenesis and/or catalysis of hydrocarbons, which are gaseous at normal temperatures and pressures and which contain five (5) carbon atoms or less per molecule, to predominantly nonviscous hydrocarbons which are liquid at normal temperatures and pressures, but shall not include any hydrogenation process or any step in the manufacture of lubricating oil.

(*b*) The term "hydrogenation process" shall mean any process involving or not involving pyrolysis but in which the hydrocarbon is subjected to the action of hydrogen in the absence or presence of a catalyst to a degree or extent or in a manner to secure definitely determinable hydrogenation.

(*c*) The term "catalysis" shall not include reactions in which definitely determinable chemical combinations exist, such as those now known to be effected during the polymerization of olefins by or with sulphuric acid, aluminum chloride, or ferric chloride.

(*d*) The term "patent rights" shall mean all such but only such patents of the United States and all countries foreign thereto except Germany, and transferable rights thereunder, as cover processes of gas polymerization as above defined, or any apparatus for carrying out any such process, or products thereof, and based upon inventions made prior to July 1, 1947. The patent rights of a granting party shall mean those patent rights as defined in the preceding sentence which the party now has or shall have during the continuance of this agreement, and those to which it has the ownership or control in the sense of having the power to dispose of them or grant licensing rights thereunder.

(*e*) The term "subsidiaries" shall mean all corporations of which the parent company owns directly or indirectly more than 50 percent of the stock having the right to vote for directors.

For the purposes of the above definition, the stock owned by the parent company shall be deemed to include all stock having the right to vote for directors and owned directly or indirectly by any of its subsidiaries as defined above.

15. Each party agrees to use its best efforts to secure compliance with the terms of this agreement by all of its present and future subsidiaries, but if notwithstanding such efforts any such subsidiary shall fail to comply with the terms of this agreement, said noncomplying subsidiary shall be deemed to have renounced the benefits of this agreement, and each party guarantees each other party and its subsidiaries against and agrees to hold each other party and its subsidiaries harmless from any loss or liability occurring by reason of such noncompliance by any of its noncomplying subsidiaries; provided, however, that each party shall be entitled to offset against any such liability any recovery by any other party or any of its subsidiaries against such noncomplying subsidiary

Digitized by Google

for infringement of their respective patent rights for gas polymerization; and, provided, further, that if any future subsidiary of a party shall have, at the time it becomes a subsidiary, prior obligations which prevent it from complying with the terms of this agreement, it shall be deemed to be a stranger to this agreement and the party of which it is a subsidiary shall be ipso facto released from its obligation to hold the other parties harmless from resultant loss or liability.

For the purposes of the foregoing provision, all subsidiaries of Standard Oil Co. (a corporation of New Jersey) shall be deemed to be subsidiaries of Standard Oil Development Co. and all subsidiaries of the Texas Corporation shall be deemed to be subsidiaries of the Texas Co.

16. Phillips agrees that immediately upon the execution of this agreement it will take steps to effect the formation of a new corporation to be organized under the laws of the State of Delaware, and hereinafter called the "New Corporation", with an authorized capital stock of one thousand (1,000) shares of no-par-value stock, and Phillips agrees that it will cause to be elected at the first meeting of the incorporators of the New Corporation a board of five directors, consisting of one director nominated by each of the five parties hereto. The incorporation papers shall preserve and secure to stockholders cumulative voting rights and pre-emptive right to subscribe to any new issues of capital stock in proportion to their holdings. In the event any one of the stockholders of the New Corporation at any time desires to sell, or otherwise dispose of, any part or all of the stock of the New Corporation held by said stockholder, such stock shall be first offered for sale to all of the other stockholders who are parties to this agreement in pro-rata amounts at a price not above that offered by a bona-fide prospective purchaser not a party to this agreement, and in the event that one or more of the parties hereto refuses to purchase the pro-rata amount of stock so offered or any portion thereof, then the remaining stock shall be offered in pro-rata amounts to the respective parties who have not so refused and this procedure shall be repeated until each and every party to this agreement shall have been given the opportunity to purchase or refuse to purchase the stock so offered it; and if permissible the articles of incorporation and bylaws of the New Corporation shall so provide.

17. The parties agree that, upon the formation of the New Corporation, as set forth in paragraph 16, they will respectively subscribe to one hundred (100) shares each of the capital stock of the New Corporation, at a price of one hundred dollars ($100) per share, the remaining five hundred (500) shares to remain unissued to provide future working capital if necessary.

18. Phillips, Texas, Indiana, Jersey, and Kellogg severally agree, upon the formation of the New Corporation as provided for in paragraph 16 above, and upon the distribution of the capital stock thereof as provided in paragraph 17 above, to grant to the New Corporation the right to grant nontransferable licenses for gas polymerization under their respective patent rights relating thereto without accounting for any royalty or other moneys received therefor, provided that such grant of licensing rights to the New Corporation under patent rights of countries foreign to the United States shall be expressly conditioned upon each of the parties hereto (in the absence of a waiver by each such party) receiving directly or indirectly from any licensee of the New Corporation, license or immunity under such licensee's foreign patent rights (if any) of substantially the same scope as the license or immunity to be obtained by such licensee under the foreign-patent rights of each of the parties hereto.

19. Nothing in this agreement shall prevent any party to this agreement from granting releases and licenses under its own patent rights upon such terms as it may choose to fix.

20. The parties shall cause the New Corportion to grant to Phillips, Texas, Indiana, and Jersey, respectively, fully paid, nonexclusive, nontransferable licenses under all patents and transferable interests therein, now or hereafter owned or acquired, of the New Corporation.

21. The parties agree that they will cause the New Corporation to contract with Phillips to pay Phillips, as the same shall accrue and be received.

(*a*) A continuing 10 percent of the gross cash receipts of the New Corporation from the grant of licenses; and

(*b*) In addition thereto, an amount or amounts corresponding to that which, but for this obligation, would be all of the net earnings of the New Corporation available for dividends thereof until Phillips shall have received one million three hundred thousand dollars ($1,300,000).

And both (*a*) and (*b*) shall be deemed fixed charges or deductions in determining net earnings of the New Corporation.

Digitized by Google

In witness whereof, the parties hereto have caused this instrument to be executed by their proper officers duly authorized and their corporate seals to be affixed and attested this 1st day of September, 1935.

PHILLIPS PETROLEUM CO.,
By ——— ———,
Attest:
——— ———.

THE TEXAS CO.,
By ——— ———,
Attest:
——— ———.

STANDARD OIL CO. (INDIANA),
By ——— ———,
Attest:

STANDARD OIL DEVELOPMENT CO.,
By ——— ———.
Attest:
——— ———.

THE M. W. KELLOGG CO.,
By ——— ———,
Attest:
——— ———.

AN AGREEMENT RE "H. C. TECHNIQUE" BY AND BETWEEN STANDARD OIL CO. (NEW JERSEY) STANDARD OIL DEVELOPMENT CO., UNION OIL CO. OF CALIFORNIA, STANDARD OIL CO. (INDIANA), THE M. W. KELLOGG CO., DATED OCTOBER 27, 1933

(Conformed copy showing inked corrections in italic and line type)

This agreement, made as of the 27th day of October 1933 by and between Standard Oil Development Co., a Delaware corporation, and its parent, Standard Oil Co., a New Jersey corporation, on behalf of themselves and their respective subsidiaries, said corporations and their subsidiaries being hereinafter collectively referred to as Jersey, and Union Oil Co. of California, a California corporation, on behalf of itself and its subsidiaries, said corporation and its subsidiaries being hereinafter collectively referred to as Union, and Standard Oil Co., an Indiana corporation, said corporation and its subsidiaries being hereinafter collectively referred to as Indiana, and the M. W. Kellogg Co., a Delaware corporation, said corporation and its subsidiaries being hereinafter collectively referred to as Kellogg; all of said parties being hereinafter sometimes collectively referred to as JUIK;

Witnesseth:

Whereas Jersey, Union, and Indiana, operating separately and without knowledge of the others' activities, did each independenly develop in their respective research laboratories and plants certain refining processes for deasphalting, dewaxing, chemical treatment and solvent extraction; and

Whereas Jersey, Union, and Indiana is each operating or planning to operate processes of this type in connection with its refinery operations; and

Whereas numerous interference proceedings were declared in the United States Patent Office between the various applications of the separate parties; and

Whereas a survey of said interference proceedings has indicated that upon their termination each of the parties will have substantial patent rights in this field, and none of the parties will be able to operate their processes without infringing the patents of the others; and

Whereas it is the desire of the parties to cancel all prior agreements between the parties insofar as they relate to the field of "H. C. technique" as hereinafter defined in article I of this agreement and replace said canceled contracts with this present agreement;

Now therefore in consideration of the premises and of the mutual covenants and agreements of the parties hereinafter set forth, the parties have covenanted and agreed and hereby do covenant and agree as follows:

Digitized by Google

ARTICLE I. DEFINITIONS

A. *H. C. technique.*—The term "H. C. technique" shall mean and include processes for the treatment in liquid condition of petroleum oil to remove wax, asphalt, and/or other undesirable substances and/or to separate said oil or portions thereof into fractions of varying chemical and/or physical properties by procedures commonly described as deasphalting, dewaxing, chemical treatment and/or extraction by the use of selective solvents for said oil, in which processes "propane" and/or "hexane" is employed in effective quantity as a diluent, refrigerant or other agent, either alone or admixed with other diluents, refrigerants and/or other agents. By "effective quantity" is meant such quantity as will give definite technical advantage due to the presence of "propane" and/or "hexane" over and above the advantage obtained by any other substance used with the "propane" and/or "hexane." The term "H. C. technique" shall also mean and include an extraction process in which phenol is employed in the absence of an effective quantity of propane and/or hexane.

The term "propane" shall mean the hydrocarbon bearing that name and shall include other liquefied normally gaseous hydrocarbons having less than five carbons atom, and mixtures of said hydrocarbons, and shall also include other normally gaseous materials.

The term "hexane" shall mean the hydrocarbon bearing that name and shall also include other normally liquid hydrocarbons boiling below 500° F., and mixtures of said hydrocarbons.

By way of illustration and not of limitation, H. C. technique is deemed to include the following procedures:

(*a*) Processes in which petroleum oil is admixed with propane and/or hexane in the presence or absence of another diluent or agent and asphalt and/or other undesirable substances are precipitated from said admixture;

(*b*) Processes in which petroleum oil is admixed with propane in the presence or absence of another diluent or agent and in which the admixture is cooled by indirect refrigeration or by refrigeration caused by the evaporation of said propane or by combinations of said methods of refrigeration to cause the precipitation of wax or waxy substances from said admixture and processes for settling, precipitating, or otherwise removing said wax or waxy substances;

(*c*) Processes in which petroleum oil is admixed with propane and/or hexane in the presence or absence of another diluent or agent and in which said petroleum oil in said admixture is submitted to chemical treatment;

(*d*) Processes in which petroleum oil is separated into components of varying chemical and/or physical characteristics by means of the selective solvent action of propane and/or hexane at varying temperatures and pressures;

(*e*) Processes in which petroleum oil is separated into components of varying chemical and/or physical characteristics by subjecting said oil to the simultaneous solvent action of propane and/or hexane and of another solvent substance such as phenol, cresol, nitrobenzene, furfural, sulfur dioxide, B B′ dichlorethyl ether or the like or a mixture of said substances, including processes of a type in which said oil is dissolved in propane and/or hexane and subjected to the action of said other solvent in batch or countercurrent relation, and including, also, processes in which said oil is subjected to the double countercurrent flow of propane and/or hexane and said other solvent;

(*f*) Processes in which petroleum oil is separated into components of varying chemical and/or physical characteristics by sujecting the oil to the action of phenol; and

(*g*) Processes comprising combinations of (*a*), (*b*), (*c*), (*d*), (*e*), and/or (*f*) above.

By way of illustration and not of limitation, H. C. technique is deemed to exclude deasphalting, dewaxing, chemical treating, and/or solvent extraction processes (other than (*f*) above) for the treatment of petroleum oil in which processes propane and/or hexane is not employed in effective quantity as a diluent, refrigerant or other agent; as for example, any solvent extraction processes such as the "cholrex process" in cases in which propane and/or hexane is not employed therein.

B. *Finishing and finished lubricating oils.*—The term "finishing lubricating oils" shall mean that part of the treatment of lubricating oils which has for its purpose the correction of color, acidity or the like, such as acid treating, alkali treating, clay treating, or the like, except in propane, but shall not include processes such as dewaxing, deasphalting, solvent extraction, distillation, hydrogenation or the like.

Digitized by Google

The term "finished lubricating oil" shall mean any oil adapted, either as such or after blending with other oils, for commercial lubrication of any kind.

The term "product claims covering finished lubricating oils" shall mean claims in patents of the United States and countries foreign thereto which claim, as new compositions of matter, or products, finished lubricating oils as defined by the physical or chemical characteristics of said oils; provided however, that this definition shall not include any claims for processes for producing such products; and provided further that this definition shall not include such product claims as depend for their novelty upon the presence of or addition of special agents, for example pour point depressors, viscosity-index improvers, color stabilizers, etc.

The term "process claims for finishing lubricating oils" shall mean claims in patents of the United States and countries foreign thereto covering processes of finishing lubricating oil stocks; provided however, that this definition shall not include process claims which depend, for their novelty, upon the addition of special agents, for example pour point depressors, viscosity-index improvers, color stabilizers, etc., nor shall it include claims for processes of manufacturing lubricating oil by chemical synthesis.

C. *Petroleum oil.*—The term "petroleum oil" shall mean, by way of inclusion and not exclusion, all mineral oils, including oils derived from shale, coal, lignite, and other carbonaceous minerals, and products thereof.

D. *Chemical treatment.*—The term "chemical treatment" of petroleum oil shall mean refining operations such as the treatment of the oil with clay, caustic, acid, or the like, and shall not include any operation, the object of which is to modify propane and/or hexane chemically, nor any process of chemical synthesis in which petroleum oil is radically modified to produce new chemical products.

By way of illustration and not of limitation, a process whereby a lubricating stock in propane and/or hexane solution is treated with an acidic substance to improve the quality of the stock is deemed to fall within the definition of chemical treatment, whereas a process of producing synthetic oil by the interaction of olefinic substances in propane and/or hexane solution in the presence of a catalyst does not fall within said definition.

E. *Patent rights for H. C. technique.*—The term "patent rights for H. C. technique" shall mean and include all patents of the United States and/or foreign countries, and transferable rights thereunder, now or hereafter owned or controlled, in the sense that the corporation designated has the right to grant licenses thereunder, and based on an invention conceived prior to January 1, 1940, *for the full duration of said patent rights* insofar as the claims of said patents cover:

(1) Any process of H. C. technique;

(2) Any process involving a process of H. C. technique as a step in combination with other steps;

(3) Any apparatus designed for or of special application in a process of H. C. technique;

(4) Any composition of matter used in solution or suspension as an aid in a process of H. C. technique;

(5) Product claims covering finished lubricating oils, but only insofar as said claims cover oils produced by processes of H. C. technique;

(6) Process claims for finishing lubricating oils, but only insofar as said claims cover oils produced by processes of H. C. technique.

By way of clarification it is understood that patent rights for H. C. technique include claims for a process of solvent extraction (cf. article I, A (e)) or a composition of matter employed as a solvent, but, except as to phenol, only to such extent as such claims are used in (—i. e.—infringed by) processes of H. C. technique. For example a claim for "a process comprising treating oil with B B' dichlorethyl ether" is licensed, but only in a process of H. C. technique.

By way of clarification it is understood that the clause "insofar as the claims of said patent cover * * * (2) any process involving a process of H. C. technique as a step in combination with other steps" includes only such claims as cover the combination per se and shall not include any claims which separately cover the steps of said combination, other than (1) and (6) above, it being the intent of the parties that no process is included in said clause which does not include H. C. technique as one element.

It is understood, by way of illustration and not of limitation, that (4) above is intended to include wax-settling aids, and the like, for example "Paraflow" or "Pourex", insofar as such compositions are used in processes of H. C. technique, but not to the extent that such products are retained by the finished lubricating oil in quantities sufficient to benefit the properties of said oil.

Digitized by Google

By way of clarification it is understood that (5) above does not include product claims insofar as they cover stocks charged to a process or processes of H. C. technique.

F. *Subsidiaries.*—The term "subsidiaries" shall mean—

All corporations of which the parent company owns directly or indirectly more than 50 percent of the stock having the right to vote for directors.

For the purposes of the above definition, the stock owned by the parent company shall be deemed to include all stock having the right to vote for directors and owned directly or indirectly by any of its subsidiaries as defined above.

ARTICLE IA

Each party agrees to use its best efforts to secure compliance with the terms of this agreement by all of its present and future subsidiaries, but if notwithstanding such efforts any such subsidiary shall fail to comply with the terms of this agreement, said noncomplying subsidiary shall be deemed to have renounced the benefits of this agreement, and each party guarantees each other party and its subsidiaries against and agrees to hold each other party and its subsidiaries harmless from any loss or liability occurring by reason of such noncompliance by any noncomplying subsidiary; provided, however, that each party shall be entitled to offset against any such liability any recovery by any other party or any of its subsidiaries against such noncomplying subsidiary for infringement of their respective patent rights for H. C. technique; and provided, further, that if any future subsidiary of a party shall have, at the time it becomes a subsidiary, prior obligations which prevent it from complying with the terms of this agreement, it shall be deemed to be a stranger to this agreement, and the party of which it is a subsidiary shall be ipso facto released from its obligation to hold the other parties harmless from resultant loss or liability.

ARTICLE II. CANCELATION OF PRIOR CONTRACTS

Jersey, Union, Indiana, and Kellogg hereby revoke and cancel as of October 27, 1933, all prior contracts between themselves insofar as said contracts relate to their patent rights for H. C. technique said contracts being between Union and Indiana, dated April 18, 1932, May 14, 1932, and June 26, 1933; and between Union, Indiana, and Kellogg, dated June 26, 1933, and as modified by negotiators' agreement of September 7, 1933; and a negotiators' agreement between Jersey, Union, Indiana, and Kellogg, dated October 26, 1933, as ratified by their respective boards of directors.

ARTICLE III. EXCHANGE OF OPERATING LICENSES

A. *Exchange as to H. C. technique.*—Jersey grants to Union and to Indiana each an irrevocable nonexclusive royalty-free right and license under Jersey's patent rights for H. C. technique. Union grants to Jersey and to Indiana each an irrevocable nonexclusive royalty-free right and license under Union's patent rights for H. C. technique. Indiana grants to Jersey and to Union each an irrevocable nonexclusive royalty-free right and license under Indiana's patent rights for H. C. technique.

B. *Exchange as to "finishing claims".*—Jersey, Union, and Indiana each grants to each of the other parties an irrevocable nonexclusive royalty-free right and license under its "product claims for finished lubricating oils" and under its "process claims for finishing lubricating oils" to the extent that said claims cover finishing processes applied to oils produced by solvent extraction processes as defined in article I paragraph A (*e*) of this contract whether or not operating in the presence of propane or hexane and to the extent that said claims cover products produced by said solvent extraction processes insofar as said claims appear in patents of the United States and/or foreign countries, which patents are based on inventions conceived prior to January 1, 1940, and which are owned or controlled by Jersey, Union, or Indiana in the sense that the corporation designated has the right to grant licenses thereunder.

ARTICLE IV. GRANT OF LICENSES AND PAYMENT OF ROYALTIES

A. Jersey, Union, and Indiana agree, each with the others, that they will grant nonexclusive licenses under their respective patent rights for H. C. technique to any refiner applicant who may seek such a license either directly or through Kellogg or through such other representative for the sale of licenses as may be agreed upon by Jersey, Union, and Indiana.

Digitized by Google

B. *Licenses granted in settlements.*—It is agreed by Jersey, Union, Indiana, and Kellogg that Jersey, Union, or Indiana may each, without obligation to the other parties, or to Kellogg, grant royalty-free, nonexclusive licenses under their respective patent rights for H. C. technique to a party foreign to this agreement under any patent application or patent now or hereafter involved in an interference proceeding with said foreign party; provided however that the license thereby granted shall be limited to the claims involved in said interference. It is further agreed that Jersey, Union, and Indiana may each, without obligation to the other parties or to Kellogg, grant royalty-free, nonexclusive licenses under their respective patent rights in settlement of bona-fide suits for infringement directed at operations within the field of H. C. technique but each agrees not to do so except after consultation with the other parties hereto in an attempt to arrive at a joint cooperative action to protect their respective operating rights.

C. *Repayment of royalties collected by mistake.*—In the event a party hereto is required to pay any royalty to a party foreign to this agreement on account of the operation by said first party of any process of H. C. technique, the several parties to this agreement hereby agree to and hereby do transfer and assign to the party obligated to pay said royalty all of their rights in and to said royalty, should any portion of it revert to them, and each agrees to reimburse the party paying said royalties in the amount of said royalties actually received by each of them, respectively.

D. *Provision concerning A. G. E. F. C. I.*—The licenses granted and agreed to be granted by Union hereunder are limited by Union's license to Allgemeine Gesellschaft für Chemische Industrie m. b. h., a German company (A. G. E. F. C. I.) relative to solvent extraction processes employing sulfur dioxide; and Union shall not be obligated to account hereunder to Jersey, Indiana, or Kellogg as to such license.

E. *Provision concerning hydrogenation of coal.*—The licenses granted and agreed to be granted by Jersey and Indiana hereunder are limited by the licenses granted by both Jersey and Indiana to Hydro Patents Co., a Delaware corporation, and International Hydro Patents Co., a Liechtenstein corporation, relative to the treatment of oils produced by the hydrogenation of coal and Jersey and Indiana shall not be obligated to account to Union and Kellogg as to such licenses. ~~*and Jersey shall not be obligated to account to Indiana, Union and Kellogg as to such licenses.*~~

F. *Reservations.*—The licenses herein granted and agreed to be granted by Jersey are limited by the rights granted by Jersey to I. G. Farbenindustrie Aktiengeselischaft, a German company, hereinafter referred to as I. G., for operations of that company in Germany *and Jersey shall not be obligated to account to Indiana, Union, and Kellogg as to such licenses.*

In every case specified in articles IV D, E, and F where a party hereto has granted a license prior to the date of this agreement for operations under its patent rights for H. C. technique, the other parties hereto may grant like licenses to such prior licensee, without accounting to the other parties hereto.

G. *Rights of Standard of California.*—Jersey, Union, Indiana, and Kellogg each agree that they will, upon request by Standard Oil Co. of California (hereinafter called "California") grant a nonexclusive license to California under their respective patent rights for H. C. technique at the rates specified in this agreement. Jersey, Union, and Kellogg agree that upon Indiana's request Jersey and Union will, together with Indiana, grant to California a nonexclusive license under their respective patent rights for H. C. technique for the processes specified in article I A, subparagraphs (*a*), (*b*), and (*c*) but not of (*d*), (*e*), (*f*), and (*g*) of this agreement at the royalty rates specified in a certain Union-Indiana agreement of June 26, 1933, and will accept in full satisfaction of all their claims to said royalties, the proportions of said royalties specified in article IV hereof. Indiana represents and warrants that it has made an agreement with California by virtue of which California is entitled to acquire such a license and Indiana is obligated to refund to California the gross royalty share to which Indiana is entitled should California acquire said license. Kellogg waives any claim to a share of such royalty money as might otherwise be due it in the event that Kellogg does not construct "California's" plants for H. C. technique. It is agreed by the parties that, the provisions of article XI B and XII B to the contrary notwithstanding, royalties received by JUIK from California shall be divided in the gross amount in the proportions specified in article XII D hereof.

The licenses herein granted and agreed to be granted by Indiana are limited by the above-mentioned Indiana-California agreement, which agreement, it is understood and agreed, also grants to California a free license under Indiana's patents for solvent extraction processes employing a single solvent such as phenol.

Digitized by Google

ARTICLE V. MAINTENANCE OF PATENT SITUATION

Jersey, Union, and Indiana agree, each with the others, as follows:

A. *Prosecution of United States applications.*—Each of the parties to this article shall bear the entire cost of the preparation and filing of United States patent applications on inventions relative to H. C. technique made by its employees, the ex-parte prosecution of said applications, the conduct of interference proceedings involving said applications and the filing of reissue applications and disclaimers, final fees, etc.

B. *Settlement of interferences.*—In the event the United States Patent Office shall institute an interference proceeding involving patent rights for H. C. technique owned or controlled by the parties hereto, the parties prior to the testing of such issue in the Patent Office shall exercise their best efforts in good faith to achieve a settlement as between themselves of such proceedings based pon an agreement of counsel as to the inventor properly entitled to priority under the rules of practice of the United States Patent Office.

C. *Filing and maintenance of foreign patents.*—Each of the parties shall cooperate with the others in obtaining and maintaining in countries foreign to the United States, patent rights for H. C. technique and each party agrees to consult with the other parties relative to the filing of applications for such patents and the maintenance of such patents. The direct cost of filing and maintaining such foreign patent applications and patents as shall have been agreed upon by all the parties shall be borne equally by the parties specified in article V–I hereof. By "direct cost" is meant the out-of-pocket expense and fees paid foreign patent attorneys, official fees, taxes, etc., relative to the filing and prosecution of patent applications in countries foreign to the United States, the maintenance of said patents when issued and the cost, including foreign patent attorney's fees, of necessary defensive or offensive procedure for opposition or cancelation in foreign patent offices but shall not include cost of time spent on these matters by the United States patent and other counsel of the parties hereto.

In the event the parties shall not agree as to the advisability of filing a specific foreign patent application or of maintaining a specific foreign patent, the party or parties desiring that such action be taken may at their option incur the entire expense for their own account, in which event the other party or parties shall not be entitled to any share of the royalties obtained as a result of licensing said patent; provided further that in the event royalties are obtained as the result of an operation licensed in a country in which one of the parties has the entire ownership of one or more patent rights for H. C. technique and the other patents relative to H. C. technique in said country are held for the joint benefit of all of the parties, then, and in that event, the parties shall endeavor to agree as to a fair division of royalties with respect to said licensed operation and, failing such agreement, the parties agree to submit the question of a fair division of the royalties to a board of five arbitrators, one of whom shall be slected by each of the parties and the other two shall be selected by the said three arbitrators. The expense of said arbitration shall be borne by the parties in a ratio to be decided by the arbitrators.

D. *Defense of licensees.*—Should an action for patent infringement be brought by a party foreign to this contract against a licensee of Jersey, Union, or Indiana, arising out of a licensed operation of H. C. technique of a design and character approved by authorized representatives of Jersey, Union, and Indiana or against Kellogg for the construction of an approved plant for H. C. technique, with which licensee Jersey, Union, and Indiana have by agreement covenanted to defend against said patent infringement suits, then, in that event, the parties hereto shall share equally in the entire expenses of defending against said suit, including fees of counsel, expenses, expert witnesses, tests, traveling expenses, legal fees, and other legitimate expenses as specified in article V–I hereof, and each party agrees to pay over to the other parties its share of said expenses. Jersey, Union, and Indiana neither undertake nor assume any liability or responsibility whatsoever for the payment in whole or in part of any judgment entered into as the result of such suit or for holding licensees or Kellogg harmless against any injunction, order or decree which may result from such suit, or from any loss, damage, claim, or demand resulting therefrom or the conduct thereof or from any settlement or other disposition of said suit.

E. *Defense of operating rights.*—Should suit for patent infringement be brought by a party foreign to this article of this agreement against any of the parties hereto as a result of said party's operation of a process of H. C. technique, the other parties hereto shall not be obligated to share in the expense of defending

Digitized by Google

such suit, but each party hereby agrees that in such event it will extend to the party undergoing suit a full measure of cooperation in assisting in the defense of such suit by supplying, without cost, available technical and legal data, advice, and testimony of its employees.

F. *Restraint of infringement.*—In the event any of the parties hereto shall seek to restrain the infringement of its patent rights for H. C. technique, each of the other parties hereto, upon its agreement at the time given to pay one-third of the costs of such litigation, shall be entitled to one-third of the net recovery.

G. *Prosecution of patent rights acquired from others.*—Jersey, Union, and Indiana agree that they will share, in the proportions specified in subparagraph C of this article, the cost of filing and prosecuting such patent applications in the United States and in countries foreign thereto as may in the agreed opinion of their counsel be advisable to patent inventions assigned to Indiana by Kellogg under the provisions of Article IX ~~B~~ *C* of this agreement and to patent such inventions in the field of H. C. technique as they or any of them shall acquire from parties foreign to this contract.

H. *Purchase of patents.*—Jersey, Union, and Indiana agree that they will share, in the proportions specified in subparagraph C of this article, the cost of acquiring by any of the parties hereto such patent rights for H. C. technique the acquisition of which is mutually agreed upon, and Kellogg's patent rights assigned to Indiana in accordance with the provisions of article IX C, and the cost of filing, prosecuting, and maintaining said patent rights. The procedure in the case where one or more of the parties does not desire to participate shall be the same as specified in the last paragraph of article V C hereof. The parties acquiring title to or an interest in such patent rights shall not convey or encumber the said title or interest without the consent of the other parties to this article V. The parties holding such title or interest may however license said patent rights upon the same terms and conditions as their patent rights for H. C. technique, making the required accounting to the other parties therefor.

I. *Equalization of expense.*—Jersey, Union, and Indiana agree that on or before March 1 of each year during the life of this agreement they will make such cash payments, one to the other, as may be necessary to divide equally between said three parties the costs incurred by each of the parties in the calendar year immediately preceding in carrying out the provisions of this article.

J. Kellogg shall bear the entire cost of the filing, prosecution, and maintenance of its United States and foreign patent rights licensed to Indiana under Article IX ~~C~~ *D* hereof, and including the cost of oppositions, interferences, Government fees, and attorneys' fees.

ARTICLE VI. SCOPE OF JERSEY PATENT RIGHTS

Jersey represents that by reason of contracts now in force between Jersey and I. G. Farbenindustrie Aktiengesellschaft, a German company, hereinafter referred to as I. G., Jersey has licensing rights for the world outside of Germany under I. G.'s patent rights for H. C. technique. Jersey agrees, but for the purpose of this agreement only, that such licensing rights as it may acquire from I. G. as the result of contracts now in force between Jersey and I. G. and with respect to I. G.'s patent rights which come within the definition of patent rights for H. C. technique, are for the purpose of this agreement included in Jersey's patent rights for H. C. technique.

ARTICLE VII. POUR POINT DEPRESSORS

Jersey, Union, and Indiana grant, each to each of the others, a nonexclusive royalty-free right and license to manufacture pour point depressor materials (such, by way of illustration but not of limitation, as Jersey's Paraflow and Indiana's Pourex) useful as aids to the removal of wax in processes of H. C. technique but only for their own use in such processes; and further grant, each to each of the others, a nonexclusive royalty-free right and license to sell pour point depressor materials to each other, but only for their own use as aids to wax removal in processes of H. C. technique.

Jersey, Union, and Indiana grant, each to each of the others, the right to grant, without accounting to the others, nonexclusive royalty-free license to their respective licensees under their respective patent rights for H. C. technique for the manufacture of said pour point depressor materials but only for use by said licensees as aids to wax removal in processes of H. C. technique.

No right or license is granted or implied by this article to permit any beneficial amount of said materials to remain in finished lubricating oil. Jersey, Union,

Digitized by Google

and Indiana agree to give, each to the other parties and to their respective licensees under patent rights for H. C. technique, reasonable assistance and advice in manufacturing said materials.

ARTICLE VIII. SUSTAINED CHARACTER OF THIS AGREEMENT

Jersey, Union, and Indiana agree, each with the others, that the withdrawal of Kellogg from this agreement as provided in article IX and X hereof or in some other manner shall in no way affect the obligations, benefits or duties arising between Jersey, Union, and Indiana as the result of this contract.

ARTICLE IX. KELLOGG'S PATENT RIGHTS

A. Kellogg hereby grants to Jersey, Union, and Indiana, separately and not collectively, irrevocable royalty-free rights and licenses under such of Kellogg's patent rights for H. C. technique as are based on inventions conceived on or prior to June 26, 1933.

B. Kellogg agrees that so long as this agreement remains in force it will use its best efforts to secure from all of its technical employees, whose duties relate to any phase of the oil refining business, the execution of contracts, in the form now used by Kellogg, to assign to Kellogg inventions made by them during the period of their employment.

C. Kellogg assigns and agrees to assign to Indiana, all of its right, title and interest in and to all inventions conceived subsequent to June 26, 1933, and during the term of this agreement which relate to H. C. technique and all letters patent therefor or applications for letters patent filed thereon, which Kellogg now owns or may hereafter acquire during the term of this present agreement, reserving for itself an exclusive irrevocable royalty-free license and an exclusive irrevocable royalty-free right to grant licenses under said letters patent and patent applications, insofar as said letters patent and patent applications are not included in the definition of patent rights for H. C. technique as defined in article I E hereof. Kellogg and Indiana agree to execute all proper and necessary documents to vest more completely in Indiana or Kellogg the titles, interests or licenses herein conveyed or reserved or agreed to be conveyed or reserved. Subject to the conditions of article V G, Indiana agrees to direct its attorneys to file applications for patent covering the inventions and improvements agreed to be assigned hereunder. The termination of this agreement as provided in article X A shall not affect assignments made and licenses granted in pursuance of subarticles A, B, and C of this article IX.

D. Kellogg further grants to Indiana during the term of this agreement with Kellogg an exclusive right to grant licenses under such of Kellogg's patent rights for H. C. technique as are based on inventions conceived on or prior to June 26, 1933, title to which was acquired by Kellogg prior to said date, without the payment of any royalty to Kellogg other than the royalty shares provided in this agreement.

ARTICLE X. APPOINTMENT OF KELLOGG

A. Jersey, Union, and Indiana each hereby appoints Kellogg as its agent for the sale of nonexclusive licenses and the collection of royalties under its patent rights for H. C. technique and Jersey, Union, and Indiana each agrees that it will not, without the consent of Kellogg, appoint any other such agent for the sale of such licenses and the collection of such royalties during the life of this present appointment. Jersey, Union, and Indiana each hereby appoints Kellogg as an authorized constructor of plants for processes of H. C. technique. It is agreed that said appointments or any of them may be canceled by Jersey, Union, and Indiana, acting jointly, on the one hand, or by Kellogg on the other, with or without cause at any time subsequent to January 1, 1937, upon written notice served 6 months in advance of the date set in said notice for termination.

B. Kellogg accepts the appointment as specified in paragraph A and agrees to use its best efforts to sell licenses under said patent rights for H. C. technique and to induce said licensees to install apparatus under their respective licenses and to aid and advise all such licensees in the construction, maintenance, and operation of the apparatus installed. Kellogg agrees, at its own expense, to maintain an adequate and efficient organization, including engineering and technical staff, salesmen, and operators necessary to perform its duties hereunder. Kellogg agrees to pay the expenses properly chargeable to the performance of its duties hereunder, including specifically, the cost of making tests on oils for licensees and prospective licensees to determine yields on ordinary methods of

Digitized by Google

operation, and also agrees to render, without charge to Jersey, Union, or Indiana, reasonable services to licensees in connection with installations, such as consultation and the furnishing of data from time to time as to improvements in the apparatus or process employed by such licensees where such improvements are applicable. If a licensee shall undertake to construct an installation without employing Kellogg for that purpose, then Kellogg shall be under no obligation to furnish engineering or drafting services or the services of operators in connection with such construction, but Kellogg shall be under obligation to communicate improvements as hereinabove set forth.

C. Jersey, Union, and Indiana severally and jointly agree as provided in and subject to all of the limitations expressed in article V D hereof to defend any and all suits for contributory patent infringement which may be brought against Kellogg as a result of Kellogg's acts in constructing and selling to licensees under the patent rights for H. C. technique, plants for H. C. technique, the design of which has been approved by Jersey, Union, and Indiana, but not to hold Kellogg harmless or otherwise to indemnify Kellogg. Kellogg agrees to cooperate with Jersey, Union, and Indiana in the said defense of said suits and to supply Jersey, Union, and Indiana with all information and data at their command, useful in said defense, and to instruct its employees to assist and testify in said defense, free of all expense or cost to Jersey, Union, or Indiana.

D. It is further agreed that Kellogg shall not build any plant for H. C. technique except such plants as are approved as to design and mode of operation by authorized representatives of Jersey, Union, and Indiana; and it is further understood and agreed that said approval shall not constitute any guarantee as to the engineering or operating features of the plant, but shall be directed primarily to the approval of the patent features thereof. Jersey, Union, and Indiana severally agree not to withhold said approval unreasonably and agree to communicate said approval or disapproval promptly.

ARTICLE XI. DEVELOPMENT OF H. C. TECHNIQUE

A. With the purpose of providing adequate facilities whereby various phases of H. C. technique may be rapidly and economically developed or perfected, Jersey, Union, Indiana, and Kellogg hereby agree to advise each of the other parties currently as to their respective developements in the field of H. C. technique; and the parties further agree to cooperate in a joint program of research and development, to be carried on under the supervision of a steering committee comprising one committeeman designated by each of the parties, by donating the advisory services of their technical executives and specialists and by contributing to the cost of such a program as hereinafter specified:

(1) *Construction cost.*—Kellogg shall build a demonstration plant at Jersey City complete to deasphalt, dewax, chemically treat, and solvent extract lubricating oil stocks and shall build such further apparatus as may be approved by the steering committee. Indiana agrees to construct a pilot plant at Whiting at a minimum cost of $24,000. The parties will make the following contributions to the construction cost of the plant already constructed by Kellogg and any other apparatus approved by the committee for construction by Kellogg, and to the cost of constructing the Indiana plant at Whiting.

Kellogg	$26, 425. 60
Union	20, 524. 80
Jersey	20, 524. 80
Indiana	20, 524. 80
Total cost	88, 000. 00

(2) *Cost of operation.*—The parties agree to contribute to the cost of operation of the plant at Jersey City during the year 1934 in proportions hereafter indicated and in sums not to exceed the amounts hereinafter specified:

Union	$12, 828
Indiana	12, 828
Kellogg	21, 516
Jersey	12, 828
Total cost	60, 000

Digitized by Google

The parties agree to contribute to the cost of operating said plant, in years subsequent to 1934 and during the life of this agreement, such sums as may be decided upon by the steering committee; provided, however, that unless otherwise agreed the total sum thus expended shall not exceed thirty thousand dollars ($30,000.00) per annum, and provided that the contributions of the parties shall be in the proportions hereinabove specified.

The parties further agree that the steering committee may at its option by a unanimous vote of the whole committee reallocate the expenditures provided in this article XI A to finance research work at points other than Jersey City and Whiting and to reallocate the division of expense between "Construction cost" and "Cost of operation"; provided, however, that such reallocation shall not in any way bind the parties to contribute greater sums than those in this article provided.

(3) The parties agree to make such cash payments one to the other on or before September 15, 1934, as may be required to prorate, in the proportions above specified, such authorized expense as shall have been incurred prior to July 1, 1934, and they further agree to make such cash payments on or before February 15, 1935, as may be required to prorate such of said expense as shall have been incurred during the last 6 months of 1934.

B. The expenditures specified in paragraph A of this article shall constitute a first charge against 20 percent (20%) of any royalties received by Kellogg, Jersey, Union, and/or Indiana from the licensing of their patent rights for H. C. technique and each of the parties contributing to said expenditures shall be entitled to recover the same in the proportion of their contributions out of said 20 percent of royalties.

C. Kellogg agrees to bear all costs of the authorized construction at Jersey City in excess of $64,000.

Indiana agrees to bear all costs of the Whiting plant in excess of $24,000.

Kellogg agrees to bear all yearly operating costs of the Jersey City plants in excess of the amounts provided in this article.

Indiana agrees to bear all operating costs of the Whiting plant.

D. It is understood and agreed that, nothwithstanding the provisions of this article, Kellogg shall bear the entire cost of service testing work for licensees, as provided in article X B of this agreement.

ARTICLE XII. ROYALTIES

A. *Collection of royalties.*—Jersey, Union, and Indiana hereby, severally, and not jointly, authorize Kellogg to collect and to receive for their respective accounts, royalties paid by licensees under their respective patent rights for H. C. technique.

Kellogg agrees to receive or collect royalties as hereinabove set forth, to hold the specified sums in trust for Jersey, Union, and Indiana until disbursed as herein provided and to disburse said funds due Jersey, Union, and Indiana received by Kellogg at the times provided for accounting between Jersey, Union, and Indiana as hereinbelow specified: It is understood and agreed that Kellogg shall be obliged to pay to Jersey, Union, and Indiana only out of those sums actually received by Kellogg, and that the parties shall bear any taxes levied against Kellogg as the result of Kellogg's acts, herein authorized, in collecting and dividing said royalty sums, and any expenses, excluding normal office overhead, which may be incurred by Kellogg in collecting said royalty sums.

B. *Overriding royalties*—(1) *Kellogg's overriding royalties.*—It is agreed that Kellogg shall be entitled to first deduct from the royalties received in respect of a license granted for a plant for the operation of a process of H. C. technique, which Kellogg does not construct, other than plants licensed by Max B. Miller & Co., a sum equal to 10 percent of the amount remaining after the deductions provided for in article XI B hereof (i. e., for development expense).

(2) *Jersey's overriding royalty.*—For the purposes of this article a phenol process shall mean a process in which phenol is employed as a selective solvent either alone or in admixture with other diluents and/or agents; provided that said other diluents and/or agents shall not be propane and/or hexane. In the event that said other agents are themselves selective solvents they shall be present in a proportion by weight of less than 60 percent of the total selective solvent present in said admixture. However, the term shall not include a phenol process step in combination with a process of H. C. technique of the type illustrated in article I A (*e*), in which the apparatus for the phenol process step is constructed and equipped throughout in a manner necessary for operation in the presence of

Digitized by Google

effective quantities of propane and in which oil from the two-solvent step is cycled into the phenol process step.

In the event Jersey, Union, or Indiana, directly or through Kellogg, grant any licenses for the operation of a phenol process, then and in that event, and after deductions specified in article XI B and article XII B and prior to the payments hereinafter specified to be made, Union and Indiana agree to pay, or to authorize Kellogg to pay, to Jersey, and Jersey may reserve or authorize Kellogg to reserve and pay to Jersey, the following percentages for the years stated, and distribute the remaining royalty sums in the ratio hereinafter in paragraph D of this article specified.

For phenol process plants completed during the period ending December 31 of each year specified below, the following percentages of the paid-up royalties collected on account of the licensing of said plants:

	Percent		Percent
1934	50	1937	30
1935	50	1938	20
1936	40	1939	10

Thereafter no overriding royalty from paid-up licenses shall be due. If however the licensee elects to pay barrelage royalties instead of paid-up royalties, Jersey is to receive or may reserve the same percentages of the barrelage royalties for a period of 4½ years after the date of completion of the plant that would have obtained if licensee had paid the paid-up royalty.

In the event a phenol process is licensed in combination with any other process of H. C. technique at a royalty rate less than the sum of the individual royalty rates specified for said processes, if each were operated separately, each process will bear its proportionate share of the royalty reduction.

C. *Special royalties.*—It is further agreed that in case Kellogg receives, on behalf of Jersey, Union, Indiana, and Kellogg, royalties paid by Max B. Miller & Co. on account of licenses granted by said company for processes of H. C. technique (except royalties paid by Miller on account of licenses granted by Miller prior to Jan. 1, 1934, to Gulf Refining Co. and Socony Vacuum Corporation) Kellogg shall be entitled to receive and retain three hundred and seventy-nine three thousandths (379/3,000) of said royalties (subject to the provisions of article XI B of this agreement), and shall pay over the remainder to Jersey, Union, and Indiana in equal proportions.

It is further understood and agreed that in the event Max B. Miller & Co. pays over to Kellogg, for the account of Jersey, Union, Indiana, and Kellogg, royalties on account of licenses for processes of H. C. technique granted prior to January 1, 1934, by Max B. Miller & Co. to Gulf Refining Co. for the production of 1,000 (50-gallon) barrels of finished lubricating oil per 24-hour day and to Socony Vacuum Corporation for 3,000 (50-gallon) barrels of finished lubricating oil per 24-hour day, Kellogg shall be entitled, subject to the provisions for the liquidation of development expense as provided in article XI B of this agreement, to receive and retain seven hundred and seventy-nine three thousandths (779/3,000) of the amount of said royalties available for distribution and shall pay over the remainder to Jersey, Union, and Indiana, each, thirty-three and one-third percent (33⅓).

It is further understood that in the event Shell Petroleum Corporation and/or Shell Development Co. (which corporations are hereinafter referred to as "Shell") should purchase a license under JUIK's patent rights for H. C. technique under such terms and conditions that Indiana assigns to Shell its rights under United States patents 1792146 and 1838338 issued to Vanderveer Voorhees (subject to the retention of certain free licenses by Indiana), and Shell assigns to Indiana its rights under United States patents 1713888, 1739750, and 1755810 issued to Samuel C. Carney (subject to the receipt by Shell of a free license under patent 1739750) certain further adjustments shall be made between the parties as follows:

(1) Indiana shall be entitled to receive out of the royalties paid by Shell to Kellogg for the account of JUIK the sum of $20,000 in advance of the distribution of said royalties in the manner provided in article XII D hereof;

(2) Indiana shall hold said United States patents 1713888, 1739750, and 1755810 for the joint benefit of JUIK.

D. *Distribution of residual royalties.*—After payment of the over-riding royalties and the special royalties as provided in this article XII–B and XII–C, the parties hereto agree as follows:

Jersey agrees with respect to such licenses as it may grant under its patent rights for H. C. technique it will pay to Kellogg a sum equivalent to three and seventy-nine hundredths percent (3.79%) and to Union and Indiana each, a sum equivalent

Digitized by Google

to thirty-two and seven-hundredths percent (32.07%) of the royalty amounts provided in schedule A hereof;

Union agrees with respect to such licenses as it may grant under its patent rights for H. C. technique it will pay to Kellogg a sum equivalent to three and seventy-nine hundredths percent (3.79%) and to Jersey and Indiana a sum equivalent to thirty-two and seven-hundredths percent (32.07%) of the royalty amounts provided in schedule A hereof;

Indiana agrees with respect to such licenses as it may grant under its patent rights for H. C. technique it will pay to Kellogg a sum equivalent to three and seventy-nine hundredths percent (3.79%) and to Jersey and Union each a sum equivalent to thirty-two and seven-hundredths percent (32.07%) of the royalty amounts provided in schedule A hereof.

Jersey, Union, Indiana, and Kellogg further agree, each with the others:

(1) That the payments hereinabove provided shall be due and payable, without interest, at monthly intervals during the life of this agreement within 10 days after the close of each month with respect to any and all royalties received during said month.

(2) That default by a licensee in any payment due shall relieve the licensing party, to the extent of said default, from the necessity of making such payments until such time as the default is remedied.

(3) That in the event royalties with respect to such licenses are collected for the licensors by Kellogg or such other representative for the sale of licenses as may be agreed upon, the parties hereto agree to authorize Kellogg or such other representative to make the payments on their respective behalves to the end that no further accounting shall be necessary or required of the parties:

(4) That payments made pursuant to this article shall be made only once with respect to any particular royalty revenue, it being intended that there shall be no duplication of such payments.

ARTICLE XIII

Notice and communications hereunder shall be directed as follows:
Standard Oil Co. (New Jersey), 30 Rockefeller Plaza, New York, N. Y.;
Standard Oil Development Co., Linden, N. J.;
Union Oil Co. of California, Union Oil Building, Los Angeles, Calif.;
Standard Oil Co. (Indiana), 910 South Michigan Avenue, Chicago, Ill.;
The M. W. Kellogg Co., 225 Broadway, New York, N. Y.;
and shall be deemed fully communicated and served when deposited in the United States mail, registered and postage fully prepaid.

ARTICLE XIV. TERMINATION

A. Jersey, Union, and Indiana agree that upon the termination of this agreement they will make a fair and reasonable apportionment of the rights, titles, and interests acquired from Kellogg or from others insofar as said rights, titles, and interests relate to patent rights for H. C. technique.

B. Jersey and Kellogg agree that Union and Indiana acting jointly may by written notice to Jersey and Kellogg substitute for the phenol process any other single solvent extraction process, and thereby limit the scope of the agreement by excluding the phenol process from, and introducing said other single solvent process within the scope of the agreement. In that event, the over-riding royalty provisions of article XII shall terminate and may, at the option of Union and Indiana, acting jointly, be applied to said other single solvent for no longer period and for no greater percentage. In the event said substitution occurs after July 1, 1937, the equal royalty distribution between Jersey, Union, and Indiana provided for in article XII D shall be altered to be 4 percent to Kellogg, 33.6 percent to Indiana, 33.6 percent to Union, and 28.8 percent to Jersey, and all contributions by Jersey, Union, and Indiana to expenses other than Indiana's expense with regard to the Whiting plant, shall be adjusted proportionately. In the event of such substitution of another single solvent the division of expense provided in article V hereof shall be thereafter modified to the following proportions: Indiana and Union each, thirty-five percent (35%); and Jersey, thirty percent (30%).

ARTICLE XV

This agreement expresses the relationships between, and the terms and conditions affecting, the parties hereto, notwithstanding any and all agreements, communications, correspondence, and conversations between the parties hereto prior to this agreement.

Digitized by Google

ARTICLE XVI

This agreement shall not be assignable by any of the parties hereto without the express consent of the other parties to the agreement, given in writing.

In witness whereof the parties hereto have hereunto set their hands and affixed their seals as of the day and year in this document first above written.

[SEAL] STANDARD OIL CO. (NEW JERSEY),
By CHRISTY PAYNE,
Vice President.

Attest:
A. C. MINTON, *Secretary.*

[SEAL] STANDARD OIL DEVELOPMENT CO.,
By ROBERT P. RUSSELL,
Vice President.

Attest:
ROSS H. DICKSON, *Assistant Secretary.*

[SEAL] UNION OIL CO., OF CALIFORNIA,
By W. L. STEWART, JR.,
Vice President.

Attest:
W. R. EDWARDS, *Secretary.*

[SEAL] STANDARD OIL CO. (INDIANA),
By ROBERT E. WILSON,
Vice President.

Attest:
F. T. GRAHAM, *Secretary.*

[SEAL] THE M. W. KELLOGG CO.,
By L. H. HARVISON,
Vice President.

Attest:
H. B. KENDALL, *Secretary.*

(JUIK Contract)

SCHEDULE A. ROYALTY RATES FOR PROCESSES OF H. C. TECHNIQUE

A. *Basic rates for fully paid licenses.*—The rates for fully paid licenses shall be based on the average 24-hour daily operation of the licensed plant. The initial paid-up royalty shall be based upon the rated capacity of the plant, making allowances for the varying character of the oils to be processed and assuming not less than 320 days' operating time per year. Fifty percent (50%) of the amount thus calculated shall be due and payable within 10 days after the plant starts into operation, and the other fifty percent (50%) within 10 days after the plant has been accepted by the licensee. Not later than February 1 of the ensuing year the licensee shall report the actual average daily quantities charged to and produced by each operation of H. C. technique from the time the plant went into operation until the end of the year and the licensee shall also render a similar report of the preceding year's operation not later than February 1 of each subsequent year. If during any such period the fully-paid royalty corresponding to said quantities exceed the amount of fully-paid royalty which has been paid by the licensee, the licensee shall make a further royalty payment to make up said deficiency. Such payment, if any, shall be due and payable not later than March 1 of each year, and may be made on either a barrelage or fully-paid basis at the option of licensee. No payment of barrelage royalties shall be credited against a fully paid license.

All barrels referred to herein are barrels of 42 United States gallons each (measured at 60° F.).

Insofar as the rates hereinbelow specified are pertinent to dewaxing, they apply only to processes involving batch chilling. The rates for processes involving rapid continuous chilling and filtration shall be set by mutual agreement.

Insofar as the rates hereinbelow specified are pertinent to processes of solvent extraction, they shall apply only to operations in which one grade of high V. I. oil is produced. The rates for processes involving the concurrent production of high V. I. oil and intermediate V. I. oil shall be set by mutual agreement:

No royalty charge shall be levied upon a recycling or returning of oil to a process of H. C. technique, which oil has previously been treated by the same

Digitized by Google

process; provided, however, that royalty shall be charged upon any additional finished oil obtained by such recycling.

The rates for fully-paid licenses shall be as follows:

(1) *For a deasphalting process,* ten dollars ($10) per barrel of stock charged, plus eighty dollars ($80) per barrel of asphaltic material separated;

(2) *For a dewaxing process* or a process of acid treating in propane; or a combination of either of these processes with deasphalting, eighty dollars ($80) per barrel of stock charged to the process;

(3) *For a process combining dewaxing and acid treating in propane* with or without the step of deasphalting, One hundred and twenty dollars per barrel of stock charged to the process;

(4) *For a solvent extraction process* or a combined solvent extraction and deasphalting process sixty dollars ($60) per barrel of stock charged plus one hundred and sixty dollars ($160) per barrel of finished oil obtained from the process, but not less than two hundred fifty dollars ($250) nor more than three hundred dollars ($300) per barrel of finished oil. The term "finished oil" in this paragraph may be applied by the licensee to the final marketable oil produced after other finishing operations such as clay treating or dewaxing, but no deduction shall be made for the oil removed in subsequent dewaxing operations unless it can be definitely shown that such oil is not sold as a marketable product either before or after subsequent separation from the wax;

(5) *For a combination process* including either dewaxing and solvent extraction or a combination of these processes with deasphalting, eighty dollars ($80) per barrel of oil charged to the process plus one hundred and sixty dollars ($160) per barrel of finished dewaxed oil produced by the process; provided that the sum of said charges shall in no case be less than $280 nor more than $360 per barrel of dewaxed raffinate produced;

(6) *For a process of chemical treatment* in propane solution other than acid treatment, the rates shall be set by mutual agreement. The process of acid treating in propane solution may be included in processes (4) and (5) without additional cost.

B. *Rate for barrelage licenses.*—The running royalty rate per barrel actually charged into or obtained from the plant shall be computed by dividing the fully-paid rate per barrel per day for the same operation, as provided in paragraph A hereof, by fourteen hundred sixty (1460), i e., the number of days in 4 years, less one day.

For example, the maximum fully-paid rate for a combination process is specified in paragraph A (5) hereof as $360 per barrel of dewaxed raffinate per day and the equivalent barrelage rate is $0.2465 per barrel.

In case the licensee elects to pay barrelage rather than fully-paid royalties on any installation, reports and payments shall be made quarterly within 30 days of the end of each quarter.

C. *Sliding scale for royalty rates.*—After any licensee has paid a total royalty of $300,000 under this contract, said licensee shall be entitled to a 10 percent reduction on the next $300,000 of royalty calculated as above indicated.

After said licensee has paid a total royalty of $570,000 under this contract, he shall be entitled to a 20 percent reduction on the next $300,000 of royalty calculated as above indicated.

After said licensee has paid a total royalty of $810,000 under this contract, he shall be entitled to a 30 percent reduction on any additional royalty calculated as above indicated.

Escrow Agreement, Dated July 27, 1933

Parties: The Texas Co., The Texas Corporation, Standard Oil Co. (Indiana), Standard Oil Development Co., the Pure Oil Co., the Gray Processes Corporation, the Gray Processes Corporation Committee, Fidelity Union Trust Co.

I. PARTIES

1. Theodore S. Kenyon, Charles H. Marshall, and Walter Miller, as the committee constituted and acting under a certain deposit agreement dated the 27th day of April 1933, of which a copy if annexed hereto marked "Exhibit A" (hereinafter called the deposit agreement) and referred to in a certain purchase and cross-license agreement dated the 27th day of July 1933, of which a copy is annexed the exhibit A marked "Exhibit I" (hereinafter called the purchase agree-

Digitized by Google

ment), and the respective successors of said persons acting in such capacity (hereinafter called the committee).

2. The Gray Processes Corporation, a Delaware corporation, having a place of business at 961 Frelinghuysen Avenue, Newark, N. J. (hereinafter called Gray).

3. The Texas Co., a Delaware corporation and its parent the Texas Corporation, a Delaware corporation, each having a place of business at 135 East Forty-second Street, New York, N. Y., and their respective subsidiaries (hereinafter referred to collectively as Texas).

4. Standard Oil Co., an Indiana corporation, having a place of business at 910 South Michigan Avenue, Chicago, Ill., and its subsidiaries (hereinafter referred to collectively as Indiana).

5. Standard Oil Development Co., a Delaware corporation, having a place of business at Linden, N. J. (hereinafter referred to as Development).

6. The Pure Oil Co., an Ohio corporation, having a place of business at 35 East Wacker Drive, Chicago, Ill., and its subsidiaries (hereinafter referred to collectively as Pure).

7. Fidelity Union Trust Co., a corporation of the State of New Jersey having its principal office at 755 Broad Street, in the city of Newark, N. J. (hereinafter called the Depositary).

II. RECITALS

8. The Committee, Gray, Texas, Indiana, Development, and Pure, have under date of July 27, 1933, entered into the purchase agreement and have in said agreement provided for the execution, delivery and performance of this escrow agreement and all of said parties have, in accordance with the provisions of the purchase agreement, approved of the form of this escrow agreement prior to the execution thereof and request Fidelity Union Trust Co. to act as Depositary hereunder and to carry out the terms and provisions hereof.

9. Upon the execution of this agreement the Committee has delivered to the Depositary stock certificates, endorsed in blank for transfer or accompanied by valid instruments for the transfer thereof in blank, representing all of the 100,000 shares of outstanding capital stock of Gray.

III. COVENANTS OF THE PARTIES

In consideration of the recitals and the mutual covenants hereinafter set forth, each party hereto covenants and agrees with each other party hereto as follows:

10. The deposited stock certificates representing all of the 100,000 shares of the capital stock of Gray (hereinafter called the deposited shares) have been deposited with the Depositary hereunder pursuant to the provisions of the purchase agreement and of the deposit agreement and in order to provide convenient means for the delivery thereof to Texas, Indiana, Development, and Pure respectively, or for the return thereof to the Committee, as in said agreements provided

11. The committee hereby irrevocably authorizes and directs Gray, Texas, Indiana, Development, and Pure to pay to the depositary, for account of the committee, all sums required by the provisions of subparagraph (d) of paragraph 27 of the purchase agreement, or permitted by the provisions of subparagraph (g) of paragraph 22 of the purchase agreement, to be paid by them or any of them to the committee, and the committee further authorizes and directs the depositary, for the account and in the name of the committee, to accept and receipt for all such payments. All sums so paid to the depositary shall be held by it to the order of the committee. The depositary shall promptly notify each of the other parties hereto, in writing, of the receipt and payment over of each sum received by it pursuant to the provisions of this paragraph. The receipts of the depositary for such payments, or canceled checks or drafts evidencing the making of such payments and the receipt thereof by the depositary, shall be conclusive evidence of the making of the payments specified in such receipts and/or such canceled checks or drafts and of the dates of such payments, but shall not conclude the committee as to the sufficiency of such payments.

12. If, while this agreement remains in force, Gray desires to set off against an amount payable by it pursuant to the provisions of subsparagraph (d) of paragraph 27 of the purchase agreement a specified amount on account of liabilities of Gray as permitted by the provisions of subparagraph (b) of paragraph 21 of the purchase agreement, Gray shall give written notice to the committee and to the depositary specifying the amount so claimed in set-off and the basis therefor. Within 10 days after receipt of such written notice the committee shall notify Gray and the depositary in writing whether and to what extent it approves such

Digitized by Google

set-off, and if any part of such set-off is disapproved, stating the basis for such disapproval. To the extent of any set-off so approved in writing by the committee, Gray shall be relieved of the obligation of making such payment and the amount of set-off so approved shall be credited against the sum of $500,000 payable by Gray to the committee pursuant to the provisions of said subparagraph (d) of paragraph 27 of the purchase agreement, with the same effect as if such amount had been paid in cash to the depositary for the account of the committee. To the extent of the amount by which the committee shall by notice in writing disapprove any such claim of set-off, the time of Gray to make the payment to the committee against which such right of set-off is asserted shall be extended until final determination as to whether or not Gray is entitled to make such set-off. If Gray and the committee are unable to agree as to any such set-off disapproved in whole or in part by the committee, the dispute shall be settled by three arbitrators, one to be appointed by Gray, one to be appointed by the committee, and the third to be selected by the two so appointed, or if the two cannot agree within 10 days after their appointment then by the then president of the depositary. The award of the majority of such arbitrators shall be filed with the depositary and shall be final and binding upon all parties to this agreement. The expenses of such arbitration, including the fees of the arbitrators shall be borne by the losing party.

13. When the depositary shall have received for account of the committee from Gray, Texas, Indiana, Development, and/or Pure, pursuant to the provisions of subparagraph (d) of paragraph 27 of the purchase agreement (including as if so paid all set-offs against such payments theretofore approved by the committee or allowed by arbitrators pursuant to paragraph 12 of this agreement) and/or pursuant to the provisions of subparagraph (g) of paragraph 22 of the purchase agreement, payments aggregating the sum of $500,000, the depositary shall make delivery of the deposited shares to Texas, Indiana, Development, and Pure, or their respective nominees designated in writing, in the respective amounts of 25,000 shares each against the written receipts of Texas, Indiana, Development, and Pure, respectively, or of their respective nominees. Such written receipts shall fully discharge and release the depositary of and from any and all further responsibility and liability hereunder with respect to the deposited shares.

14. Upon the delivery of the deposited shares to Texas, Indiana, Development, and Pure, respectively, and/or to their respective nominees, as provided in paragraph 13 hereof, indefeasible title to the deposited shares so delivered shall forthwith vest in Texas, Indiana, Development, and Pure, respectively, or in their respective nominees.

15. If, within a period of 3 years from the date of this agreement, the payments made by Gray to the depositary for the account of the committee pursuant to the provisions of subparagraph (d) of paragraph 27 of the purchase agreement (including as if so paid all set-offs against such payments theretofore approved by the committee or allowed by arbitrators pursuant to paragraph 12 of this agreement) shall have amounted in the aggregate to less than the sum of $500,000, the depositary shall within three (3) days thereof give to each of the parties hereto written notice by registered mail of the amount of such deficiency and if within 60 days after receipt of such written notice Gray, Texas, Indiana, Development, and Pure shall fail to pay or cause to be paid to the depositary, for the account of the committee, the amount of such deficiency, the depositary shall, upon the day after the expiration of said 60-day period, deliver the deposited shares to the depositary then acting under the deposit agreement; provided, however, that in the event that within said 60-day period any of the parties hereto files with the depositary a notice in writing stating that there is a dispute as to the amount of such deficiency, said 60-day period shall be extended, and said delivery of the deposited shares by the depositary hereunder to the depositary under the deposit agreement shall be postponed for a sufficient time to permit the determination of such deficiency by an independent audit by accountants agreed upon by the parties hereto, and in the event of such dispute such deficiency, in the amount determined by such audit, may be paid to the depositary for the account of the committee within a period of 5 days after the giving of written notice of the results of such audit to Gray, Texas, Indiana, Development, and Pure and to the depositary, and if such deficiency so determined is paid to the depositary for the account of the committee within said 5-day period, the depositary shall thereupon deliver the deposited shares to Texas, Indiana, Development, and Pure, or their respective nominees designated in writing, as in paragraph 13 hereof provided, and if such deficiency shall not be paid within said 5-day period, the

Digitized by Google

depositary hereunder shall deliver the deposited shares to the depositary then acting under the deposit agreement against its written receipt. Upon the delivery of the deposited shares by the depositary in accordance with the provisions of this paragraph, the depositary shall be fully discharged and released of and from any and all further responsibility and liability hereunder with respect to the deposited shares.

16. The provisions of subparagraphs (b), (c), (d), (e), (h), and (i) of paragraph 22 of the purchase agreement are hereby confirmed and adopted with the same force and effect as if fully set forth in this agreement. The committee has deposited with the depositary written substitutions under proxies held by the committee authorizing the voting of the deposited shares in accordance with the provisions of said subparagraph (c) of paragraph 22 of the purchase agreement.

17. The parties hereto agree that if Gray or Texas, Indiana, Development, or Pure shall fail to make any payment to the depositary, for the account of the committee, required by the purchase agreement, Texas, Indiana, Development, and Pure, or any one or more of them, shall have the right to make such payment and thereupon become subrogated to the claim of the committee against the defaulting party for the amount of the defaulted payment.

18. This escrow agreement may be amended by supplemental agreements in writing executed by the committee and by Gray, Texas, Indiana, Development, and Pure, respectively, and filed with the depositary; provided, however, that the rights, duties, and obligations of the depositary shall not be affected adversely without its consent.

19. Texas, Indiana, Development, and Pure and Gray agree that if the committee assigns its interest in the purchase agreement to a new corporation, association, or trust in accordance with the provisions of the purchase agreement and of the deposit agreement, the committee may assign its interest in this agreement to such new corporation, association, or trust, but only upon the assumption by such new corporation, association, or trust of all obligations or liabilities and undertakings of the committee hereunder to the extent that the same remain unperformed and thereupon the committee shall be released and discharged of and from all obligations, liabilities, and undertakings so assumed. Any such assignment by the committee shall vest in such new corporation, association, or trust all of the privileges, powers, and rights conferred on the committee under this agreement as fully though it, and not the committee, were the original party hereto.

20. The depositary shall be entitled to reasonable compensation for its services hereunder and shall have a lien for such compensation and for its expenses incurred in connection herewith upon any property or funds at any time held by it hereunder. Such compensation and expenses of the depositary shall be paid by Gray. The depositary assumes no liability or obligation to the parties hereto under this agreement excepting only to receive and to dispose of the deposited shares and any other property or funds coming into its possession as depositary hereunder in the manner herein provided. The depositary assumes no responsibility for the recitals to this agreement. The depositary may rely and shall be protected in acting upon the opinion of Messrs. Pitney, Hardin, and Skinner or of its own counsel, as to any legal questions arising in connection with its duties hereunder and shall be absolutely protected from any and all liability for any action taken or omitted by it in good faith hereunder. The depositary at any time acting hereunder may resign and in such event a successor depositary may be appointed by a writing signed by the committee and by Texas, Indiana, Development, and Pure. Any successor depositary so appointed shall have and may exercise all the rights and powers of the depositary designated herein.

21. The addresses of the parties hereto for all purposes specified in this escrow agreement shall be as follows:

The Gray Processes Corporation Committee, care of Fidelity Union Trust Co., Newark, N. J.

The Gray Processes Corporation, 961 Frelinghuysen Avenue, Newark, N. J.

The Texas Co. and the Texas Corporation, 135 East Forty-second Street, New York, N. Y.

Standard Oil Co. (Indiana), 910 South Michigan Avenue, Chicago, Ill.

Standard Oil Development Co., Linden, N. J.

The Pure Oil Co., 35 East Wacker Drive, Chicago, Ill.

Fidelity Union Trust Co., depositary, 755 Broad Street, Newark, N. J.

All payments provided for in this agreement shall be made, and all notices provided for herein shall be directed to, the respective parties, at the above addresses, provided, however, that any party shall have the right to change such

Digitized by Google

address by notice in writing directed to each of the other parties. All deliveries of capital stock of Gray provided for in this agreement shall be made at the above office of the depositary.

22. The committee, as such, has become a party to this escrow agreement as agent and representative of the stockholders of Gray by virtue of the power and authority conferred upon the committee by the deposit agreement; and no provision of this agreement shall have the effect or be construed to impose any individual obligation or liability whatsoever upon the several members of the committee.

23. This escrow agreement shall be executed in several counterparts, each of which shall be an original, and all of which shall together constitute one and the same instrument.

In witness whereof, the committee, Gray, Texas, Indiana, Development, and Pure have respectively executed this agreement and deposited the same with Fidelity Union Trust Co., and said Fidelity Union Trust Co. has executed the same to evidence its acceptance of the trusts hereby created, as of the day and year first above written.

THE GRAY PROCESSES CORPORATION,
By ----------,
President.

Attest:

----------,
Secretary

THE TEXAS CO.,
By ----------,
President.

Attest:

----------,
Secretary.

THE TEXAS CORPORATION,
By ----------,
President,

Attest:

----------,
Secretary.

STANDARD OIL CO. (INDIANA),
By ----------,
President.

Attest:

----------,
Secretary.

STANDARD OIL DEVELOPMENT CO.,
By ----------,
President.

Attest:

----------,
Secretary.

THE PURE OIL CO.,
By ----------
President.

Attest:

----------,
Secretary.

FIDELITY UNION TRUST CO.,
As Depositary.
By ----------,

Attest:

----------,
Secretary.

THE GRAY PROCESSES CORPORATION COMMITTEE,
As the Committee, and not Individually.

STATE OF NEW JERSEY,
County of Essex, ss:

On this -------- day of ---------- 1933 before me personally came ----------, to me known, who, being by me duly sworn, did depose and say that he resides in ----------; that he is

Digitized by Google

---------- president of the Gray Processes Corporation, the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the board of directors of said corporation and that he signed his name thereto by like order.

----------,
Notary Public.

STATE OF NEW JERSEY,
County of Essex, ss:

On this -------- day of ---------- 1933 before me personally came ----------, to me known, who, being by me duly sworn, did depose and say that he resides in ----------; that he is ---------- president of the Texas Co., the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the board of directors of said corporation and that he signed his name thereto by like order.

----------,
Notary Public.

STATE OF NEW JERSEY,
County of Essex, ss:

On this -------- day of ---------- 1933 before me personally came ----------, to me known, who, being by me duly sworn did depose and say that he resides in ----------; that he is ---------- president of the Texas Corporation, the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the board of directors of said corporation and that he signed his name thereto by like order.

----------,
Notary Public.

STATE OF----------,
County of , *ss:*

On this -------- day of ---------- 1933 before me personally came ----------, to me known, who, being by me duly sworn did depose and say that he resides in ----------; that he is ---------- president of Standard Oil Co. (Indiana), the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the board of directors of said corporation and that he signed his name thereto by like order.

----------,
Notary Public.

STATE OF NEW JERSEY,
County of Essex, ss:

On this -------- day of ---------- 1933 before me personally came ----------, to me known, who, being by me duly sworn, did depose and say that he resides in ----------; that he is ---------- President of Standard Oil Development Co., the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the board of directors of said corporation and that he signed his name thereto by like order.

----------,
Notary Public.

STATE OF ----------,
County of ----------, *ss:*

On this -------- day of ---------- 1933 before me personally came ----------, to me known, who, being by me duly sworn, did depose and say that he resides in ----------; that he is ---------- president of The Pure Oil Co., the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the board of directors of said corporation and that he signed his name thereto by like order.

----------,
Notary Public.

Digitized by Google

STATE OF NEW JERSEY,
County of Essex, ss:

On this _____ day of _____ 1933 before me personally came _____, to me known, who, being by me duly sworn, did depose and say that he resides in _____; that he is _____ of Fidelity Union Trust Co., the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the board of directors of said corporation and that he signed his name thereto by like order.

_____,
Notary Public.

STATE OF NEW JERSEY,
County of Essex, ss:

On this _____ day of _____ 1933 before me personally came Charles H. Marshall, to me known, who, being by me duly sworn, did depose and say that he resides in _____; that he is a duly appointed member of The Gray Processes Corporation Committee, the committee described in and which executed the foregoing instrument; and that he signed his name to said instrument as a member of and by the order of said committee.

_____,
Notary Public.

STATE OF NEW JERSEY,
County of Essex, ss:

On this _____ day of _____ 1933 before me personally came Walter Miller, to me known, who, being by me duly sworn, did depose and say that he resides in _____; that he is a duly appointed member of The Gray Processes Corporation Committee, the committee described in and which executed the foregoing instrument; and that he signed his name to said instrument as a member of and by the order of said committee.

_____,
Notary Public.

STATE OF NEW JERSEY,
County of Essex, ss:

On this _____ day of _____ 1933 before me personally came Theodore S. Kenyon, to me known, who, being by me duly sworn, did depose and say that he resides in _____; that he is a duly appointed member of The Gray Processes Corporation Committee, the committee described in and which executed the foregoing instrument; and that he signed his name to said instrument as a member of and by the order of said committee.

_____,
Notary Public.

EXHIBIT A. DEPOSIT AGREEMENT—THE GRAY PROCESSES CORPORATION

Agreement dated the 27th day of April 1933 between such holders of capital stock of The Gray Processes Corporation (hereinafter called the corporation) and/or voting trust certificates for such capital stock as shall become parties to this agreement in the manner hereinafter provided (hereinafter referred to as the depositors), parties of the first part, and Theodore S. Kenyon, Charles H. Marshall, and Walter Miller, as a committee and their respective successors in such capacity (hereinafter called the committee), parties of the second part, witnesseth:

Whereas the depositors desire that the committee, as agent of the depositors, enter into, and carry out the terms and provisions of, an agreement, either in the form hereto annexed, entitled "Purchase and Cross License Agreement", marked "Exhibit I" and made a part hereof, or in such form with such changes, modifications, or additions therein and thereto as the committee is authorized by the provisions hereof to make, approve, or accept (such agreement whether in the form of exhibit I or in such other form being hereinafter referred to as the purchase agreement) providing, among other things, for a sale to purchasers therein designated of the shares of the capital stock and/or voting trust certificates therefor of the corporation which shall be deposited hereunder.

Now, therefore, in consideration of the premises and of the mutual promises herein contained, the depositors, each for himself and not for the others or any of them, agree with each other and with the committee and the depositary, and the committee agrees with the depositors and the depositary, as follows:

1. This agreement, when duly executed by all members of the committee, shall be lodged with Fidelity Union Trust Co. (hereinafter called the depositary),

Digitized by Google

which is hereby appointed the depositary, at its office, no. 755 Broad Street, Newark, N. J.

Any holder of capital stock of the corporation and/or voting trust certificates therefor may become a party hereto by delivering to the committee, at the office of the depositary, a proxy and power of attorney in the form hereto annexed, marked "Schedule A" and made a part hereof, and by depositing with the depositary, as the agent of the committee, within such period or periods as the committee may from time to time limit for that purpose, the certificates and/or voting trust certificates held by him and representing shares of such capital stock, duly endorsed in blank, and by complying with such regulations governing such deposit as the committee shall prescribe and thereupon shall become a depositor hereunder and a party hereto with the same force and effect as though the depositor had subscribed this agreement and, if the committee shall so require, the depositor shall so subscribe. By becoming a party hereto each depositor approves the terms and provisions of the purchase agreement and agrees that it shall be deemed a part of this agreement with the same force and effect as though set forth at length herein.

Upon the deposit hereunder of any capital stock of the corporation or voting trust certificate therefor, the depositor shall be entitled to receive from the depositary a certificate or certificates of deposit in such form as may be approved by the committee. Certificates of deposit shall be registered in the names of the respective depositors and the depositary shall keep a record of the addresses furnished to it by the depositors. The registered owner of any certificate of deposit or certificates of deposit, upon surrender thereof for cancelation at the office of the depositary and duly endorsed "for division" or "for consolidation", shall be entitled, upon the payment of any and all taxes required by law and upon payment of such reasonable charges as shall be fixed by the committee, to receive certificates of deposit or a certificate of deposit, registered in the same name, and representing in the aggregate the same number of shares of capital stock of the corporation or voting trust certificates therefor, as the certificate or certificates of deposit surrendered, all as may be requested by said registered owner or his duly authorized attorney, provided that certificates of deposit will not be issued, unless the committee shall otherwise permit, representing fractional shares or voting trust certificates therefor. Certificates of deposit shall be transferable subject to the terms and conditions hereof and thereof upon the books of the committee at the office of the depositary by the registered owners in person or by their duly authorized attorneys upon surrender of said certificates of deposit properly endorsed and upon payment of any and all tranfser taxes required by law. Upon any transfer of a certificate of deposit being so made, the transferee shall become a party hereto as a depositor and shall for all purposes be substituted for and shall be entitled to all the rights and shall be subject to all the obligations of the prior holder and the registered owners for the time being of the respective certificates of deposit may be treated by the committee and the depositary for all purposes as the absolute owners thereof, and neither the committee nor the depositary shall be affected by any notice to the contrary.

The committee may, in its discretion, from time to time cause the transfer books of the certificates of deposit to be closed for any purpose deemed by the committee advisable, whether in connection with any payment or distribution upon or in respect of the certificates of deposit or otherwise, for such period or periods as the committee may deem expedient, and upon termination of this agreement for whatsoever cause may, upon reasonable notice to the registered holders of certificates of deposit then outstanding, terminate the right to transfer the same.

The committee may limit the time or times within which deposits may be made hereunder, and may, in its discretion, either generally or in special instances, extend, change, vary, or renew the time or times so fixed or limited upon such terms and conditions and under such penalties as it may, in its discretion, prescribe. Anything herein contained to the contrary notwithstanding, it may on such terms and conditions as it deems proper give to any owner of such capital stock or voting trust certificates therefor who signs this agreement all the benefits hereof without the actual deposit of his securities hereunder.

No depositor shall have any right or be permitted to withdraw any securities deposited hereunder except as the right of such withdrawal may be expressly conferred by the provisions hereof or except with the consent of the committee.

2. No title or beneficial interest to the capital stock or voting trust certificates deposited hereunder shall pass to the committee and no endorsement or deposit of any such securities shall be or become effective for the vesting of title or bene-

Digitized by Google

ficial interest thereto in the committee, such title and beneficial interest remaining vested in the several depositors until such securities shall be sold by the committee as provided herein and in the purchase agreement; such securities shall be deemed and treated as having been deposited hereunder solely for the purpose of enabling the committee as the attorneys, agents, and proxies of the depositors more effectively to carry out the powers herein conferred upon the committee.

Each depositor, by becoming a party hereto, requests and orders the corporation and the voting trustees who shall have issued or caused to be issued any of the deposited voting trust certificates to pay to the committee or its nominee any and all dividends which may be or become payable upon his deposited securities prior to the delivery of said securities to purchasers thereof, out of escrow, as provided in the purchase agreement.

The committee shall distribute dividends (but without interest) out of the funds so paid to it or its nominee among the holders of record of the certificates of deposit within 15 days after the receipt of funds for distribution, all in accordance with the respective interests of such holders. Such distributions shall be made to holders of certificates of deposit of record at the respective dates constituting the record dates of the corporation of the voting trustees, as the case may be, for the determination of security holders entitled to share in such dividend. In lieu of making such distribution the committee may issue to the corporation and/or to the voting trustees and order or orders for the payment of any and all such dividends to the holders of record of certificates of deposit respectively entitled thereto.

3. The committee is authorized and empowered to take or cause to be taken all such steps, actions and proceedings, and to do and perform all such acts and things, as it shall deem necessary or proper for carrying out the provisions hereof and the provisions of the purchase agreement.

The depositors hereby constitute the committee, as the same may at any time be constituted, their true and lawful attorneys, agents and proxies, and the attorneys, agents and proxies of each depositor, with full powers and exculsively and irrevocably for the purpose of carrying out this agreement, hereby ratifying and confirming each and every act and thing that said attorneys, agents, and proxies, or any of them, may lawfully do or cause to be done by virtue hereof or pursuant hereto. By way of amplification, and without limitation of the foregoing general authority, the committee, as such exclusive and irrevocable attorneys, proxies, and agents, shall have full power and authority as follows:

(*a*) In the name, place and stead of the respective record owners of the deposited capital stock, or otherwise, to vote upon or consent with respect to the deposited stock at any and all meetings of the stockholders of the corporation, called or appointed to be held at any time prior to January 1, 1938, and prior to the delivery of the deposited securities to the purchasers thereof out of escrow as provided in the purchase agreement or prior to the earlier termination of this agreement, and at any and all adjournments thereof, according to the number of votes such record owners of such deposited capital stock would be entitled to cast, as fully as such record owners could do if personally present at such meeting, and/or from time to time to substitute (with full power of revocation) one or more persons (who, during any period when the deposited stock is held in escrow as provided in the purchase agreement, may be the nominee or nominees of any purchaser thereof not in default under the purchase agreement) with like full power. All former proxies heretofore given by any such record owner are hereby revoked. Without restricting the generality of the foregoing, such attorneys, agents, and proxies and their substitute or substitutes are authorized to vote for the election of directors of the corporation and for any necessary or advisable authorization in connection with the corporation's entering into the purchase agreement or any agreement referred to therein.

(*b*) In the name, place and stead of the respective record owners of the deposited voting trust certificates, or otherwise, to vote upon or consent with respect to such deposited voting trust certificates upon any and all matters upon which holders of such voting trust certificates may vote or with respect to which they may consent and, without restricting the generality of the foregoing, to request the voting trustees to vote for the election of directors of the corporation and for any such necessary or advisable authorization as aforesaid and to terminate any existing voting trust agreement and/or to consent that any existing voting trust agreement be terminated.

(*c*) In the name, place, and stead of the depositors or in the name of the committee, as such, but on behalf of the depositors to enter into, execute, and deliver the purchase agreement, either in the form hereto attached or in such form with such changes, modifications, or additions therein and thereto as the committee

Digitized by Google

in its uncontrolled discretion shall determine do not substantially and adversely affect the interests of the depositors and shall make, approve, or accept; and after execution and delivery by the committee of the purchase agreement, to perform and carry out the terms and provisions thereof; and, after as well as before the execution and delivery of the purchase agreement or the consummation of the sale of the capital stock of the corporation provided for therein, to negotiate and agree to further or other provisions, amendatory of and/or supplemental to and/or in furtherance of the purchase agreement as may be required in negotiations and/or dealings with the purchasers of the deposited stock; including (but without limitation thereto) all such modifications of the purchase agreement as, in the opinion of the committee, may be appropriate for the sale of the shares of the capital stock of the corporation and/or voting trust certificates therefor deposited hereunder, in the event that less than all of such capital stock and/or voting trust certificates shall be so deposited.

(*d*) In case any existing voting trust agreement shall be terminated, to deliver and surrender to the voting trustees thereunder the deposited voting trust certificates and to instruct such voting trustees appropriately with reference to the delivery of the capital stock represented by such surrendered voting trust certificates and as to the name or names in which the certificates representing such capital stock shall be registered, and to deposit said stock certificates hereunder.

(*e*) In the same manner as though the committee were a party to the purchase agreement in its own interest, to demand, collect, and receive all amounts that may at any time be or become due or owing to the committee under the purchase agreement and to give all necessary or proper receipts or acquittances in respect of sums received by it thereunder; to receive, examine, and approve or disapprove all accounts rendered or provided to be rendered to the committee under or pursuant to the purchase agreement; to waive any default under the purchase agreement or the exercise of any right of the committee consequent thereon; to institute, maintain, and prosecute all or any such suits, actions, or other legal proceedings of any kind or character and in any court or courts or other tribunal, whether against any party or parties to the purchase agreement or against others, which the committee shall deem necessary or appropriate for the protection of the rights and interests of the depositors in the premises, and to direct and control the conduct thereof and/or to intervene and participate in any suits or proceedings in any court or tribunal instituted or maintained by others which, in the judgment of the committee, may affect the rights and interests of the depositors in the premises; to compromise or settle any controversy; to borrow money to any extent necessary in the judgment of the committee for the carrying out of the purposes of this agreement, whether for the enforcement of the purchase agreement or otherwise, upon such terms and conditions and with such security as the committee may determine; and to determine in its discretion to what extent it is expedient or advisable at any time for the corporation to enter into litigation or to effect compromises or settlements in connection with any matter or thing connected with the conduct of the business of the corporation, whether in respect of the enforcement and collection of any notes or accounts receivable now or hereafter owned by the corporation or any license agreements to which the corporation now is or may be hereafter a party or suits now pending or which may hereafter be commenced for infringement of any of the patent rights as the term "patent rights" is defined in the purchase agreement, or otherwise, and appropriately, in the committee's judgment, to make requests upon the corporation and to give directions and instructions to the corporation in regard thereto.

(*f*) To approve the legal procedure and instruments required or used in carrying out this agreement, the purchase agreement, the formation of the new corporation, if any, and the delivery of its securities or certificates of interest.

(*g*) To take over from the corporation any or all of the cash, receivables, securities, and other assets of the corporation which, under the terms of the purchase agreement, are to be retained by the depositors or paid by the corporation to the depositors or to the committee in their behalf; to collect, realize upon, or sell and dispose of the same in such manner, at such times and for such considerations as the committee in its uncontrolled discretion shall determine and, subject to the committee's rights in respect of compensation and reimbursement as hereinafter provided, to distribute the net proceeds thereof to the depositors in the manner hereinafter provided and/or to distribute the same in kind so far as the same may be susceptible of such distribution.

No depositor shall have any right to vote upon, consent with respect to, or otherwise to deal in or with any deposited stock or voting trust certificates; every depositor, and each person, firm or corporation who shall ever become a

Digitized by Google

depositor hereunder, agrees, however, that upon the request of the committee he or it will execute and deliver to the committee all such proxies and other instruments and documents, including duly executed stock powers in blank, as the committee shall deem needful to enable it effectively to carry out the purposes of this agreement and to deal with the deposited securities hereunder.

Any question arising hereunder or relating to any action taken or contemplated by the committee with respect to the subject matter of this agreement may, in the uncontrolled discretion of the committee, be referred by the committee to the depositors; and instructions, consent or authorization with respect to any such question given by a majority in interest of the depositors shall be conclusive and binding upon all of the depositors in favor of the committee. For the purpose of referring any such question to the depositors, the committee may call a meeting of the depositors, and such meeting may be held at such time and place, upon such notice and under such regulations as to voting and otherwise as may be prescribed by the committee; provided, however, that at least 10 days' notice of any such meeting shall be given to the depositors in the manner provided by section 13 of this agreement. The instructions, consent or authorization of the depositors with respect to any such question may be given either by vote at a meeting called as aforesaid or in writing without a meeting.

Any and all amounts of money which may at any time be received by the committee under the purchase agreement or this agreement shall be disposed of as follows:

(*a*) First to the payment of the compensation of the committee and to reimbursement for all of its disbursements and expenses and to the satisfaction of its obligations and liabilities incurred to the date of any particular application of funds, or to the provision for the payment or satisfaction thereof;

(*b*) To the creation of such reserves for such purposes as the committee shall in its absolute discretion determine to be necessary, advisable, or proper, such reserves not to exceed, however, in the aggregate at any one time, the sum of $10,000;

(*c*) To the payment of the balance to the registered owners of the certificates of deposit at a date fixed by the committee pro rata in accordance with their respective interests.

4. The committee shall be the sole and final judge as to when and whether sufficient assents to this agreement, either through the deposit of securities hereunder or otherwise, shall have been received or shall be assured, and when other conditions shall have happened to justify the execution and delivery of the purchase agreement and/or the sale and delivery of the securities deposited hereunder, provided that no securities deposited hereunder shall be sold or delivered by the committee except pursuant to the terms of the purchase agreement.

5. This agreement shall terminate unless the purchase agreement shall have been executed and delivered on or before October 1, 1933, provided that the committee may, in its discretion, from time to time prior to any such termination extend the date for such termination, but no such extension shall be made beyond a period of 3 months from and after said date unless any such extension shall be authorized in writing by the registered owners, at the time of such authorization, of a majority in interest of the certificates of deposit then outstanding. In the event that for any reason the committee shall determine in its discretion that it is impracticable or inadvisable to enter into the purchase agreement, either in the form hereto attached or in any amended form, the committee may file with the depositary a written statement to that effect and declaring this agreement terminated, and upon such filing this agreement shall be terminated.

The committee may in its discretion at any time, either before or after the execution and delivery of the purchase agreement, terminate this agreement if, in the absolute discretion of the committee, it is advisable so to do, by filing with the depositary a written statement to that effect and delaring this agreement terminated, and upon such filing, this agreement shall be terminated. In the event that this agreement shall be terminated, as above provided, prior to the execution and delivery of the purchase agreement, the committee shall proceed as rapidly as may be possible, or in the discretion of the committee advisable and expedient (subject to the committee's rights in respect of reimbursement of its expenses, as hereinafter provided) to redeliver to the depositors the securities to which they shall then be respectively entitled. In the event that this agreement shall be terminated as above provided after the purchase agreement shall have been executed and delivered, the committee shall, simultaneously with such termination, or as soon thereafter as may be possible, or in the discretion of the committee advisable, assign, transfer and set over to a corporation, association, or trust, to be

Digitized by Google

organized under the laws of such State, with such name and capitalization and with such powers and otherwise constituted in such manner, as the committee shall determine (such corporation, association, or trust being hereinafter for convenience called the "new corporation"), all properties and assets of whatsoever nature at the time held hereunder by the committee, including without limitation the purchase agreement, upon such new corporation's assuming and agreeing to pay and discharge all liabilities and obligations of the committee and upon the new corporation's issuing and delivering to or upon the direction of the committee, as provided herein, all of its authorized capital stock and/or other securities or certificates of beneficial interest. The committee is authorized, if in its uncontrolled discretion such course be advisable, to make such provision as it shall deem appropriate for the establishment of a voting trust in respect of the capital stock or of any class of the capital stock of the new corporation, and the term of any such voting trust may be the maximum period then authorized by law or any shorter period, as the committee may determine. The committee shall distribute or cause the new corporation to distribute its said capital stock and/or other securities or certificates of beneficial interest or voting trust certificates to and among the owners of the certificates of deposit then outstanding hereunder ratably in accordance with their respective interests upon surrender to the depositary for cancelation of certificates of deposit in exchange therefor, each depositor hereby agreeing to accept such securities or certificates (and/or voting trust certificates) of the new corporation as aforesaid in exchange for the certificates of deposit owned by him, and further agreeing forthwith upon the request of the committee so to surrender his certificates of deposit for cancelation against delivery of securities or certificates (and/or voting trust certificates) of the new corporation as above provided. It is understood and agreed, however, that the committee shall be under no duty or obligation to organize the new corporation or to make any transfer of properties to the new corporation or to receive or distribute any securities or certificates (and/or voting trust certificates) of the new corporation if at the time of the termination of this agreement no further payments will, in the judgment of the committee, which shall be final and conclusive, ever be received under, upon, or in respect of the purchase agreement and if either (a) no properties or assets of any substantial value shall at the time be held by the committee hereunder, or (b) all properties and assets of any substantial value at the time held hereunder by the committee are in the form of cash or properties which in the judgment of the committee can be readily converted into cash; and in either of said events the committee shall proceed, notwithstanding the termination of this agreement, to liquidate and turn into cash, in such manner as the committee shall in its absolute discretion determine to be most practical and advisable, any and all such properties and assets held hereunder and, after making payment of provision for payment of the compensation, expenses and liabilities of the committee, shall distribute or cause to be distributed the remaining proceeds of the said properties and assets and all other cash held by the committee hereunder to and among the owners of the certificates of deposit then outstanding hereunder in accordance with their respective interests upon surrender to the depositary for cancelation of certificates of deposit in exchange therefor, each depositor hereby agreeing to accept the same in full satisfaction and further agreeing forthwith upon the request of the committee to surrender his certificates of deposit for cancelation against payment, as above provided, if any distribution is to be made, or without any payment, if there shall be no cash held by the committee to be distributed.

6. At least once in each calendar year the committee shall file with the depositary a statement of the committee's accounts and transactions and shall notify the depositors that such statement has been so filed, and such statement shall conclusively and finally be taken to be a true and correct statement of the committee's accounts and transactions for the period covered by said statement, unless any one or more depositors shall, within 30 days after the mailing of said notice file with the depositary written objections to said statement, specifying the grounds of his or their objections, and unless also legal proceedings on the basis of such objections shall be commenced by the objecting depositor or depositors within 60 days after the date of such mailing of notice by the committee, and such statement shall in any event be deemed and treated as true and correct, unless the committee shall voluntarily admit an error therein, as to all depositors not filing objections as aforesaid and as to all matters covered by said statement not specified as grounds of objection. Any legal proceedings impeaching the good faith of such statement must be duly commenced within 60 days after the mailing of such notices by the committee.

Digitized by Google

After the accomplishment of the purposes of this agreement or other termination hereof, the committee shall file with the depositary a statement of the committee's accounts and transactions and shall notify the depositors that such statement has been so filed, and thereupon the committee and each and every member thereof shall be released and discharged from all liability and accountability of every kind and description arising out of this agreement or any action taken by the committee, except only such liabilities as are expressly admitted in said statement, unless any one or more depositors shall, within 30 days after the mailing of said notice, file with the depositary written objections to said statement, specifying the grounds of his or their objections and unless also legal proceedings on the basis of such objections shall be commenced by the objecting depositor or depositors within 60 days after the date of such mailing of notice by the committee. Any legal proceedings impeaching the good faith of such statement must be duly commenced within 60 days after the mailing of such notices by the committee. The committee shall in any event be released and discharged from all liability and accountability of every kind and description arising out of this agreement or any action taken by the committee, except as admitted by the committee, and except as to depositors filing objections as aforesaid and except as to the particulars specified by objecting depositors in the notices filed by them with the depositary. Any holder of a certificate of deposit issued hereunder, by the surrender of his certificate of deposit and the receipt by him of any securities or other properties, if any, distributed to him by the committee upon the termination of this agreement or allotted to him upon his withdrawal herefrom, shall by such surrender and receipt release and discharge the committee and the depositary from all liability and accountability of every kind, character, and description whatsoever.

Process in legal proceedings commenced by any depositor in compliance with the provisions of this section 6 may be served upon any member or members of the committee at the office of the depositary at the time acting as such under this agreement; and the several members of the committee, for themselves and their respective successors in office, hereby constitute and appoint said depositary their agent and attorney in fact to receive service of process in any such proceedings on their behalf. The depositary shall have no duty with respect to process so served, except to forward the same or a true copy thereof by registered mail addressed to the several members of the committee at their respective post-office addresses last known to the depositary.

7. The committee may elect a chairman from its number and may appoint a secretary who may, but need not, be one of the committee and who, if appointed, shall keep a record of the committee's acts and proceedings. Any member of the committee may resign by giving notice of his resignation in writing to the depositary or to the secretary, and the remaining members of the committee may settle any account or transaction with such retiring member and give a full release and discharge to him upon such resignation. Any such resignation shall be effective upon its receipt by the depositary or the secretary unless otherwise expressed. Any member or members of the committee may be removed at any time by a writing filed with the depositary or the secretary and signed by the registered owners, at the time of such filing, of a majority in interest of the depositors. Any vacancy or vacancies at any time existing in the membership of the committee may be filled by appointment in writing filed with the depositary or the secretary and signed by the registered owners, at the time of such filing, of a majority in interest of the depositors, or, until such appointment shall be so made by the depositors, by vote of a majority of the then members of the committee; any such interim appointment to a vacancy by the committee shall be automatically rescinded and vacated by a subsequent appointment made by the depositors in the manner aforesaid. The members of the committee for the time being notwithstanding any vacancy shall have and may exercise all of the powers and be entitled to all of the rights and privileges of the committee originally formed and shall constitute the committee hereunder.

Any member of the committee may authorize in writing or by cable or telegram any person who may but need not be another member of the committee to act or vote generally or in particular instances in his place and as his proxy or attorney. All powers of the committee may be exercised by a majority of its number for the time being, either at a meeting or in writing or by cable or telegram without a meeting. Any action taken by an agent of the committee, duly authorized thereto, shall be the action of the committee, and the certificate of the chairman or secretary, or any two members of the committee as to any action taken by the committee shall be conclusive as to all acts and things so certified to have been done.

Digitized by Google

The committee may from time to time make, alter, or rescind rules and regulations for the transaction of its business as to the committee may seem advisable.

8. The committee may appoint such counsel, attorneys, agents, and employees as it shall see fit, upon such terms as the committee shall fix, and may discharge the same, and their reasonable fees, charges, and expenses shall be part of the committee's expenses. The committee's expenses shall also include all disbursements, expenses, liabilities, and obligations made or incurred by the committee.

The members of the committee shall be entitled to receive compensation for their services hereunder, to be computed as follows:

The compensation for all members of the committee shall for any period of 12 consecutive calendar months be an amount equal to 4 percent of the gross amount received and disbursed by the committee during said period; provided, however that the aggregate amount of the compensation of all members of the committee for the period from the date of this agreement to April 30, 1934, or for any one period of 12 consecutive calendar months thereafter shall not exceed the sum of $10,000. Such compensation shall be divided between the several members of the committee as shall be agreed upon by the members of the committee entitled to be compensated out of the same; provided, however, that the committee shall not receive any compensation unless the purchase agreement be executed and delivered.

The committee's expenses (compensation of the committee not being included within the term "expenses") voluntarily by the committee incurred shall not, unless the purchase agreement shall be executed and delivered, exceed the aggregate sum of $15,000 unless the incurring of expenses in excess of said sum shall previously have been authorized by the registered owners at the time of such authorization of a majority in interest of the certificates of deposit. The committee shall be paid its compensation as above provided from and out of, and only from and out of, sums received by the committee under the purchase agreement. The committee shall be reimbursed for all its disbursements, expenses, or liabilities made or incurred, within the limitation if any fixed in this agreement, from and out of any and all sums received by the committee from whatsoever source. As security for its compensation and reimbursement as aforesaid, the committee shall have a lien upon the deposited securities, upon any and all properties and assets at any time held hereunder and the proceeds thereof, and upon the purchase agreement and all proceeds and revenues thereof and shall be under no duty or obligation to make any payment or distribution to the depositors unless and until its compensation then owing shall have been paid and provision satisfactory to the committee shall have been made for the making of such reimbursement.

9. The committee is fully authorized and empowered to construe this agreement and the purchase agreement, and its construction hereof and thereof and its action hereunder and thereunder in good faith shall be final and conclusive. It is the intent of the parties hereto that this agreement shall be liberally construed so as to afford the committee freedom of action in effecting the purposes of this agreement. The committee may supply any defect or omission or reconcile any inconsistency herein or in the purchase agreement. The committee may amend this agreement or the purchase agreement in such manner and to such extent as it shall be authorized to do by the registered owners, at the time of such authorization, of a majority in interest of the then outstanding certificates of deposit and any such amendment made pursuant to such authorization shall be binding upon all holders of certificates of deposit.

The terms "agreement" or "purchase agreement" whenever used herein shall include, respectively, any and all changes, modifications and additions made in or to this agreement or the purchase agreement as anywhere authorized in this agreement.

10. Nothing contained in this agreement or in the purchase agreement shall be construed as a representation or warranty or as a condition or inducement to the participation herein by any depositor. No member of the committee shall be personally liable for any act or omission of another member or for any act or omission of any agent, attorney, or employee selected in good faith, or for any error of judgment or mistake of law, or for any action taken in good faith in the belief that any document or paper or any signature is genuine, or what it purports to be, or for anything under or in connection with this agreement or the purchase agreement other than for his own wilfull malfeasance; and any loss or liability of the committee other than such as may be caused by bad faith shall be conclusively deemed to be part of the expenses of the committee. Any action or failure or refusal to act of the committee based upon the advice of its counsel shall be conclusively deemed to have been in good faith.

Digitized by Google

Neither the committee nor the depositary assumes any obligation to distribute any securities or properties or money unless and until and only to the extent that the same shall have been delivered to the committee or such depositary, as the case may be, for such purpose, and then only in accordance with the provisions of this agreement. Neither the committee nor the depositary assumes any responsibility as to the genuineness, validity, or legality of any of the deposited capital stock or voting trust certificates or the endorsements thereon or assignments or transfers thereof or as to the validity or sufficiency of any corporate proceedings or acts of the corporation or the new corporation, or as to the validity or sufficiency of any securities or certificates of the new corporation or as to the validity or legality of the purchase agreement or any provision thereof, or otherwise.

11. The depositary shall be and be deemed to be the agent of the committee solely and subject only to its directions and instructions. The depositary shall be entitled to such compensation for its services as shall be fixed by the committee and to reimbursement for any and all expenses and disbursements incurred by it hereunder, all of which compensation, expenses, and disbursements shall be deemed expenses of the Committee. All directions and instructions given by the committee to the depositary or powers conferred upon it by the committee or acts done by the depositary hereunder shall be binding upon the depositors. The depositary may accept without proof all statements filed with it by the committee and may act thereon, and shall be fully protected in any and all action or failure or refusal to act in pursuance of the instructions of the committee. The depositary may advise with its own counsel or with counsel for the committee and shall be fully protected in any action taken or omitted in accordance with the advice of such counsel.

The depositary may at any time resign or be removed by the committee. Any such removal shall become effective by the delivery to such depositary of a written certificate of removal signed by a majority of the committee. The resignation of the depositary shall become effective by notice of the desire of such depositary to resign given to the secretary of the committee or to any two members thereof or to the depositors, at least 15 days before said resignation is to become effective, unless the committee shall waive such notice and accept a shorter notice. Any successor by merger, consolidation, or otherwise to the depositary hereunder shall be the depositary hereunder without any further act or appointment. A successor depositary, in the event of the resignation or removal of the depositary, may be appointed by the committee; provided, however, that any successor depositary so appointed shall be a trust company or bank having trust powers, having its principal office and doing business within the State of New Jersey. Any successor depositary shall be vested with all the powers, rights, duties, and obligations of the depositary originally appointed.

Any depositary which shall resign or be removed shall, as directed by the committee, deliver to the new depositary all property held by it hereunder and such new depositary shall receive the property so delivered and shall hold the same under the terms hereof and shall have the same rights, powers, and duties as if such new depositary were the depositary named herein and had issued any and all certificates of deposit theretofore issued hereunder.

12. Any member of the committee, its attorneys, agents, and employees, and any firm or corporation of which he or they may be a member or officer, or members or officers, and the depositary, its officers or agents, may become a depositor hereunder and a party hereto and shall be entitled to all the rights and benefits accruing hereunder the same as any other depositor.

13. The committee may, whenever it deems it desirable, give or cause the depositary to give notice to the depositors with respect to any matter under or affecting this agreement or the purchase agreement. Any notice to depositors shall be sufficiently given if mailed postage prepaid, addressed to holders of record of certificates of deposit at their respective addresses, as the same appear on the records of the committee.

14. Nothing in this agreement shall be deemed, construed, or held to confer any right or benefit upon any person, firm, or corporation not a party hereto.

15. The committee undertakes to use its best endeavors to carry out the purposes of this agreement, but it is expressly agreed that the committee shall be held to no responsibility or obligation in performing the same or for failing so to do or for the result of any steps taken or acts done hereunder or under the purchase agreement.

Digitized by Google

This agreement may be executed in any number of counterparts with the same effect as if all parties executing said counterparts had executed the same instrument, and all counterparts hereof, though separately signed, shall be taken together as constituting one instrument. This agreement shall inure to the benefit of and be binding upon the parties hereto, the personal representatives, successors, and assigns of the respective depositors and upon the committee as at any time constituted.

In witness whereof, the members of the committee have hereunto affixed their signatures as of the day and year first above written and the depositors have become parties hereto in the manner herein provided.

THEODORE S. KENYON,
CHARLES H. MARSHALL,
WALTER MILLER,
Committee.

Depositor	Address	Shares of—	
		Capital stock	Voting trust certificates

SCHEDULE A

TO THEODORE S. KENYON, CHARLES H. MARSHALL, AND WALTER MILLER, AND THEIR SUCCESSORS, AS THE COMMITTEE CONSTITUTED BY THE DEPOSIT AGREEMENT HEREINAFTER MENTIONED:

The undersigned stockholder and/or holder of voting trust certificates for stock of the Gray Processes Corporation (hereinafter called the "corporation") having deposited or agreed to deposit all stock certificates and/or voting trust certificates for stock of the corporation now or hereafter owned by or registered in the name of the undersigned under and pursuant to the provisions of a certain agreement (hereinafter called the "deposit agreement") dated_____, 1933, between the committee above-named and such stockholders and/or holders of voting trust certificates for stock of the corporation as have or may become parties thereto in the manner therein provided, does hereby assent to and agree to be bound by all the terms and provisions of the deposit agreement.

And the undersigned hereby constitutes and appoints you and each of you the true and lawful attorneys or attorney, agents or agent, of the undersigned for and in the name, place, and stead of the undersigned:

A. Unless and until the stock of the corporation now or hereafter owned by or registered in the name of the undersigned shall be delivered to a purchaser or purchasers thereof as provided in the deposit agreement or in any agreement for the sale thereof made by the committee as authorized by the deposit agreement, to vote upon or consent with respect to said stock at any and all meetings of the stockholders of the corporation called or appointed to be held at any time or times prior to January 1, 1938, for any purpose or purposes whatsoever, and at any and all adjournments of such meeting or meetings, according to the number of votes the undersigned would be entitled to cast as fully as the undersigned might or could do if then personally present; and/or, subject to the terms and provisions of the deposit agreement, from time to time to substitute (with full power of revocation) one or more persons (who, during any period when said stock shallbe held in escrow for delivery to a purchaser or purchasers thereof, may be a nominee or nominees of any such purchaser or purchasers; provided, that such purchaser or purchasers be not then in default with respect to the purchase of said stock) with like full power.

B. To exercise all and from time to time any of the powers, authorities, and discretions conferred upon the committee by the deposit agreement.

C. To sign the deposit agreement in the name and on behalf of the undersigned.

D. To assign and transfer any and all stock of the corporation represented by stock certificates and/or voting trust certificates now or hereafter registered in the name of the undersigned and at any time subject to the deposit agreement, and for that purpose to make, execute, and deliver all such endorsements or other in-

Digitized by Google

struments of assignment and transfer as the committee under the deposit agreement shall determine to be necessary or appropriate in furtherance of the purposes of the deposit agreement.

E. To do and perform all and every such further acts and things on behalf of the undersigned as may be necessary or, in the opinion of the committee under the deposit agreement, desirable in order to carry out the provisions of the deposit agreement and of the purchase agreement contemplated thereby, and to consummate the transaction provided for in such purchase agreement, and to effect the general purposes of the deposit agreement and of such purchase agreement.

And the undersigned does hereby ratify and confirm all that you or any of you, or your substitute or substitutes or the substitute or substitutes of any of you (full power of substitution and revocation, subject to the terms and provisions of the deposit agreement, being given to each of you) shall do or cause to be done by virtue hereof, and hereby agrees that this instrument shall be binding upon the personal representatives and/or successors in interest of the undersigned.

In witness whereof, the undersigned has signed and sealed these presents.

Dated----------

In the presence of—

EXHIBIT I. PURCHASE AND CROSS LICENSE AGREEMENT

Agreement dated the _____ day of _____, 1933.

I. PARTIES

1. Charles H. Marshall, Walter Miller, and Theodore S. Kenyon as the Gray Processes Corporation Committee constituted under a certain deposit agreement dated as of April 27, 1933, and the respective successors of said persons in such capacity (hereinafter called the committee).

2. The Gray Processes Corporation, a corporation of the State of Delaware, having its principal office at 961 Frelinghuysen Avenue, Newark, N. J. (hereinafter called Gray).

3. The Texas Co., a Delaware corporation and The Texas Corporation, a Delaware corporation, each having a place of business at 135 East Forty-second Street, New York, N. Y., and their respective subsidiaries (hereinafter referred to collectively as Texas).

4. Standard Oil Co., a corporation of the State of Indiana, having a place of business at 910 South Michigan Avenue, Chicago, Ill., and its subsidiaries (hereinafter referred to collectively as Indiana).

5. Standard Oil Development Co., a corporation of the State of Delaware, having a place of business at Linden, N. J. (hereinafter referred to as Development).

6. The Pure Oil Co., a corporation of the State of Ohio, having a place of business at 35 East Wacker Drive, Chicago, Ill., and its subsidiaries (hereinafter referred to collectively as Pure).

II. RECITALS AND WARRANTIES

7. Gray has been active in the commercial development of a process for treating and purifying hydrocarbon distillate oils including cracked naphthas which comprises passing such oils while in substantially vapor phase through a bed of solid catalytic material such as fuller's earth, ordinarily known as the Gray process, and Gray and the committee warrant that Gray is the owner of the entire title and interest in and to certain patents, patent applications, and inventions, and of licensing rights under certain other patents, patent applications, and inventions, covering clay treating as herein defined, all as listed in exhibit A attached hereto and made a part hereof and that Gray has granted licenses to oil refiners under said patents, patent applications, and inventions in the United States and in countries foreign thereto, in accordance with the license agreements, and only the license agreements, listed in exhibit B attached hereto and made a part hereof and not otherwise.

8. Texas warrants that it owns transferable licensing rights under certain patents, patent applications, and inventions, as listed in exhibit C attached hereto and made a part hereof, all covering clay treating as herein defined.

Digitized by Google

9. Indiana warrants that it owns transferable licensing rights under certain patents, patent applications, and inventions, as listed in exhibit D attached hereto and made a part hereof, all covering clay treating as herein defined.

10. Development warrants that it owns transferable licensing rights under certain patents, patent applications, and inventions, as listed in exhibit E attached hereto and made a part hereof, all covering clay treating as herein defined.

11. Pure warrants that it owns transferable licensing rights under certain patents, patent applications, and inventions, as listed in exhibit F attached hereto and made a part hereof, all covering clay treating as herein defined.

12. Texas, Indiana, Development, and Pure desire to obtain licenses under all of the aforesaid patents, patent applications, and inventions.

13. The parties hereto believe that operations, under their present patent rights concerning clay treating by any of the individual parties hereto or by their licensees may constitute infringement of patent rights owned or controlled by some one of the other parties, and that it will be advantageous to the members of the petroleum refining industry, including the present licensees of Gray, to be able to acquire, without increase or duplication of royalties, a single license under all the aforesaid patents, patent applications, and inventions whereby clay treating operations may be carried on under any of said patent rights.

14. Gray and the committee represent that the entire issued and outstanding capital stock of Gray consists of one hundred thousand (100,000) shares without par value, all of which shares have been issued as fully paid and nonassessable, and the committee represents that there has been deposited with it under the deposit agreement all of said one hundred thousand (100,000) shares of capital stock of Gray, or voting trust certificates therefor, with authority to the committee to vote the same in favor of all necessary action on the part of Gray to effectuate the covenants on its part to be performed under this agreement, and also with power to terminate the voting trust, and to sell and dispose of all of said one hundred thousand (100,000) shares of stock, free and clear of any claims, liens, or encumbrances thereon, upon the terms and conditions hereinafter stated.

In consideration of the recitals and warranties hereinbefore set forth, and the mutual covenants hereinafter set forth, each party hereto covenants and agrees with each other party hereto as follows:

III. DEFINITIONS

15. (*a*) As used in this agreement, the term "clay treating" shall mean polymerizing the undesirable constituents of naphthas and/or kerosenes in vapor and/or liquid phase at elevated temperatures with solid contact catalysts, such as fuller's earth, decolorizing clays, and the like.

(*b*) The term "patent rights" shall mean all such, but only such claims of patents of the United States and countries foreign thereto, and transferable rights thereunder, as cover processes for, or apparatus primarily designed for, the practice of clay treating and based upon inventions made prior to January 1, 1950. The patent rights of a granting party shall mean those patent rights as defined in the preceding sentence of which the party now has or shall have prior to January 1, 1950, the ownership or control in the sense of having the power to dispose of them or grant licenses for clay treating thereunder, insofar as it is not bound to account to others for so doing by contracts with others in force on the date of execution of this agreement.

16. The term "subsidiaries" shall mean all corporations of which the parent company owns directly or indirectly more than 50 percent of the stock having the right to vote for directors. For the purposes of this definition the stock owned by the parent company shall be deemed to include all stock having the right to vote for directors and owned directly or indirectly by any of its subsidiaries as defined above.

17. (*a*) The term "closing date" shall mean and refer to the date fixed by this agreement or otherwise agreed upon by all of the parties hereto for the purpose of making the several payments, assignments, grants, and deliveries hereinafter covenanted to be made on the closing date.

(*b*) The terms "present stockholders of Gray" and "the present owners" of the capital stock of Gray shall mean and refer to the persons having the entire beneficial ownership of all of the one hundred thousand (100,000) shares of capital stock of Gray immediately preceding the execution of this agreement by the committee.

Digitized by Google

IV. COVENANTS OF THE PARTIES

18. The committee, on behalf of the present owners of the 100,000 shares of issued and outstanding capital stock of Gray, hereby agrees to sell to Texas, Indiana, Development, and Pure, respectively, and Texas, Indiana, Development, and Pure each agrees to purchase, 25,000 shares of said capital stock upon the terms and conditions hereinafter provided. The committee agrees that in the event said sale shall be consummated, the voting trust under which certain of said shares are deposited shall be terminated and all of said 100,000 shares shall be represented by stock certificates in deliverable form.

19. (*a*) Texas, Indiana, Development, and Pure hereby severally and respectively agree to deliver to Gray on the closing date instruments in the form annexed hereto marked Exhibits G, H, I, and J, granting to Gray the irrevocable right to grant licenses for clay treating under their respective patent rights.

(*b*) Texas, Indiana, Development, and Pure, respectively, agree, subject, however, to the provisions of subparagraph (*h*) of paragraph 22 hereof, to pay to Gray the gross royalties derived from licenses which they may, after the date of this agreement, grant under their respective patent rights and the net recoveries from infringers thereof: *Provided, however*, That Texas, Indiana, Development, and Pure shall not be obligated to account to Gray in respect of any license granted by any of them under its patent rights, in exchange for a cross license for its own operations [or, in the case of Development, for the operations of any of the subsidiaries of Standard Oil Co. (New Jersey)], where such license is granted in settlement of a Patent Office interference or patent infringement suit involving clay treating and where such license is confined to the operations of the licensee.

20. (*a*) The committee and Gray covenant and agree that prior to the closing date no additional stock or securities convertible into stock shall be issued or agreed to be issued, or options for stock granted or agreed to be granted, by Gray, and no dividends or distributions of any kind shall be paid or distributed or agreed to be distributed by Gray, in any manner or form, except as hereinafter expressly provided with respect to the reserved assets. There shall be reserved for the benefit of the present stockholders of Gray the following-described assets of Gray, hereinafter referred to as "reserved assets", which shall be segregated and disposed of by sale, distribution, or otherwise prior to the closing date, in such manner as the committee shall determine:

(1) All cash on hand and in bank including, but without limitation thereto, call loans, together with interest accrued thereon to the closing date;

(2) All stocks, bonds, and other securities held in the treasury of Gray, except securities of any character representing the ownership of rights in or to inventions and letters patent or rights therein or thereunder;

(3) All payments due or to become due for royalties actually accrued in respect of operations of licensees of Gray up to the closing date, and all bills, notes, and accounts receivable and evidences of indebtedness in any form payable to Gray in respect of transactions, other than licensing, actually completed up to the closing date; and

(4) The specific assets of Gray listed in exhibit K annexed hereto and made a part hereof, whether or not such assets fall within any of the general classifications defined in the foregoing clauses (1), (2), and (3) of subparagraph (*a*) of this paragraph 20;

and the committee will, or prior to the closing date, cause to be transferred to the committee, or as it may direct, such reserved assets, after payment therefrom of all ascertained liabilities of Gray, in the manner and with the exceptions provided in subparagraph (*b*) of paragraph 21 hereof.

(*b*) Texas, Indiana, Development, and Pure assume no liability or obligation for the collection of reserved assets other than to cause Gray to account for the same to the committee from time to time upon the collection or other realization thereof. The committee shall have, and is hereby given, full power in the name of Gray or otherwise, but at the expense of the committee, to take such action as may be necessary or appropriate for the collection of such reserved assets and/or for the settlement or compromise of any claims therefor and to commence and to control any suits or other proceedings which may be necessary or appropriate for the purpose; provided, however, that no action shall be taken or settlement made by the committee of any such claim, suit, or proceeding which may affect the continuing rights after the closing date of Gray or of Texas, Indiana, Development, and Pure, under contract or otherwise, without the written consent of Texas, Indiana, Development, and Pure.

Digitized by Google

21. (*a*) Gray and the committee represent that the balance sheet of Gray attached hereto marked "Exhibit P" and made a part hereof is a true, full, and correct balance sheet of Gray as of the close of business on January 31, 1933, and that said balance sheet discloses all liabilities, whether actual or contingent, of Gray on said date known to Gray or to the committee, except such liabilities as are excluded under items (4) and (5) of subparagraph (*b*) of this paragraph 21. Gray and the committee have furnished to Texas, Indiana, Development, and Pure, prior to the execution of this agreement, copies of, or have permitted them to examine, all license agreements and other contracts, leases, or obligations of every kind and character to which Gray was a party on January 31, 1933, and have permitted Texas, Indiana, Development, and Pure to make an aduit of the books and record of Gray relating to the conduct of its business. Said audit is embodied in the report entitled "Audit and Survey of Gray Processes Corporation—January 31, 1933" and the document referred to therein entitled "Brief of License Agreements and Operating Data of the Licensees of Gray Processes Corporation", originals whereof have been identified by the signatures of all of the parties to this agreement, and Gray and the committee represent that said report refers to all license agreements, contracts, leases, and obligations of every kind and character to which Gray was a party on January 31, 1933. Texas, Indiana, Development, and Pure agree that they have knowledge of all facts disclosed by said report of audit and of all of the provisions of all license agreements and other contracts, leases, or obligations of Gray referred to therein.

(*b*) The committee, on behalf of the present stockholders of Gray, covenants and agrees that all liabilities of Gray disclosed on said balance sheet or by said audit and investigation shall be paid and discharged, or a reserve fund established therefor, on or before the closing date either from the reserved assets or from the moneys to be received by the committee on the closing date, pursuant to paragraph 26 hereof; and further covenants and agrees that Gray, Texas, Indiana, Development, and Pure may set off any amounts payable to the committee after the closing date by Gray, Texas, Indiana, Development, and Pure pursuant to any of the provisions of this agreement or under the licenses granted by Gray to Texas, Indiana, Development, and Pure, respectively, pursuant to this agreement, against any and all liabilities of Gray existing on the closing date whether or not then disclosed or ascertained, when and if said liabilities are established to the satisfaction of the committee or by judgment. If any such claim of set-off is approved by the committee in writing, or, if not so approved, is sustained by arbitration or by final decision of a court of competent jurisdition, the obligation against which such set-off is asserted shall be deemed to have been satisfied in the amount so allowed on such set-off, with the same effect as if paid in cash by the party asserting such set-off. If the liabilities of Gray on the closing date shall amount to more than the sum of One Million Dollars ($1,000,000.00) Texas, Indiana, Development, and Pure shall have the right to terminate this agreement. The term "liabilities" as used in this subparagraphn (*b*) of this paragraph 21 shall, however, be construed to exclude (1) capital-stock liabilities; (2) any liability heretofore disclosed to Texas, Indiana, Development, and Pure, in respect of uncompleted licensing transactions entered into by Gray in the ordinary course of business; (3) any liability in respect of other contracts entered into in the ordinary course of business and heretofore disclosed to Texas, Indiana, Development, and Pure, except employment contracts and the liabilities described in exhibit Q annexed hereto; (4) any liability accuring in respect of or arising out of acts or defaults of Gray occurring subsequent to the closing date; and (5) any liability arising out of infringement or contributory infringement of patents. within the definition of patent rights, owned by others than the parties hereto,

(c) The committee will deliver to Texas, Indiana, Development, and Pure, on the closing date, the resignations in writing of all officers and directors of Gray, effective upon acceptance, and provide for the termination, as of the closing date, of all existing contracts of employment running beyond the closing date, and the committee, on behalf of the present stockholders of Gray, agrees to exonerate, indemnify, and save harmless Gray and Texas, Indiana, Development, and Pure from any and all claims and demands of, or liability to, all such persons excepting only for the salaries and compensation due to such persons for services rendered pursuant to an employment entered into after the closing date.

(d) The Committee and Gray also covenant and agree that Gray shall not, prior to the closing date, enter into any contracts or license agreements, or incur any obligations other than in the ordinary course of business, except with the consent of Texas, Indiana, Development, and Pure.

Digitized by Google

22. The committee agrees that, on the closing date, it will deposit with Fidelity Union Trust Co., of Newark, N. J., or some other depositary approved by Texas, Indiana, Development, and Pure (hereinafter referred to as the "depositary"), stock certificates, duly endorsed in blank for transfer or accompanied by valid instruments for the transfer thereof in blank, representing all of the 100,000 shares of outstanding capital stock of Gray, free and clear of any claims, liens, or encumbrances thereon, such stock to be held by the depositary pursuant to the provisions of an escrow agreement, to be approved by the parties hereto on or before the closing date, providing in substance as follows:

(*a*) Such deposited stock certificates (herein referred to as the "deposited shares") shall be held by the depositary for the purpose of delivery to Texas, Indiana, Development, and Pure in the respective amounts of 25,000 shares each in case the sale is consummated as herein provided, or for return to the Committee in the event hereinafter in subparagraph (*g*) of this paragraph 22 specifically provided;

(*b*) So long as the deposited shares remain on deposit the same shall not be assigned or transferred nor subjected to any pledge, mortgage, or other lien by any of the parties hereto;

(*c*) So long as the deposited shares remain on deposit they shall be voted by Texas, Indiana, Development, and Pure in the amounts of 25,000 shares each unless and until said parties, or any of them, shall fail to make any payment required by this agreement, when due or within a grace period of 60 days thereafter, and in the event of any such default either by Texas, Indiana, Development, or Pure, or by Gray, and the continuance thereof beyond the grace period, the committee shall have the right to vote the shares of the party in default, or in case of default by Gray, all of the deposited shares, until in each case such default shall have been made good; and it is the intention of the parties hereto to provide in the bylaws of Gray for proportional representation of Texas, Indiana, Development, and Pure, respectively, on the board of directors of Gray, and Texas, Indiana, Development, and Pure each agrees that in case it shall be in default hereunder and such default shall continue throughout the grace period of 60 days the director or directors representing the defaulting party shall immediately resign as such, and Texas, Indiana, Development, and Pure agree to cause any such vacancy or vacancies to be filled immediately by the election of a director or directors nominated by the committee; *provided, however*, That such shares shall always be voted in such manner as not to conflict with any of the provisions of this agreement;

(*d*) So long as the deposited shares remain on deposit they shall be voted for the election, as one member of the board of directors of Gray, of a person designated by the committee;

(*e*) So long as the deposited shares remain on deposit Gray shall not sell, assign, or otherwise dispose of or encumber any of its patent rights, or other patent property, except by the granting of licenses thereunder as here contemplated, unless such sale or other disposition shall be assented to in writing by all the parties hereto;

(*f*) Upon the completion of the payments aggregating $500,000 to be made to the committee on the closing date pursuant to paragraph 26 hereof, and the completion of the payment to the committee of sums aggregating the additional sum of $500,000 pursuant to the provisions of subparagraph (*d*) of paragraph 27 hereof (including as payments all set-offs claimed and allowed against such payments pursuant to sub-pargaraph (*b*) of paragraph 21 hereof, in respect whereof there shall have been filed with the depositary proof satisfactory to it as to such allowance), the depositary shall deliver to Texas, Indiana, Development, and Pure, respectively, stock certificates representing 25,000 shares each of the capital stock of Gray, and upon such delivery of stock certificates to Texas, Indiana, Development, and Pure respectively indefeasible title to the shares of stock represented thereby shall forthwith vest in Texas, Indiana, Development, and Pure, respectively, or in their nominee or nominees;

(*g*) In the event that the aggregate sum of all payments to the committee made by Gray under subparagraph (*d*) of paragraph 27 hereof (including as payments all set-offs claimed and allowed against such payments pursuant to subparagraph (*b*) of paragraph 21 hereof, in respect whereof there shall have been filed with the depositary proof satisfactory to it as to such allowance), within a period of 3 years from the closing date, shall amount to less than $500,000, the depositary shall give written notice to the Committee and to Gray, Texas, Indiana, Development, and Pure as to the amount of such deficiency, and Texas, Indiana, Development, and Pure ahall have the right, at any time within

Digitized by Google

60 days after receipt of such written notice, to pay to the committee in New York funds (each contributing one-quarter of such amount) the amount of such deficiency, the sum then so paid to be credited against the $500,000 required to be paid by Gray to the committee under subparagraph (*d*) of paragraph 27 hereof, and if Texas, Indiana, Development, and Pure shall fail, within said 60-day period after receipt of such notice, to make such payment to the committee, then the depositary under the escrow agreement shall be and hereby is authorized, upon the sixty-first day after the delivery of such notice to it and upon the filing with it by the committee of proof satisfactory to the depositary that such payment has not been made to the committee within said period, to redeliver to the committee all of the deposited shares, and upon such delivery all further obligation of the respective parties hereto under this agreement, except that arising under subparagraph (*h*) of this paragraph 22 hereof, shall cease and determine (without prejudice, however, to the right of any party hereto to demand, collect, sue for, and receive from any other party or parties hereto any sum or sums of money theretofore due and payable to such party by such other party or parties); provided, however, that the committee may retain all payments theretofore made to it hereunder, and that Texas, Indiana, Development (and Standard Oil Co. (New Jersey) and subsidiaries), and Pure may retain the licenses and releases granted to them respectively hereunder, and that Gray may retain the grants of licensing rights to be made to it on the closing date by Texas, Indiana, Development, and Pure; and in the event that there should be any dispute as to the portion of said sum of $500,000 remaining unpaid at the termination of the period of 3 years from the closing date, under said subparagraph (*d*) of paragraph 27 hereof (including as payments all set-offs claimed and allowed against such payments pursuant to subpar. (*b*) of par. 21 hereof, in respect whereof there shall have been filed with the depositary proof satisfactory to it as to such allowance), said 60-day period shall be extended for a sufficient time to permit the determination of the amount so remaining unpaid, by an independent audit by accountants agreed upon by the parties hereto;

(*h*) In the event that the deposited stock is returned by the depositary to the committee in accordance with subparagraph (*g*) of this paragraph 22, then Texas, Indiana, Development, and Pure respectively agree to account for and pay over to Gray, after the date of such election, the gross royalties derived from licenses which they may, after the date of this agreement, grant under their respective patent rights, provided that for the purpose of this subparagraph patent rights shall not include patent rights based upon inventions conceived subsequent to January 1, 1938;

(*i*) So long as the deposited shares remain on deposit Gray shall confine its activities to the general type and character of licensing business now conducted by it, and during said period Gray shall not assign or transfer, or subject to any pledge, mortgage or other lien, any of its capital assets, or engage in any unusual business transaction, except with the consent in writing of the committee and of Texas, Indiana, Development, and Pure.

23. Texas, Indiana, Development, and Pure, respectively, irrevocably release and discharge Gray, and Gray irrevocably releases and discharges Texas, Indiana, Development, Standard Oil Co. (New Jersey) and its subsidiaries, and Pure respectively, of and from any and all claims for infringement of the patent rights owned by them respectively on account of acts of infringement occurring prior to the closing date.

24. The parties hereto agree that Gray shall diligently prosecute the licensing of its patent rights to the refining industry in the United States and foreign countries and Texas, Indiana, Development, and Pure, respectively, agree to assist Gray in developing and improving clay treating, and extending the licensed use thereof in the United States and in foreign countries.

25. Gray shall keep proper books of account and shall enter therein full and complete particulars of all receipts and disbursements of every kind. On or before the last day of January, April, July, and October in each year, after the closing date, Gray shall deliver to the committee, and to Texas, Indiana, Development, and Pure, respectively, a written statement showing the total amount of all receipts for the preceding quarterly periods ending on the last days of December, March, June, and September, respectively, last preceding, and the total amounts received on account of each of the following categories, naming the persons, firms, or corporations making the payments included therein and the amounts received from each:

Digitized by Google

(*a*) Royalties and/or license fees received on account of present installed treating capacity of present licensees of Gray, as listed in exhibit B;

(*b*) Royalties and/or license fees received from present licensees of Gray on account of capcaity in excess of their present installed capacity as shown by exhibit B;

(*c*) Royalties and/or license fees received from others than present licensees of Gray;

(*d*) Amounts paid by Texas, Indiana, Development, and Pure pursuant to paragraph 19 hereof;

(*e*) Amounts recovered from infringers of patent rights, or any of them, and all other amounts actually received by Gray arising out of its business from and after the closing date.

The amounts reported shall be in each case the gross amounts received, without any deduction whatsoever. Such quarterly statements shall be verified by the affidavit of the president, vice president, secretary, or treasurer of Gray. Each of the parties hereto or their respective attorneys or accountants thereunto duly authorized in writing shall have the right at all reasonable business hours to inspect and take extracts from the books of account of Gray, its license contracts and other contracts, the data and records relating to its income, the data relating to the operations of its licensees, and the payments and/or other benefits received by it.

26. Texas, Indiana, Development, and Pure respectively agree to pay to the committee on the closing date the sum of $125,000 each, in New York funds.

27. Texas, Indiana, Development and Pure severally agree that Gray shall, and Gray hereby agrees that it will, pay to the committee, at the time of rendering the quarterly reports provided for in paragraph 25 hereof, amounts equal to the following percentages of the amounts actually collected by Gray in each calendar quarterly period, as reported in the quarterly statements hereinbefore provided for, to wit:

(*a*) Fifty percent (50%) of the amounts reported under subparagraph (*a*) of paragraph 25;

(*b*) Twenty percent (20%) of the amounts reported under subparagraphs (*b*), (*c*), and (*d*) respectively of paragraph 25;

(*c*) Twenty percent (20%) of the amounts reported under subparagraph (*e*) of paragraph 25, after deducting therefrom all costs of collection;

(*d*) In addition to the payments provided for in subparagraphs (*a*), (*b*), and (*c*) of this paragraph 27, amounts representing the total estimated net income of Gray for each quarterly period, remaining after making said payments pursuant to subparagraphs (*a*), (*b*), and (*c*) and after paying or making due allowance for the current operating expenses (including taxes but excluding depreciation and obsolescence) of Gray for said quarterly period, subject to an annual adjustment when the books of Gray are closed and its net income determined for tax purposes; provided that on such annual adjustment, for the purpose of computing the net income of Gray for the calendar year, there shall not be deducted as operating expenses (which for this purpose shall be deemed to exclude taxes) an amount in excess of 30 percent of the gross income of Gray during such calendar year from all sources; and further provided that the amounts payable under this subparagraph (*d*) shall be payable only until Gray shall have paid the committee pursuant to the provisions of this subparagraph (*d*) the aggregate sum of $500,000;

(*e*) Texas, Indiana, Development, and Pure further agree that if the royalty rates payable by Gray's licensees (other than Texas, Indiana, Development, and Pure) under the terms of their respective license agreements (except royalty rates prescribed by license agreements in effect on the closing date) shall in any case be less than the scale set forth in paragraph 28 hereof, Gray shall be obligated, and Gray hereby agrees, to pay to the committee, in addition to the above specified percentages of royalties and license fees actually collected from its licensees in any quarterly period prior to July 1, 1940, additional amounts equal to the difference between the amounts collected and the percentages above specified of a theoretical royalty computed upon the scale set forth in paragraph 28 hereof, and in addition to the above specified percentages of royalties and license fees actually collected from its licensees in any quarterly period from July 1, 1940, to July 1, 1947, additional amounts equal to the difference between the amounts collected and the percentages above specified of a theoretical royalty computed upon two-thirds of the scale set forth in paragraph 28 hereof; provided, however, that Gray shall not be obligated to make any payments under this subparagraph (*e*) on account of royalties or license fees in respect of which the particular licensee is in default;

Digitized by Google

(*f*) The payments specified in subparagraphs (*a*), (*b*), and (*c*) of this paragraph 27 shall continue so long as Gray is in receipt of any amount specified in said subparagraphs (*a*), (*b*), and (*c*), respectively, of this paragraph 27.

28. The scale to be used for the purpose of computing the quarterly payments, if any, to be made by Gray to the committee pursuant to the provisions of subparagraph (*e*) of paragraph 27 hereof is as follows:

(*a*) Paid-up royalty rates based on daily average throughput separately computed for each licensee upon the basis of the total number of barrels (of 42 U. S. gallons) of material treated under license by the licensee during a period of not exceeding one calendar quarter divided by the number of days in such period as follows:

For the first 5,000 barrels daily average throughput, at the rate of $43 per barrel;

For the next 1,000 barrels daily average throughput, i. e., 5,001–6,000 barrels daily average throughput total, at the rate of $35 per barrel;

For the next 3,000 barrels daily average throughput, i. e., 6,001–9,000 barrels daily average throughput total, at the rate of $28.33 per barrel;

For the next 3,000 barrels daily average throughput, i. e., 9,001–12,000 barrels daily average throughput total, at the rate of $21.66 per barrel;

For the next 3,000 barrels daily average throughput, i. e., 12,001–15,000 barrels daily average throughput total, at the rate of $15 per barrel;

For all over 15,000 barrels daily average throughput, at the rate of $10 per barrel.

(*b*) Throughput royalty rates, applicable in all cases where paid-up royalty rates in subparagraph (*a*) of this paragraph 28 are not applicable, four cents (4c) per barrel (of 42 U. S. gallons) of material treated under license by the licensee; except that for the purposes of such computation, (1) for operations in Canada the rate shall be three cents (3c) per barrel (of 42 U. S. gallons) of material treated under license by the licensee; and (2) for licensees of Gray who have paid royalties totaling $56,000 for a paid-up license, the rate shall be three cents (3c) per barrel (of 42 U. S. gallons) of material treated under license by the licensee;

provided that Gray shall have the right to exempt from royalty payment by licensees, the content, if any, in the material treated, of naphthas not made by cracking or subjected to cracking temperatures.

29. It is agreed that Gray shall not grant any licenses containing a right or privilege to grant sublicenses except with the written consent of the committee and of Texas, Indiana, Development, and Pure, respectively, provided, however, that this is not intended to prohibit the inclusion in any license of a right to the licensee to grant sublicenses to any of its subsidiaries as hereinbefore defined upon the assumption by such licensee of the obligation to pay, or cause to be paid, to Gray, all royalties or license fees accruing on account of the operations of such subsidiaries.

30. The parties hereto agree that upon the closing date Gray shall grant to Texas, Indiana, Development, and Pure, respectively, and Texas, Indiana, Development, and Pure, respectively shall accept, nontransferable licenses in the forms respectively annexed hereto marked "exhibits L, M, N, and O."

31. Texas, Indiana, Development, and Pure each agrees from time to time to lend to Gray on usual commercial terms one quarter of such sums as may reasonably be required by Gray for working capital so as to permit Gray to make the payments provided for in paragraph 27 hereof. Interest accruing on the amounts so loaned shall constitute a deduction in determining the net income of Gray for the purposes of subparagraph (*d*) of paragraph 27 hereof.

32. Texas, Indiana, and Pure, respectively, agree to use their best efforts to secure compliance with the terms of this agreement by all of their respective present and future subsidiaries. Subsidiaries that do so comply shall be bound by all the provisions of this agreement and shall be entitled to receive the licenses granted hereunder, and releases for all operations for a period of 90 days prior to the date of compliance (in addition to the releases received pursuant to par. 23 of this agreement). If, notwithstanding such efforts, any such subsidiary shall refuse or fail to comply with the terms of this agreement, said noncomplying subsidiary shall be deemed to have renounced the benefits of this agreement (except the release received pursuant to par. 23 of this agreement) and the parent company of such noncomplying subsidiary shall be deemed to have guaranteed the other parties to this agreement against and to have agreed to hold the other parties to this agreement harmless from any loss or liability occurring by reason of such noncompliance by any such noncomplying subsidiary, provided,

Digitized by Google

however, that any party shall be entitled to offset against any such loss or liability any recovery by the other parties hereto against its non-complying subsidiary for infringement of their respective patent rights; and provided further that if any future subsidiary of Texas, Indiana, or Pure shall have, at the time it becomes a subsidiary, prior obligations which prevent it from complying with the terms of this agreement, it shall be deemed to be a stranger to this agreement, and the parent company of such future subsidiary shall be ipso factor released from its obligation to hold the other parties hereto harmless from resultant loss and liability.

33. Development agrees to use its best efforts to secure compliance with the terms of this agreement by all of the present and future subsidiaries of Development and of Standard Oil Co. (New Jersey). Those that do so comply shall be bound by all the provisions of this agreement and shall be entitled to receive the licenses granted hereunder, and releases for all operations for a period of 90 days prior to the date of compliance (in addition to the release received pursuant to par. 23 of this agreement). If notwithstanding such efforts any such subsidiary shall refuse or fail to comply with the terms of this agreement, said noncomplying subsidiary shall be deemed to have renounced the benefits of this agreement (except the release received pursuant to par. 23 of this agreement) and Development guarantees the other parties to this agreement against and agrees to hold the other parties to this agreement harmless from any loss or liability occurring by reason of such noncompliance by any noncomplying subsidiary of Development or of Standard Oil Co. (New Jersey), provided, however, that Development shall be entitled to offset against any such liability any recovery by the other parties to this agreement against such noncomplying subsidiary for infringement of their respective patent rights; and provided further, that if any future subsidiary of Development or of Standard Oil Co. (New Jersey) shall have at the time it becomes a subsidiary prior obligations which prevent it from complying with the terms of this agreement, it shall be deemed to be a stranger to this agreement, and Development shall be ipso facto released from its obligation to hold the other parties to this agreement harmless from resultant loss or liability.

34. The parties hereto agree that if Gray or Texas, Indiana, Development, or Pure shall fail to make any payment to the committee required by this agreement, Texas, Indiana, Development, or Pure, or any one or more of them, shall have the right to make such payment to the committee and thereupon become subrogated to the claim of the committee against the defaulting party for the amount of the defaulted payment.

35. It is expressly understood and agreed that all acts, payments, and deliveries in this agreement provided to be consummated on the closing date shall be consummated simultaneously and no party shall be under any obligation to perform any of such acts or make any of such payments or deliveries except upon the simultaneous performance by all of the other parties hereto of the acts, payments, and deliveries by them then to be performed and made. The closing date shall be June 30, 1933, or such other date as may be agreed upon in writing by all the parties hereto. The actual closing shall take place at 12 o'clock noon on the closing date at the office of the depositary, in the city of Newark, N. J. Any party hereto failing to perform, on the closing date, the acts on its part to be performed shall be deemed to have breached this agreement and to be liable to all of the other parties hereto respectively for the actual damages caused to such other parties by said breach. Each party hereby expressly waives any damages for loss of anticipated profits.

36. This agreement shall benefit and be binding upon the respective parties hereto and their respective successors and assigns; provided, however, that no party hereto may, by any such assignment, be relieved of its obligations hereunder except with the express consent in writing of all of the other parties hereto. Texas, Indiana, Development, and Pure, and Gray agree that the committee may assign its interest in this agreement, and in the licenses granted by Gray to Texas, Indiana, Development, and Pure pursuant hereto, to the new corporation, association, or trust provided for in the deposit agreement above mentioned, but only upon the assumption by such new corporation, association, or trust of all obligations or liabilities and undertakings of the committee hereunder to the extent that the same remain unperformed and thereupon the committee shall be released and discharged of and from all obligations, liabilities, and undertakings so assumed. Any such assignment by the committee shall vest in such new corporation, association, or trust all of the privileges, powers, and rights conferred on the committee under this agreement as fully as though it and not the committee were the original party hereto.

Digitized by Google

37. The making, execution, and delivery of this agreement by the parties hereto have been induced by no representations, statements, warranties, or agreements other than those herein expressed. This agreement embodies the entire understanding of the parties and there are no further or other agreements or understandings, written or oral, in effect between the parties, relating to the subject matter hereof. This agreement may be amended or modified but only by an instrument of equal formality signed by the duly authorized officers of the respective parties and by the committee.

38. The addresses of the parties hereto and of the depositary for all purposes specified in this agreement shall be as follows: The Gray Processes Corporation Committee, care of Fidelity Union Trust Co., Newark, N. J.; The Gray Processes Corporation, 961 Frelinghuysen Avenue, Newark, N. J.; The Texas Co. and The Texas Corporation, 135 East Forty-second Street, New York, N. Y.; Standard Oil Co. (Indiana), 910 South Michigan Avenue, Chicago, Ill.; Standard Oil Development Co., Linden, N. J.; The Pure Oil Co., 35 East Wacker Drive, Chicago, Ill.; Fidelity Union Trust Co., depositary, 755 Broad Street, Newark, N. J.

All payments provided for in this agreement shall be made, and all notices provided for herein shall be directed to, the respective parties, at the above addresses, provided, however, that any party shall have the right to change such address by notice in writing directed to each of the other parties. All deliveries of capital stock of Gray provided for in this agreement shall be made at the above office of the depositary.

39. The committee, as such, has become a party to this agreement, as agent and representative of the present stockholders of Gray by virtue of the power and authority conferred upon the committee by the deposit agreement; and no provision hereof shall have the effect or be construed to impose any individual obligation or liability whatsoever upon the several members of the committee.

40. This agreement shall be executed in several counterparts, each of which shall be an original, and all of which shall together consittute one and the same instrument.

In witness whereof the members of the committee have hereunto set their hands and seals as committee as aforesaid, and the corporate parties hereto have caused these presents to be duly executed and their corporate seals to be hereunto affixed, duly attested by their respective officers thereto duly authorized the day and year first above written.

THE GRAY PROCESSES CORPORATION,
By ----------,
President.

Attest:

----------,
Secretary.

THE TEXAS CO.,
By ----------,
President

Attest:

----------,
Secretary.

THE TEXAS CORPORATION,
By ----------,
President.

Attest:

----------,
Secretary.

STANDARD OIL CO. (INDIANA),
By ----------,
President.

Attest:

----------,
Secretary.

STANDARD OIL DEVELOPMENT CO.,
By ----------,
President.

Attest:

----------,
Secretary.

Digitized by Google

THE PURE OIL CO.,
By _____,
President.

Attest:

_____,
Secretary.

THE GRAY PROCESSES CORPORATION COMMITTEE,
_____,
_____,
_____,
As the committee, and not individually.

STATE OF _____,
County of _____, *ss:*

On this _____ day of _____ 1933, before me personally came _____, to me known, who being by me duly sworn, did depose and say that he resides in _____, that he is _____ president of The Gray Processes Corporation, the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the board of directors of said corporation and that he signed his name thereto by like order.

_____,
Notary Public.

STATE OF _____,
County of _____, *ss:*

On this _____ day of _____ 1933, before me personally came _____, to me known, who being by me duly sworn, did depose and say that he resides in _____, that he is _____ president of The Texas Co., the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the board of directors of said corporation and that he signed his name thereto by like order.

_____,
Notary Public.

STATE OF _____,
County of _____, *ss:*

On this _____ day of _____ 1933, before me personally came _____, to me known, who being by me duly sworn, did depose and say that he resides in _____, that he is _____ president of The Texas Corporation, the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the board of directors of said corporation and that he signed his name thereto by like order.

_____
Notary Public.

STATE OF _____,
County of _____, *ss:*

On this _____ day of _____ 1933, before me personally came _____, to me known, who being by me duly sworn, did depose and say that he resides in _____, that he is _____ president of Standard Oil Co. (Indiana), the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the board of directors of said corporation and that he signed his name thereto by like order.

_____
Notary Public.

STATE OF _____,
County of _____, *ss:*

On this _____ day of _____ 1933, before me personally came _____, to me known, who being by me duly sworn, did depose and say that he resides in _____, that he is _____ president of Standard Oil Development Co., the corporation described in and

Digitized by Google

which executed the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the board of directors of said corporation and that he signed his name thereto by like order.

Notary Public.

STATE OF--------------------,
County of--------------------, *ss:*

On this------day of--------------------1933, before me personally came ------------------------------, to me known, who being by me duly sworn, did depose and say that he resides in--------------------, that he is------------ president of The Pure Oil Co., the corporation described in and which executed the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the board of directors of said corporation and that he signed his name thereto by like order.

Notary Public.

STATE OF--------------------,
County of--------------------, *ss:*

On this------day of------------------1933, before me personally came ------------------------------, to me known, who being by me duly sworn, did depose and say that he resides in--------------------, that he is a duly appointed member of The Gray Processes Corporation Committee, the committee described in and which executed the foregoing instrument; and that he signed his name to said instrument as a member of and by the order of said committee.

Notary Public.

STATE OF--------------------,
County of--------------------, *ss:*

On this------day of--------------------1933, before me personally came ------------------------------, to me known, who being by me duly sworn, did depose and say that he resides in--------------------, that he is a duly appointed member of The Gray Processes Corporation Committee, the committee described in and which executed the foregoing instrument; and that he signed his name to said instrument as a member of and by the order of said committee.

Notary Public.

STATE OF--------------------,
County of--------------------, *ss:*

On this------day of--------------------1933, before me personally came ------------------------------, to me known, who being by me duly sworn, did depose and say that he resides in--------------------, that he is a duly appointed member of The Gray Processes Corporation Committee, the committee described in and which executed the foregoing instrument; and that he signed his name to said instrument as a member of and by the order of said committee.

Notary Public.

Digitized by Google

EXHIBIT A

Patents and patent applications owned by Gray and patents and patent applications under which Gray has the right to grant licenses

I. UNITED STATES PATENTS OWNED BY GRAY

Patent no.	Granted	Inventor	Assignment dated	Assignment recorded
1340889	May 25, 1920	T. T. Gray	Oct. 8, 1924	L 122, p. 500; Oct. 10, 1924.
1624692	Apr. 12, 1927	Henry Thomas (Sun)	Feb. 8, 1928	N 133, p. 156; Feb. 11, 1928.
1682603	Aug. 28, 1929	T. G. Delbridge et al. (Atlantic)	Dec. 2, 1929	X 141, p. 476; Dec. 7, 1929.
1687992	Oct. 16, 1928	E. B. Phillips et al. (Sinclair)	Jan. 31, 1928	J 133, p. 597; Feb. 1, 1928.
1688012	do	P. R. Gray	Nov. 6, 1926	L 128, p. 149; Nov. 10, 1926.
1706614	Mar. 26, 1929	L. M. Johnston et al	May 27, 1929	P 139, p. 432; June 6, 1929.
1728284	Sept. 17, 1929	P. R. Gray (A. McD. G.)	Oct. 17, 1928	T 136, p. 177; Oct. 29, 1928.
1736234	Nov. 19, 1929	A. C. Vobach (Sinclair)	Feb. 5, 1931	K 148, p. 372; May 1, 1931.
1748507	Feb. 25, 1930	B. T. Brooks	June 2, 1927	W 130, p. 462; June 9, 1927.
		Recorded with corrections		A 147, p. 240; Jan. 16, 1931.
1753859	Apr. 8, 1930	T. T. Gray	Jan. 8, 1926	H 126, p. 6; Jan. 18, 1926.
		Recorded with corrections		A 147, p. 351; Jan. 16, 1931.
1759812	May 20, 1930	T. T. Gray		L 122, p. 500; Oct. 10, 1924.
1759813	do	do	July 27, 1927	K 131, p. 471; July 30, 1927.
		Recorded with corrections		A 147, p. 348; Jan. 16, 1931.
1759814	do	T. T. Gray	Aug. 5, 1926	U 127, p. 248; Aug. 9, 1926.
		Recorded with corrections		A 147, p. 354; Jan. 16, 1931.
1761270	June 3, 1930	Walter Miller	Nov. 1, 1926	K 128, p. 555; Nov. 8, 1926.
1768683	July 1, 1930	T. T. Gray	Nov. 10, 1926	L 128, p. 581; Nov. 12, 1926.
		Recorded with corrections		A 147, p. 357; Jan. 16, 1931.
1781388	Nov. 11, 1930	E. C. Herthel (Sinclair)	Feb. 5, 1931	K 148, p. 372; May 1, 1931.
1795067	Mar. 3, 1931	F. A. Apgar (Sinclair)	Apr. 20, 1931	K 148, p. 91; May 1, 1931.
1812439	June 30, 1931	E. W. Isom (Sinclair)	July 23, 1931	N 149, p. 445; Aug. 1, 1931.
1823895	Sept. 22, 1931	T. T. Gray	Aug. 19, 1926	Z 127, p. 360; Aug. 28, 1926.
1825861	Oct. 6, 1931	do	Apr. 17, 1929	Z 138, p. 588; Apr. 23, 1929.
1836170	Dec. 15, 1931	E. M. Johansen	Aug. 27, 1931	W 149, p. 550; Sept. 2, 1931.
1836171	do	do	do	Do.
1836183	do	P. S. Nisson et al	Jan. 8, 1927	F 129, p. 15; Jan. 11, 1927.
1839388	Jan. 5, 1932	T. T. Gray	Jan. 25, 1928	L 133, p. 465; Feb. 7, 1928.
1846803	Feb. 23, 1932	do	Mar. 1, 1926	G 126, p. 430; Mar. 3, 1926.
1853614	Apr. 12, 1932	Herthel et al. (Sinclair)	Dec. 31, 1931	Q 151, p. 453; Feb. 6, 1932.
1853671	do	E. A. Dickinson	Aug. 8, 1928	Y 135 p. 620; Aug. 15, 1928.
		Recorded with corrections		A 147, p. 304; Jan. 16, 1931.
1853972	do	T. T. Gray	Aug. 5, 1926	U 127, p. 250; Aug. 9, 1926.
1858110	May 10, 1932	H. Pease	June 25, 1927	E 131, p. 147; July 7, 1927.
		Recorded with corrections		F 152, p. 75; Mar. 25, 1932.
1862507	June 7, 1932	T. T. Gray	June 21, 1926	P 127, p. 193; June 26, 1926.
1865467	July 5, 1932	do	Feb. 28, 1929	I 138, p. 166; Mar. 6, 1929.
1865474	do	M. R. Mandelbaum	June 30, 1930	A 145, p. 647; July 29, 1930.
1868966	July 26, 1932	B. T. Brooks et al	Apr. 13, 1928	N 134, p. 591; Apr. 16, 1928.
1887128	Nov. 8, 1932	E. C. Herthel et al. (Sinclair)	Dec. 31, 1931	Q 151, p. 453; Feb. 6, 1932.
1878580	Sept. 20, 1932	T. T. Gray	Jan. 7, 1927	E 129, p. 465; Jan. 10, 1927.
1892764	Jan. 3, 1933	P. R. Gray (A. M. G.)	Oct. 17, 1928	T 136, p. 177; Oct. 29, 1928.

II. UNITED STATES PATENT APPLICATIONS OWNED BY GRAY

Ser. no.	Filed	Inventor	Assignment dated	Assignment recorded
43923	July 16, 1925	Delbridge et al. (Atlantic) (dropped as per Gray letter 5/14/31).	Dec. 2, 1929	X 141, p. 476; Dec. 7, 1929.
89915	Feb. 23, 1928	T. T. Gray	Feb. 17, 1926	K 126, p. 248; Feb. 23, 1926.
[1] 117223	June 21, 1926	J. B. Hill (Atlantic)	Nov. 4, 1929	O 141, p. 613; Nov. 11, 1929.
173432	Mar. 3, 1927	T. T. Gray	Feb. 14, 1927	U 129, p. 4; Mar. 7, 1927.
253812	Feb. 13, 1928	B. T. Brooks	Feb. 6, 1928	N 133, p. 227; Feb. 13, 1928.
291597	July 10, 1928	T. T. Gray	July 6, 1928	O 135, p. 69; July 10, 1928.
331816	Jan. 11, 1929	M. P. Youker (Phillips)	Feb. 24, 1930	M 146, p. 604; Dec. 2, 1930.
333804	Jan. 21, 1929	P. S. Nisson	Jan. 18, 1929	S 137, p. 684; Jan. 21, 1929.
344633	Mar. 6, 1929	E. A. Dickinson	Feb. 28, 1929	I 138, p. 128; Mar. 6, 1929.
357685	Apr. 23, 1929	T. T. Gray	Apr. 22, 1929	A 139, p. 170; Apr. 24, 1929.
376140	July 5, 1929	do	July 2, 1929	Z 139, p. 254; July 5, 1929.
376141	do	do	do	Do.
411394	Dec. 3, 1929	do	Nov. 29, 1929	W 141, p. 146; Dec. 3, 1929.
443009	Apr. 10, 1930	Henry Thomas	Undated	P 155, p. 603; Feb. 24, 1933.
453637	May 19, 1930	T. T. Gray	June 30, 1930	A 145, p. 572; July 29, 1930.
453638	do	do	do	Do.
471454	July 29, 1930	do	do	A 145, p. 569; July 29, 1930.
479081	Aug. 30, 1930	P. J. Bjerregaard to Gray (¼ interest).	Oct. 20, 1930	C 146, p. 383; Oct. 30, 1930.
		Bjerregaard to Continental (¾ interest).	Sept. 15, 1930	Q 145, p. 221; Sept. 22, 1930.
		Continental to Gray (¾ interest)	Aug. 1, 1932	B 154, p. 247; Sept. 14, 1930.

[1] "Subject to terms of agreement of June 30, 1930 between Gray and Filtrol Co. of California."

Digitized by Google

Patents and patent applications owned by Gray and patents and patent applications under which Gray has the right to grant licenses—Continued

II. UNITED STATES PATENT APPLICATIONS OWNED BY GRAY—Continued

Ser. no.	Filed	Inventor	Assignment dated	Assignment recorded
479082	Aug. 30, 1930	P. J. Bjerregaard to Gray (1¼ interest).	Oct. 20, 1930	C 146, p. 383; Oct. 30, 1930.
		Bjerregaard to Continental (¾ interest).	Sept. 15, 1930	Q 145, p. 221; Sept. 22, 1930.
		Continental to Gray (¾ interest).	Aug. 1, 1932	B 154, p. 247; Sept. 14, 1932.
482965	Sept. 19, 1930	M. R. Mandelbaum	Sept. 17, 1930	P 145, p. 582; Sept. 19, 1930.
482966	do	do	do	P 145, p. 582; Sept. 19, 1930.
483782	Sept. 23, 1930	A. M. Gray	do	Q 145, p. 660; Sept. 23, 1930.
492482	Oct. 31, 1930	T. T. Gray	Oct. 27, 1930	C 146, p. 693; Oct. 31, 1930.
504425	Dec. 23, 1930	P. S. Nisson	Nov. 29, 1930	T 146, p. 317; Dec. 23, 1930.
637211	Oct. 10, 1932	P. J. Bjerregaard	Aug. 1, 1932	B 154, p. 247; Sept. 14, 1932.
647302	Dec. 15, 1932	P. S. Nisson	Dec. 9, 1932	X 154, p. 572; Dec. 15, 1932.
351587	Apr. 1, 1929	J. W. Brown to Continental (Maine).	Apr. 9, 1929	A 139, p. 633; Apr. 26, 1929.
		Continental (Maine) to Continental (Delaware).	July 1, 1929	X 140, p. 563; Sept. 21, 1929.
		Continental (Delaware) to Gray.	Jan. 30, 1933	N 155, p. 185; Feb. 15, 1933.
666845	Apr. 19, 1933	M. T. Welsh (Atlantic)	May 20, 1933	M 156, p. 361; May 26, 1933.

III. FOREIGN PATENTS OWNED BY GRAY

Country	Patent No.	Date	Country	Patent No.	Date
Argentina	22500	July 12, 1924	Holland	18049	Mar. 16, 1928
Do	22686	Aug. 25, 1924	Hungary	90162	Sept. 25, 1924
Do	29648	Aug. 3, 1928	Do	92572	Mar. 13, 1926
Australia	30784/30	Dec. 18, 1930	Irish Free State	[1] 249871	Mar. 14, 1925
Austria	111565	July 15, 1928	Italy	233688	Sept. 26, 1924
Do	120854	Aug. 15, 1930	Do	235565	Jan. 26, 1925
Belgium	320290	Sept. 25, 1924	Do	250481	Mar. 22, 1926
Do	322377	Dec. 31, 1924	Japan	67140	Oct. 2, 1923
Do	332637	Mar. 22, 1926	Do	72584	July 12, 1927
Belgian Congo	1797	Oct. 3, 1930	Luxembourg	14245	Nov. 26, 1925
Do	1798	Do.	Mexico	24193	Sept. 26, 1923
Do	1799	Do.	Do	24204	Do.
Brazil	18249	Mar. 8, 1930	Persia	50	June 16, 1932
Canada	254622	Oct. 13, 1925	Do	51	Do.
Do	273411	Aug. 20, 1927	Do	52	Do.
Do	297620	Feb. 18, 1930	Peru	0363	Oct. 26, 1925
Do	302113	July 15, 1930	Poland	4539	Mar. 25, 1926
Colombia	2028	Jan. 30, 1925	Do	7423	Apr. 23, 1927
Do	2310	Sept. 23, 1927	Portugal	16560	May 28, 1931
Cuba	5868	Jan. 30, 1925	Rumania	10845	Oct. 3, 1924
Do	7026	Nov. 30, 1926	Do	11202	Jan. 17, 1925
Czechoslovakia	19023	Feb. 15, 1926	Do	12680	Mar. 23, 1926
Do	27743	July 15, 1928	Spain	107472	July 11, 1928
Estonia	1372	June 20, 1929	Do	117815	May 1, 1930
France	604167	Sept. 25, 1924	Trinidad	3/1931	Jan. 31, 1931
Do	616202	Mar. 17, 1926	Venezuela	750	Mar. 3, 1925
Germany	542178	Mar. 11, 1926	Do	877	June 20, 1927
Great Britain	222481	Sept. 26, 1923			
Do	249871	Mar. 24, 1925			
Do	293440	July 7, 1927			

[1] British patent.

IV. APPLICATIONS FOR FOREIGN PATENTS OWNED BY GRAY

Country	Serial No.	Filing date	Inventor
Germany	62290	Sept. 26, 1924	T. T. Gray.
Russia	41944	Mar. 2, 1929	Do.

Digitized by Google

Patents and patent applications owned by Gray and patents and patent applications under which Gray has the right to grant licenses—Continued

V. UNITED STATES PATENTS AND APPLICATIONS FOR UNITED STATES PATENTS UNDER WHICH GRAY HAS LICENSING RIGHTS PURSUANT TO GRANT FROM CROSS DEVELOPMENT CORPORATION, WALTER CROSS AND ROY CROSS, DATED AS OF DEC. 9, 1926; RECORDED U. S. PATENT OFFICE, JULY 3, 1930, IN LIBER T 144, P. 231, OF TRANSFERS OF PATENTS

Patent No.	Granted	Inventor
1515733	Nov. 18, 1924	R. Cross.
1587491	June 1, 1926	Do.
1782808	Nov. 25, 1930	Do.
1816827	Aug. 4, 1931	Do.
1836577	Dec. 15, 1931	Do.
1840158	Jan. 5, 1932	Do.
1882000	Oct. 11, 1932	Do.

Application, Serial No.	Filed	Inventor
673370	Nov. 7, 1923	R. Cross.

Abandoned Scofield letter May 18, 1927.

VI. APPLICATION FOR UNITED STATES PATENT UNDER WHICH GRAY HAS LICENSING RIGHTS PURSUANT TO GRANT FROM CROSS DEVELOPMENT CORPORATION DATED JUNE 4, 1930, AND RECORDED IN U. S. PATENT OFFICE, JULY 3, 1930, IN LIBER T 144, P. 231, OF TRANSFERS OF PATENTS

Serial No.	Filed	Inventor
28640	May 7, 1925	Guy N. Harcourt.

VII. BRITISH PATENT UNDER WHICH GRAY HAS LICENSING RIGHTS PURSUANT TO GRANT FROM THE CROSS DEVELOPMENT CORPORATION, WALTER CROSS AND ROY CROSS, DATED AS OF DEC. 9, 1926, AND RECORDED IN THE U. S. PATENT OFFICE, JULY 3, 1930, IN LIBER T 144, P. 231, OF TRANSFERS OF PATENTS

Patent No.	Date	Inventor
227084	Dec. 31, 1925	R. Cross.

Corresponds to United States Patent No. 1515733.

VIII. UNITED STATES PATENTS UNDER WHICH GRAY HAS LICENSING RIGHTS PURSUANT TO LICENSE AGREEMENT WITH SINCLAIR REFINING CO., DATED JAN. 13, 1928

Patent No.	Granted	Inventor	License dated	License recorded
1735988	Nov. 19, 1929	F. A. Apgar	Feb. 5, 1931	Not recorded.
1736022	do	T. DeC. Tifft et al	do	Do.
1795124	Mar. 3, 1931	E. C. Herthel	Apr. 20, 1931	Do.
1797255	Mar. 24, 1931	F. A. Apgar	July 30, 1931	P 149, p. 219; Aug. 7, 1931.
1797262	do	E. C. Herthel	Apr. 20, 1931	Not recorded.
1812426	June 30, 1931	F. A. Apgar	July 23, 1931	N 149, p. 357; Aug. 1, 1931.
1812446	do	Wm. Mendius	do	Do.

IX. UNITED STATES PATENT UNDER WHICH GRAY HAS LICENSING RIGHTS PURSUANT TO AGREEMENT WITH THE ATLANTIC REFINING CO., DATED SEPT. 17, 1929. (SEE PAR. (5) OF THAT AGREEMENT)

Patent No.	Granted	Inventor
1752455	Apr. 1, 1930	A. G. Peterkin.

Digitized by Google

Patents and patent applications owned by Gray and patents and patent applications under which Gray has the right to grant licenses—Continued

X. APPLICATION FOR UNITED STATES PATENT UNDER WHICH GRAY HAS LICENSING RIGHTS PURSUANT TO AGREEMENT, DATED JUNE 30, 1930, BETWEEN GRAY AND FILTROL CO. OF CALIFORNIA

Serial No.	Filed	Inventor
188119	May 2, 1927	W. S. Baylis.

EXHIBIT B

Licensees of Gray

Licensee	Date of license	Present installed capacity
Alamo Refining Co., Amarillo, Tex. (now a subsidiary of Phillips Petroleum Co., and capacity included with that of Phillips, see below).	June 22, 1926	
American Refining Properties, Wichita, Falls, Tex	Feb. 13, 1930	900 bbls./d.
Atlantic Refining Co., Philadelphia, Pa	Sept. 17, 1929	
See supplemental agreements and licenses reserved in assignments of Atlantic patents to Gray.	Sept. 24, 1929 Feb. 11, 1930 Oct. 30, 1930 Sept. 29, 1931 Oct. 31, 1932	5,000 bbls./d.
License under Nisson and Mandelbaum application 160361 (Patent 1836183 of Dec. 15, 1931).	Sept. 8, 1931	None.
Barnsdall Refining Co. of Delaware, Barnsdall, Okla	Feb. 18, 1925	1,500 bbls./d.
Barnsdall Refineries, Inc., Okmulgee, Okla	Apr. 17, 1926	1,950 bbls./d.
Beckett Co., Inc., Tulsa, Okla	July 31, 1928	200 bbls./d.
The Argentine Government (through Bethlehem Steel Co.)	do	14 towers; 104 tons clay capacity.
La Campagnie Belge du Gaz Catalytique, Lte., Brussels, Belgium.	July 17, 1925	25 bbls./d.
Bolene Refining Co. (Eason Oil Co.), Enid, Okla	June 13, 1927	850 bbls./d,
Compania Ferrocarrilera de Petroleo, S. A. Buenos Aires, Argentina.	Nov. 17, 1926	600 bbls./d.
Do	Mar. 5, 1928	Do.
Continental Oil Co. (See Marland Refining Co. below.)		
Deep Rock Oil Corporation, Tulsa, Okla. (See Shaffer Oil & Refining Co. agreement dated Jan. 17, 1929.)	July 20, 1932	2,900 bbls./d.
Ellas Refining Corporation, Wichita Falls, Tex	Apr. 24, 1930	450 bbls./d.
Emlenton-Refining Co., Emlenton, Pa. (See Quaker State agreement accepting benefits and obligations, Jan. 22, 1932.)	Dec. 8, 1930	700 bbls./d.
Fairfax Gasoline Co., Kansas City, Kans	Apr. 1, 1929	800 bbls./d.
Filtrol Co., of California, 650 South Spring Street, Los Angeles, Calif., see agreement dated.	June 30, 1930	
Frontenac Oil Refineries, Ltd., Montreal, P. Q. (See McColl-Frontenac Oil Co., Ltd., agreement dated Sept. 3, 1930.)	Nov. 16, 1928	
Galicyjskie Towarzystwo Naftowe "Galicja" Spolka Akcyjna, Drohobycz, Poland.	Oct. 17, 1930	Free license. No installation.
Golden Rule Refining Co., a copartnership consisting of Elbert S. Rule and Minnie Kemp, Wichita, Kans.	May 14, 1928	400 bbls./d.
Iowa Park Producing & Refining Co., Iowa Park, Tex	Feb. 3, 1930	700 bbls./d.
The Kanotex Refining Co., Arkansas City, Kans	Mar. 29, 1926	1,700 bbls./d.
Kendall Refining Co., Bradford, Pa	July 14, 1931	2,200 bbls./d.
The Lubrite Refining Co., St. Louis, Mo	Feb. 6, 1925	
See Vacuum Oil Co. agreement	May 1, 1932	
Magnolia Petroleum Co., Dallas, Tex	Oct. 16, 1930	1,700 bbls./d.
Marland Refining Co.:		
Ponca City, Okla	Dec. 21, 1925	
Supplemental agreement	do	
See Continental Oil Co. agreement	Jan. 20, 1930	8,400 bbls./d.
McColl Bros., Ltd., Toronto, Canada	Apr. 27, 1925	2,250 bbls./d.
McColl-Frontenac Oil Co., Ltd., Montreal, P. Q. (see below).	Mar. 18, 1929	
McColl-Frontenac Oil Co., Ltd., Montreal, P. Q. (This capacity includes that contracted for under Frontenac Oil Refineries, Ltd., agreement dated Nov. 16, 1928 and McColl-Frontenac Oil Co., Ltd., agreement dated Mar. 18, 1929.)	Sept. 3, 1930	2,200 bbls./d.
Motor Fuel Products Co., Laredo, Tex	Mar. 14, 1928	400 bbls./d.
Ohio Valley Refining Co., St. Marys, W. Va	Dec. 22, 1930	850 bbls./d.
Orient Petroleum Co. of Illinois (Federal Reserve Bank Bldg., Kansas City, Mo.), also Elgin, Ill., and Wichita Falls, Tex.	June 30, 1930	400 bbls./d.
Panhandle Refining Co., Wichita Falls, Tex	June 4, 1929	950 bbls./d.

Digitized by Google

Licensees of Gray—Continued

Licensee	Date of license	Present installed capacity
Compagnie Financiere Belge des Petroles, Brussels, Belgium	Jan. 12, 1931	100 bbls./d.
Phillips Petroleum Co., Bartlesville, Okla. (Includes Alamo Refining Co.)	Feb. 24, 1930	11,450 bbls./d.
Public Utilities Gas Co., c/o Stevens & Wood, 120 Broadway, New York, N. Y., also 95 Duffield Ave., Jersey City, N. J.	Nov. 12, 1927	Experimental.
The Pure Oil Co., 35 East Wacker Drive, Chicago, Ill. See letters Gray to Pure dated.	May 22, 1930 July 18, 1932 May 22, 1930	4,148 bbls./d.
Quaker State Oil Refining Corporation, Oil City, Pa.	Jan. 22, 1932	
See Emlenton agreement dated	Dec. 8, 1930	
Residuum Reclamation Corporation, 1 East 42d St., New York, N. Y.	Dec. 14, 1928	
See Tri-State Refining Co. agreement below	July 1, 1932	
Shaffer Oil & Refining Co., Tulsa, Okla. (now, by change of name, Deep Rock Oil Corporation, see agreement of July 20, 1932, above).	Jan. 17, 1929	
Shell Oil Co. of Canada, Toronto, Canada	Oct. 19, 1932	2,000 bbls./d.
Sinclair Refining Co., 45 Nassau St., New York, N. Y.	Jan. 13, 1928	1,666 bbls./d.
Snow Cap Oil Co., Sunburst, Mont.	Mar. 5, 1929	150 bbls./d.
Standard Oil Co. of Cuba, 26 Broadway, New York, N. Y.	Sept. 14, 1928	Experimental.
Standard Oil Co. of New York, 26 Broadway, New York, N. Y.	Apr. 29, 1926	2,950 bbls./d.
Steaua Romana, Bucharest, Rumania	May 1, 1929	2,350 bbls./d.
Supplemental agreement	June 7, 1932 July 1, 1932	
Sun Oil Co., Philadelphia, Pa	Nov. 14, 1925	Limited to use at Marcus Hook, Toledo, Yale, etc.
Modified by agreement of	Dec. 15, 1927	
Texas Pacific Coal & Oil Co., Fort Worth, Tex.	Sept. 7, 1926	750 bbls./d.
Tri-State Refining Co., Ashland, Ky.	July 1, 1932	550 bbls./d.
United Refining Co., Warren, Pa.	May 1, 1931	Do.
Vacuum Oil Co., 61 Broadway, New York, N. Y.	July 30, 1926	
Supplemental agreement	Oct. 11, 1929	
Supplemental agreement bringing in Lubrite and White Star.	May 1, 1932	5,950 bbls./d.
Vapor Phase Oils, Inc., 107 Liberty St., New York, N. Y.	June 29, 1932	50 bbls./d.
Waverly Oil Works Co., Pittsburgh, Pa.	Apr. 15, 1927	1,850 bbls./d.
White Oak Gasoline Co., Tulsa, Okla.	Feb. 20, 1929	650 bbls./d.
White Star Refining Co. (of West Virginia), Detroit, Mich., Wood River Refinery.	July 15, 1925	
Supplemental agreement	Oct. 18, 1929	See Vacuum Oil Co. agreement of May 1, 1932.
White Star Refining Co. (of Delaware), Detroit, Mich., Trenton Refinery.	July 1, 1929	

EXHIBIT C

Patent and patent applications under which Texas owns transferable licensing rights

I. UNITED STATES PATENTS

Patent No.	Granted	Inventor	Assignment dated	Assignment recorded
1792877	June 24, 1930	W. M. Stratford	May 25, 1928	D 135, p. 543; June 7, 1928.
1887941	Nov. 15, 1932	N. H. Moore	Jan. 31, 1930	J 154, p. 54; Oct. 15, 1932.

II. UNITED STATES PATENT APPLICATIONS

Serial no.	Filed	Inventor	Assignment dated	Assignment recorded
64308	Oct. 23, 1925	W. M. Stratford	Oct. 2, 1925	N 125, p. 450; Oct. 23, 1925.
380432	July 23, 1929	do	Aug. 10, 1929	Unrecorded.
408704	Nov. 21, 1929	G. Armistead, Jr.	Dec. 3, 1929	Do.
419015	Jan. 7, 1930	F. W. Halland J. H. Grahame	Jan. 23, 1930	Do.
489516	Oct. 18, 1930	R. J. Dearborn, W. M. Stratford.	Oct. 27, 1930	Do.
593720	Feb. 18, 1932	W. M. Stratford	Feb. 27, 1932	Do.
616864	June 13, 1932	R. E. Manley, Walter Ullrich	July 11, 1932	Do.
618123	June 20, 1932	W. M. Stratford	July 8, 1932	Do.
618657	June 22, 1932	C. W. Watson	July 12, 1932	Do.
635945	Oct. 3, 1932	C. F. Teichmann	Oct. 18, 1932	Do.

Digitized by Google

Patent and patent applications under which Texas owns transferable licensing rights—Continued

III. FOREIGN PATENTS

Country	Patent no.	Date	Country	Patent no.	Date
Canada	303046	Aug. 12, 1930	France	707633	Apr. 20, 1931
Do	318899	Jan. 12, 1932	Italy	294169	Mar. 14, 1932
Do	323558	June 21, 1932	Rumania	19154	Nov. 19, 1930
Do	325590	Aug. 30, 1932	Spain	120805	Nov. 21, 1930

EXHIBIT D

Patents and patent applications under which Indiana owns transferable licensing rights

I. UNITED STATES PATENTS

Patent No.	Granted	Inventor	Assignment dated	Assignment recorded
1747806	Feb. 18, 1930	Vanderveer Voorhees	Oct. 18, 1927	I 140, p. 586; Aug. 1, 1929.

II. UNITED STATES PATENT APPLICATIONS

Serial no.	Filed	Inventor	Assignment dated	Assignment recorded
526670	Mar. 31, 1931	Herbert M. Steininger	Mar. 24, 1931	Unrecorded.
326270	Dec. 15, 1928	F. M. Rogers	Dec. 11, 1928	Do.

III. FOREIGN PATENTS

Country	Patent no.	Date	Country	Patent no.	Date
Canada	308754	Feb. 17, 1931	Holland	26911	Apr. 16, 1932
Do	309099	Mar. 3, 1931	Mexico	30705	Nov. 4, 1929

EXHIBIT E

Patents and patent applications under which development owns transferable licensing rights

I. UNITED STATES PATENTS

Patent No.	Granted	Inventor	Assignment dated	Assignment recorded
1768342	June 24, 1930	R. K. Stratford	May 19, 1930	E 144, p. 508; May 23, 1930.

II. UNITED STATES PATENT APPLICATIONS

Serial no.	Filed	Inventor	Assignment dated	Assignment recorded
422255	Jan. 21, 1930	G. A. Beiswenger	Jan. 1, 1930	Not recorded.
438335	Mar. 24, 1930	R. K. Stratford	Mar. 24, 1930	Do.
472193	July 31, 1930	do	July 31, 1930	Do.
509142	Jan. 16, 1931	R. K. Stratford and Charles Leaver.	Jan. 16, 1931	Do.
574539	Nov. 12, 1931	Alfred A. Wells	Nov. 12, 1931	Do.
583706	Dec. 29, 1931	Carleton Ellis and R. K. Stratford.	Dec. 5, 1931 Dec. 11, 1931	Do. Do.

Digitized by Google

Patents and patent applications under which development owns transferable licensing rights—Continued

III. FOREIGN PATENTS

Country	Patent no.	Date	Country	Patent no.	Date
Argentina	26181	Nov. 24, 1926	Holland	24422	May 16, 1931
Canada	278013	Feb. 21, 1928	Peru	0450	Aug. 24, 1926
Colombia	2181	Aug. 27, 1926	Rumania	14882	Jan. 3, 1928
England	305108	Apr. 25, 1929			

IV. FOREIGN PATENT APPLICATIONS

Country	Serial no.	Filed
Canada	384110	Nov. 28, 1931
Do	393639	Oct. 18, 1932
Germany	32360 IV/23b	Oct. 8, 1927
Do	46992 IVa/23b	Jan. 20, 1931
Do	48058 IVa/12ol	July 30, 1931

EXHIBIT F

Patents and patent applications under which Pure owns transferable licensing rights

I. UNITED STATES PATENTS

Patent no.	Granted	Inventor	Assignment dated	Assignement recorded
1793885	Feb. 24, 1931	C. B. Watson and R. C. Osterstrom.	Aug. 21, 1928	C 136, p. 173; Aug. 28, 1928.
1797513	Mar. 24, 1931	R. T. Tucker and R. C. Osterstrom.	Jan. 28, 1928	K 133, p. 124 Feb. 2, 1928.
1811185	June 23, 1931	R. C. Osterstrom	June 18, 1928	J 135, p. 407; June 25, 1928.
1853755	Apr. 12, 1932	C. B. Watson	June 25, 1929	V 151, p. 637; Feb. 23, 1932.
1873783	Aug. 23, 1932	R. T. Tucker and R. C. Osterstrom.	Apr. 17, 1928	P 134, p. 418; Apr. 23, 1928.
1884163	Oct. 25, 1932	R. C. Osterstrom	Apr. 13, 1929	Q 153, p. 504; July 29, 1932.
1887018	Nov. 8, 1932	A. E. Harnsberger		
1891106	Dec. 13, 1932	R. C. Osterstrom	Oct. 20, 1930	A 146, p. 149 Oct. 22, 1930.
1891107	do	do	Oct. 30, 1929	H 154, p. 622; Oct. 10, 1932.
1891109	do	do	Feb. 13, 1930	Z 147, p. 327; Mar. 31, 1931.
1894331	Jan. 17, 1933	C. B. Watson	Mar. 14, 1930	B 153, p. 568; June 9, 1932.
1897328	Feb. 14, 1933	R. C. Osterstrom	Apr. 15, 1929	O 153, p. 559; July 26, 1932.

II. UNITED STATES PATENT APPLICATIONS

Serial no.	Filed	Inventor	Assignment dated	Assignment recorded
218958	Sept. 12, 1927	R. T. Tucker and R. C. Osterstrom.	Sept. 30, 1927	E 132, p. 610; Oct. 15, 1932.
336868	Feb. 1, 1929	R. C. Osterstrom	Jan. 28, 1929	B 153, p. 501; June 9, 1932.
496972	Nov. 20, 1930	C. R. Wagner and R. C. Osterstrom.	Nov. 17, 1930	J 146, p. 45, Nov. 20, 1930.
597140	Mar. 7, 1932	R. C. Osterstrom	Mar. 2, 1932	Z 151, p. 402; Mar. 7, 1932.

Digitized by Google

Potents and patent applications under which Pure owns transferable licensing rights—Continued

III. FOREIGN PATENTS

Country	Patent no.	Date	Country	Patent no.	Date
Argentina	34,287	Sept. 22, 1930	Irish Free State	10521	Jan. 21, 1931
Australia	16514/28	Oct. 31, 1928	Do	11563	July 6, 1932
Do	28290	Aug. 7, 1930	Italy	273886	May 5, 1930
Belgium	355153	Nov. 30, 1928	Do	291835	Dec. 28, 1931
Do	372433	Sept. 30, 1930	Japan	88914	Oct. 28, 1930
Brazil	19659	Oct. 2, 1931	Yugoslavia	9169	Oct. 1, 1932
Canada	296459	Jan. 7, 1930	Mexico	28813	Oct. 15, 1928
Do	315953	Oct. 6, 1931	Do	31710	Oct. 10, 1930
Colombia	2536	Apr. 12, 1929	Norway	48414	Sept. 15, 1930
Do	2771	Feb. 17, 1931	Persia	10	Nov. 22, 1931
Czecho-Slovakia	37302	Sept. 19, 1931	Do	25	Mar. 6, 1932
Federated Malay States.	572	Nov. 14, 1928	Peru	0688	Dec. 23, 1929
Do	657	Sept. 15, 1930	Do	0827	Apr. 30, 1931
France	662730	Mar. 25, 1929	Poland	14396	Oct. 31, 1931
Do	701341	Jan. 7, 1931	Do	15243	Feb. 12, 1932
Great Britain	328309	Apr. 9, 1930	Rumania	15997	Dec. 10, 1928
Do	361396	Nov. 23, 1931	Do	18782	Nov. 6, 1930
Holland	27066	May 18, 1932	Spain	109757	Dec. 20, 1928
India	14937/28	June 19, 1929	Trinidad and Tabago	17/28	Oct. 15, 1928
			Do	17/30	Aug. 18, 1930
			Venezuela	1052	Mar. 14, 1929
			Do	1273	Dec. 3, 1930

IV. FOREIGN PATENT APPLICATIONS

	Serial no.		Serial no.
Argentina	43056	Holland	52993
Brazil	5890	Japan	9196/30
Chile	946	Norway	45994
Czechoslovakia	5972/30	Russia	74661
Germany	58740	Sweden	3379/30

EXHIBIT G

License agreement dated the —— day of —— 1933.

I. PARTIES

1. The Texas Co., a Delaware corporation, and the Texas Corporation, a Delaware corporation, each having a place of business at 135 East Forty-second Street, New York, N. Y., and their respective subdidiaries (hereinafter referred to collectively as Texas).

2. The Gray Processes Corporation, a corporation of the State of Delaware, having a place of business at 961 Frelinghuysen Avenue, Newark, N. J. (hereinafter called Gray).

II. RECITALS

3. Gray, Texas, Standard Oil Co., an Indiana corporation; Standard Oil Development Co., a Delaware corporation; the Pure Oil Co., an Ohio corporation; and the Gray Processes Corporation Committee have entered into a certain purchase and cross-license agreement, dated ——, 1933, and Gray and the committee have performed all of the obligations to Texas by them to be performed on the closing date pursuant to the provisions of said purchase and cross-license agreement.

4. Texas is the owner of and entitled to grant licenses for clay treating under certain patent rights (as herein defined) and has agreed to grant to Gray licensing rights under all of its said patent rights.

5. In consideration of the premises and of the covenants and grants made by Gray to Texas pursuant to the purchase and cross-license agreement, and the mutual covenants and agreements hereinafter set forth, the parties hereto do mutually covenant and agree as follows:

Digitized by Google

III. DEFINITIONS

6. Whenever used in this agreement, the following terms shall have the following meanings, respectively:

(a) The term "clay treating" shall mean polymerizing the undesirable constituents of naphthas and/or kerosenes in vapor and/or liquid phase at elevated temperatures with solid, contact catalysts, such as fuller's earth, decolorizing clays, and the like.

(b) The term "patent rights" shall mean all such, but only such claims of patents of the United States and countries foreign thereto, and transferable rights thereunder, as cover processes for, or apparatus primarily designed for, the practice of clay treating, and based upon inventions made prior to January 1, 1950. The patent rights of a granting party shall mean those patent rights as defined in the preceding sentence, of which the party now has or shall have prior to January 1, 1950, the ownership or control in the sense of having the power to dispose of them or grant licenses for clay treating thereunder, insofar as it is not bound to account to others for so doing by contracts with others in force on the date of execution of this agreement.

(c) The term "subsidiaries" shall mean all corporations of which the parent company owns, directly or indirectly, more than 50 percent of the stock having the right to vote for directors. For the purpose of this definition, the stock owned by the parent company shall be deemed to include all stock having the right to vote for directors and owned, directly or indirectly, by any of its subsidiaries as defined above.

IV. COVENANTS

7. Texas grants to Gray an irrevocable nonexclusive, nontransferable right to grant nonexclusive licenses, releases for past infringement and/or immunity from suit, for clay treating under the patent rights of Texas, upon terms to be fixed by Gray and without any obligation on the part of Gray to account to Texas for the consideration received for any such grants; provided, however, that such licenses, releases and/or immunity shall be conditioned upon and the acceptance thereof shall itself operate as a grant by the releasee or licensee to Texas of full immunity from suit for clay treating under its patent rights. Gray agrees to grant no license, release, or immunity from suit under the patent rights of Texas to one who has previously recovered under its patent rights against Texas, without the consent of Texas. Texas shall consent to such grant if and when it is made whole for such prior recovery.

8. Gray shall have the right, in any license granted by it for clay treating under the patent rights of Texas, to authorize the licensee to grant sublicenses to its subsidiaries, but only upon the express condition that the licensee shall be obligated to pay or cause to be paid to Gray all royalties or license fees becoming due on account of the operations of such subsidiaries. Except as provided in the case of subsidiaries, no license granted by Gray under the patent rights of Texas shall authorize the licensee to grant sublicenses thereunder unless Texas shall expressly consent thereto in writing.

9. Texas agrees that it will, when requested in writing by Gray and satisfactorily indemnified against all expenses of the litigation, bring suits for infringement of the patent rights of Texas. Such litigation shall be directed and controlled by Gray and the entire expense thereof shall be borne by Gray and the recoveries, if any, shall be paid to Gray.

10. Texas agrees promptly to disclose to Gray all information available to it in respect of clay treating which will be useful or convenient in connection with the licensing business of Gray, and further agrees to use its best efforts to induce its respective officers, agents, and employees to assign to it any inventions, in respect of which letters patent issued thereon would come within its patent rights, heretofore or hereafter made by such officers, agents, and/or employees. If in any case, Texas shall not desire to apply for or continue to apply for letters patent in the United States or in foreign countries upon any such invention, it shall, if requested in writing by Gray and satisfactorily indemnified against the expense thereof, apply for and prosecute applications for letters patent on such invention in such country or countries as shall be designated by Gray.

11. The rights hereby granted shall not be assigned by Gray except in their entirety and then only with the written consent of Texas.

12. The making, execution, and delivery of this agreement by Texas have been induced by no representations, statements, warranties, or agreements other than those expressed or mentioned herein.

Digitized by Google

In witness whereof, the parties hereto have caused this instrument to be executed on the day and year first above written.

THE TEXAS CO.,
By ----------
President.

Attest:

Secretary.

THE TEXAS CORPORATION,
By ----------
President.

Attest:

Secretary.

THE GRAY PROCESSES CORPORATION,
By ----------
President.

Attest:

Secretary.

EXHIBIT H

License agreement dated the day of ——, 1933.

I. PARTIES

1. Standard Oil Co., a corporation of the State of Indiana, having a place of business at 910 South Michigan Avenue, Chicago, Ill., and its subsidiaries (hereinafter referred to collectively as Indiana).

2. The Gray Processes Corporation, a corporation of the State of Delaware, having a place of business at 961 Frelinghuysen Avenue, Newark, N. J. (hereinafter called Gray).

II. RECITALS

3. Gray, Indiana, the Texas Co., a Delaware corporation, and the Texas Corporation, a Delaware corporation, Standard Oil Development Co., a Delaware corporation, the Pure Oil Co., an Ohio corporation, and the Gray Processes Corporation committee have entered into a certain purchase and cross license agreement, dated ——, 1933, and Gray and the committee have performed all of the obligations to Indiana by them to be performed on the closing dated pursuant to the provisions of said purchase and cross-license agreement.

4. Indiana is the owner of and entitled to grant licenses for clay treating under certain patent rights (as herein defined) and has agreed to grant to Gray licensing rights under all of its said patent rights.

5. In consideration of the premises and of the covenants and grants made by Gray to Indiana pursuant to the purchase and cross-license agreement, and the mutual covenants and agreements hereinafter set forth, the parties hereto do mutually covenant and agree as follows:

III. DEFINITIONS

6. Whenever used in this agreement, the following terms shall have the following meanings, respectively:

(a) The term "clay treating" shall mean polymerizing the undesirable constituents of naphthas and/or kerosenes in vapor and/or liquid phase at elevated temperatures with solid contact catalysts, such as fuller's earth, decolorizing clays, and the like.

(b) The term "patent rights" shall mean all such, but only such claims of patents of the United States and countries foreign thereto, and transferable rights thereunder, as cover processes for, or apparatus primarily designed for, the practice of clay treating and based upon inventions made prior to January 1, 1950. The patent rights of a granting party shall mean those patent rights as defined in the preceding sentence of which the party now has or shall have prior to January 1, 1950, the ownership or control in the sense of having the power to dispose of them or grant licenses for clay treating thereunder, insofar as it is not bound to account to others for so doing by contracts with others in force on the date of execution of this agreement.

(c) The term "subsidiaries" shall mean all corporations of which the parent company owns, directly or indirectly, more than 50 percent of the stock having

Digitized by Google

the right to vote for directors. For the purpose of this definition, the stock owned by the parent company shall be deemed to include all stock having the right to vote for directors and owned, directly or indirectly, by any of its subsidiaries as defined above.

IV. COVENANTS

7. Indiana grants to Gray an irrevocable, nonexclusive, nontransferable right to grant nonexclusive licenses, releases for past infringement and/or immunity from suit, for clay treating under the patent rights of Indiana, upon terms to be fixed by Gray and without any obligation on the part of Gray to account to Indiana for the consideration received for any such grants; provided, however, that such licenses, releases, and/or immunity shall be conditioned upon and the acceptance thereof shall itself operate as a grant by the releasee or licensee to Indiana of full immunity from suit for clay treating under its patent rights. Gray agrees to grant no license, release, or immunity from suit under the patent rights of Indiana to one who has previously recovered under its patent rights against Indiana, without the consent of Indiana. Indiana shall consent to such grant if and when it is made whole for such prior recovery.

8. Gray shall have the right, in any license granted by it for clay treating under the patent rights of Indiana, to authorize the licensee to grant sublicenses to its subsidiaries, but only upon the express condition that the licensee shall be obligated to pay or cause to be paid to Gray all royalties or license fees becoming due on account of the operations of such subsidiaries. Except as provided in the case of subsidiaries, no license granted by Gray under the patent rights of Indiana shall authorize the licensee to grant sublicenses thereunder unless Indiana shall expressly consent thereto in writing.

9. Indiana agrees that it will, when requested in writing by Gray and satisfactorily indemnified against all expenses of the litigation, bring suits for infringement of the patent rights of Indiana. Such litigation shall be directed and controlled by Gray and the entire expense thereof shall be borne by Gray and the recoveries, if any, shall be paid to Gray.

10. Indiana agrees promptly to disclose to Gray all information available to it in respect of clay treating which will be useful or convenient in connection with the licensing business of Gray, and further agrees to use its best efforts to induce its respective officers, agents, and employees to assign to it any inventions, in respect of which letters patent issued thereon would come within its patent rights, heretofore or hereafter made by such officers, agents, and/or employees. If in any case Indiana shall not desire to apply for or continue to apply for letters patent in the United States or in foreign countries upon any such invention, it shall, if requested in writing by Gray and satisfactorily indemnified against the expense thereof, apply for and prosecute applications for letters patent on such invention in such country or countries as shall be designated by Gray.

11. The rights hereby granted shall not be assigned by Gray except in their entirety and then only with the written consent of Indiana.

12. The making, execution, and delivery of this agreement by Indiana have been induced by no representations, statements, warranties, or agreements other than those expressed or mentioned herein.

In witness whereof, the parties hereto have caused this instrument to be executed on the day and year first above written.

STANDARD OIL COMPANY (Indiana),
By ----------, *President.*

Attest:

----------, *Secretary.*

THE GRAY PROCESSES CORPORATION,
By ----------, *President.*

Attest:

----------, *Secretary.*

EXHIBIT I

License agreement dated the day of ——, 1933.

I. PARTIES

1. Standard Oil Development Co., a Delaware corporation, having a place of business at Linden, N. J. (hereinafter called Development).

2. The Gray Processes Corporation, a corporation of the State of Delaware, having a place of business at 961 Frelinghuysen Avenue, Newark, N. J. (hereinafter called Gray).

Digitized by Google

II. RECITALS

3. Gray, Development, Standard Oil Co., an Indiana corporation, the Texas Co., a Delaware corporation, and the Texas Corporation, a Delaware corporation, the Pure Oil Co., an Ohio corporation, and the Gray Processes Corporation Committee have entered into a certain purchase and cross-license agreement, dated ——, 1933, and Gray and the committee have performed all of the obligations to Development by them to be performed on the closing date pursuant to the provisions of said purchase and cross-license agreement.

4. Development is the owner of and entitled to grant licenses for clay treating under certain patent rights (as herein defined) and has agreed to grant to Gray licensing rights under all of its said patent rights.

5. In consideration of the premises and of the covenants and grants made by Gray to Development pursuant to the purchase and cross-license agreement, and the mutual covenants and agreements hereinafter set forth, the parties hereto do mutually covenant and agree as follows:

III. DEFINITIONS

6. Whenever used in this agreement, the following terms shall have the following meanings, respectively:

(a) The term "clay treating" shall mean polymerizing the undesirable constituents of naphthas and/or kerosenes in vapor and/or liquid phase at elevated temperatures with solid contact catalysts, such as fuller's earth, decolorizing clays and the like.

(b) The term "patent rights" shall mean all such, but only such claims of patents of the United States and countries foreign thereto, and transferable rights thereunder, as cover processes for, or apparatus primarily designed for, the practice of clay treating and based upon inventions made prior to January 1, 1950. The patent rights of a granting party shall mean those patent rights as defined in the preceding sentence of which the party now has or shall have prior to January 1, 1950, the ownership or control in the sense of having the power to dispose of them or grant licenses for clay treating thereunder, insofar as it is not bound to account to others for so doing by contracts with others in force on the date of execution of this agreement.

(c) The term "subsidiaries" shall mean all corporations of which the parent company owns, directly or indirectly, more than 50 percent of the stock having the right to vote for directors. For the purpose of this definition, the stock owned by the parent company shall be deemed to include all stock having the right to vote for directors and owned, directly or indirectly, by any of its subsidiaries as defined above.

IV. COVENANTS

7. Development grants to Gray an irrevocable, nonexclusive, nontransferable right to grant nonexclusive licenses, releases for past infringement, and/or immunity from suit, for clay treating under the patent rights of Development, upon terms to be fixed by Gray and without any obligation on the part of Gray to account to Development for the consideration received for any such grants provided, however, that such licenses, releases, and/or immunity shall be conditioned upon and the acceptance thereof shall itself operate as a grant by the releasee or licensee to Development of full immunity from suit for clay treating under its patent rights. Gray agrees to grant no license, release, or immunity from suit under the patent rights of development to one who has previously recovered under its patent rights against Development or any of the subsidiaries of Standard Oil Co. (New Jersey), without the consent of Development. Development shall consent to such grant if and when it or any such subsidiary of Standard Oil Co. (New Jersey) is made whole for such prior recovery.

8. Gray shall have the right, in any license granted by it for clay treating under the patent rights of Development, to authorize the licensee to grant sublicenses to its subsidiaries, but only upon the express condition that the licensee shall be obligated to pay or cause to be paid to Gray all royalties or license fees becoming due on account of the operations of such subsidiaries. Except as provided in the case of subsidiaries, no license granted by Gray under the patent rights of Development shall authorize the licensee to grant sublicenses thereunder unless Development shall expressly consent thereto in writing.

9. Development agrees that it will, when requested in writing by Gray and satisfactorily indemnified against all expenses of the litigation, bring suits for infringement of the patent rights of Development. Such litigation shall be

Digitized by Google

directed and controlled by Gray and the entire expense thereof shall be borne by Gray and the recoveries, if any, shall be paid to Gray.

10. Development agrees promptly to disclose to Gray all information available to it in respect of clay treating which will be useful or convenient in connection with the licensing business of Gray, and further agrees to use its best efforts to induce its respective officers, agents, and employees to assign to it any inventions, in respect of which letters patent issued thereon would come within its patent rights, heretofore or hereafter made by such officers, agents, and/or employees. If in any case Development shall not desire to apply for or continue to apply for letters patent in the United States or in foreign countries upon any such invention, it shall, if requested in writing by Gray and satisfactorily indemnified against the expense thereof, apply for and prosecute applications for letters patent on such invention in such country or countries as shall be designated by Gray.

11. The rights hereby granted shall not be assigned by Gray except in their entirety and then only with the written consent of Development.

12. The making, execution, and delivery of this agreement by Development have been induced by no representations, statements, warranties, or agreements other than those expressed or mentioned herein.

In witness whereof, the parties hereto have caused this instrument to be executed on the day and year first above written.

STANDARD OIL DEVELOPMENT CO.,
By ----------
President.

Attest:

Secretary.

THE GRAY PROCESSES CORPORATION,
By ----------
President.

Attest:

Secretary.

EXHIBIT J

License agreement dated the —— day of ——, 1933.

I. PARTIES

1. The Pure Oil Co., a corporation of the State of Ohio, having a place of business at 35 East Wacker Drive, Chicago, Ill., and its subsidiaries (hereinafter referred to collectively as Pure).

2. The Gray Processes Corporation, a corporation of the State of Delaware, having a place of business at 961 Frelinghuysen Avenue, Newark, N. J. (hereinafter called Gray).

II. RECITALS

3. Gray, Pure, the Texas Co., a Delaware corporation, and the Texas Corporation, a Delaware corporation, Standard Oil Co., an Indiana corporation, Standard Oil Development Co., a Delaware corporation, and the Gray Processes Corporation committee have entered into a certain purchase and cross-license agreement dated ——, 1933, and Gray and the committee have performed all of the obligations to Pure by them to be performed on the closing date pursuant to the provisions of said purchase and cross-license agreement.

4. Pure is the owner of and entitled to grant licenses for clay treating under certain patent rights (as herein defined) and has agreed to grant to Gray licensing rights under all of its said patent rights.

5. In consideration of the premises and of the covenants and grants made by Gray to Pure pursuant to the purchase and cross-license agreement, and the mutual covenants and agreements hereinafter set forth, the parties hereto do mutually covenant and agree as follows:

III. DEFINITIONS

6. Whenever used in this agreement, the following terms shall have the following meanings, respectively:

(a) The term "clay treating" shall mean polymerizing the undesirable constituents of naphthas and/or kerosenes in vapor and/or liquid phase at elevated temperatures with solid contact catalysts, such as fuller's earth, decolorizing clays, and the like.

(b) The term "patent rights" shall mean all such, but only such claims of patents of the United States and countries foreign thereto, and transferable

Digitized by Google

rights thereunder, as cover processes for, or apparatus primarily designed for, the practice of clay treating and based upon inventions made prior to January 1, 1950. The patent rights of a granting party shall mean those patent rights as defined in the preceding sentence of which the party now has or shall have prior to January 1, 1950, the ownership or control in the sense of having the power to dispose of them or grant licenses for clay treating thereunder, insofar as it is not bound to account to others for so doing by contracts with others in force on the date of execution of this agreement.

(c) The term "subsidiaries" shall mean all corporations of which the parent company owns, directly or indirectly, more than 50 percent of the stock having the right to vote for directors. For the purpose of this definition, the stock owned by the parent company shall be deemed to include all stock having the right to vote for directors and owned, directly or indirectly, by any of its subsidiaries as defined above.

IV. COVENANTS

7. Pure grants to Gray an irrevocable, nonexclusive, nontransferable right to grant nonexclusive licenses, releases for past infringement and/or immunity from suit, for clay treating under the patent rights of Pure, upon terms to be fixed by Gray and without any obligation on the part of Gray to account to Pure for the consideration received for any such grants: *Provided, however*, That such licenses, releases, and/or immunity shall be conditioned upon and the acceptance thereof shall itself operate as a grant by the releasee or licensee to Pure of full immunity from suit for clay treating under its patent rights. Gray agrees to grant no license, release, or immunity from suit under the patent rights of Pure to one who has previously recovered under its patent rights against Pure, without the consent of Pure. Pure shall consent to such grant if and when it is made whole for such prior recovery.

8. Gray shall have the right, in any license granted by it for clay treating under the patent rights of Pure, to authorize the licensee to grant sublicenses to its subsidiaries, but only upon the express condition that the licensee shall be obligated to pay or cause to be paid to Gray all royalties or license fees becoming due on account of the operations of such subsidiaries. Except as provided in the cases of subsidiaries, no license granted by Gray under the patent rights of Pure shall authorize the licensee to grant sublicenses thereunder unless Pure shall expressly consent thereto in writing.

9. Pure agrees that it will, when requested in writing by Gray and satisfactorily indemnified against all expenses of the litigation, bring suits for infringement of the patent rights of Pure. Such litigation shall be directed and controlled by Gray and the entire expense thereof shall be borne by Gray and the recoveries, if any, shall be paid to Gray.

10. Pure agrees promptly to disclose to Gray all information available to it in respect of clay treating which will be useful or convenient in connection with the licensing business of Gray, and further agrees to use its best efforts to induce its respective officers, agents, and employees to assign to it any inventions, in respect of which letters patent issued thereon would come within its patent rights, heretofore or hereafter made by such officers, agents, and/or employees. If in any case Pure shall not desire to apply for or continue to apply for letters patent in the United States or in foreign countries upon any such invention, it shall, if requested in writing by Gray and satisfactorily indemnified against the expense thereof, apply for and prosecute applications for letters patent on such invention in such country or countries as shall be designated by Gray.

11. The rights hereby granted shall not be assigned by Gray except in their entirety and then only with the written consent of Pure.

12. The making, execution, and delivery of this agreement by Pure have been induced by no representations, statements, warranties, or agreements other than those expressed or mentioned herein.

In witness whereof, the parties hereto have caused this instrument to be executed on the day and year first above written.

THE PURE OIL CO.,
By ——— ———, *President.*

Attest:

———— ———, *Secretary.*

THE GRAY PROCESSES CORPORATION,
By ——— ———, *President.*

Attest:

———— ———, *Secretary.*

Digitized by Google

EXHIBIT K

SPECIFIC ASSETS RESERVED FOR THE BENEFIT OF THE PRESENT STOCKHOLDERS OF GRAY REFERRED TO IN ITEM (4) OF SUBPARAGRAPH (A) OF PARAGRAPH 20

1. Account and/or notes receivable from Atlantic Refining Co. in the amount of $100,000 (or balance thereof unpaid on the closing date) due June 30, 1933.

2. Monthly royalty payments of $1,500 payable to Gray by Steaua Romana, up to and including monthly payment due September 1, 1933, on account of royalty for operation of 1,200 barrels daily average throughout.

3. Notes receivable from H. S. Bell, Inc., Petroleum Engineers, Woolworth Building, New York, N. Y., as follows:

Notes dated—	*Amount*
Aug. 19, 1931	$12,000
Oct. 2, 1931	3,000
Feb. 26, 1932	2,000
Apr. 29, 1932	1,500
June 29, 1932	1,500

4. All sums payable by Deep Rock Oil Corporation to Gray pursuant to paragrah (1) of letter agreement between Gray and Deep Rock dated July 20, 1932, in repayment of advances by Gray to Deep Rock pursuant to said agreement and unpaid on the closing date.

5. Account receivable from Beckett Co., Inc., in the amount of $300 on account of equipment installed (or balance thereof unpaid on the closing date).

6. All sums payable by Magnolia Petroleum Co. to Gray in repayment of advances made by Gray to Magnolia for the installation of Gray treating apparatus pursuant to the agreement dated October 16, 1930.

7. Portable storage building erected June 1932, on property of Gray Industrial Laboratories, Inc.

8. Nash automobile purchased July 1931.

9. Office furniture and equipment as follows: 1 blueprint cabinet, 8 filing cabinets, 4 transfer cases, 7 storage cabinets, 1 drawing table, 13 card cabinets, 2 chair pads, 1 telephone table, 2 typewriters, 2 desks, 1 chair, 2 safes, 1 sofa, 1 check writer, 1 duplicator, 1 electric clock, 1 lamp.

10. Laboratory equipment as follows: 1 tank and cover, 1 A. S. T. M. distillation apparatus, 1 C. F. R. unit and installation, 2 electric hot plates, 6 pressure-recording gauges (Foxboro), 1 1/50 horsepower motor with stirring equipment, 4 gas regulators; 1 steam boiler—3 horsepower (Kane), 6 oxygen bombs and installation, 2 blowers (ventilators), 1 electric stop watch, 4 tables, 1 sink, 1 fire extinguisher (carbon dioxide), 1 autoclave with stirrer, 1 constant-temperature bath and equipment.

EXHIBIT L

License agreement dated the _____ day of _____, 1933.

I. PARTIES

1. The Gray Processes Corporation, a corporation of the State of Delaware, having a place of business at 961 Frelinghuysen Avenue, Newark, N. J. (hereinafter called Gray).

2. The Texas Co., a Delaware corporation, and the Texas Corporation, a Delaware corporation, each having a place of business at 135 East Forty-second Street, New York, N. Y., and their respective subsidiaries (hereinafter referred to collectively as Texas).

3. The Gray Processes Corporation Committee, being the persons for the time acting as such under the purchase and cross-license agreement hereinafter mentioned (hereinafter called the Committee).

II. RECITALS

4. Gray, Texas, and the committee have entered into a certain purchase and cross-license agreement dated _____, with Standard Oil Co., an Indiana corporation (hereinfter called Indiana), Standard Oil Development Co., a Delaware corporation (hereinafter called Development) and the Pure Oil Co., an Ohio corporation (hereinafter called Pure), and Texas has made the grants and payments and has otherwise performed all of its obligations to Gray and to the committee by it to be made and performed on the closing date pursuant to the provisions of said purchase and cross-license agreement.

Digitized by Google

5. Gray is the owner of certain United States and foreign letters patent and applications for letters patent listed in exhibit A annexed to said purchase and cross-license agreement. Gray has agreed to grant the within license to Texas under its patent rights, as hereinafter defined, which include the patent rights acquired by it from Texas, Indiana, Development, and Pure pursuant to said purchase and cross-license agreement.

6. In consideration of the premises and of the covenants, grants, and payments made by Texas pursuant to the purchase and cross-license agreement, and in further consideration of the mutual covenants and agreements hereinafter set forth, the parties hereto do mutually covenant and agree as follows:

III. DEFINITITIONS

7. Whenever used in this agreement, the following terms shall have the following meanings, respectively:

(*a*) The term "clay treating" shall mean polymerizing the undesirable constituents of naphthas and/or kerosenes in vapor and/or liquid phase at elevated temperatures with solid contact catalysts, such as fuller's earth, decolorizing clays and the like.

(*b*) The term "patent rights" shall mean all such, but only such claims of patents of the United States and countries foreign thereto, and transferable rights thereunder, as cover processes for, or apparatus primarily designed for, the practice of clay treating and based upon inventions made prior to January 1, 1950. The patent rights of a granting party shall mean those patent rights as defined in the preceding sentence of which the party now has or shall have prior to January 1, 1950, the ownership or control in the sense of having the power to dispose of them or grant licenses for clay treating thereunder, insofar as it is not bound to account to others for so doing by contracts with others in force on the date of execution of this agreement.

(*c*) The term "subsidiaries" shall mean all corporations of which the parent company owns, directly or indirectly, more than 50 percent of the stock having the right to vote for directors. For the purpose of this definition, the stock owned by the parent company shall be deemed to include all stock having the right to vote for directors and owned, directly or indirectly, by any of its subsidiaries as defined above.

(*d*) The term "throughput" shall mean the number of barrels of hydrocarbon oil treated by Texas pursuant to the license hereby granted, collected in purified liquid form from the treating apparatus, excluding therefrom all straight-run naphtha (i. e., naphtha which has not been exposed to cracking temperatures) subjected to treatment while mixed with the hydrocarbon oil treated, and excluding further any oil which has previously been treated pursuant to the license hereby granted.

(*e*) The term "daily average throughput" shall mean the aggregate throughput during any accounting period of 6 calendar months divided by the total number of days in such accounting period. In the case of new installations which are placed in operation during an accounting period, the "daily average throughput" thereof shall be based upon the number of days remaining in such period after such operation commences.

(*f*) The term "barrel" shall mean 42 gallons at 60° F. and the term "gallon" shall mean 231 cubic inches.

IV. COVENANTS

8. Gray grants to Texas, upon the terms and conditions hereinafter stated, an irrevocable, nonexclusive license for clay treating under its patent rights.

9. (*a*) Texas agrees, as additional consideration for the license hereby granted, to pay the committee additional lump-sum royalties based on the daily average throughput of Texas, in accordance with the following schedule:

For the first 5,000 barrels daily average throughput, at the rate of $8.80 per barrel;

For the next 1,000 barrels daily average throughput, i. e., 5,001–6,000 barrels daily average throughput total, at the rate of $7 per barrel;

For the next 3,000 barrels daily average throughput, i. e., 6,001–9,000 barrels daily average throughput total, at the rate of $5.66 per barrel;

For the next 3,000 barrels daily average throughput, i. e., 9,001–12,000 barrels daily average throughput total, at the rate of $4.33 per barrel;

For the next 3,000 barrels daily average throughput, i.e., 12,001–15,000 barrels daily average throughput total, at the rate of $3 per barrel;

For all over 15,000 barrels daily average throughput, at the rate of $2 per barrel;

and in accordance with the following provisions:

Digitized by Google

(*b*) Texas agrees to pay the committee, upon the execution of this agreement the sum of $72,310, as payment in full of the additional lump sum royalty in respect of the first 10,000 barrels daily average throughput in accordance with the above schedule.

(*c*) Texas agrees to keep accurate and complete records and accounts of all operations under this license, and Gray and the committee and their agents, attorneys, or accountants thereunto duly authorized in writing shall have the right at reasonable business hours to inspect and take extracts from said records and accounts; and Texas agrees at its own expense to equip each of its treating installations operated under this license with means, to be approved by Gray in writing, for accurately measuring the number of barrels of hydrocarbon oil treated therein, and where deduction for straight-run naphtha content is claimed, to conduct and record adequate standard Engler distillation tests to determine the straight-run naphtha contained in the oil treated; and Texas further agrees to render to Gray and to the committee semiannual statements, certified by an officer of Texas, on or before the fifteenth days of February and August of each year, showing the operations of Texas hereunder for the 6 months' periods from July 1st to January 1st and from January 1st to July 1st next preceding such accounting dates, containing the following information:

(*aa*) The total amount of hydrocarbon oil treated during the accounting period pursuant to this license, specifying the amount of oil so treated, if any, at each refinery of the licensee;

(*bb*) The total amount of straight-run naphtha contained in the hydrocarbon oil reported under paragraph (*aa*);

(*cc*) The total throughput for the accounting period, being the amount reported under paragraph (*aa*) less the amount reported under paragraph (*bb*);

(*dd*) The daily average throughput for the accounting period;

(*ee*) The excess of the daily average throughput reported under paragraph (*dd*) over the daily average throughput in respect of which Texas has theretofore paid the additional lump sum royalties as provided in this paragraph 9.

(*d*) Texas agrees at the time of rendering each semi-annual statement t · pay the committee the additional lump sum royalty prescribed in the scale set forth in subparagraph (*c*) of this paragraph 9 in respect of the excess of the daily average throughput for the accounting period covered by such semiannual statement over the daily average throughput in respect of which Texas has theretofore paid the additional lump sum royalties as provided in this paragraph 9 (and in the case of the first semiannual statement rendered hereunder, in respect of the excess, if any, of the daily average throughput reported therein over 10,000 barrels).

(*e*) Texas agrees to notify Gray and the committee promptly in writing of the completion of each new treating installation installed by it for operation under this license and agrees that if the operation of such installation increases the daily average throughput of Texas for the accounting period in which such installation is completed, beyond the daily average throughput in respect of which Texas has theretofore paid the additional lump-sum royalties as provided in this paragraph 9, Texas will pay to the committee the additional lump-sum royalties in respect of such increase as in subparagraph (*d*) above provided, and with interest thereon to the date of payment at the rate of 6 percent from and after 30 days from the date when such additional installation is placed in commercial operation.

(*f*) All payments by Texas on account of additional lump-sum royalties shall be made to the committee in New York funds, free of exchange charges, and shall complete payment in full for the license granted hereby in respect of the number of barrels of daily average throughput in respect of which such payments are made.

10. In the event of the institution of any suit against Texas alleging that its employment of any apparatus or processes for clay treating covered by the patent rights licensed hereunder and approved in writing by Gray, and/or the manufacture and/or sale by Texas of any products produced thereby, infringes any letters patent, Gray agrees, if promptly advised in writing by Texas of the institution of any such suit, to undertake at Gray's expense the defense thereof, provided Texas shall furnish to Gray such information or testimony as may be reasonably needed by Gray in connection with such suit, but such expense shall be limited to all proper compensation and expenses of counsel and witnesses, and expenses necessarily incurred in procuring and furnishing information and testimony, including cost of expert advice and testimony.

Digitized by Google

11. Notices and payments provided for herein shall be sent to the following addresses: The Gray Processes Corporation, 961 Frelinghuysen Avenue, Newark, N. J.; The Texas Co., and The Texas Corporation, 135 East 42nd Street, New York, N. Y.; The Gray Processes Corporation Committee, c/o Fidelity Union Trust Co., Newark, N. J.

12. Texas agrees to use its best efforts to secure compliance with the terms of this license by all of its present and future subsidiaries. Those that do so comply shall be bound by all the provisions and entitled to all the rights granted under this license. If notwithstanding such efforts any such subsidiary shall refuse or fail to comply with the terms of this license, said noncomplying subsidiary shall be deemed to have renounced the benefits of this license and Texas guarantees Gray and the committee against and agrees to hold Gray and the committee harmless from any loss or liability occurring by reason of such noncompliance by any noncomplying subsidiary or Texas: *Provided however*, That Texas shall be entitled to offset against any such loss or liability any recovery by Gray or the committee against such noncomplying subsidiary for infringement of its patent rights: *And provided further*, That if any future subsidiary of Texas shall have, at the time it becomes a subsidiary, prior obligations which prevent it from complying with the terms of this license it shall be deemed to be a stranger to this license and Texas shall be *ipso facto* released from its obligation to hold Gray and the committee harmless from resultant loss or liability.

13. This agreement shall benefit and be binding upon the respective parties hereto and their respective successors and assigns: *Provided however*, That no party hereto may, by any such assignment, be relieved of its obligations hereunder except with the express consent in writing of the other parties hereto. It is agreed that this license, and all rights of Texas thereunder, may be assigned, without further payment, to the successors in ownership of the whole of the manufacturing business of Texas. Gray further agrees, in the event of the sale or other disposition by Texas of any installation in which the clay-treating operations licensed hereunder are conducted, to grant to the purchaser or other transferee of such installation a license in standard form upon payment by such purchaser or transferee to Gray of the standard royalties of Gray then applicable to new licenses granted by Gray in the ordinary course of business.

14. Texas shall have the right at any time after January 1, 1950, upon 3 months' written notice to Gray and the committee, to terminate its obligation for the payment of any further royalties of any kind or character pursuant to this agreement in respect of installations for the use of the process and apparatus licensed hereunder installed after such date of termination, but it is expressly understood and agreed that the service of such notice of termination shall not affect any rights theretofore acquired by Texas pursuant to this agreement and the purchase and cross-license agreement herein referred to.

15. The making, execution and delivery of this agreement by the parties hereto have been induced by no representations, statements, warranties or agreements other than those expressed or mentioned herein.

In witness whereof, the parties hereto have caused this instrument to be executed on the day and year first above written.

THE GRAY PROCESSES CORPORATION,

By ----------,
President.

Attest:

----------,
Secretary.

THE TEXAS CO.,

By ----------,
President.

Attest:

----------,
Secretary.

THE TEXAS CORPORATION,

By ----------,
President.

Attest:

----------,
Secretary.

Digitized by Google

THE GRAY PROCESSES CORPORATION COMMITTEE,

---------- *(As the Committee and not individually)*,

---------- *Witness as to Charles H. Marshall.*

---------- *Witness as to Walter Miller.*

---------- *Witness as to Theodore S. Kenyon.*

EXHIBIT M

(License agreement dated the ------ day of ------, 1933)

I. PARTIES

1. The Gray Processes Corporation, a corporation of the State of Delaware, having a place of business at 961 Frelinghuysen Avenue, Newark, N. J. (hereinafter called Gray).

2. Standard Oil Co., a corporation of the State of Indiana, having a place of business at 910 South Michigan Avenue, Chicago. Ill., and its subsidiaries (hereinafter referred to collectively as Indiana).

3. The Gray Processes Corporation committee, being the persons for the time acting as such under the purchase and cross-license agreement hereinafter mentioned (hereinafter called the committee).

II. RECITALS

4. Gray, Indiana, and the committee have entered into a certain purchase and cross-license agreement dated ----------, with the Texas Co., a Delaware corporation, and the Texas Corporation, a Delaware corporation (hereinafter collectively called Texas), Standard Oil Development Co., a Delaware corporation (hereinafter called Development) and the Pure Oil Co., an Ohio corporation (hereinafter called Pure), and Indiana has made the grants and payments and has otherwise performed all of its obligations to Gray and to the committee by it to be made and performed on the closing date pursuant to the provisions of said purchase and cross-license agreement.

5. Gray is the owner of certain United States and foreign letters patent and applications for letters patent listed in exhibit A annexed to said purchase and cross-license agreement. Gray has agreed to grant the within license to Indiana under its patent rights, as hereinafter defined, which include the patent rights acquired by it from Texas, Indiana, Development, and Pure pursuant to said purchase and cross-license agreement.

6. In consideration of the premises and of the covenents, grants, and payments made by Indiana pursuant to the purchase and cross-license agreement, and in further consideration of the mutual covenants and agreements hereinafter set forth, the parties hereto do mutually covenant and agree as follows:

III. DEFINITIONS

7. Whenever used in this agreement, the following terms shall have the following meanings respectively:

(*a*) The term "clay treating" shall mean polymerizing the undesirable constituents of naphthas and/or kerosenes in vapor and/or liquid phase at elevated temperatures with solid contact catalysts, such as fuller's earth, decolorizing clays, and the like.

(*b*) The term "patent rights" shall mean all such, but only such claims of patents of the United States and countries foreign thereto, and transferable rights thereunder, as cover processes for, or apparatus primarily designed for, the practice of clay treating and based upon inventions made prior to January 1, 1950. The patent rights of a granting party shall mean those patent rights as defined in the preceding sentence of which the party now has or shall have prior to January 1, 1950, the ownership or control in the sense of having the power to dispose of them or grant licenses for clay treating thereunder, insofar as it is not bound to account to others for so doing by contracts with others in force on the date of execution of this agreement.

Digitized by Google

(*c*) The term "subsidiaries" shall mean all corporations of which the parent company owns, directly or indirectly, more than 50 percent of the stock having the right to vote for directors. For the purpose of this definition, the stock owned by the parent company shall be deemed to include all stock having the right to vote for directors and owned, directly or indirectly, by any of its subsidiaries as defined above.

(*d*) The term "throughput" shall mean the number of barrels of hydrocarbon oil treated by Indiana pursuant to the license hereby granted, collected in purified liquid form from the treating apparatus, excluding therefrom all straight-run naphtha (i. e., naphtha which has not been exposed to cracking temperatures) subjected to treatment while mixed with the hydrocarbon oil treated, and excluding further any oil which has previously been treated pursuant to the license hereby granted.

(*e*) The term "daily average throughput" shall mean the aggregate throughput during any accounting period of 6 calendar months divided by the total number of days in such accounting period. In the case of new installations which are placed in operation during an accounting period, the "daily average throughput" thereof shall be based upon the number of days remaining in such period after such operation commences.

(*f*) The term "barrel" shall mean 42 gallons at 60° F. and the term "gallon" shall mean 231 cubic inches.

IV. COVENANTS

8. Gray grants to Indiana, upon the terms and conditions hereinafter stated, an irrevocable, nonexclusive license for clay-treating under its patent rights.

9. (*a*) Indiana agrees, as additional consideration for the license hereby granted, to pay the committee additional lump-sum royalties based on the daily average throughput of Indiana, in accordance with the following schedule:

For the first 5,000 barrels daily average throughput, at the rate of $8.80 per barrel;

For the next 1,000 barrels daily average throughput, i. e., 5,001–6,000 barrels daily average throughput total, at the rate of $7 per barrel;

For the next 3,000 barrels daily average throughput, i. e. 6,001–9,000 barrels daily average throughput total, at the rate of $5.66 per barrel;

For the next 3,000 barrels daily average throughput, i. e. 9,001–12,000 barrels daily average throughput total, at the rate of $4.33 per barrel;

For the next 3,000 barrels daily average throughput, i. e. 12,000–15,000 barrels daily average throughput total, at the rate of $3 per barrel;

For all over 15,000 barrels daily average throughput, at the rate of $2 per barrel;

and in accordance with the following provisions:

(*b*) Indiana agrees to pay the committee, upon the execution of this agreement, the sum of $51,000, as payment in full of the additional lump-sum royalty in respect of the first 6,000 barrels daily average throughput in accordance with the above schedule.

(*c*) Indiana agrees to keep accurate and complete records and accounts of all operations under this license, and Gray and the committee and their agents, attorneys or accountants thereunto duly authorized in writing shall have the right, at reasonable business hours, to inspect and take extracts from said records and accounts; and Indiana agrees at its own expense to equip each of its treating installations operated under this license with means, to be approved by Gray in writing, for accurately measuring the number of barrels of hydrocarbon oil treated therein and, where deduction for straight-run naphtha content is claimed, to conduct and record adequate standard Engler distillation tests to determine the straight-run naphtha contained in the oil treated; and Indiana further agrees to render to Gray and to the committee semiannual statements, certified by an officer of Indiana, on or before the 15th days of February and August of each year, showing the operations of Indiana hereunder for the 6-month periods from July 1 to January 1 and from January 1 to July 1 next preceding such accounting dates, containing the following information:

(*aa*) The total amount of hydrocarbon oil treated during tne accounting period pursuant to this license, specifying the amount of oil so treated, if any, at each refinery of the licensee;

(*bb*) The total amount of straight-run naphtha contained in the hydrocarbon oil reported under paragraph (*aa*);

(*cc*) The total throughput for the accounting period, being the amount reported under paragraph (*aa*) less the amount reported under paragraph (*bb*);

(*dd*) The daily average throughput for the accounting period;

Digitized by Google

(*ee*) The excess of the daily average throughput reported under paragraph (*dd*) over the daily average throughput in respect of which Indiana has theretofore paid the additional lump-sum royalties as provided in this paragraph 9.

(*d*) Indiana agrees at the time of rendering each semiannual statement to pay the committee the additional lump-sum royalty prescribed in the scale set forth in subparagraph (*c*) of this paragraph 9 in respect of the excess of the daily average throughput for the accounting period covered by such semiannual statement over the daily average throughput in respect of which Indiana has theretofore paid the additional lump-sum royalties as provided in this paragraph 9 (and in the case of the first semiannual statement rendered hereunder, in respect of the excess, if any, of the daily average throughput reported therein over 6,000 barrels).

(*e*) Indiana agrees to notify Gray and the committee promptly in writing of the completion of each new treating installation installed by it for operation under this license and agrees that if the operation of such installation increases the daily average throughput of Indiana for the accounting period in which such installation is completed, beyond the daily average throughput in respect of which Indiana has theretofore paid the additional lump-sum royalties as provided in this paragraph 9, Indiana will pay to the committee the additional lump-sum royalties in respect of such increase as in subparagraph (*d*) above provided, and with interest thereon to the date of payment at the rate of 6 percent from and after 30 days from the date when such additional installation is placed in commercial operation.

(*f*) All payments by Indiana on account of additional lump-sum royalties shall be made to the committee in New York funds, free of exchange charges, and shall complete payment in full for the license granted hereby in respect of the number of barrels of daily average throughput in respect of which such payments are made.

10. In the event of the institution of any suit against Indiana alleging that its employment of any apparatus or processes for clay treating covered by the patent rights licensed hereunder and approved in writing by Gray, and/or the manufacture and/or sale by Indiana of any products produced thereby, infringes any letters patent, Gray agrees, if promptly advised in writing by Indiana of the institution of any such suit, to undertake at Gray's expense the defense thereof, provided Indiana shall furnish to Gray such information or testimony as may be reasonably needed by Gray in connection with such suit, but such expense shall be limited to all proper compensation and expenses of counsel and witnesses, and expenses necessarily incurred in procuring and furnishing information and testimony, including costs of expert advice and testimony.

11. Notices and payments provided for herein shall be sent to the following addresses: The Gray Processes Corporation, 961 Frelinghuysen Avenue, Newark, N. J.; Standard Oil Co. (Indiana), 910 South Michigan Avenue, Chicago, Ill.; The Gray Processes Corporation committee, c/o Fidelity Union Trust Co., Newark, N. J.

12. Indiana agrees to use its best efforts to secure compliance with the terms of this license by all of its present and future subsidiaries. Those that do so comply shall be bound by all the provisions and entitled to all the rights granted under this license. If notwithstanding such efforts any such subsidiary shall refuse or fail to comply with the terms of this license, said noncomplying subsidiary shall be deemed to have renounced the benefits of this license and Indiana guarantees Gray and the committee against and agrees to hold Gray and the committee harmless from any loss or liability occurring by reason of such noncompliance by any noncomplying subsidiary of Indiana, provided, however, that Indiana shall be entitled to offset against any such loss or liability any recovery by Gray or the committee against such noncomplying subsidiary for infringement of its patent rights; and provided further that if any future subsidiary of Indiana shall have, at the time it becomes a subsidiary, prior obligations which prevent it from complying with the terms of this license it shall be deemed to be a stranger to this license and Indiana shall be *ipso facto* released from its obligation to hold Gray and the committee harmless from resultant loss or liability.

13. This agreement shall benefit and be binding upon the respective parties hereto and their respective successors and assigns; provided, however, that no party hereto may, by any such assignment, be relieved of its obligations hereunder except with the express consent in writing of the other parties hereto. It is agreed that this license, and all rights of Indiana thereunder, may be assigned, without further payment, to the successors in ownership of the whole of the manufacturing business of Indiana. Gray further agrees, in the event of the sale or other disposition by Indiana of any installation in which the clay treating operations licensed hereunder are conducted, to grant to the purchaser or other

Digitized by Google

transferee of such installation, a license in standard form upon payment by such purchaser or transferee to Gray of the standard royalties of Gray then applicable to new licenses granted by Gray in the ordinary course of business.

14. Indiana shall have the right at any time after January 1, 1950, upon 3 months' written notice to Gray and the committee, to terminate its obligation for the payment of any further royalties of any kind or character pursuant to this agreement in respect of installations for the use of the process and apparatus licensed hereunder installed after such date of termination, but it is expressly understood and agreed that the service of such notice of termination shall not affect any rights theretofore acquired by Indiana pursuant to this agreement and the purchase and cross-license agreement herein referred to.

15. The making, execution, and delivery of this agreement by the parties hereto have been induced by no representations, statements, warranties, or agreements other than those expressed or mentioned herein.

In witness whereof, the parties hereto have caused this instrument to be executed on the day and year first above written.

THE GRAY PROCESSES CORPORATION,

By _____
President.

Attest:

_____
Secretary.

STANDARD OIL CO. (Indiana),

By _____
President.

Attest:

_____
Secretary.

THE GRAY PROCESSES CORPORATION COMMITTEE,

_____

_____

_____

[*As the committee, and not individually*]

_____
Witness as to Charles H. Marshall.

_____
Witness as to Walter Miller.

_____
Witness as to Theodore S. Kenyon.

EXHIBIT N

License agreement dated the _____ day of _____, 1933.

I. PARTIES

1. The Gray Processes Corporation, a corporation of the State of Delaware, having a place of business at 961 Frelinghuysen Avenue, Newark, N. J. (hereinafter called Gray).

2. Standard Oil Development Co., a Delaware corporation, having a place of business at Linden, N. J. (hereinafter called Development).

3. The Gray Processes Corporation committee, being the persons for the time acting as such under the purchase and cross-license agreement hereinafter mentioned (hereinafter called the committee).

II. RECITALS

4. Gray, Development, and the committee have entered into a certain purchase and cross-license agreement dated _____, with Standard Oil Co., an Indiana corporation (hereinafter called Indiana), the Texas Co., a Delaware corporation, and the Texas Corporation, a Delaware corporation (hereinafter referred to collectively as Texas), and the Pure Oil Co., an Ohio corporation (hereinafter called Pure), and Development has made the grants and payments and has otherwise performed all of its obligations to Gray and to the committee by it to be made and performed on the closing date pursuant to the provisions of said purchase and cross-license agreement.

5. Development represents that Imperial Oil Limited, a Canadian company, and a subsidiary of Standard Oil Co. (New Jersey), has installed and is operating

Digitized by Google

in the Dominion of Canada certain equipment for a treating process known as the Stratford process.

6. Gray is the owner of certain United States and foreign letters patent and applications for letters patent listed in exhibit A annexed to said purchase and cross-license agreement. Gray has agreed to grant the within license to Development under its patent rights, as hereinafter defined, which include the patent rights acquired by it from Texas, Indiana, Development, and Pure pursuant to said purchase and cross-license agreement.

7. In consideration of the premises and of the covenants, grants, and payments made by Development pursuant to the purchase and cross-license agreement, and in further consideration of the mutual covenants and agreements hereinafter set forth, the parties hereto do mutually covenant and agree as follows:

III. DEFINITIONS

8. Whenever used in this agreement, the following terms shall have the following meanings respectively:

(*a*) The term "clay treating" shall mean polymerizing the undesirable constituents of naphthas and/or kerosenes in vapor and/or liquid phase at elevated temperatures with solid contact catalysts, such as fuller's earth, decolorizing clays, and the like.

(*b*) The term "patent rights" shall mean all such, but only such claims of patents of the United States and countries foreign thereto, and transferable rights thereunder, as cover processes for, or apparatus primarily designed for, the practice of clay treating and based upon inventions made prior to January 1, 1950. The patent rights of a granting party shall mean those patent rights as defined in the preceding sentence of which the party now has or shall have prior to January 1, 1950, the ownership or control in the sense of having the power to dispose of them or grant licenses for clay treating thereunder, insofar as it is not bound to account to others for so doing by contracts with others in force on the date of execution of this agreement.

(*c*) The term "subsidiaries" shall mean all corporations of which the parent company owns, directly or indirectly, more than 50 percent of the stock having the right to vote for directors. For the purpose of this definition, the stock owned by the parent company shall be deemed to include all stock having the right to vote for directors and owned, directly or indirectly, by any of its subsidiaries as defined above.

(*d*) The term "throughput" shall mean the number of barrels of hydrocarbon oil treated by Development and its sublicensees pursuant to the license hereby granted, collected in purified liquid form from the treating apparatus, excluding therefrom all straight-run naphtha (i. e., naphtha which has not been exposed to cracking tempertaures) subjected to treatment while mixed with the hydrocarbon oil treated, and excluding further any oil which has previously been treated pursuant to the license hereby granted.

(*e*) The term "daily average throughput" shall mean the aggregate throughput during any accounting period of 6 calendar months divided by the total number of days in such accounting period. In the case of new installations which are placed in operation during an accounting period, the "daily average throughput" thereof shall be based upon the number of days remaining in such period after such operation commences.

(*f*) The term "barrel" shall mean 42 gallons at 60° F. and the term "gallon" shall mean 231 cubic inches.

IV. COVENANTS

9. Gray grants to Development, upon the terms and conditions hereinafter stated, an irrevocable, nonexclusive license for clay treating under its patent rights.

10. (*a*) Development agrees, as additional consideration for the license hereby granted, to pay the committee additional lump-sum royaltics based on the daily average throughput of Development and its sublicensees, in accordance with the following schedule:

For the first 5,000 barrels daily average throughput, at the rate of $8.80 per barrel;

For the next 1,000 barrels daily average throughput, i. e., 5,001–6,000 barrels daily average throughput total, at the rate of $7 per barrel;

For the next 3,000 barrels daily average throughput, i. e., 6,001–9,000 barrels daily average throughput total, at the rate of $5.66 per barrel;

For the next 3,000 barrels daily average throughput, i. e., 9,001–12,000 barrels daily average throughput total, at the rate of $4.33 per barrel;

Digitized by Google

For the next 3,000 barrels daily average throughput, i. e., 12,001–15,000 barrels daily average throughput total, at the rate of $3 per barrel;

For all over 15,000 barrels daily average throughput, at the rate of $2 per barrel;

and in accordance with the following provisions:

(*b*) Development agrees to keep, or cause to be kept, accurate and complete records and accounts of all operations under this license, and Gray and the committee and their agents, attorneys, or accountants thereunto duly authorized in writing shall have the right at reasonable business hours to inspect and take extracts from said records and accounts; and Development agrees at its own expense to equip or cause to be equipped each of the treating installations in which the operations licensed hereunder are conducted with means, to be approved by Gray in writing, for accurately measuring the number of barrels of hydrocarbon oil treated therein and, where deduction for straight-run naptha content is claimed, to conduct and record or cause to be conducted and recorded adequate standard Engler distillation tests to determine the straight-run naptha contained in the oil treated; and Development further agrees to render to Gray and to the committee, when commercial operations are commenced under this license, semiannual statements, certified by an officer of Development, on or before the 15th day of February and August of each year, showing the operations of Development and its sublicensees hereunder for the 6 months' periods from July 1 to January 1 and from January 1 to July 1 next preceding such accounting dates, containing the following information:

(*aa*) The total amount of hydrocarbon oil treated during the accounting period pursuant to this license, specifying the amount of oil so treated, if any, at each refinery of the licensee and its sublicensees;

(*bb*) the total amount of straight-run naphtha contained in the hydrocarbon oil reported under paragraph (*aa*);

(*cc*) the total throughput for the accounting period, being the amount reported under paragraph (*aa*) less the amount reported under paragraph (*bb*);

(*dd*) the daily average throughput for the accounting period;

(*ee*) the excess of the daily average throughput reported under paragraph (*dd*) over the daily average throughput in respect of which Development has theretofore paid the additional lump-sum royalties as provided in this paragraph 10.

(*c*) Development agrees at the time of rendering each semiannual statement to pay the committee the additional lump-sum royalty prescribed in the scale set forth in paragraph 10 in respect of the excess of the daily average throughput for the accounting period covered by such semiannual statement over the daily average throughput in respect of which Development has theretofore paid the additional lump-sum royalties as provided in this paragraph 10 (and in the case of the first semiannual statement rendered hereunder, in respect of the excess, if any, of the daily average throughput reported therein over the number of barrels of daily average throughput for which additional lump-sum royalties have been paid).

(*d*) Development agrees to notify Gray and the committee promptly in writing of the completion of each new treating installation installed for operation under this license and agrees that if the operation of such installation increases the daily average throughput of Development and its sublicensees for the accounting period in which such installation is completed, beyond the daily average throughput in respect of which Development has theretofore paid the additional lump sum royalties as provided in this paragraph 10, Development will pay to the committee the additional lump sum royalties in respect of such increase as in subparagraph (c) above provided, and with interest thereon to the date of payment at the rate of 6 percent from and after 30 days from the date when such additional installation is placed in commercial operation.

(*e*) All payments by Development on account of additional lump-sum royalties shall be made to the committee in New York funds, free of exchange charges, and shall complete payment in full for the license granted hereby in respect of the number of barrels of daily average throughput in respect of which such payments are made.

(*f*) There shall be no obligation on the part of Development or the refining interests of Standard Oil Co. (New Jersey) to install equipment for clay treating under this license within any specified time. Payment of the additional consideration specified in subparagraph (*a*) of paragraph 10 hereof on account of operations under this license shall be made within 30 days from the time equipment for clay treating under this license is put into commercial operation.

Digitized by Google

11. Development shall have the right to grant sublicenses under this license to any of the subsidiaries of Standard Oil Co. (New Jersey) engaged in the refining of hydrocarbon oils. Development agrees to pay, or cause to be paid, to the committee all royalties or license fees accruing on account of the operations of any of the subsidiaries of Standard Oil Co. (New Jersey) hereunder.

12. Gray agrees that it will not sue, or request Indiana, Texas, or Pure to sue, Imperial Oil Limited or any of its subsidiaries for infringement of their respective patent rights on account of the operation and use by Imperial Oil Limited or any of its subsidiaries of their equipment of an aggregate capacity equal to that of their present installed equipment (30,000 barrels per day) for the practice of the Stratford process, or for the practice of the Stratford process provided such practice be limited to the use and operation of equipment of an aggregate capacity equal to that of the present installed equipment. Development shall not be required to account to Gray for the use and operation by Imperial Oil Limited and its subsidiaries of said equipment for the practice of the Stratford process and the present capacity of said equipment shall not be included in determining the rate under paragraph 10 hereof at which Development shall pay for licensed treating capacity.

13. In the event of the institution of any suit against Development or any of its sublicensees alleging that the employment of any apparatus or processes for clay treating covered by the patent rights licensed hereunder and approved in writing by Gray, and/or the manufacture and/or sale by Development or any of its sublicensees of any products produced thereby, infringes any letters patent, Gray agrees, if promptly advised in writing by Development of the institution of any such suit, to undertake at Gray's expense the defense thereof, provided Development shall furnish to Gray such information or testimony as may be reasonably needed by Gray in connection with such suit, but such expense shall be limited to all proper compensation and expenses of counsel and witnesses, and expenses necessarily incurred in procuring and furnishing information and testimoney, including costs of expert advice and testimony.

14. Notices and payments provided for herein shall be sent to the following addresses: The Gray Processes Corporation, 961 Frelinghuysen Avenue, Newark, N. J.; Standard Oil Development Co., Linden, N. J.; The Gray Processes Corporation Committee, care of Fidelity Union Trust Co., Newark, N. J.

15. Development agrees to use its best efforts to secure compliance with the terms of this license by all of the present and future subsidiaries of Development and of Standard Oil Co. (New Jersey). Those that do so comply shall be bound by all the provisions and entitled to all the rights granted under this license. If notwithstanding such efforts any such subsidiary shall refuse or fail to comply with the terms of this license, said noncomplying subsidiary shall be deemed to have renounced the benefits of this license and Development guarantees Gray and the committee against and agrees to hold Gray and the committee harmless from any loss or liability occurring by reason of such noncompliance by any noncomplying subsidiary of Development or of Standard Oil Co. (New Jersey) provided, however, that Development shall be entitled to offset against any such loss or liability any recovery by Gray or the committee against such noncomplying subsidiary for infringement of its patent rights; and provided further that if any future subsidiary of Development or of Standard Oil Co. (New Jersey) shall have at the time it becomes a subsidiary prior obligations which prevent it from complying with the terms of this license it shall be deemed to be a stranger to this license and Development shall be ipso facto released from its obligation to hold Gray and the committee harmless from resultant loss or liability.

16. This agreement shall benefit and be binding upon the respective parties hereto and their respective successors and assigns; provided, however, that no party hereto may, by any such assignment, be relieved of its obligations hereunder except with the express consent in writing of the other parties hereto. It is agreed that this license, and all rights of Development thereunder, may be assigned, without further payment, to the successors in ownership of the whole of the manufacturing business of the refining subsidiaries of Standard Oil Co. (New Jersey). Gray further agrees, in the event of the sale or other disposition by any refining subsidiary of Standard Oil Co. (New Jersey) of any installation in which the clay treating operations licensed hereunder are conducted, to grant to the purchaser or other transferee of such installation, a license in standard form upon payment by such purchaser or transferee to Gray of the standard royalties of Gray then applicable to new licenses granted by Gray in the ordinary course of business.

Digitized by Google

17. Development shall have the right at any time after January 1, 1950, upon 3 months' written notice to Gray and the committee, to terminate its obligation for the payment of any further royalties of any kind or character pursuant to this agreement in respect of installations for the use of the process and apparatus licensed hereunder installed after such date of termination, but it is expressly understood and agreed that the service of such notice of termination shall not affect any rights theretofore acquired by Development pursuant to this agreement and the purchase and cross-license agreement herein referred to.

18. The making, execution, and delivery of this agreement by the parties hereto have been induced by no representations, statements, warranties or agreements other than those expressed or mentioned herein.

In witness whereof, the parties hereto have caused this instrument to be executed on the day and year first above written.

THE GRAY PROCESSES CORPORATION,
By ----------
President.

Attest:

Secretary.

STANDARD OIL DEVELOPMENT CO.,
By ----------
President.

Attest:

Secretary.

THE GRAY PROCESSES CORPORATION COMMITTEE,

(*As the Committee, and not individually.*)

Witness as to Charles H. Marshall

Witness as to Walter Miller

Witness as to Theodore S. Kenyon

EXHIBIT O

License agreement dated the day of ------, 1933.

I. PARTIES

1. The Gray Processes Corporation, a corporation of the State of Delaware, having a place of business at 961 Frelinghuysen Avenue, Newark, N. J. (herein after called Gray).

2. The Pure Oil Co., a corporation of the State of Ohio, having a place of business at 35 East Wacker Drive, Chicago, Ill., and its subsidiaries (hereinafter referred to collectively as Pure).

3. The Gray Processes Corporation committee, being the persons for the time acting as such under the purchase and cross license agreement hereinafter mentioned (hereinafter called the committee).

II. RECITALS

4. Gray has granted to Pure pursuant to a license agreement dated May 22, 1930, a license for the treatment of oil under the vapor phase treating patents of Gray and Pure has made payment in full to Gray of the lump sum royalties prescribed in said license agreement in respect of 2,200 barrels daily average throughput.

5. Pure has been active in the development of a process for the treatment of oils with solid contact catalysts, such as fuller's earth, in the liquid phase at elevated temperatures and under pressures of the order of 1,000 pounds per square inch and represents that it has a present installed capacity for the treatment of 27,400 barrels daily average throughout by said liquid phase treating process.

6. Gray, Pure, and the committee have entered into a certain purchase and cross license agreement dated ----------, with the Texas Co., a Dela-

Digitized by Google

ware corporation, and the Texas Corporation, a Delaware corporation (hereinafter collectively called Texas), Standard Oil Co., an Indiana corporation (hereinafter called Indiana), and Standard Oil Development Co., a Delaware corporation, (hereinafter called Development), and Pure has made the grants and payments and has otherwise performed all of its obligations to Gray and to the committee by it to be made and performed on the closing date pursuant to the provisions of said purchase and cross license agreement.

7. Gray is the owner of certain United States and foreign letters patent and applications for letters patent listed in exhibit A annexed to said purchase and cross license agreement. Gray has agreed to grant the within license to Pure under its patent rights, as hereinafter defined, which include the patent rights acquired by it from Texas, Indiana, Development, and Pure pursuant to said purchase and cross license agreement.

8. In consideration of the premises and of the covenants, grants, and payments made by Pure pursuant to the purchase and cross license agreement, and in further consideration of the mutual covenants and agreements hereinafter set forth, the parties hereto do mutually convenant and agree as follows:

III. DEFINITIONS

9. Whenever used in this agreement, the following terms shall have the following meanings respectively:

(*a*) The term "clay treating" shall mean polymerizing the undesirable constitutents of naphthas and/or kerosenes in vapor and/or liquid phase at elevated temperatures with solid contact catalysts, such as fuller's earth, decolorizing clays and the like.

(*b*) The term "patent rights" shall mean all such, but only such claims of patents of the United States and countries foreign thereto, and transferable rights thereunder, as cover processes for, or apparatus primarily designed for, the practice of clay treating and based upon inventions made prior to January 1, 1950. The patent rights of a granting party shall mean those patent rights as defined in the preceding sentence of which the party now has or shall have prior to January 1, 1950, the ownership or control in the sense of having the power to dispose of them or grant licenses for clay treating thereunder, insofar as it is not bound to account to others for so doing by contracts with others in force on the date of execution of this agreement.

(*c*) The term "subsidiaries" shall mean all corporations of which the parent company owns, directly or indirectly, more than 50 percent of the stock having the right to vote for directors. For the purpose of this definition, the stock owned by the parent company shall be deemed to include all stock having the right to vote for directors and owned, directly or indirectly, by any of its subsidiaries as defined above.

(*d*) The term "throughput" shall mean the number of barrels of hydrocarbon oil treated by Pure pursuant to the license hereby granted, collected in purified liquid form from the treating apparatus, excluding therefrom all straight-run naptha (i. e., naphtha which has not been exposed to cracking temperatures) subjected to treatment while mixed with the hydrocarbon oil treated, and excluding further any oil which has previously been treated pursuant to the license hereby granted.

(*e*) The term "daily average throughput" shall mean the aggregate throughput during any accounting period of 6 calendar months dvided by the total number of days in such accounting period. In the case of new installations which are placed in operation during an accounting period, the "daily average throughput" thereof shall be based upon the number of days remaining in such period after such operation commences.

(*f*) The term "barrel" shall mean 42 gallons at 60° F. and the term "gallon" shall mean 231 cubic inches.

IV. COVENANTS

10. Gray grants to Pure, upon the terms and conditions hereinafter stated, an irrevocable, nonexclusive license for clay treating under its patent rights.

11. (*a*) Pure agrees, as additional consideration for the license hereby granted, to pay to the commtitee:

(1) Additional lump sum royalties based on the daily average throughput of Pure treated by its liquid phase treating process pursuant to this license for all amounts in excess of 27,400 barrels daily average throughput at the rate of $2 per barrel daily average throughput; and

Digitized by Google

(2) Additional lump sum royalties based on the daily average throughput of Pure treated pursuant to this license otherwise than by its liquid phase process for all amounts in excess of 2,200 barrels daily average throughput in accordance with the following scale:

For the first 2,800 barrels daily average throughput (in excess of its present paid-up daily average throughput of 2,200 barrels) at the rate of $8.80 per barrel;

For the next 1,000 barrels daily average throughput, i. e. 5,001–6,000 barrels daily average throughput total, at the rate of $7 per barrel;

For the next 3,000 barrels daily average throughput, i. e. 6,001–9,000 barrels daily average throughput total, at the rate of $5.66 per barrel;

For the next 3,000 barrels daily average throughput, i. e. 9,001–12,000 barrels daily average throughput total, at the rate of $4.33 per barrel;

For the next 3,000 barrels daily average throughput, i. e. 12,001–15,000 barrels daily average throughput total, at the rate of $3 per barrel;

For all over 15,000 barrels daily average throughput, at the rate of $2 per barrel;

and in accordance with the following provisions:

(b) Pure agrees to keep accurate and complete records and accounts of all operations under this license, and Gray and the committee and their agents, attorneys or accountants thereunto duly authorized in writing shall have the right at reasonable business hours to inspect and take extracts from said records and accounts; and Pure agrees at its own expense to equip each of its treating installations operated under this license with means, to be approved by Gray in writing, for accurately measuring the number of barrels of hydrocarbon oil treated therein and, where deduction for straight-run naphtha content is claimed, to conduct and record adequate standard Engler distillation tests to determine the straight-run naphtha contained in the oil treated; and Pure further agrees to render to Gray and to the committee semiannual statements, certified by an officer of Pure, on or before the fifteenth days of February and August of each year, showing the operations of Pure hereunder for the six months' periods from July first to January first and from January first to July first next preceding such accounting dates, containing the following information:

(*aa*) The total amount of hydrocarbon oil treated hereunder by its liquid phase treating process and the total amount of hydrocarbon oil treated hereunder otherwise than by its liquid phase treating process during the accounting period pursuant to this license, specifying the amount of oil so treated, if any, at each refinery of the licensee;

(*bb*) The total amounts of straight-run naphtha contained in the amounts of hydrocarbon oil reported under paragraph (*aa*);

(*cc*) The total throughput treated in the liquid phase and otherwise treated hereunder for the accounting period, being the amounts reported under paragraph (*aa*) less the respective amounts reported under paragraph (*bb*);

(*dd*) The daily average throughput treated in the liquid phase and the daily average throughput otherwise treated hereunder for the accounting period;

(*ee*) The excess of the daily average throughputs reported under paragraph (*dd*) over the daily average throughputs in respect of which Pure has theretofore paid royalties in full as provided in this paragraph 11.

(c) Pure agrees at the time of rendering each semiannual statement to pay to the committee the additional lump sum royalties prescribed in subparagraph (*a*) of this paragraph 11 in respect of the excess, if any, of its daily average throughput treated by its liquid phase process, and of its daily average throughput otherwise treated hereunder, for the accounting period covered by such semiannual statement over the daily average throughputs of oil treated in the liquid phase and otherwise treated hereunder respectively, in respect of which Pure has theretofore paid lump sum royalties in full as provided in this paragraph 11 (and in the case of the first semiannual statement rendered hereunder, in respect of the excess, if any, of its daily average throughput treated by its liquid phase process in excess of 27,400 barrels, and of its daily average throughput otherwise treated hereunder in excess of 2,200 barrels).

(*d*) Pure agrees to notify Gray and the committee promptly in writing of the completion of each new treating installation installed by it for operation under this license and agrees that if the operation of such installation increases the daily average throughput of Pure for the accounting period in which such installation is completed, beyond the daily average throughput in respect of which Pure has theretofore paid the additional lump-sum royalties as provided in this para-

Digitized by Google

graph 11, Pure will pay to the committee the additional lump-sum royalties in respect of such increase as in subparagraph (*c*) above provided, and with interest thereon to the date of payment at the rate of 6 percent from and after 30 days from the date when such additional installation is placed in commercial operation.

(*e*) All payments by Pure on account of additional lump-sum royalties shall be made to the committee in New York funds, free of exchange charges, and shall complete payment in full for the license granted hereby in respect of the number of barrels of daily average throughput in respect of which such payments are made.

12. In the event of the institution of any suit against Pure alleging that its employment of any apparatus or processes for clay treating covered by the patent rights licensed hereunder and approved in writing by Gray, and/or the manufacture and/or sale by Pure of any products produced thereby, infringes any letters patent, Gray agrees, if promptly advised in writing by Pure of the institution of any such suit, to undertake at Gray's expense the defense thereof, provided Pure shall furnish to Gray such information or testimony as may be reasonably needed by Gray in connection with such suit, but such expense shall be limited to all proper compensation and expenses of counsel and witnesses, and expenses necessarily incurred in procuring and furnishing information and testimony, including costs of expert advice and testimony.

13. Notices and payments provided for herein shall be sent to the following addresses: The Gray Processes Corporation, 961 Frelinghuysen Avenue, Newark, N. J.; The Pure Oil Co., 35 East Wacker Drive, Chicago, Ill.; The Gray Processes Corporation Committee, care of Fidelity Union Trust Co., Newark, N. J.

14. Pure agrees to use its best efforts to secure compliance with the terms of this license by all of its present and future subsidiaries. Those that do so comply shall be bound by all the provisions and entitled to all the rights granted under this license. If notwithstanding such efforts any such subsidiary shall refuse or fail to comply with the terms of this license, said noncomplying subsidiary shall be deemed to have renounced the benefits of this license and Pure guarantees Gray and the committee against and agrees to hold Gray and the committee harmless from any loss or liability occurring by reason of such noncompliance by any noncomplying subsidiary of Pure, provided, however, that Pure shall be entitled to offset against any such loss or liability any recovery by Gray or the committee against such noncomplying subsidiary for infringement of its Patent rights; and provided further that if any future subsidiary of Pure shall have, at the time it becomes a subsidiary, prior obligations which prevent it from complying with the terms of this license it shall be deemed to be a stranger to this license and Pure shall be *ipso facto* released from its obligation to hold Gray and the committee harmless from resultant loss or liability.

15. This agreement shall benefit and be binding upon the respective parties hereto and their respective successors and assigns; provided, however, that no party hereto may, by any such assignment, be relieved of its obligations hereunder except with the express consent in writing of the other parties hereto. It is agreed that this license, and all rights of Pure thereunder, may be assigned, without further payment, to the successors in ownership of the whole of the manufacturing business of Pure. Gray further agrees, in the event of the sale or other disposition by Pure of any installation in which the clay-treating operations licensed hereunder are conducted, to grant to the purchaser or other transferee of such installation, a license in standard form upon payment by such purchaser or transferee to Gray of the standard royalties of Gray then applicable to new licenses granted by Gray in the ordinary course of business.

16. Pure shall have the right at any time after January 1, 1950, upon 3 months' written notice to Gray and the committee, to terminate its obligation for the payment of any further royalties of any kind or character pursuant to this agreement in respect of installations for the use of the process and apparatus licensed hereunder installed after such date of termination, but it is expressly understood and agreed that the service of such notice of termination shall not affect any rights theretofore acquired by Pure pursuant to this agreement and the purchase and cross-license agreement herein referred to.

17. The making, execution, and delivery of this agreement by the parties hereto have been induced by no representations, statements, warranties, or agreements other than those expressed or mentioned herein.

Digitized by Google

In witness whereof, the parties hereto have caused this instrument to be executed on the day and year first above written.

THE GRAY PROCESSES CORPORATION,

By _____
President.

Attest:

_____
Secretary.

THE PURE OIL CO.,

By _____
President.

Attest:

_____
Secretary.

The Gray Processes Corporation Committee,

_____

_____

_____
(As the Committee, and not individually)

_____
Witness as to Charles H. Marshall.

_____
Witness as to Walter Miller.

_____
Witness as to Theodore S. Kenyon.

EXHIBIT P

Gray Processes Corporation balance sheet, Jan. 31, 1933

ASSETS

Current assets:	
Cash:	
Cash on hand—petty fund	$904.97
Commercial account—Union County Trust Co	11,172.65
Dividend account—Chase National Bank	1,341.62
Certificates of deposit	98,343.88
Total cash	111,763.12
Marketable securities:	
Bonds	24,750.00
Stocks	86,167.88
Total marketable securities	110,917.88
Notes receivable:	
Loan—H. S. Bell, Inc	20,000.00
Licensees—throughput royalties	28,877.30
Total notes receivable	48,877.30
Accounts receivable:	
Licensees—throughput royalties	7,336.47
Licensees—tower installations	27,718.10
Employees—traveling advances	4,993.95
Total accounts receivable	40,048.52
Accrued interest receivable	860.04
Total current assets	312,466.86

Digitized by Google

Gray Processes Corporation balance sheet, Jan. 31, 1933—Continued

ASSETS—Continued

Fixed assets:	
Storage building	$892.40
Less reserve for depreciation	104.12
	788.28
Equipment	5,984.09
Less reserve for depreciation	1,349.92
	4,634.17
Automobile	800.00
Less reserve for depreciation	300.05
	499.95
Furniture and fixtures	1,654.85
Less reserve for depreciation	823.17
	831.68
Patents	3,300.00
Less reserve for amortization	527.43
	2,772.57
Patent development expense capitalized	18,841.23
Less reserve for amortization	6,517.86
	12,323.37
Total fixed assets	21,850.02
Total assets	334,316.88

LIABILITIES

Current liabilities: Accounts payable	1,935.75
Capital stock and surplus (net worth):	
Authorized and outstanding, 100,000 shares, no par value	43,750.00
Paid-in surplus	192,500.00
Earned surplus—available for dividends	36,131.13
Earned surplus—reserved for contingencies	60,000.00
Total net worth	332,381.13
Total liabilities	334,316.88

EXHIBIT Q

CERTAIN LIABILITIES OF GRAY REFERRED TO IN ITEM (3) OF SUBPARAGRAPH (B) OF PARAGRAPH 21

1. Any and all liability under the contract between Gray Processes Corporation and Gray Industrial Laboratories, dated May 17, 1932.
2. Any and all liability for the repayment of royalties paid to Gray prior to the closing date.
3. Any and all taxes claimed or assessed in respect of income of Gray prior to the closing date.

Digitized by Google

DOCUMENTS AND AGREEMENTS DEFINING AND RELATING TO THE MUTUAL LICENSING PLAN OF HYDRO PATENTS CO. FOR THE HYDROGENATION PROCESS

(As amended, effective July 1, 1935)

INTRODUCTION

The following statement is made to avoid possible confusion in reviewing the documents relating to the Hydro Patents mutual licensing plan.

The original book was entitled "Documents and Agreements Defining and Relating to the Mutual Licensing Plan of Hydro Patents Co. for the Hydrogenation Process" and appeared in 1930. This book was revised and reprinted with the same title, qualified by "as amended prior to the time the plan became permanently effective." The revised book appeared in 1932 and includes the amendments shown in the pamphlet entitled "Amendments to the Mutual Licensing Plan of Hydro Patents Co.", which was forwarded to the Hydro Patents stockholders in that year with an explanatory pamphlet Memorandum re Amendments to the Mutual Licensing Plan of Hydro Patents Co. The present book supersedes those referred to above.

In 1932 also there was sent to the stockholders an agreement for the purchase of one share of stock of Hydro Patents Co. The purchase of this share of stock qualified the stockholders to receive a license in the form of contract C as amended, for 501 barrels per day of hydrogenation capacity, corresponding to the number of shares held by each stockholder.

There remained a further stage, that of acquiring full participation in the mutual licensing plan. At the meeting of the board of directors of the Hydro Patents Co. on March 4. 1935, it was decided that the purchase of 499 additional shares of Hydro Patents stock by a stockholder licensee should be accepted as meeting the requirements for full participation, instead of the 5,000 shares originally required in contract A of the mutual licensing plan. This was accepted by 13 companies. Standard Oil Development Co. had already acquired more than sufficient shares for full participation (10,000 shares). The remaining four stockholder licensees elected not to take full participation.

The present book contains all the agreements in their amended form and also an appendix composed of the agreements to amend which became effective as of July 1, 1935.

CONTRACT A—OFFER TO PURCHASE HYDRO PATENTS' STOCK

(Amended as of July 1, 1935)

HYRDO PATENTS CO., and
STANDARD-I. G. Co.,
26 Broadway, New York City.

DEAR SIRS: It has been represented to us that Hydro Patents Co., a Delaware corporation, hereinafter called Hydro Patents, proposes to enter into the agreements copies of which appear as contracts B, D, F, G, H of the series of agreements bound herewith, which agreements, entitled contracts A to I, are referred to in this offer and in the agreements themselves as this series of agreements, and that Hydro Engineering & Chemical Co. and Standard Oil Development Co. propose to enter into an agreement copy of which appears as contract I of this series of agreements.

On condition that the said agreements B, D, F, G, H, and I shall be entered into we desire to purchase stock of Hydro Patents and therefore make to you the following offer:

I. We, _____ hereinafter referred to as Company, offer to acquire 500 shares of Hydro Patents stock at a price of fifty-three (53) dollars per share, payable in cash upon receipt of notification of acceptance of this offer, such purchase and sale to be subject to the following conditions:

II. At any time during the period of ten months after a certain date which shall be named later by Hydro Engineering & Chemical Co., which date however shall be not earlier than September 1, 1930, and not later than September 1, 1931, Company may acquire any number of additional shares of stock of Hydro Patents provided that Company shall enter into a nonexclusive license contract with Hydro Patents in the form of contract C of this series of agreements, limited to a specified daily capacity which capacity, measured by barrels of oil charged to the

Digitized by Google

hydrogenation process and of liquefied coal, all as defined in said contract C, shall be equal to the total number of shares of stock of Hydro Patents held by Company, and further provided that Company shall enter into a contract in the form of contract E of this series of agreements with Hydro Engineering & Chemical Co. The price of such additional shares shall be fifty-three (53) dollars per share, payable in cash on the exercise of the option, or if Company shall so elect, payable one-fifth in cash with the balance payable in four equal annual installments with interest at 5 percent per annum.

It is understood that this option to purchase additional stock of Hydro Patents Co. is conditioned upon like options being exercised by companies having an aggregate daily refining capacity of 937,350 barrels as defined in paragraph VI (a) hereof.

The entering into of such contracts by Company will be accepted by Hydro Patents as evidence of a desire and intention on the part of Company to practice the licensed process, but shall not be understood to imply any definite obligation to install equipment of the specified or any lesser capacity, or to practice the licensed process on any scale at any definite time.

III. If and when Company exercises the option set forth in paragraph II hereof, Hydro Patents shall grant to Company a further and additional option to purchase any number of shares of common stock of Hydro Patents; provided, however, that upon the exercise of such additional option, Company shall enter into a further nonexclusive license contract with Hydro Patents, in the form of said contract C, for a specified daily capacity equal to the number of shares of stock of Hydro Patents acquired by Company under this paragraph III. The price and terms of purchase of said shares shall be the same as is provided in paragraph II hereof. This option shall extend only for three (3) years after the expiration of the option period specified in paragraph II hereof.

IV. If Company shall under paragraph I hereof and the options granted in paragraphs II and III, purchase a total of one thousand (1,000) shares of stock of Hydro Patents it shall be deemed to have taken a full participation in Hydro Patents' mutual plan for licensing the hydrogenation process and Hydro Patents shall grant to Company the right and option to take further licenses in the form of said contract C at any time or times prior to December 31, 1947, for any additional hydrogenation capacity it desires, said licenses to be granted only upon the actual completion of the additional hydrogenation equipment to which they relate. Company shall be obligated to purchase from Hydro Patents and Hydro Patents shall be obligated to sell to Company at the time of grant of any such license, one share of Hydro Patents stock for each barrel of daily capacity specified in the license. The price of said stock shall be fifty-three (53) dollars per share.

V. At all times during the 6 months following the date fixed by Hydro Engineering & Chemical Co. under paragraph II hereof, Hydro Patents and Standard-I. G. Co. will afford to Company reasonable opportunity to acquaint itself with the general nature of the patent situation and the general nature of the hydrogenation process and equipment, of some of the typical costs and results obtainable and the right to visit experimental and commercial installations for the practice of the hydrogenation process both in the United States and Germany. It is understood that it is your desire and intention to afford stockholders under this paragraph the fullest possible privileges of investigation consistent with such limitations as Standard-I. G. Co. may deem necessary as to withholding certain information from all save actual licensees.

VI. The shares of Hydro Patents acquired by Company under the provisions of paragraph I hereof shall immediately, upon issuance, be endorsed in blank by Company and deposited with and held by Standard-I. G. Co. upon the following terms and conditions:

(*a*) Unless companies having an aggregate daily refining capacity, as listed in the Bureau of Mines circular of April 1930, I. C. 6292, of 937,350 barrels, exercise the option granted by paragraph II hereof, Company shall be required to sell, and Standard-I. G. Co. shall be required to purchase for cash within 30 days from the expiration of said option period all shares of Company in Hydro Patents at fifty-three (53) dollars per share and upon payment of the purchase price the said shares shall become the sole property of Standard-I. G. Co. and thereupon all obligations of Standard-I. G. Co. and Hydro Patents to Company shall cease and be terminated.

(*b*) If companies having an aggregate daily refining capacity, as listed in the said Bureau of Mines circular, of 937,350 barrels, exercise the option granted by paragraph II hereof, then: (1) if Company fails or refuses to exercise said option,

Digitized by Google

Company shall be required to sell, and Hydro Patents shall be required to purchase, all the shares of Company in Hydro Patents at one (1) dollar per share, and upon payment of this purchase price, the said shares shall be delivered to and become the sole property of Hydro Patents; (2) if Company shall exercise said option, it shall be entitled to receive, and Standard-I. G. Co. shall be bound to deliver, the shares of Company deposited with Standard-I. G. Co.

VII. Company consents to the amendment of any contract of this series of agreements by the parties thereto, provided that such amendment shall be also consented to by both Hydro Patents and Standard-I. G. Co., and further provided, that Hydro Patents shall not give its consent until at least seventy percent (70%) of its issued stock shall have passed to the ownership of Company and other corporations by acceptance of offers to purchase the same in the form of this offer.

VIII. Contracts C and E contemplated herein shall be entered into by Company and/or by other corporation or corporations of adequate responsibility which shall be in effect the sole property of Company. Affiliated corporations not coming within the above classification but which are subsidiaries, or subsidiaries of subsidiaries, of one or more corporations coming within said classification, shall have the option of ratifying said contracts in the form provided thereon under the caption "Ratifying subsidiaries" or of remaining strangers thereto in all respects. Such option shall be exercisable only within 60 days after the date of said contracts, or 60 days after the subsidiary relationship is established, whichever is the later.

We are executing and delivering this offer to you in duplicate, and request that upon its acceptance you return to us one duly signed copy.

Very truly yours,

By ----------
President.

Accepted: ----------, 1930.

HYDRO PATENTS CO.,
By ----------
President.
STANDARD-I. G. CO.,
By ----------
President.

CONTRACT B—AGREEMENT BETWEEN STANDARD-I. G. AND HYDRO PATENTS

AMENDED AGREEMENT BETWEEN STANDARD-I. G. AND HYDRO PATENTS

(Effective as of July 1, 1935. See amending agreement, p. 95)

ARTICLE I. PARTIES

The parties to this agreement are Hydro Patents Co., a Delaware corporation hereinafter referred to as Patents and Standard-I. G. Co., a Delaware corporation, hereinafter referred to as S.-I. G.

ARTICLE II. DEFINITIONS

A. Wherever the expression "patent rights relating to the hydrogenation process", is used in this agreement its meaning is:

(a) Any United States patents, renewals, reissues, extensions of patents and transferable interests in any of the foregoing relating to the hydrogenation process as hereinafter defined, of which S.-I. G., Standard Oil Co., a New Jersey corporation, or I. G. Farbenindustrie Aktiengesellschaft, a German corporation, the two last named being hereinafter referred to as the companies, now have or may before November 9, 1947 have the ownership or control in the sense of having the power to dispose of them or grant licenses thereunder insofar as they are not precluded from so doing or bound to account to others for so doing by contracts with others in force on November 9, 1929, nor shall either of the said companies be deemed to have ownership or control of any patent right relating to the hydrogenation process because such patent right is owned or controlled by a corporation which is not in effect the sole property of one or both of said companies.

In the case of patent rights relating to the hydrogenation process originating with one of the companies as through the assignment of inventions of its em-

Digitized by Google

ployees, the date of acquisition shall be assumed to be the date of the first application for patent thereon.

In the case of patent rights, which would otherwise come within the definition of patent rights relating to the hydrogenation process hereafter purchased from others by one of the companies, it is understood that the same are to be included within said definition only by agreement between S.-I. G. and the purchasing company as provided in paragraph 4 of article IV hereof and as to such patent rights the date of acquisition shall be either the actual date upon which that company obtains control of such patent rights, or the date of such agreement, whichever is the later.

The expression patent rights relating to the hydrogenation process shall include both—

(1) Those patent rights which relate wholly or principally to that process, and to products of that process, and

(2) Those which are useful in that process and also are useful to a substantial degree in other processes, but in the latter case only insofar as they are useful in that process.

Both (1) and (2) supra shall also include those patent rights in which the real invention is only the substitution of products obtained by the practice of said process and which are specified in subparagraphs 1, 2, and 3 of subdivision B of this article II, for similar products not obtained by the practice of said process even though said patent rights in form purport to cover a new process or product not within said field or not so specified.

The expression patent rights relating to the hydrogenation process shall be interpreted to include patent rights for processes of making aluminum chlorid and other metallic halids for use in the hydrogenation process as hereinbelow defined and interpreted, and not otherwise.

The expression patent rights relating to the hydrogenation process shall be interpreted to include rights under all apparatus and product patents incident to the processes included in this license, but only as hereinbelow defined and interpreted, and shall not otherwise include rights under such apparatus and product patents.

The companies shall include Standard Oil Co. (New Jersey), I. G. Farbenindustrie Aktiengesellschaft, together with all corporations which are in effect the sole property of one or both of the companies.

S.-I. G. will supply to Patents on request from time to time, lists or schedules of all patents coming within this paragraph and including also all applications for patents of the United States then owned by it or then known to it as to which the resultant patents will come within this paragraph when and as issued.

B. Wherever the term hydrogenation process is used in this agreement its meaning is:

Any process coming within the hydrocarbon field (as hereafter described), which is carried out by or in the presence of added hydrogen or hydrogen carriers, with or without catalysts, to a degree or extent or in a manner to secure definitely determinable hydrogenation or which is used in conjunction with the hydrogenation step for the preparation of raw materials for hydrogenation, including hydrogen, or for such immediate separation and special or limited refining of the products produced directly by the hydrogenation step itself as may be required to fit such products for handling by regular refinery procedure, but the term "hydrogenation" shall not be interpreted to cover interaction of hydrocarbons if such interaction is not substantially influenced by the presence of free hydrogen.

The term hydrogenation process shall be interpreted to include processes involving the use of aluminum chlorid or other metallic halids when such process is carried out by or in the presence of added hydrogen or hydrogen carriers, with or without catalysts (or other catalysts), to a degree or extent or in a manner to secure definitely determinable hydrogenation, and shall not otherwise include processes involving the use of aluminum chlorid or metallic halids having like effect in said process.

The term hydrocarbon field, as used in the preceding paragraph, means:

The treatment of crude petroleum, natural or manufactured bitumens (solid or liquid), peats, shales, lignites, coals, other solid and liquid carbonaceous materials, and/or solid and liquid products made therefrom or contained therein to produce:

1. Those marketable major products which are now commonly produced in the oil industry. The marketable major products here referred to are, for the purposes of this agreement, the following:

(1) Crude petroleum.

(2) Intermediate hydrocarbon mixtures forming the class known as naphthas.

Digitized by Google

(3) Gasoline.
(4) Kerosene.
(5) Gas oil.
(6) Fuel oil.
(7) Lubricat ng oil.
(8) Paraffine wax.
(9) Highly purified viscous involatile hydrocarbon oils.
(10) Saturants, binders, and road oils.
(11) Roofing and paving asphalts.
(12) Petroleum greases and petrolatum.
(13) Sulphuric acid hydrocarbon sludges.
(14) Petroleum coke.

2. Those marketable major products which shall hereafter be commonly produced in the oil industry and shall be of a commercial importance corresponding to the present commercial importance of a present major product as listed in subparagraph 1.

3. Other products which, though different in chemical structure from said major products of subparagraphs 1 and 2 have the same properties to a degree which permits their use for the same purpose or purposes, but to produce said other products only to the extent that they are used for such purpose or purposes.

(Example: Accordingly processes for the production of aromatic hydrocarbons come within the field so far as these products are used as antiknock substances or as motor fuel. They do not come within the field when intended for use as raw materials for dyestuffs and explosives.)

C. Wherever the term barrel is used in this agreement its meaning is:

Forty-two (42) United States standard gallons of 231 cubic inches, each, measured at 60° Fahrenheit.

ARTICLE III. SCOPE OF GRANT

S.-I. G., warranting that it has full power to do so, grants to Patents the exclusive right to issue licenses under the patent rights relating to the hydrogenation process in and for the United States of America, this grant being subject to the following conditions:

1. Patents agrees that except as provided in paragraph I of contract A of this series of agreements it will not sell its capital stock save to those who shall accept licenses from it in the form of contract C of this series of agreements, nor grant to a stockholder any license except one in the form of contract C.

2. Patents agree that it will not grant any licenses to nonstockholders prior to the expiration of the subscription option of paragraph II of contract A, and that it will not thereafter grant any licenses to nonstockholders which differ in form from the said contract C save in the following respects:

(*a*) Without the consent of S.-I. G., Patents shall not make any charge to the licensee on account of the grant of the license but Patents may impose running royalties in addition to those set forth in article VI of contract C, provided that such additional running royalties shall not in themselves exceed 125 percent of the royalties specified in said article VI. Patents may prescribe for such additional running royalties imposed by it, any terms of computation or payment coming within one of the three following paragraphs:

a. Based solely on oil charged to the hydrogenation process (as the same is defined in paragraph C of article II of contract C of this series of agreements) and/or on some or all of the products obtained;

b. Based solely on some or all of the liquid products obtained from liquefied coal (as the same is defined in paragraph D of article II of said contract C);

c. Based solely on any combination of *a* and *b* above; but it may not vary the method of computation or payment of the royalties provided in said article VI. In the event Patents desires to prescribe terms of computation or payment for such additional running royalties in form so different from that prescribed in article VI as to make direct comparison uncertain, it shall give to S.-I. G. reasonable notice of its intentions before putting them into effect.

(*b*) Patents may extend the term over which the capacity limitations shall be effective and the term over which royalties shall be paid to it beyond December 31, 1947.

(*c*) Patents may omit article X and appropriately amend article XI of contract C.

As a condition precedent to acquiring a license from Patents, all licensees shall be required to enter into an agreement with Hydro Engineering & Chemical Co. in the form of contract E of this series of agreements.

Digitized by Google

3. Subject to the provisions of paragraphs I, II, III, and IV of contract A of this series of agreements, Patents shall have the sole right to determine to whom and at what price it will sell its capital stock, such sales being always subject to paragraph 1 of this article III.

Patents agrees that its policy shall be to grant licenses on a nonstockholder basis to all applicants, without discrimination, upon uniform and reasonable terms.

ARTICLE IV. ASSISTANCE BY S.-I. G.

1. S.-I. G. agrees that until December 31, 1947, it will join with and assist Patents in the performance of its obligations under articles IV and V of contract C of this series of agreements, and will reimburse Patents to the extent of one-half of its expenditures made in the performance of said articles IV and V before December 31, 1947.

2. In any litigation in which it shall be necessary for S.-I. G. to join as a party in order to protect a licensee of Patents, S.-I. G. hereby agrees to join in such litigation as a party thereto and to permit such suit to be prosecuted in its name.

3. In the event Patents shall fail or refuse to perform its obligations under articles IV and V of contract C of this series of agreements, then S.-I. G. may undertake the performance of such obligations and wherever necessary may sue on behalf of or in the name of Patents or join Patents as a party to such suit. All expenses of such suit shall be borne equally by S.-I. G. and Patents.

4. If prior to December 31, 1947, patent rights of the United States which appear to be of importance to Patents in connection with the hydrogenation process are hereafter offered for purchase to the said companies or either of them, S.-I. G. represents that the purchasing company or companies will, if it be practicable to do so, seek the cooperation of S.-I. G. in advance of making the purchase, and will offer to bring the purchased right within the scope of the term patent rights relating to the hydrogenation process upon such fair distribution of the cost thereof as between the purchasing company or companies and S.-I. G. as may be then agreed upon, having regard to any value which the purchased patent right may have outside of its value in connection with the practice of the hydrogenation process within the United States. S.-I. G. agrees in turn that it will cooperate with and be controlled by the advice of Patents with reference to its action concerning such purchased rights. If S.-I. G. shall, upon the advice of Patents, contribute to such purchase, Patents shall pay to S.-I. G. one-half of the amount contributed by S.-I. G. toward the purchase price. If S.-I. G. shall, upon the advice of Patents, fail to agree with the purchasing company or companies as to the assumption of its fair proportion of the cost of such purchase of patent rights, neither S.-I. G. nor Patents shall have any rights thereunder, but S.-I. G. may, at any later time, acquire rights under the patent rights in question to the extent that the purchasing company still has the power to grant the same, by payment of its equitable share of the purchase price; and S.-I. G. agrees to make such payment at any time upon the request of Patents and upon reimbursement by Patents to the extent of one-half of the cost to it.

ARTICLE V. ROYALTIES

(*a*) Patents shall pay and agrees to pay to S.-I. G. on account of all licenses to employ the hydrogenation process which it grants up to and including the date of expiration of the subscription option of paragraph II of contract A of this series of agreements the following fixed royalties:

First bracket. For the first 25,000 barrels of aggregate daily capacity licensed to all of its licensees, or any part thereof, $50 per barrel.

Second bracket. For the second 25,000 barrels of aggregate daily capacity licensed to all of its licensees, or any part thereof, $40 per barrel.

Third bracket: For the third 25,000 barrels of aggregate daily capacity licensed to all of its licensees, or any part thereof, $30 per barrel.

Fourth bracket. For all additional capacity licensed to all of its licensees, $20 per barrel.

The capacity licensed under Article VII hereof shall be excepted from the above schedule in determining the fixed royalties payable by Patents to S.-I. G., that is, Patents shall have no obligation to make payment of fixed royalties on account of such license, nor shall the capacity actually installed under such license be counted as within any bracket of said schedule.

For all licenses granted by Patents after the expiration of said subscription option the fixed royalties to be paid by Patents to S.-I. G. shall be according to this same schedule, plus additional amounts equal to 4 percent per annum on said fixed royalties, compounded annually from the expiration of said subscription

Digitized by Google

option to the date when such license is granted, provided, however, that the total of said fixed royalties plus said additional amounts shall not be in excess of fifty (50) dollars per barrel of daily capacity licensed. All payments to S.-I. G. specified in paragraph (a) of this article shall be due at the date of the license or of the obligation to grant the license, but if Patents shall so elect, may be paid: In the case of all stockholder licensees, one-fifth (⅕) in cash and the balance in four equal annual installments with interest at 4 percent per annum; in the case of all nonstockholder licensees, qut of 50 percent of the royalties collected from each such licensee, when and as such royalties are collected, with interest at 4 percent per annum.

(*b*) Patents shall also pay and agrees to pay to S.-I. G. as running royalties on account of all operations of each of its licensees, all of the royalties specified in article VI of contracts C and H of this series of agreements.

The fixed and running royalties specified in paragraphs (*a*) and (*b*) of this article V shall be payable by Patents on account of all licenses granted and on account of all operations of its licensees up to and including December 31, 1947, but not thereafter.

ARTICLE VI. ACCOUNTING

A. For the purpose of determining the amount of such running royalties due and payble to S.-I. G., Patents shall keep accurate and true books of account in which shall be entered for each licensee the amount of royalty accruing from that licensee, itemized in accordance with the provisions of article VI of contract C.

S.-I. G. shall have at all reasohable times the right to inspect such books of account in which such records are kept and such accounts shall at all times be kept up to date.

B. Patents shall make and send to S.-I. G. at Linden, N. J., by mail quarterly on or before the tenth day of February, May, August, and November of each year a statement in writing taken from its said books showing the total royalties due it from its licensees on account of operations during the preceding quarter ending the last day of December, March, June, and September, respectively, and each such statement shall be accompanied by payment in full of the royalties herein agreed to be paid by Patents on account of operations of all such licensees for such preceding quarter.

ARTICLE VII. LICENSE TO STANDARD OIL DEVELOPMENT CO.

Patents may and shall, upon request of Standard Oil Development Co., enter into an agreement with said company in the form of contract H of this series of agreements, without liability for payment to S.-I. G. of the specified amounts per barrel payable on account of the grant of other licenses, i. e., the amounts of fifty (50) dollars to twenty (20) dollars per barrel as set forth in article V (*a*) hereof and designated herein as "fixed royalties."

ARTICLE VIII. APPOINTMENT OF HYDRO ENGINEERING AS AGENT

S.-I. G. represents that Hydro Engineering & Chemical Co., hereinafter referred to as Engineering, has been appointed agent for the purpose of communicating to licensees of Patents the technical knowledge of S.-I. G.'s stockholders and the grantors of its patent rights, Standard Oil Co. (New Jersey) and I. G. Farbenindustrie Aktiengesellschaft relating to the hydrogenation process.

Patents hereby agrees on request of Engineering to enter into a contract with Engineering in the form of contract D of this series of agreements.

S.-I. G. agrees to accept Engineering as its own agent for the purpose of checking the accounts of all licensees of Patents.

S.-I. G. agrees to credit to the account of Patents one-half (1/2) of the amount charged by Engineering for checking the accounts of Patents' licensees under contract D, which credit shall be in lieu of direct payment of S.-I. G. to said agent.

ARTICLE IX. PRIVILEGE OF INVESTIGATING HYDROGENATION PROCESS

During the period of 6 months after a certain date which shall be named by Engineering, which date, however, shall be not earlier than September 1, 1930, or later than January 1, 1932, S.-I. G. agrees that Patents may afford to those who subscribe to its stock under paragraph 1 of contract A of this series of agreements reasonable opportunity to acquaint themselves with the general nature of the patent situation and the general nature of the hydrogenation process and equipment, of some of the typical costs and results obtainable, and the right to visit experimental and commercial installations for the practice of the hydrogenation process both in the United States and Germany. It is understood that

Digitized by Google

it is the desire and intention of S.-I. G. to enable Patents to afford to such stockholders under this article the fullest possible privileges of investigation consistent with such limitations as S.-I. G. may deem necessary as to withholding certain information from all save actual licensees.

ARTICLE X. CROSS LICENSING

Patents agrees to extend to I. G. Farbenindustrie Aktiengesellschaft and to foreign licensees of S.-I. G. the licenses which it is empowered so to extend by its licensees under paragraphs (b) and (c) of article VII of contracts C and H of this series of agreements.

Patents hereby grants and agrees to grant to S.-I. G. or its nominee, the right to take out patents in all countries of the world outside of the United States in respect of inventions of Patents relating to the hydrogenation process as to which Patents shall have the right to take out patents, and the right to grant licenses under such patents.

ARTICLE XI. RIGHT OF PATENTS TO TERMINATE LICENSES

Patents shall have full right to terminate any or all licenses granted by it to nonstockholders for breach of any of the terms and conditions thereof, or by consent of the parties. Patents shall likewise have the right to terminate, but only for breach, any licenses granted to its stockholders, but only to an aggregate daily capacity equal to 25 percent of the aggregate daily capacity of all licenses which have been granted to stockholders. Patents shall secure the written consent of S.-I. G. before terminating any stockholder licenses, the daily licensed capacity of which when added to the daily licensed capacity of stockholder's licenses theretofore or simultaneously terminated by Patents shall exceed 25 percent of the aggregate daily capacity of all licenses theretofore issued to stockholders, provided that if S.-I. G. refuses such consent, Patents shall be relieved of its obligation to pay to S.-I. G. royalties accruing and payable under such license or licenses proposed to be terminated (except to the extent that the same shall be actually collected by Patents) and S.-I. G. shall have the right to proceed in the name of Patents to collect such royalties from the licensee or licensees in question.

ARTICLE XII. EXPORTS

S.-I. G. agrees that upon the request of Patents it will waive such right as it may have to enforce its exclusive patent rights of foreign countries or any of them for the hydrogenation process against products sold for export by licensees of Patents, and imported into the territory or any part thereof which is covered by said exclusive patent rights.

Patents agrees that at the request of S.-I. G. it will waive such right as it may have to enforce it rights hereunder against products made in foreign countries under license from S.-I. G. and imported into the United States.

ARTICLE XIII. ASSIGNABILITY

This agreement shall not be assignable by either party.

ARTICLE XIV

A certain agreement between the parties hereto dated July 12, 1930, shall be and the same hereby is canceled.

This agreement shall be effective as of July 12, 1930. (Note: Amendments become effective July 1, 1935.)

In witness whereof, the parties hereto have caused this agreement to be executed by their proper officers thereunto duly authorized, and their corporate seals to be affixed and attested this_____ day of _____, 1932.

HYDRO PATENTS CO.,

[SEAL] By _____,

Attest: *President.*

_____,

Secretary.

STANDARD-I. G. CO.,

[SEAL] By _____,

Attest: *President.*

_____,

Secretary.

Digitized by Google

CONTRACT C—LICENSE CONTRACT BETWEEN HYDRO PATENTS AND LICENSEE.

(See amending agreement, p. 97)

ARTICLE I. PARTIES

The parties to this agreement are Hydro Patents Co., a Delaware corporation, hereinafter referred to as licensor, and the affiliated corporations, hereinafter referred to as licensee, and defined below.

ARTICLE II. DEFINITIONS

A. Wherever the expression "patent rights relating to the Hydrogenation Process", is used in this agreement its meaning is:

Any United States patents, renewals, reissues, extensions of patents and transferable interests in any of the foregoing relating to the hydrogenation process as hereinafter defined, of which licensor now has or may at any time hereafter have the ownership or control in the sense of having the power to grant licenses thereunder.

The expression patent rights relating to the hydrogenation process shall include both—

(1) Those patent rights which relate wholly or principally to that process, and to products of that process, and

(2) Those which are useful in that process and also are useful to a substantial degree in other processes, but in the latter case only insofar as they are useful in that process.

Both (1) and (2) supra shall also include those patent rights in which the real invention is only the substitution of products obtained by the practice of said process and which are specified in subparagraphs 1, 2, and 3 of subdivision B of this article II, for similar products not obtained by the practice of said process even though said patent rights in form purport to cover a new process or product not within said field or not so specified.

The expression patent rights relating to the hydrogenation process shall be interpreted to include patent rights for processes of making aluminum chlorid and other metallic halids for use in the hydrogenation process as hereinbelow defined and interpreted, and not otherwise.

The expression patent rights relating to the hydrogenation process shall be interpreted to include rights under all apparatus and product patents incident to the processes included in this license, but only as hereinbelow defined and interpreted, and shall not otherwise include rights under such apparatus and product patents.

Licensor will supply to licensee upon execution of this license and thereafter from time to time upon request, lists or schedules of all patents coming within this paragraph.

B. Wherever the term "hydrogenation process" is used in this agreement its meaning is:

Any process coming within the hydrocarbon field, as hereafter described, which is carried out by or in the presence of added hydrogen or hydrogen carriers, with or without catalysts, to a degree or extent or in a manner to secure definitely determinable hydrogenation or which is used in conjunction with the hydrogenation step for the preparation of raw materials for hydrogenation, including hydrogen, or for such immediate separation and special or limited refining of the products produced directly by the hydrogenation step itself as may be required to fit such products for handling by regular refinery procedure, but the term "hydrogenation" shall not be interpreted to cover interaction of hydrocarbons if such interaction is not substantially influenced by the presence of free hydrogen.

The term Hydrogenation Process shall be interpreted to include processes involving the use of aluminum chlorid or other metallic halids when such process is carried out by or in the presence of added hydrogen or hydrogen carriers, with or without catalysts (or other catalysts), to a degree or extent or in a manner to secure definitely determinable hydrogenation, and shall not otherwise include processes involving the use of aluminum chlorid or metallic halids having like effect in said process.

Licensor represents and warrants that I. G. Farbenindustrie Aktiengesellschaft, International Hydrogenation Patents Co., Ltd., and Standard-I. G. Co., agree with and approve of the interpretation of the term hydrogenation process as set forth in the preceding paragraph.

Digitized by Google

The term "hydrocarbon field", as used in the preceding paragraph means:

The treatment of crude petroleum, natural or manufactured bitumens (solid or liquid), peats, shales, lignites, coals, other solid and liquid carbonaceous materials, and/or solid and liquid products made therefrom or contained therein to produce:

1. Those marketable major products which are now commonly produced in the oil industry. The marketable major products here referred to are, for the purposes of this agreement, the following:

1. Crude petroleum.
2. Intermediate hydrocarbon mixtures forming the class known as napthas.
3. Gasoline.
4. Kerosene.
5. Gas oil.
6. Fuel oil.
7. Lubricating oil.
8. Paraffine wax.
9. Highly purified viscous involatile hydrocarbon oils.
10. Saturants, binders, and road oils.
11. Roofing and paving asphalts.
12. Petroleum greases and petrolatum.
13. Sulphuric acid hydrocarbon sludges.
14. Petroleum coke.

2. Those marketable major projects which shall hereafter be commonly produced in the oil industry and shall be of a commercial importance corresponding to the present commercial importance of a present major product as listed in subparagraph 1.

3. Other products, which, though different in chemical structure from said major products of subparagraphs 1 and 2 have the same properties to a degree which permits their use for the same purpose or purposes, but to produce said other products only to the extent that they are used for such purpose or purposes.

(Example.—Accordingly, processes for the production of aromatic hydrocarbons come within the field so far as these products are used as antiknock substances or as motor fuel. They do not come within the field when intended for use as raw materials for dyestuffs and explosives.)

C. Wherever the term "oil charged to the hydrogenation process" is used in this agreement its meaning is: All liquid materials submitted to treatment by the hydrogenation process regardless of origin or of the products produced therefrom, except such materials as may be currently returned, i. e., recycled, in whole or in part, to the hydrogenation apparatus after having been treated therein and without having left the site of the hydrogenation plant or having been subjected to processes other than physical separation and the hydrogenation process itself.

D. Wherever the term "liquefied coal" is used in this agreement its meaning is: All crude liquid products (paraffine included, gases and unconverted carbon and ash excluded) obtained by the hydrogenation of coal, i. e., all solid materials.

E. Wherever the term "barrel" is used in this agreement its meaning is:

Forty-two (42) United States standard gallons of 231 cubic inches, each, measured at 60° Fahrenheit.

F. Wherever the expression "licensee" is used in this agreement it means: Jointly and severally the corporations signing this agreement under the captions "subscribing companies" and "ratifying subsidiaries" appearing at the end hereof.

ARTICLE III. SCOPE OF LICENSE

Licensor, warranting that it has full power to do so, hereby gives and grants unto licensee the nonexclusive right and license to make, use, and sell all arts, machines, manufacturers or compositions of matter coming within said patent rights relating to the hydrogenation process, provided that

1. Licensee shall at no time have a right to sell catalyst material covered by said patent rights relating to the hydrogenation process and shall have no right to manufacture said catalyst material until July 1, 1938;

2. Licensee shall have no right to sell equipment or parts thereof covered by said patent rights relating to the hydrogenation process, except as a part of a sale of the plant of licensee to one licensed by licensor to use said plant;

3. Until after December 31, 1947, licensee shall have no right to employ the inventions herein licensed or any of them for the treatment of an amount of oil charged to the hydrogenation process, or for the production of an amount of liquefied coal totaling for both, more than .... barrels daily average for a quarterly accounting period, except that licensee may treat an amount of oil charged

Digitized by Google

to the hydrogenation process and produce an amount of liquefied coal, totaling for both up to fifty percent in excess of ..... barrels, upon payment to licensor of the regular royalties as hereinafter provided in article VI, and upon payment of an additional royalty of 2 cents per barrel on the excess.

ARTICLE IV. PROTECTION AGAINST UNLICENSED COMPETITION

Licensor agrees that it will, upon the request of licensee, and to the best of licensor's ability, endeavor to protect licensee from competition carried on in infringement of any of the said patent rights relating to the hydrogenation process, by bringing and diligently prosecuting suit against infringers, provided that licensee shall furnish to licensor satisfactory proof of the fact and nature of the infringement, such proofs to be of the character required to substantiate a bill of complaint for patent infringement.

ARTICLE V. OBLIGATION TO DEFEND

(*a*) In the event that licensee is made a defendant in any suit for patent infringement in which the alleged act or acts of infringement involve the conduct by licensee of the operations licensed hereunder, licensee shall immediately notify licensor of such suit, by notice in writing. If within 10 days after receipt of such notice in writing licensor notifies licensee that it will take over the defense of said suit, licensee shall thereupon turn over the entire conduct of such defense to licensor, and licensor shall vigorously prosecute such defense at its own expense; licensee, however, shall have the privilege of being represented therein by counsel of its own selection, and at its own expense.

If licensor fails within the time prescribed to notify licensee that it will take over such defense, licensee shall conduct such defense through counsel of its own selection, in which case licensor shall have the privilege of nominating one member of defense counsel, to be paid by licensor, and if the essence of the alleged infringement lies, for practical commercial purposes, in the conduct of the operations licensed hereunder in a manner, and by the use of apparatus and catalysts having the approval of Hydro Engineering & Chemical Co., licensor shall reimburse licensee for all reasonable expenses incurred by licensee in the conduct of such defense.

(*b*) Licensor neither undertakes nor assumes any liability or responsibility whatsoever, for the payment in whole or in part of any judgment entered as a result of such litigation, or for holding licensee in any way harmless against any injunction, order, or decree which may result from such litigation, the sole obligation of licensor herein being that stated in the preceding paragraph (*a*).

ARTICLE VI

A. *Royalties.*—Licensee agrees to pay as royalty to licensor the 2 cents per barrel special royalty for runs in excess of ..... barrels as provided in paragraph 3 of article III hereof, and as regular running royalties a sum to be determined as follows:

Basic scale.—(*a*) For all liquefied coal produced under this license, 8 cents per barrel.

(*b*) For all oil charged to the hydrogenation process under this license (except liquefied coal on which royalty has been paid under paragraph (*a*) of this article), 5 cents per barrel.

(*c*) For all final products made under this license from either liquefied coal or oil, an amount based upon the quantity and quality of such final products, before treatment by processes other than those licensed hereunder, as follows:

Thirty-eight cents per barrel upon the total lubricating oil content.

Five cents per barrel upon the gasoline content.

Three cents per barrel upon the kerosene content.

Two cents per barrel upon the content of all other products.

The quantity and quality of all final products shall be determined in accordance with schedule A hereto annexed.

Actual scale.—The actual royalties payable to licensor on account of all operations under this license shall be related to the basic scale above given in the following manner: In the case of oil, the quantity unit shall be taken as the oil charged to the hydrogenation process; in the case of coal, as the liquefied coal produced. The actual scale of royalties payable shall be:

For the first 5,000 barrels average per day, or any part thereof, over a quarterly accounting period, 104 percent of the basic scale.

Digitized by Google

For the second 5,000 barrels average per day, or any part thereof, over a quarterly accounting period, 102 percent of the basic scale.

For the third 5,000 barrels average per day, or any part thereof, over a quarterly accounting period, 99 percent of the basic scale.

For the fourth 5,000 barrels average per day, or any part thereof, over a quarterly accounting period, 95 percent of the basic scale.

For the fifth 5,000 barrels average per day, or any part thereof, over a quarterly accounting period, 90 percent of the basic scale.

For the sixth 5,000 barrels average per day, or any part thereof, over a quarterly accounting period, 85 percent of the basic scale.

For the seventh 5,000 barrels average per day, or any part thereof, over a quarterly accounting period, 80 percent of the basic scale.

For the eighth 5,000 barrels average per day, or any part thereof, over a quarterly acoounting period, 75 percent of the basic scale.

For all over 40,000 barrels average per day over a quarterly accounting period, 70 percent of the basic scale.

B. *Accounting.*—Licensee shall keep accurate and true books of account in which shall be entered the number of barrels of oil charged to the hydrogenation process under this license and all liquefied coal produced hereunder, and all final products of the licensed process, and the results of the assay of final products of the licensed process in accordance with schedule A hereof. For the purpose of keeping such accurate accounts licensee shall establish, maintain, and operate proper facilities for separately accumulating each class of liquid products in definite batches, upon delivery to and before removal from the hydrogenation plant site. Initial production of liquefied coal shall be separately accumulated. All such batches shall be accurately measured upon delivery to the hydrogenation plant site (in the case of liquefied coal on initial production), and in the case of final products before removal from the site, and a sample of each batch of final products shall be taken in accordance with schedule A, which samples shall be subjected to assay by licensee according to said schedule A. Licensor and its agent, Hydro Engineering & Chemical Co., shall have the right of entry to licensee's plant at any reasonable time for the purpose of checking the maintenance and operation of such facilities and the accuracy of the same, including the right to take and assay samples for purposes of comparison. Licensor and its said agent shall have at all reasonable times the right to inspect such books of account. Such accounts shall at all times be kept up to date, complete entries therein to be made currently as the figures become available.

As soon as licensee shall have undertaken the practice of the licensed operation licensee shall make and send to licensor at Linden, N. J., by mail quarterly on or before the 20th day of January, April, July, and October of each year up to and including January 1948, but not thereafter a statement in writing taken from its said books showing the total quantity of all materials on which royalties are payable, and each such statement shall be accompanied by payment in full, in gold coin of the United States of America of or equal to the standard of weight and fineness as of June 1, 1930, of the royalties herein agreed upon on account of the operation of the licensed process during the preceding quarter; provided that if licensee shall submit with such statement a declaration under seal of licensee together with satisfactory evidence supporting the same to the effect that some specified part or all of the final producted account for and classified as lubricating oil in such accounting was in fact or must be put into consumption as a product of value materially lower than lubricating oil, then licensee may include proffered payment for such product so put into consumption or necessarily to be put into consumption, at the rate of two (2) cents per barrel in lieu of the rate of thirty-eight (38) cents per barrel, and if upon investigation by licensor's said agent, Hydro Engineering & Chemical Co., such evidence or any additional evidence made available by licensee within 30 days shall fully support said declaration, then said proffered payment shall be accepted. If in the judgment of licensor's said agent the evidence made available to it within thirty (30) days after said proffer of payment, shall not fully support said declaration, licensee shall be obligated to make immediate payment for the product in question at the rate of thirty-eight (38) cents per barred upon receipt of written notice as to said decision of licensor's said agent. Following such payment licensor agrees that it will upon request of licensee submit to arbitration the question whether the said declaration was fully supported by said evidence made available. Such arbitration shall be by three arbitrators, one appointed by licensee, one appointed by licensor's said agent, and the third selected by the two first named. The decision of the majority of said arbitrators shall be final and shall become immediately

Digitized by Google

effective and the cost of such arbitration shall be borne by the parties in such proportion as shall be fixed by the majority of the arbitrators. If in the judgment of the majority of the arbitrators it would be equitable to place upon such product as to which the dispute arose a royalty less than thirty-eight (38) cents per barrel and greater than two (2) cents per barrel, the majority of the arbitrators shall have full power to fix such intermediate rate.

ARTICLE VII. CROSS LICENSING

(*a*) Licensee hereby grants and agrees to grant to licensor the right to extend to all other licensees of licensor royalty free, nonexclusive licenses under any patents of the United States the inventions of which are used in the hydrogenation process, which patents or the inventions covered thereby are now or hereafter within the term of this license owned by licensee, or as to which licensee within said term shall be empowered to grant such royalty free right, such nonexclusive license to run for the full term of such patents but to be limited to the practice of the hydrogenation process.

Licensee also grants and agrees to grant to licensor the right to grant to Hydro Engineering & Chemical Co., a nonexclusive license under all patents of the United States covering catalysts the inventions of which are used in the hydrogenation process, which patents or the inventions covered thereby are now or hereafter within the term of this license owned by licensee, or as to which licensee within said term shall be empowered to grant such royalty free right, to manufacture and to sell, for the full term of such patents but only to licensees of licensor, for use in the licensed process, and to use for experimental purposes only, all catalysts covered by said patents.

(*b*) Licensee hereby grants and agrees to grant to licensor the right to extend to I. G. Farbenindustrie Aktiengesellschaft a royalty free, exclusive license, including the right to license others, for Germany under any German patents the inventions of which are used in the hydrogenation process, which patents or the the inventions covered thereby are now or hereafter within the term of this license owned by licensee or as to which licensee within said term shall be empowered to grant such royalty free right, such exclusive license to run for the full term of such patents but to be limited to the practice of the hydrogenation process.

The right of I. G. Farbenindustrie Aktiengesellschaft to license others for Germany under the foregoing shall be subject to the condition that such licenses may be granted only to those who cause to be granted to licensee a similar license under their United States patents (if any) relating to the hydrogenation process.

(*c*) Subject to the exclusive license granted in paragraph (*b*) of this article, licensee hereby grants and agrees to grant to licensor the right to extend to any licensee of the foreign patents of Standard-I. G. Co. relating to the hydrogenation process, royalty-free, nonexclusive licenses under any foreign patents, the inventions of which are used in the hydrogenation process, which foreign patents or the inventions covered thereby, are now or hereafter within the term of this license owned by licensee, or as to which licensee within said term shall be empowered to grant such royalty-free right; provided that such licensee of such foreign patents shall cause to be granted to licensee a license under its patents of the United States relating to the hydrogenation process of the same scope and terms as this agreement.

(*d*) In the event the license herein granted shall be terminated by licensee as provided in article VIII hereof, or by licensor as provided in article XI hereof, nothing contained in this article VII shall be deemed to grant to licensor, or Hydro Engineering & Chemical Co. or I. G. Farbenindustrie Aktiengesellschaft, or an licensee of the foreign patents of Standard-I. G. Co., rights under any future patents of licensee.

ARTICLE VIII. TERM OF AGREEMENT AND LICENSE

This agreement shall be effective as of and shall, unless terminated as provided in article XI hereof, continue in force so long as licensor shall have the right to extend to licensee any rights and licenses under patent rights relating to the hydrogenation process, provided that licensee may terminate this agreement upon two (2) years' written notice served upon licensor at any time after December 31, 1945, but no such termination shall affect any rights acquired by licensor under article VII hereof during the term of such license.

Digitized by Google

ARTICLE IX. ASSIGNABILITY

All of the terms and conditions contained in this agreement shall be binding upon and shall inure to the benefit of the parties hereto and the successors, assigns, and legal representatives of substantially the entire assets or businesses of the respective parties insofar as the said business and assets directly relate to the operation of this agreement, but this agreement shall not be assignable otherwise.

ARTICLE X. COVENANT AGAINST ALIENATION OF STOCK

Licensee agrees that it will not alienate any stock of licensor which it now holds or may hereafter acquire so long as this agreement shall remain in force, and that upon any termination of this agreement prior to December 31, 1947, it will sell to licensor its stock of licensor at one (1) dollar per share.

ARTICLE XI. TERMINATION BY LICENSOR

In case licensee shall breach this agreement by failing to comply with and fulfill any of the promises, covenants, agreements, and stipulations thereof, then in such event licensor may at its option terminate this agreement and all the rights of licensee hereunder, and require licensee to sell to licensor the stock of licensor which it holds at one (1) dollar per share, provided that whenever licensor shall have the right to terminate this agreement as herein specified and shall desire to do so, the procedure shall be as follows, to wit:

(*a*) Licensor shall cause a written notice to be served on licensee, or at the latter's place of business, by registered mail, specifying the breach complained of.

(*b*) Thereupon licensee shall have 30 days after the service of such notice by registered mail in which to remedy the breach stated in said notice, and if within said period of 30 days licensee does so remedy said breach and fully indemnify licensor for any and all consequences thereof, then such notice shall be withdrawn and this agreement shall continue in full force and effect; but if within said period of 30 days licensee does not remedy said breach and fully indemnify licensor for any and all consequences thereof, then licensor shall have the right to declare this agreement to have been terminated as of the date of service of such notice. Such right may be exercised at any time within 2 years thereafter, by service of a second notice to licensee by registered mail declaring licensor's exercise of said right.

In case of termination of this agreement by reason of notice served as above stated, nothing herein contained shall be construed to release licensee from the obligation to pay the royalty accrued up to the date of such termination, or to affect any rights acquired by licensor under article VII hereof during the term off such license or to relieve licensee in any way from the position of infringer if licensee shall have continued after such termination to employ the inventions of said patent rights relating to the hydrogenation process or any of them, unless licensee shall acquire a new license, which new license it shall be the privilege of licensor to grant or refuse.

ARTICLE XII. PROTECTION OF CONFIDENTIAL INFORMATION

Licensee agrees to take reasonable precautions to prevent publication or disclosure, except to licensor and its said agent, Hydro Engineering & Chemical Co., other licensees of licensor, Standard-I. G. Co., and I. G. Farbenindustrie Aktiengesellschaft, the United States Patent Office, and the patent office of any foreign country in which licensee may apply for a patent or patents, of any technical or patent information relating to the hydrogenation process or the production of catalysts therefor, and especially, but without limiting the generality of the foregoing, any technical instruction, knowledge, or information it may obtain from licensor's said agent, Hydro Engineering & Chemical Co.

ARTICLE XIII. LIMITATION ON OBLIGATION TO ACCOUNT

Nothing in this agreement shall be construed as giving licensor the right to call upon licensee to account for the manufacture, use, or sale of catalyst material or equipment, or for the conduct of any operation when these are wholly outside the scope of all exclusive patent rights of licensor.

In witness whereof, the parties hereto have caused this agreement to be executed by their proper officers thereunto duly authorized, and their corporate seals to be affixed and attested this_____day of_____, 193__. In so doing, the corporations signing under the captions "Subscribing Companies" and "Ratifying Subsidiaries" agree jointly and severally with licensor that in the event any

Digitized by Google

corporation or corporations, which, within the term of this agreement shall be at any time, in effect, the sole property of, or the sole owner of, or the sole property of the sole owner of (any one or more of) companies so signing, shall fail to subscribe hereto as joint and several parties with the companies so signing, the companies so signing will indemnify and hold harmless licensor against any and all consequences of such failure.

HYDRO PATENTS CO.,

By ----------,
President.

[SEAL]
Attest:

----------,
Secretary.

Subscribing companies:

----------,

[SEAL] By ----------,
President.

Attest:

----------,
Secretary.

----------,

[SEAL] By ----------,
President.

Attest:

----------,
Secretary.

----------,

[SEAL] By ----------,
President.

Attest:

----------,
Secretary.

Ratifying subsidiaries:

----------,

[SEAL] By ----------,
President.

Attest:

----------,
Secretary.

----------,

[SEAL] By ----------,
President.

Attest:

----------,
Secretary.

----------,

[SEAL] By ----------,
President.

Attest:

----------,
Secretary.

SCHEDULE A. METHOD FOR ASSAY OF HYDROGENATED OIL AND PREMIUM ROYALTY SCHEDULE

Sampling.—Samples of the final products of the licensed process shall be drawn from the batches in which the same are accumulated according to procedure prescribed in Tentative Methods of Sampling Petroleum and Petroleum Products, A. S. T. M. designation D 270–27T. Specific details shall be agreed upon by the parties concerned, after giving consideration to the physical conditions of the operations in question.

Analysis—(*a*) *Gasoline content.*—A representative sample of oil shall be tested for gasoline content in accordance with Tentative Method of Test for Distillation of Crude Petroleum, A. S. T. M. designation D 285–29T. The temperature at which the naphtha fraction shall be separated shall be 392° F. (200° C.). The percentage by volume thus determined shall be taken as the gasoline content of the oil, and no allowance shall be made for volatility of the naphtha fraction as determined by paragraph 10 of the method in question.

Digitized by Google

(*b*) *Kerosene content.*—The distillation which is in progress when the temperature of 392° F. is reached, as prescribed in the preceding paragraph, shall be continued until a temperature of 482° F. (250° C.) is reached. The fraction distilling between these limits shall be collected in a clean, dry graduate and after cooling to a temperature between 55° F. and 65° F. its volume shall be read and recorded. From this the percentage yield on a water-free basis shall be calculated. The gravity of this fraction shall be determined, and if it is 41.0° A. P. I. (60° F./60° F.) or lighter, it shall be classified as kerosene.

(*c*) *Content of lubricating oil.*—The residue in the distillation flask after removal of fractions boiling below 482° F. (250° C.) at atmospheric pressure shall be allowed to cool and shall then be subjected to vacuum distillation according to the method outlined in Bureau of Mines Bulletin No. 207, pages 19–35. Apparatus and procedure may be simplified by the elimination of details not required in the present assay. The distillation shall be continued until the residue in the flask has a Saybolt Universal viscosity at 100° F. of not less than 245 seconds nor more than 255 seconds. The percentage by volume of this residue shall be classified as lubricating oil. In case the residue from the distillation up to 482° F. at atmospheric pressure has a viscosity of 250 seconds or higher, no vacuum distillation shall be made, and the difference between 100 percent and the total percentage distilling up to 482° F. shall be taken as lubricating oil.

The parties interested (including Hydro Engineering & Chemical Co. and Standard-I. G. Co.) may, if desired, agree on some other method of determining the percentage of "bottoms" having a viscosity of approximately 250 seconds Saybolt Universal at 100° F. provided such method indicates a quantity identical with what would have been determined by rigid adherence to the directions prescribed in Bureau of Mines Bulletin No. 207.

If the percentage of bottoms boiling above 482° F. is less than 10 percent, it shall be assumed that under ordinary conditions no lubricating oil will be recovered from the hydrogenated product and such bottoms may therefore be reported as "other products" without vacuum distillation, but Hydro Patents Co. shall have the right, on notice, to exact full compliance with the vacuum distillation method in any individual cases in which it elects so to do.

(*d*) *Content of other products.*—The difference between 100 percent and the sum of the percentages of gasoline (if any), kerosene (if any), and lubricating oil (if any), shall be classified as other products.

CONTRACT D—AGREEMENT BETWEEN HYDRO PATENTS AND HYDRO ENGINEERING

AMENDED AGREEMENT BETWEEN HYDRO PATENTS AND HYDRO ENGINEERING

(Effective as of July 1, 1935. See amending agreement, p. 102)

ARTICLE I

The parties to this agreement are Hydro Patents Co., a Delaware corporation hereinafter referred to as Patents, and Hydro Engineering & Chemical Co., a Delaware corporation, hereinafter referred to as Engineering.

ARTICLE II

Engineering agrees that it will enter into a contract which shall be effective up to and including December 31, 1947, with each licensee of Patents, such contract to be in the form of contract E of this series of agreements, and Patents agrees that it will require each of its licensees to enter into such a contract as a condition precedent to the grant of the license.

ARTICLE III

Patents hereby grants to Engineering the exclusive right to manufacture and the exclusive right to sell, but only to licensees of Patents, and the nonexclusive right to use for experimental purposes only, all catalysts covered by the patents as to which and to the extent to which Patents is now or shall be during the term of this agreement empowered to grant such right. The said exclusive license to manufacture and sell above granted shall end July 1, 1938, but Engineering shall have a nonexclusive license to manufacture and to sell as aforesaid for the full term of any of said patents.

Digitized by Google

Patents also agrees to extend to Engineering the licenses which it is empowered so to extend by its licensees under the second paragraph of paragraph (*a*) of article VII of contracts C and H of this series of agreements. Engineering hereby grants to Patents a nonexclusive, nontransferable right to grant licenses under its patent rights relating to the hydrogenation process, without accounting to Engineering. The term "patent rights relating to the hydrogenation process" shall always have the same meaning in this agreement as in contract B of this series of agreements.

ARTICLE IV

Engineering represents that it is in possession of or has and will have available to it all of the present and future (until Dec. 31, 1947) experience, technical information, and knowledge of I. G. Farbenindustrie Aktiengesellschaft and Standard Oil Co. (New Jersey) and all corporations which are in effect the sole property of either or both of them in respect of the hydrogenation process, as the same is defined in contract B of this series of agreements, and is authorized to and will acquaint the licensees of Patents with such technical knowledge and experience upon request, in performance of its obligations under contract E of this series of agreements.

ARTICLE V

For the term of this agreement Patents hereby irrevocably appoints Engineering its sole agent for the purposes of inspecting and checking the operations of its licensees. In such capacity, and also as agent of Standard-I. G. Co., Engineering shall have the right to examine the books, records, accounts, and measuring, sampling, and testing facilities and to take and assay samples of final products of each licensee bearing upon the accounting for the licensed operation which each licensee is obligated to make to Patents. Engineering shall send reports of all its activities under this article to Patents and to Standard-I. G. Co.

ARTICLE VI

Engineering shall submit to Patents for approval with reference to all questions of patent infringement, all plans submitted to it by licensees of Patents as to which such questions appear to arise and shall endeavor to keep Patents advised as to all operations of its licensees insofar as the same appear to it to involve new questions of possible patent infringement. Engineering will submit the same information to Standard-I. G. Co., and it is agreed that Engineering shall not approve any plan or practice of a licensee which is objected to by either Patents or Standard-I. G. Co. on the ground of possible patent infringement until the said two parties have discussed the point of difference. If there be no agreement following such discussion, the decision then rests with Patents alone.

ARTICLE VII

Patents agrees to pay to Engineering as compensation in full to it for the services rendered by Engineering to Patents and Standard-I. G. Co. under articles V and VI hereof, the cost of said service plus 10 percent of such cost.

ARTICLE VIII

This agreement shall remain in effect up to and including December 31, 1947.

ARTICLE IX

This agreement shall not be assignable by either party.

ARTICLE X

A certain agreement between the parties hereto dated July 12, 1930, shall be and the same hereby is, canceled.

This agreement shall be effective as of July 12, 1930.

(NOTE.—Amendments become effective July 1, 1935.)

Digitized by Google

In witness whereof, the parties hereto have caused this agreement to be executed by their proper officers thereunto duly authorized, and their corporate seals to be affixed and attested this day of , 1932.

HYDRO PATENTS CO.,

[SEAL] By ----------,
President.

Attest:

Secretary.

HYDRO ENGINEERING & CHEMICAL CO.,

[SEAL] By ----------,
President.

Attest:

----------,
Secretary.

CONTRACT E—AGREEMENT BETWEEN HYDRO ENGINEERING AND LICENSEE

ARTICLE I. PARTIES

The parties to this agreement are Hydro Engineering & Chemical Co., a Delaware corporation, hereinafter referred to as Engineering, and the affiliated corporations, hereinafter referred to as Licensee, and defined below.

ARTICLE II. ENGINEERING SERVICES

(*a*) Licensee agrees to submit to Engineering for examination and technical criticism any and all plans, lists, and specifications for the construction, enlargement, or alteration of equipment for carrying on any part I the operation licensed between licensee and Hydro Patents Co., hereinafter referred to as the licensed operation, and to invite and permit Engineering to inspect all new construction including that incident to alteration or enlargement before such construction is put into use. Licensee agrees that it will not put into use any new construction, including that incident to alteration or enlargement of old construction, for carrying on any part of the licensed operation, until it has been inspected by Engineering. Engineering shall consider, comment upon, and as to questions of patent infringement only shall specifically approve or disapprove all plans, specifications, and lists submitted and shall inspect and report on and similarly approve or disapprove all equipment it is invited to inspect hereunder with reasonable promptness.

Nothing herein contained shall prevent Licensee from carrying on repairs without notice to Engineering or from constructing or operating equipment unfavorably commented upon from a technical standpoint or disapproved from the standpoint of possible patent infringement by Engineering.

(*b*) Engineering will upon request of Licensee render such services as it is able to render in connection with the design and construction of new plants, enlargements, and alterations in addition to the minimum services above provided. For example, upon request of Licensee, Engineering will provide the services of designing and construction engineers (but not construction contractors) for Licensee in connection with the installation of all equipment for practicing the licensed operation and will submit complete plans, estimates, specifications, and lists and supervise the construction of new plants including alterations and enlargements of existing plants, either by Licensee's construction forces or by outside contractors, as Licensee may elect.

(*c*) For all services specified in paragraphs (*a*) and (*b*) of this article which are rendered by Engineering, Licensee agrees to pay as an engineering fee the direct cost of the services rendered plus 4 percent of the cost of the completed installation in the case of entirely new construction or 4 percent of the cost of the enlargement or alteration of existing construction. Payment on account of such services shall be made quarterly on the basis of all expenditures on the construction in question during the current quarter.

(*d*) For the purpose of this article the completed installation shall be understood to mean all construction, improvements, and equipment in the area in which the licensed operation is conducted put in directly for, or as an aid or incident to, the practice of the licensed operation, except the following items which are specifically excluded:

A. Preparation, clearing, grading, draining, or piling of site.

B. Trunk or main sewers.

Digitized by Google

C. Water-supply mains.
D. Boiler plants and steam mains.
E. Electric power generating plants.
F. Storage tanks.

ARTICLE III. CATALYSTS

Engineering agrees to manufacture and maintain stocks of catalysts for use in connection with the licensed operation and upon the request of Licensee will enter into a separate contract in respect of such catalysts including the reclaiming thereof, where practical, such contract to be upon reasonable terms as to quantity and time. The price of all catalysts furnished by Engineering under such contract shall be cost plus 10 percent.

ARTICLE IV. TECHNICAL ASSISTANCE

Engineering represents and warrants that it is in possession of or has and will have available to it the present and future (until Dec. 31, 1947) experience and technical information and knowledge of I. G. Farbenindustrie Aktiengesellschaft and Standard Oil Co., (New Jersey) and all corporations which are in effect the sole property of either or both of them, relating to the licensed operation, and is authorized to transmit such experience and technical information to all licensees of Hydro Patents Co. Engineering agrees to give Licensee technical assistance requested in connection with the maintenance, operation, and repair of equipment and will endeavor upon request from time to time to keep Licensee informed as to all technical developments and experience known to Engineering and of use to Licensee in connection with the carrying on of the licensed operation.

For any services rendered at Licensee's request under the terms of this article, Licensee agrees to pay Engineering the cost thereof plus 10 percent.

ARTICLE V. INSPECTION OF PLANT, EQUIPMENT, ETC.

Engineering shall have access to any and all parts of plants belonging to Licensee in which parts any part of the licensed operation is conducted at all reasonable hours for the purpose of inspecting the equipment used and the operations conducted therein and Licensee agrees to supply to Engineering, for the benefit of all licensees of Hydro Patents Co., any information in its possession concerning the performance of such equipment and the nature and results and all technical details of the operations conducted.

As the agent of Standard-I. G. Co., and Hydro Patents Co., Engineering shall have the right to examine the books, records, accounts, and measuring, sampling, and product-testing facilities, equipment, and methods, and to take and assay samples of final products of Licensee bearing upon the accounting for the licensed operation which it is obligated to make to its licensor, Hydro Patents Co., and may send copies of all its reports respecting such examinations and samples to Hydro Patents Co., and to Standard-I. G. Co.

ARTICLE VI. PROTECTION AND EXCHANGE OF INFORMATION

Licensee agrees to take all reasonable precautions to prevent publication or other disclosure of any technical instruction, knowledge, and information it may obtain from Engineering. Licensee further agrees to communicate to Engineering, for the benefit of all licensees of Hydro Patents Co., any inventions or improvements relating to the licensed operation and any technical or patent information relative thereto of which it may obtain knowledge.

ARTICLE VII. TERM OF AMENDMENT

This agreement shall remain in effect up to and including December 31, 1947.

ARTICLE VIII. LICENSEE

Wherever the expression Licensee is used in this agreement it means: Jointly and severally the corporations signing this agreement under the captions "Subscribing Companies" and "Ratifying Subsidiaries" appearing at the end hereof.

ARTICLE IX. ASSIGNABILITY

This agreement shall not be assignable by either party.

In witness whereof the parties hereto have caused this agreement to be executed by their proper officers thereunto duly authorized, and their corporate seals to be affixed and attested this _____ day of _____, 193__. In so

Digitized by Google

doing the corporations signing under the captions "Subscribing Companies" and "Ratifying Subsidiaries" agree jointly and severally with Engineering that in the event any corporation or corporations, which, within the term of this agreement shall be at any time, in effect, the sole property of, or the sole owner of, or the sole property of the sole owner of (anyone or more of) companies so signing, shall fail to subscribe hereto as joint and several parties with the companies so signing, the companies so signing will indemnify and hold harmless Engineering against any and all consequence of such failure.

HYDRO ENGINEERING & CHEMICAL CO.,

[SEAL] By ----------, *President.*

Attest:

----------, *Secretary.*

Subscribing companies:

----------,

[SEAL] By ----------, *President.*

Attest:

----------, *Secretary.*

----------,

[SEAL] By ----------, *President.*

Attest:

----------, *Secretary.*

----------,

[SEAL] By ----------, *President.*

Attest:

----------, *Secretary.*

Ratifying subsidiaries:

----------,

[SEAL] By ----------, *President.*

Attest:

----------, *Secretary.*

----------,

[SEAL] By ----------, *President.*

Attest:

----------, *Secretary.*

----------,

[SEAL] By ----------, *President.*

Attest:

----------, *Secretary.*

CONTRACT F—AGREEMENT BETWEEN HYDRO PATENTS AND STANDARD OIL DEVELOPMENT, RESALE OF STOCK

Agreement made this -------- day of ----------, 1930, between Hydro Patents Co., a Delaware corporation, hereinafter referred to as Patents, and Standard Oil Development Co., a Delaware corporation, hereinafter referred to as Development.

1. In addition to the three hundred and thirty-four (334) shares of Patents' stock now owned and held by Development, Patents hereby sells and Development hereby purchases 2,976 shares of Patents' stock. Said 2,976 shares of Patents' stock shall be delivered to Development upon payment of the purchase price thereof, which purchase price shall be three (3) dollars per share.

Digitized by Google

2. Patents agrees with Development that at all times hereafter (until Dec. 31, 1947), it will sell additional shares of its stock to Development at the rate of one share thereof for each barrel of daily capacity of hydrogenation equipment which the refining interests of Standard Oil Co. (New Jersey) complete within the United States, after the completion of 3,310 barrels, corresponding to the 3,310 shares referred to in paragraph 1 hereof. The daily capacity of hydrogenation equipment referred to shall be the nominal or rated daily capacity, as fixed by Hydro Engineering & Chemical Co., provided that this figure is consistent with the ratings made by Hydro Engineering & Chemical Co. in other cases and is not unreasonable. The expression "refining interest of Standard Oil Co. (New Jersey)" as used in this agreement shall mean that company (including any company which is in effect its sole property), together with any and all subsidiary corporations.

3. The price of such stock sold under paragraph 2 hereof shall be the difference between fifty-three (53) dollars per share and the amount which Patents would have been obligated to pay Standard-I. G. Co. under contract B of this series of agreements for and on account of the grant at that time of the simultaneous license which would have accompanied the sale of such stock to any stockholder save Development.

4. Development agrees with Patents that in the future it will purchase on the terms specified in paragraphs 2 and 3 of this agreement, the stock of Patents which Patents is therein obligated to sell to Development. Development represents that the United States refining interests of Standard Oil Co. (New Jersey) are now engaged in constructing hydrogenation equipment to the extent of at least 10,000 barrels of daily capacity.

5. This agreement shall not be assignable by either party.

In witness whereof, the parties hereto have caused this agreement to be executed by their proper officers thereunto duly authorized, and their corporate seals to be affixed and attested the day and year first above written.

HYDRO PATENTS CO.,

[SEAL] By ----------,
President.

Attest:

----------,
Secretary.

[SEAL] STANDARD OIL DEVELOPMENT CO.,

By ----------,
President.

Attest:

----------,
Secretary.

CONTRACT G—AGREEMENT BETWEEN HYDRO PATENTS AND STANDARD OIL DEVELOPMENT—OPTION ON ENGINEERING STOCK

AMENDED AGREEMENT BETWEEN HYDRO PATENTS AND STANDARD OIL DEVELOPMENT

(Effective as of July 12, 1930)

Agreement made this_____day of_____1932, between Hydro Patents Co., a Delaware corporation, hereinafter referred to as Patents, and Standard Oil Development Co., a Delaware corporation, hereinafter referred to as Development.

In consideration of the sum of one (1) dollar and other good and valuable considerations, the receipt and sufficiency whereof is hereby acknowledged, Development hereby grants to Patents an option which may be exercised at any time within the period of 3 years next following the installation in the United States of a total of 50,000 barrels per day of capacity of hydrogenation equipment, to purchase up to but not in excess of forty-five percent (45%) of the then outstanding capital stock of Hydro Engineering & Chemical Co. from Development, the purchase price to be the book value of such stock at the time said option is exercised. The daily capacity of hydrogenation equipment referred to shall be the nominal or rated daily capacity as fixed by Hydro Engineering & Chemical Co.

This option is granted on condition that at the time it is exercised Patents shall enter into an agreement that it will not dispose of any stock of Hydro Engineering & Chemical Co. which it so purchases until it has offered to sell the same to

Digitized by Google

Development at the book value thereof, and Development has had a period of thirty (30) days within which to consider such offer.

This option is not assignable.

A certain agreement between the parties hereto relating to the same subject matter and dated July 12, 1930, shall be, and the same hereby is, canceled.

This agreement shall be effective as of July 12, 1930.

In witness whereof, Development has caused this agreement to be executed by its proper officers thereunto duly authorized, and its corporate seal to be affixed and attested the day and year first above written.

[SEAL] STANDARD OIL DEVELOPMENT CO.,
By ----------,
President.

Attest:
----------,
Secretary.

HYDRO PATENTS CO.,
[SEAL] By ----------,
President.

Attest:
----------,
Secretary.

CONTRACT H—LICENSE FROM HYDRO PATENTS TO STANDARD OIL DEVELOPMENT

AMENDED LICENSE CONTRACT BETWEEN HYDRO PATENTS AND STANDARD OIL DEVELOPMENT

(Effective as of July 1, 1935. See amending agreement, p. 103)

ARTICLE I. PARTIES

The parties to this agreement are Hydro Patents Co., a Delaware corporation, hereinafter referred to as licensor, and the affiliated corporations, hereinafter referred to as licensee and defined below.

ARTICLE II. DEFINITIONS

A. Wherever the expression "patent rights relating to the hydrogenation process" is used in this agreement its meaning is:

Any United States patents, renewals, reissues, extensions of patents, and transferable interests in any of the foregoing relating to the hydrogenation process as hereinafter defined, of which licensor now has or may at any time hereafter have the ownership or control in the sense of having the power to grant licenses thereunder.

The expression "patent rights" relating to the hydrogenation process shall include both—

(1) Those patent rights which relate wholly or principally to that process, and to products of that process; and

(2) Those which are useful in that process and also are useful to a substantial degree in other processes, but in the latter case only insofar as they are useful in that process.

Both (1) and (2), supra, shall also include those patent rights in which the real invention is only the substitution of products obtained by the practice of said process and which are specified in subparagraphs 1, 2, and 3 of subdivision B of this article II, for similar products not obtained by the practice of said process even though said patent rights in form purport to cover a new process or product not within said field or not so specified.

The expression "patent rights" relating to the hydrogenation process shall be interpreted to include patent rights for processes of making aluminum chloride and other metallic halides for use in the hydrogenation process as hereinbelow defined and interpreted, and not otherwise.

The expression "patent rights" relating to the hydrogenation process shall be interpreted to include rights under all apparatus and product patents incident to the processes included in this license, but only as herein below defined and interpreted, and shall not otherwise include rights under such apparatus and product patents.

Digitized by Google

Licensor will supply to licensee upon execution of this license, and thereafter from time to time upon request, lists or schedules of all patents coming within this paragraph.

B. Wherever the term "hydrogenation process" is used in this agreement its meaning is:

Any process coming within the hydrocarbon field, as hereafter described, which is carried out by or in the presence of added hydrogen or hydrogen carriers, with or without catalysts, to a degree or extent or in a manner to secure definitely determinable hydrogenation or which is used in conjunction with the hydrogenation step for the preparation of raw materials for hydrogenation, including hydrogen, or for such immediate separation and special or limited refining of the products produced directly by the hydrogenation step itself as may be required to fit such products for handling by regular refinery procedure; but the term "hydrogenation" shall not be interpreted to cover interaction of hydrocarbons if such interaction is not substantially influenced by the presence of free hydrogen.

The term "hydrogenation process" shall be interpreted to include processes involving the use of aluminum chloride or other metallic halides when such process is carried out by or in the presence of added hydrogen or hydrogen carriers, with or without catalysts (or other catalysts), to a degree or extent or in a manner to secure definitely determinable hydrogenation, and shall not otherwise include processes involving the use of aluminum chloride or metallic halides having like effect in said process.

The term "hydrocarbon field," as used in the preceding paragraph means:

The treatment of crude petroleum, natural or manufactured bitumens (solid or liquid), peats, shales, lignites, coals, other solid and liquid carbonaceous materials, and/or solid and liquid products made therefrom or contained therein to produce:

1. Those marketable major products which are now commonly produced in the oil industry. The marketable major products here referred to are, for the purposes of this agreement, the following:

(1) Crude petroleum.
(2) Intermediate hydrocarbon mixtures forming the class known as naphthas.
(3) Gasoline.
(4) Kerosene.
(5) Gas oil.
(6) Fuel oil.
(7) Lubricating oil.
(8) Paraffine wax.
(9) Highly purified viscous involatile hydrocarbon oils.
(10) Saturants, binders and road oils.
(11) Roofing and paving asphalts.
(12) Petroleum greases and petrolatum.
(13) Sulphuric acid hydrocarbon sludges.
(14) Petroleum coke.

2. Those marketable major products which shall hereafter be commonly produced in the oil industry and shall be of a commercial importance corresponding to the present commercial importance of a present major product as listed in subparagraph 1.

3. Other products which, though different in chemical structure from said major products of subparagraphs 1 and 2 have the same properties to a degree which permits their use for the same purpose or purposes, but to produce said other products only to the extent that they are used for such purpose or purposes.

(Example: Accordingly, processes for the production of aromatic hydrocarbons come within the field so far as these products are used as antiknock substances or as motor fuel. They do not come within the field when intended for use as raw materials for dyestuffs and explosives.)

C. Wherever the term "oil charged to the hydrogenation process" is used in this agreement its meaning is: All liquid materials submitted to treatment by the hydrogenation process regardless of origin or of the products produced therefrom, except such materials as may be currently returned, i. e., recycled, in whole or in part, to the hydrogenation apparatus after having been treated therein and without having left the site of the hydrogenation plant or having been subjected to processes other than physical separation and the hydrogenation process itself.

D. Wherever the term "liquefied coal" is used in this agreement its meaning is: All crude liquid products (paraffine included, gases and unconverted carbon and ash excluded) obtained by the hydrogenation of coal, i. e., all solid materials.

E. Wherever the term "barrel" is used in this agreement its meaning is:

Forty-two United States standard gallons of 231 cubic inches, each, measured at 60° Fahrenheit

Digitized by Google

F. Wherever the expression "licensee" is used in this agreement it means: Jointly and severally the corporations signing this agreement under the captions "Subscribing companies" and "Ratifying subsidiaries" appearing at the end hereof.

ARTICLE III. SCOPE OF LICENSE

Licensor, warranting that it has full power to do so, hereby gives and grants unto the Licensee the nonexclusive, unlimited right and license to make, use and sell, all arts, machines, manufactures, or compositions of matter coming within said patent rights relating to the hydrogenation process, provided that—

1. Licensee shall at no time have a right to sell catalyst material covered by said patent rights relating to the hydrogenation process and shall have no right to manufacture said catalyst material until July 1, 1938.

2. Licensee shall have no right to sell equipment or parts thereof covered by said patent rights relating to the hydrogenation process, except as a part of a sale of the plant of licensee to one licensed by licensor to use said plant.

ARTICLE IV. PROTECTION AGAINST UNLICENSED COMPETITION

Licensor agrees that it will, upon the request of licensee, and to the best of licensor's ability, endeavor to protect licensee from competition carried on in infringement of any of the said patent rights relating to the hydrogenation process by bringing and diligently prosecuting suit against infringers, provided that licensee shall furnish to licensor satisfactory proof of the fact and nature of the infringement, such proofs to be of the character required to substantiate a bill of complaint for patent infringement. The expense of all such litigation shall be borne by licensee.

ARTICLE V. NO OBLIGATION TO DEFEND

It is understood that licensor assumes no obligation to defend licensee in the event licensee is made a defendant in any suit for patent infringement in which the alleged act or acts of infringement involve the conduct by licensee of the operations licensed hereunder. Also, licensor neither undertakes nor assumes any liability or responsibility whatsoever for the payment in whole or in part of any judgment entered as a result of such litigation, or for holding licensee in any way harmless against any injunction, order, or decree which may result from such litigation. However, within 10 days after any such suit shall have been commenced, licensee shall notify licensor of such suit by notice in writing. While the defense of such suit shall be conducted and controlled by licensee, licensor shall have the privilege of being represented therein by counsel of its own selection, and at its own expense.

ARTICLE VI

A. *Royalties.*—Licensee agrees to pay as regular running royalties to licensor a sum to be determined as follows:

Basic scale.—(*a*) For all liquefied coal produced under this license, 8 cents per barrel.

(*b*) For all oil charged to the hydrogenation process under this license (except liquefied coal on which royalty has been paid under par. (*a*) of this article), 5 cents per barrel.

(*c*) For all final products made under this license from either liquefied coal or oil, an amount based upon the quantity and quality of such final products, before treatment by processes other than those licensed hereunder, as follows:

Thirty-eight cents per barrel upon the total lubricating-oil content.

Five cents per barrel upon the gasoline content.

Three cents per barrel upon the kerosene content.

Two cents per barrel upon the content of all other products.

The quantity and quality of all final products shall be determined in accordance with schedule A hereto annexed.

Actual scale.—The actual royalties payable to licensor on account of all operations under this license, shall be related to the basic scale above given in the following manner: In the case of oil, the quantity unit shall be taken as the oil charged to the hydrogenation process; in the case of coal, as the liquefied coal produced. The actual scale of royalties payable shall be:

For the first 5,000 barrels average per day, or any part thereof, over a quarterly accounting period, 104 percent of the basic scale.

For the second 5,000 barrels average per day, or any part thereof, over a quarterly accounting period, 102 percent of the basic scale.

Digitized by Google

For the third 5,000 barrels average per day, or any part thereof, over a quarterly accounting period, 99 percent of the basic scale.

For the fourth 5,000 barrels average per day, or any part thereof, over a quarterly accounting period, 95 percent of the basic scale.

For the fifth 5,000 barrels average per day, or any part thereof, over a quarterly accounting period, 90 percent of the basic scale.

For the sixth 5,000 barrels average per day, or any part thereof, over a quarterly accounting period, 85 percent of the basic scale.

For the seventh 5,000 barrels average per day, or any part thereof, over a quarterly accounting period, 80 percent of the basic scale.

For the eighth 5,000 barrels average per day, or any part thereof, over a quarterly accounting period, 75 percent of the basic scale.

For all over 40,000 barrels average per day over a quarterly accounting period, 70 percent of the basic scale.

B. *Accounting.*—Licensee shall keep accurate and true books of account in which shall be entered the number of barrels of oil charged to the hydrogenation process under this license and all liquefied coal produced hereunder, and all final products of the licensed process, and the results of the assay of final products of the licensed process in accordance with schedule A hereof. For the purpose of keeping such accurate accounts licensee shall establish, maintain, and operate proper facilities for separately accumulating each class of liquid products in definite batches, upon delivery to and before removal from the hydrogenation plant site. Initial production of liquefied coal shall be separately accumulated. All such batches shall be accurately measured upon delivery to the hydrogenation plant site (in the case of liquefied coal on initial production) and in the case of final products before removal from the site and a sample of each batch of final products shall be taken in accordance with schedule A, which samples shall be subjected to assay by licensee according to said schedule A. Licensor and its agent, Hydro Engineering & Chemical Co., shall have the right of entry to licensee's plant at any reasonable time for the purpose of checking the maintenance and operation of such facilities and the accuracy of the same, including the right to take and assay samples for purposes of comparison. Licensor and its said agent shall have at all reasonable times the right to inspect such books of account. Such accounts shall at all times be kept up to date, complete entries therein to be made currently as the figures become available.

As soon as licensee shall have undertaken the practice of the licensed operation licensee shall make and send to licensor at Linden, N. J., by mail quarterly on or before the 20th day of January, April, July, and October of each year up to and including January 1948, but not thereafter, a statement in writing taken from its said books showing the total quantity of all materials on which royalties are payable, and each such statement shall be accompanied by payment in full, in gold coin of the United States of America of or equal to the standard weight and fineness as of June 1, 1930, of the royalties h rein agreed upon on account of the operation of the licensed process during the preceding quarter; provided that if licensee shall submit with such statement a declaration under seal of licensee together with satisfactory evidence supporting the same to the effect that some specified part or all of the final product accounted for and classified as lubricating oil in such accounting was in fact or must be put into consumption as a product of value materially lower than lubricating oil, then licensee may include proffered payment for such product so put into consumption or necessarily to be put into consumption, at the rate of 2 cents per barrel in lieu of the rate of 38 cents per barrel, and if upon investigation by licensor's said agent, Hydro Engineering & Chemical Co., such evidence or any additional evidence made available by licensee within 30 days shall fully support said declaration, then said proffered payment shall be accepted. If in the judgment of licensor's said agent the evidence made available to it within 30 days after said proffer of payment, shall not fully support said declaration, licensee shall be obligated to make immediate payment for the product in question at the rate of 38 cents per barrel upon receipt of written notice as to said decision of licensor's said agent. Following such payment licensor agrees that it will upon request of licensee submit to arbitration the question whether the said declaration was fully supported by said evidence made available. Such arbitration shall be by three arbitrators, one appointed by licensee, one appointed by licensor's said agent, and the third selected by the two first named. The decision of the majority of said arbitrators shall be final and shall become immediately effective, and the cost of such arbitration shall be borne by the parties in such proportion as shall be fixed by the majority of the arbitrators. If in the judgment of the majority of the abritrators it

Digitized by Google

would be equitable to place upon such products as to which the dispute arose a royalty less than 38 cents per barrel and greater than 2 cents per barrel, the majority of the arbitrators shall have full power to fix such intermediate rate.

ARTICLE VII. CROSS LICENSING

(*a*) Licensee hereby grants and agrees to grant to licensor the right to extent to all other licensees of licensor royalty-free, nonexclusive licenses under any patents of the United States, the inventions of which are used in the hydrogenation process, which patents or the inventions covered thereby are now or hereafter within the term of this license owned by licensee, or as to which licensee within said term shall be empowered to grant such right, such nonexclusive license to run for the full term of such patents but to be limited to the practice of the hydrogenation process.

Licensee also grants and agrees to grant to licensor the right to grant to Hydro-Engineering & Chemical Co., a nonexclusive license under all patents of the United States covering catalysts, the inventions of which are used in the hydrogenation process, which patents or the inventions covered thereby are now or hereafter within the term of this license owned by licensee, or as to which licensee within said term shall be empowered to grant such right, to manufacture and to sell for the full term of such patents but only to licensees of licensor, for use in the licensed process, and to use for experimental purposes only, all catalysts covered by said patents.

(*b*) Licensee hereby grants and agrees to grant to licensor the right to extend to I. G. Farbenindustrie Aktiengesellschaft a royalty-free, exclusive license, including the right to license others, for Germany under any German patents, the inventions of which are used in the hydrogenation process, which patents or the inventions covered thereby are now or hereafter within the term of this license owned by licensee or as to which licensee within said term shall be empowered to grant such right, such exclusive license to run for the full term of such patents but to be limited to the practice of the hydrogenation process.

The right of I. G. Farbenindustrie Aktiengesellschaft to license others for Germany under the foregoing shall be subject to the condition that such licenses may be granted only to those who cause to be granted to licensee a similar license under their United States patents (if any) relating to the hydrogenation process.

(*c*) Subject to the exclusive license granted in paragraph (*b*) of this article, licensee hereby grants and agrees to grant to licensor the right to extend to any licensee of the foreign patents of Standard-I. G. Co. relating to the hydrogenation process, royalty-free, nonexclusive licenses under any foreign patents, the inventions of which are used in the hydrogenation process, which foreign patents or the inventions covered thereby, are now or hereafter within the term of this license owned by licensee, or as to which licensee within said term shall be empowered to grant such right; provided, that such licensee of such foreign patents shall cuase to be granted to licensee a license under its patents of the United States relating to the hydrogenation process of the same scope and terms as this agreement.

(*d*) In the event the license herein granted shall be terminated by licensee as provided in article VIII hereof, or by licensor as provided in article XI hereof, nothing contained in this article VII shall be deemed to grant to licensor, or Hydro-Engineering & Chemical Co. or I. G.-Farbenindustrie Aktiengesellschaft, or any licensee of the foreign patents of Standard-I. G. Co., rights under any future patents of licensee.

ARTICLE VIII. TERM OF AGREEMENT AND LICENSE

This agreement shall be effective as of July 12, 1930, and shall, unless terminated as provided in article XI hereof, continue in force so long as licensor shall have the right to extend to licensee any rights and licenses under patent rights relating to the hydrogenation process, provided that licensee may terminate this agreement upon 2 years' written notice served upon licensor at any time after December 31, 1945, but no such termination shall affect any rights acquired by licensor under article VII hereof during the term of such license.

ARTICLE IX. ASSIGNABILITY

All of the terms and conditions contained in this agreement shall be binding upon and shall inure to the benefit of the parties hereto and the successors, assigns, and legal representatives of substantially the entire assets or businesses of the

Digitized by Google

respective parties insofar as the said business and assets directly relate to the operation of this agreement, but this agreement shall not be assignable otherwise.

ARTICLE X. COVENANT AGAINST ALIENATION OF STOCK

Licensee agrees that it will not alienate any stock of licensor which it now holds or may hereafter acquire so long as this agreement shall remain in force, and that upon any termination of this agreement prior to December 31, 1947, it will sell to licensor its stock of licensor at $1 per share.

ARTICLE XI. TERMINATION BY LICENSOR

In case licensee shall breach this agreement by failing to comply with and fulfill any of the promises, covenants, agreements, and stipulations thereof, then in such event licensor may at its option terminate this agreement and all of the rights of licensee hereunder, and require licensee to sell to licensor the stock of licensor which it holds at $1 per share, provided that whenever licensor shall have the right to terminate this agreement as herein specified and shall desire to do so, the procedure shall be as follows, to wit:

(*a*) Licensor shall cause a written notice to be served on licensee, or at the latter's place of business, by registered mail, specifying the breach complained of.

(*b*) Thereupon licensee shall have 30 days after the service of such notice by registered mail in which to remedy the breach stated in said notice, and if within said period of 30 days licensee does so remedy said breach, and fully indemnify licensor for any and all consequences thereof, then such notice shall be withdrawn and this agreement shall continue in full force and effect; but if within said period of 30 days licensee does not remedy said breach and fully indemnify licensor for any and all consequences thereof, then licensor shall have the right to declare this agreement to have been terminated as of the date of service of such notice. Such right may be exercised at any time within 2 years thereafter, by service of a second notice to licensee by registered mail declaring licensor's exercise of said right.

In case of termination of this agreement by reason of notice served as above stated, nothing herein contained shall be construed to release licensee from the obligation to pay the royalty accrued up to the date of such termination, or to affect any rights acquired by licensor under article VII hereof, during the term of such license, or to relieve licensee in any way from the position of infringer if licensee shall have continued after such termination to employ the inventions of said patent rights relating to the hydrogenation process or any of them, unless licensee shall acquire a new license which new license it shall be the privilege of licensor to grant or refuse.

ARTICLE XII. PROTECTION OF CONFIDENTIAL INFORMATION

Licensee agrees to take reasonable precautions to prevent publication or disclosure, except to licensor and its said agent, Hydro Engineering & Chemical Co., other licensees of licensor, Standard-I. G. Co. and I. G. Farbenindustrie Aktiengesellschaft, the United States Patent Office, and the patent office of any foreign country in which licensee may apply for a patent or patents, of any technical or patent information relating to the hydrogenation process or the production of catalysts therefor, and especially, but without limiting the generality of the foregoing, any technical instruction, knowledge or information it may obtain from licensor's said agent, Hydro Engineering & Chemical Co.

ARTICLE XIII. LIMITATION ON OBLIGATION TO ACCOUNT

Nothing in this agreement shall be construed as giving licensor the right to call upon licensee to account for the manufacture, use, or sale of catalyst material or equipment or for the conduct of any operation when these are wholly outside the scope of all exclusive patent rights of licensor.

ARTICLE XIV. TERMINATION OF PRIOR LICENSE

A certain license agreement between the parties hereto dated July 12, 1930, shall be and the same hereby is canceled.

This agreement shall be effective as of July 12, 1930. (Note.—Amendments become effective July 1, 1935.)

In witness whereof, the parties hereto have caused this agreement to be executed by their proper officers thereunto duly authorized, and their corporate seals to be affixed and attested this ———— day of ————————, 1932. In so

Digitized by Google

doing, the corporations signing under the captions "Subscribing companies" and "Ratifying subsidiaries" agree jointly and severally with licensor that in the event any corporation or corporations, which, within the term of this agreement shall be at any time, in effect, the sole property of, or the sole owner of, or the sole property of the sole owner of (any one or more of) companies so signing, shall fail to subscribe hereto as joint and several parties with the companies so signing, the companies so signing will indemnify and hold harmless licensor against any and all consequences of such failure.

[SEAL] HYDRO PATENTS CO.,
By ----------
President.
Attest:

Secretary.

Subscribing companies:

[SEAL] STANDARD OIL DEVELOPMENT CO.,
By ----------
President.
Attest:

Secretary.

[SEAL] ----------
By ----------
President.
Attest:

Secretary.

[SEAL] ----------
By ----------
President.
Attest:

Secretary.

Ratifying subsidiaries:

[SEAL] ----------
By ----------
President.
Attest:

Secretary.

[SEAL] ----------
By ----------
President.
Attest:

Secretary.

[SEAL] ----------
By ----------
President.
Attest:

Secretary.

SCHEDULE A. METHOD FOR ASSAY OF HYDROGENATED OIL AND PREMIUM ROYALTY SCHEDULE

Sampling.—Samples of the final products of the licensed process shall be drawn from the batches in which the same are accumulated according to procedure prescribed in "Tentative Methods of Sampling Petroleum and Petroleum Products" A. S. T. M. Designation D 270–27T. Specific details shall be agreed upon by the parties concerned, after giving consideration to the physical conditions of the operations in question.

Analysis—(*a*) *Gasoline content.*—A representative sample of oil shall be tested for gasoline content in accordance with "Tentative Method of Test for Distillation of Crude Petroleum" A. S. T. M. Designation D 285–29T. The temperature at which the naphtha fraction shall be separated shall be 392° F. (200° C.). The percentage by volume thus determined shall be taken as the gasoline content

Digitized by Google

of the oil and no allowance shall be made for volatility of the naphtha fraction as determined by paragraph 10 of the method in question.

(*b*) *Kerosene content.*—The distillation which is in progress when the temperature of 392° F. is reached, as prescribed in the preceding paragraph, shall be continued until a temperature of 482° F. (250° C.) is reached. The fraction distilling between these limits shall be collected in a clean, dry graduate and after cooling to a temperature between 55° F. and 65° F. its volume shall be read and recorded. From this the percentage yield on a water-free basis shall be calculated. The gravity of this fraction shall be determined and if it is 41.0° A. P. I. (60° F./60° F.) or lighter, it shall be classified as kerosene.

(*c*) *Content of lubricating oil.*—The residue in the distillation flask after removal of fractions boiling below 482° F. (250° C.) at atmospheric pressure shall be allowed to cool and shall then be subjected to vacuum distillation according to the method outlined in Bureau of Mines Bulletin No. 207, pages 19–35. Apparatus and procedure may be simplified by the elimination of details not required in the present assay. The distillation shall be continued until the residue in the flask has a saybolt universal viscosity at 100° F. of not less than 245 seconds nor more than 255 seconds. The percentage by volume of this residue shall be classified as lubricating oil. In case the residue from the distillation up to 482° F. at atmospheric pressure has a viscosity of 250 seconds or higher, no vacuum distillation shall be made and the difference between 100 percent and the total percentage distilling up to 482° F. shall be taken as lubricating oil.

The parties interested (including Hydro Engineering & Chemical Co. and Standard-I. G. Co.) may if desired, agree on some other method of determining the percentage of "bottoms" having a viscosity of approximately 250 seconds saybolt universal at 100° F. provided such method indicates a quantity identical with what would have been determined by rigid adherence to the directions prescribed in Bureau of Mines Bulletin No. 207.

If the percentage of bottoms boiling above 482° F. is less than 10 percent, it shall be assumed that under ordinary conditions no lubricating oil will be recovered from the hydrogenated product and such bottoms may therefore be reported as "other products" without vacuum distillation, but Hydro Patents Co. shall have the right, on notice, to exact full compliance with the vacuum distillation method in any individual cases in which it elects so to do.

(*d*) *Content of other products.*—The difference between 100 percent and the sum of the percentages of gasoline (if any), kerosene (if any), and lubricating oil (if any), shall be classified as other products.

CONTRACT I—AGREEMENT BETWEEN HYDRO ENGINEERING AND STANDARD OIL DEVELOPMENT

AMENDED AGREEMENT BETWEEN HYDRO ENGINEERING AND STANDARD OIL DEVELOPMENT

(Effective as of July 12, 1930)

ARTICLE I. PARTIES

The parties of this agreement are Hydro Engineering & Chemical Co., a Delaware corporation, hereinafter referred to as "Engineering", and the affiliated corporations, hereinafter referred to as "Licensee" and defined below.

ARTICLE II. ENGINEERING SERVICES

(*a*) Licensee agrees to submit to engineering for examination and technical criticism any and all plans, lists, and specifications for the construction, enlargement, or alteration of equipment for carrying on any part of the operation licensed by agreement between licensee and Hydro Patents Co., hereinafter referred to as the "Licensed operation," and to invite and permit engineering to inspect all new construction, including that incident to alteration or enlargement before such construction is put into use. Licensee agrees that it will not put into use any new construction, including that incident to alteration or enlargement of old construction, for carrying on any part of the licensed operation, until it has been inspected by engineering. Engineering shall consider, comment upon, and as to questions of patent infringement only, shall specifically approve or disapprove all plans, specifications, and list submitted and shall inspect and report on and similarly approve or disapprove all equipment it is invited to inspect hereunder with reasonable promptness.

Digitized by Google

Nothing herein contained shall prevent licensee from carrying on repairs without notice to engineering, or from constructing or operating equipment unfavorably commented upon from a technical standpoint or disapproved from the standpoint of possible patent infringement by engineering.

(*b*) Engineering will upon request of licensee render such services as it is able to render in connection with the design and construction of new plants, enlargements, and alterations in addition to the minimum services above provided. For example, upon request of licensee, engineering will provide the services of designing and construction engineers (but not construction contractors) for licensee in connection with the installation of all equipment for practicing the licensed operation and will submit complete plans, estimates, specifications, and lists and supervise the construction of new plants, including alterations and enlargements of existing plants, either by licensee's construction forces or by outside contractors, as licensee may elect.

(*c*) For all services specified in paragraphs (*a*) and (*b*) of this article which are rendered by engineering, licensee agrees to pay as an engineering fee the direct cost of the services rendered plus 4 percent of the cost of the completed installation in the case of entirely new construction or 4 percent of the cost of the enlargement or alteration of existing construction. Payment on account of such services shall be made quarterly on the basis of all expenditures on the construction in question during the current quarter.

(*d*) For the purpose of this article the completed installation shall be understood to mean all construction, improvements, and equipment in the area in which the licensed operation is conducted put in directly for, or as an aid or incident to, the practice of the licensed operation, except the following items which are specifically excluded:

A. Preparation, clearing, grading, draining, or piling of site.
B. Trunk or main sewers.
C. Water-supply mains.
D. Boiler plants and steam mains.
E. Electric power generating plants.
F. Storage tanks.

ARTICLE III. CATALYSTS

Engineering agrees to manufacture and maintain stocks of catalysts for use in connection with the licensed operation and upon the request of licensee will enter into a separate contract in respect of such catalysts, including the reclaiming thereof, where practical, such contract to be upon reasonable terms as to quantity and time. The price of all catalysts furnished by engineering under such contract shall be cost plus 10 percent.

ARTICLE IV. TECHNICAL ASSISTANCE

Licensee represents that it is in possession of or has and will have available to it the present and future (until Dec. 31, 1947,) experience and technical information and knowledge of I. G. Farbenindustrie Aktiengesellschaft and Standard Oil Co. (New Jersey) and any corporations which are in effect the sole property of either or both of them relating to the licensed operation and is authorized to and will make available such experience and technical information, as well as any experience and technical information relating to the licensed operation originating with it, to engineering without charge.

Engineering agrees to make available to licensee, without charge, upon request, all technical experience and information which it may hereafter possess relating to the design, maintenance, operation, and repair of equipment, for the practice of the licensed process and upon request of licensee it will cooperate directly with any foreign organization occupying a position in respect of foreign licenses of the patent rights of Standard-I. G. Co. relating to hydrogenation similar to the position of engineering in respect of the services to such patent licensees within the United States.

Nothing herein contained shall be construed to relieve licensee of the payments required under paragraph (*c*) of article II hereof.

ARTICLE V. INSPECTION OF PLANT, EQUIPMENT, ETC.

Engineering shall have access to any and all parts of plants operated under this license in which parts any part of the licensed operation is codnucted at all reasonable hours for the purpose of inspecting the equipment used and the operations conducted therein.

Digitized by Google

As the agent of Standard-I. G. Co. and Hydro Patents Co. engineering shall have the right to examine the books, records, accounts, and measuring, sampling and product testing facilities, equipment and methods, and to take and assay samples of final products of licensee bearing upon the accounting for the licensed operation which it is obligated to make to its licensor, Hydro Patents Co., and may send copies of all its reports respecting such examinations and samples to Hydro Patents Co. and to Standard-I. G. Co.

ARTICLE VI. TERM OF AGREEMENT

This agreement shall remain in effect up to and including December 31, 1947.

ARTICLE VII. LICENSEE

Wherever the expression licensee is used in this agreement it means: Jointly and severally the corporations signing this agreement under the captions "Subscribing companies" and "Ratifying subsidiaries" appearing at the end hereof.

ARTICLE VIII. ASSIGNABILITY

This agreement shall not be assignable by either party.

ARTICLE IX. TERMINATION OF PRIOR AGREEMENT

A certain agreement between the parties hereto relating to the same subject matter and dated July 12, 1930, shall be and the same hereby is canceled.

This agreement shall be effective as of July 12, 1930.

In witness whereof, the parties hereto have caused this agreement to be executed by their proper officers thereunto duly authorized, and their corporate seals to be affixed and attested this_____day of_____, 1932. In so doing, the corporations signing under the captions "Subscribing companies" and "Ratifying subsidiaries" agree jointly and severally with licensor that in the event any corporation or corporations, which, within the term of this agreement shall be at any time, in effect, the sole property of, or the sole owner of, or the sole property of the sole owner of (any one or more of) companies so signing, shall fail to subscribe hereto as joint and several parties with the companies so signing, the companies so signing will indemnify and hold harmless licensor against any and all consequences of such failure.

HYDRO ENGINEERING AND CHEMICAL CO.,

[SEAL] By _____
President.

Attest:

_____
Secretary.

Subscribing companies:

STANDARD OIL DEVELOPMENT CO.,

[SEAL] By_____
President.

Attest:

_____
Secretary.

_____

[SEAL] By _____
President.

Attest:

_____
Secretary.

_____

[SEAL] By _____
President.

Attest:

_____
Secretary.

Digitized by Google

Ratifying subsidiaries:

[SEAL] By ---
President.

Attest:

Secretary.

[SEAL] By ---
President.

Attest:

Secretary.

[SEAL] By ---
President.

Attest:

Secretary.

APPENDIX

(Amendments to contracts A, B, C, D, and H)

AGREEMENT TO AMEND CONTRACTS A AND B OF THE MUTUAL LICENSING PLAN CONTRACTS

The parties to this agreement, made as of the 1st day of July 1935, are Hydro Patents Co., a Delaware corporation, hereinafter referred to as "patents", and Standard-I. G. Co., a Delaware corporation, hereinafter referred to as "Standard-I. G."

The parties entered into an agreement with others, designated contract A of the Hydro Patents Mutual Licensing Plan, and also entered into an agreement between themselves, effective as of July 12, 1930, designated contract B of the Hydro Patents Mutual Licensing Plan.

The parties agree to amend said contracts in the following manner:

I. AMENDMENT TO CONTRACT A

Article IV, line 2, cancel "five" and insert "one"; line 3, cancel "5,000" and insert "1,000".

II. AMENDMENTS TO CONTRACT B

1. Article II, paragraph A–(1), at the end add "to products of that process, and".

2. Article II, after paragraph A–(2) add the following three paragraphs:

"Both (1) and (2), supra, shall also include those patent rights in which the real invention is only the substitution of products obtained by the practice of said process and which are specified in subparagraphs 1, 2, and 3 of subdivision B of this article II, for similar products not obtained by the practice of said process even though said patent rights in form purport to cover a new process or product not within said field or not so specified.

"The expression 'patent rights relating to the hydrogenation process' shall be interpreted to include patent rights for processes of making aluminum chlorid and other metallic halids for use in the hydrogenation process as hereinbelow defined and interpreted, and not otherwise.

"The expression 'patent rights relating to the hydrogenation process' shall be interpreted to include rights under all apparatus and product patents incident to the processes included in this license, but only as hereinbelow defined and interpreted, and shall not otherwise include rights under such apparatus and product patents."

Digitized by Google

3. Article II, paragraph B, at the end of the second subparagraph and following the words "refinery procedure," insert:
"but the term 'hydrogenation' shall not be interpreted to cover interaction of hydrocarbons if such interaction is not substantially influenced by the presence of free hydrogen.

"The term 'hydrogenation process' shall be interpreted to include processes involving the use of aluminum chlorid or other metallic halids when such process is carried out by or in the presence of added hydrogen or hydrogen carriers, with or without catalysts (or other catalysts), to a degree or extent or in a manner to secure definitely determinable hydrogenation, and shall not otherwise include processes involving the use of aluminum chlorid or metallic halids having like effect in said process.

In witness whereof, the parties hereto have caused this agreement to be executed by their proper officers thereunto duly authorized, and their corporate seals to be affixed and attested.

HYDRO PATENTS CO.,
By ----------
President.

[SEAL]
Attest:

Secretary.

STANDARD-I. G. CO.,
By ----------,
President.

[SEAL]
Attest:

----------,
Secretary.

AGREEMENT TO AMEND CONTRACT C OF THE MUTUAL LICENSING PLAN CONTRACTS

The parties to this agreement, made as of the 1st day of July, 1935, are Hydro Patents Co., a Delaware corporation, hereinafter referred to as licensor, and the corporation or corporations defined below, hereinafter referred to as licensee.

The parties entered into an agreement designated contract C of the Mutual Licensing Plan of Hydro Patents Co., whereby licensee obtained a license for 501 barrels daily average capacity of oil charged to the Hydrogenation Process or of liquefied coal.

In consideration of the purchase of 499 additional shares of Hydro Patents stock at $53 per share by licensee and of the amendment of said contract C as herein stated, the parties agree as follows:

I. AMENDMENTS TO CONTRACT C

1. Article II, paragraph A–(1), at the end add "to products of that process, and".

2. Article II, paragraph A–(2), at the end add the following three paragraphs:
"Both (1) and (2), supra, shall also include those patent rights in which the real invention is only the substitution of products obtained by the practice of said process and which are specified in subparagraphs 1, 2, and 3 of subdivision B of this article II, for similar products not obtained by the practice of said process even though said patent rights in form purport to cover a new process or product not within said field or not so specified.

"The expression 'patent rights relating to the hydrogenation process' shall be interpreted to include patent rights for processes of making aluminum chlorid and other metallic halids for use in the hydrogenation process as hereinbelow defined and interpreted, and not otherwise.

"The expression 'patent rights relating to the hydrogenation process' shall be interpreted to include rights under all apparatus and product patents incident to the processes included in this license, but only as hereinbelow defined and interpreted, and shall not otherwise include rights under such apparatus and product patents."

3. Article II, paragraph B, at the end of the second subparagraph and following the words "regular refinery procedure," insert:
"but the term "hydrogenation" shall not be interpreted to cover interaction of hydrocarbons if such interaction is not substantially influenced by the presence of free hydrogen.

Digitized by Google

"The term 'hydrogenation process' shall be interpreted to include processes involving the use of aluminum chlorid or other metallic halids when such process is carried out by or in the presence of added hydrogen or hydrogen carriers, with or without catalysts (or other catalysts), to a degree or extent or in a manner to secure definitely determinable hydrogenation, and shall not otherwise include processes involving the use of aluminum chlorid or metallic halids having like effect in said process.

"Licensor represents and warrants that I. G. Farbenindustrie Aktiengesellschaft, International Hydrogenation Patents Co., Ltd., and Standard-I. G. Co. agree with and approve of the interpretation of the term 'hydrogenation process' as set forth in the preceding paragraph."

4. Article VI, paragraph A, subparagraph (c), cancel the sentence "5 cents per barrel upon the gasoline content and in addition the premium royalties for premium quality antiknock gasoline as provided in schedule A hereto annexed" and insert in lieu thereof "5 cents per barrel upon the gasoline content."

5. Article VI, paragraph B, cancel the third subparagraph beginning "in the case of products * * *", and ending "such intermediate rate."

6. Article VII, paragraph (a), line 7 of the first subparagraph, after "such" insert "royalty free"; line 7 of the second subparagraph, line 8 of paragraph (b), and line 9 of paragraph (c), make the same insertion.

7. Article VII, cancel paragraph (d), and insert:

"(d) In the event the license herein granted shall be terminated by licensee as provided in article VIII hereof, or by licensor as provided in article XI hereof, nothing contained in this article VII shall be deemed to grant to licensor, or Hydro Engineering & Chemical Co. or I. G. Farbenindustrie Aktiengesellschaft, or any licensee of the foreign patents of Standard-I. G. Co., rights under any future patents of licensee."

8. Schedule A, cancel paragraph (e).

II. AMENDMENTS TO RELATED CONTRACTS

Licensee hereby assents to the inclusion of the amendments indicated above in all the other contracts of the mutual licensing plan where subject matter corresponding to that in contract C necessitates their insertion.

III. CAPACITY LICENSED

The licensed capacity is increased from 501 barrels to 1,000 barrels daily average capacity of oil charged to the hydrogenation process or of liquefied coal.

IV. CONTINUANCE OF FORMER AGREEMENT

All the provisions of said contract C remain in full force and effect except as they are modified by the foregoing.

In witness whereof, the parties hereto have caused this agreement to be executed by their proper officers thereunto duly authorized, and their corporate seals to be affixed and attested this _____ day of _____ 1935.

HYDRO PATENTS CO.,

[SEAL] By _____
President.

Attest:

_____,
Secretary.

SUBSCRIBING COMPANIES

_____,

[SEAL] By _____,
President.

Attest:

_____,
Secretary.

_____,

[SEAL] By _____,
President.

Attest:

_____,
Secretary.

Digitized by Google

[SEAL] By ----------, *President.*

Attest:

----------, *Secretary.*

[SEAL] By ----------, *President.*

Attest:

----------, *Secretary.*

[SEAL] By ----------, *President.*

Attest:

----------, *Secretary.*

RATIFYING SUBSIDIARIES

[SEAL] By ----------, *President.*

Attest:

----------, *Secretary.*

[SEAL] By ----------, *President.*

Attest:

----------, *Secretary.*

[SEAL] By ----------, *President.*

Attest:

----------, *Secretary.*

[SEAL] By ----------, *President.*

Attest:

----------, *Secretary.*

[SEAL] By ----------, *President.*

Attest:

----------, *Secretary.*

AGREEMENT TO AMEND CONTRACT D OF THE MUTUAL LICENSING PLAN CONTRACTS

The parties to this agreement, made as of the 1st day of July 1935, are Hydro Patents Co., a Delaware corporation, hereinafter referred to as "Patents", and Hydro Engineering & Chemical Co., a Delaware corporation, hereinafter referred to as "Engineering."

The parties entered into an agreement effective as of July 12, 1930 designated contract D of the mutual licensing plan of Hydro Patents Co.

The parties agree to amend said contract in the following manner:

Article III, at the end insert:

"Engineering hereby grants to Patents, a nonexclusive, nontransferable right to grant licenses under its patent rights relating to the Hydrogenation process, without accounting to Engineering. The term "patent rights relating to the hydrogenation process" shall always have the same meaning in this agreement as in contract B of this series of agreements."

Digitized by Google

In witness whereof, the parties hereto have caused this agreement to be executed by their proper officers thereunto duly authorized, and their corporate seals to be affixed and attested.

HYDRO PATENTS CO.,

[SEAL] By _____
President.

Attest:

_____,
Secretary.

HYDRO ENGINEERING & CHEMICAL CO.,

[SEAL] By _____,
President.

Attest:

_____,
Secretary.

AGREEMENT TO AMEND CONTRACT H OF THE MUTUAL LICENSING PLAN CONTRACTS

The parties to this agreement, made as of the 1st day of July, 1935, are Hydro Patents Co., a Delaware corporation, hereinafter referred to as "licensor", and Standard Oil Development Co., a corporation of Delaware, and affiliated corporations, hereinafter referred to as "licensee" and defined below.

The parties entered into an agreement effective as of July 12, 1930, designated contract H of the mutual licensing plan of Hydro Patents Co.

The parties agree to amend said contract in the following manner:

1. Article II, paragraph A-(1), at the end add "to products of that process, and."

2. Article II, after paragraph A-(2), add the following three paragraphs:

"Both (1) and (2) supra shall also include those patent rights in which the real invention is only the substitution of products obtained by the practice of said process and which are specified in subparagraphs 1, 2, and 3 of subdivision B of this article II, for similar products not obtained by the practice of said process even though said patent rights in form purport to cover a new process or product not within said field or not so specified.

"The expression patent rights relating to the hydrogenation process shall be interpreted to include patent rights for processes of making aluminum chlorid and other metallic halids for use in the hydrogenation process as hereinbelow defined and interpreted, and not otherwise.

"The expression patent rights relating to the hydrogenation process shall be interpreted to include rights under all apparatus and product patents incident to the processes included in this license, but only as hereinbelow defined and interpreted, and shall not otherwise include rights under such apparatus and product patents."

3. Article II, paragraph B, at the end of the second subparagraph, and following the words "refinery procedure", insert:

"but the term "hydrogenation" shall not be interpreted to cover interaction of hydrocarbons if such interaction is not substantially influenced by the presence of free hydrogen.

"The term hydrogenation process shall be interpreted to include process involving the use of aluminum chlorid or other metallic halids when such process is carried out by or in the presence of added hydrogen or hydrogen carriers, with or without catalysts (or other catalysts), to a degree or extent or in a manner to secure definitely determinable hydrogenation, and shall not otherwise include processes involving the use of aluminum chlorid or metallic halids having like effect in said process."

4. Article VI, paragraph A, subparagraph (c), cancel the sentence "5 cents per barrel upon the gasoline content and in addition the premium royalties for premium quality anti-knock gasoline as provided in schedule A hereto annexed" and insert in lieu thereof "5 cents per barrel upon the gasoline content."

5. Article VI, paragraph B, cancel the third subparagraph beginning "In the case of products" and ending "such intermediate rate."

6. Article VII, cancel paragraph (d), and insert:

"(d) In the event the license herein granted shall be terminated by licensee as provided in article VIII hereof, or by licensor as provided in article XI hereof, nothing contained in this article VII shall be deemed to grant to licensor, or

Digitized by Google

Hydro Engineering & Chemical Co. or I. G. Farbenindustrie Aktiengesellschaft, or any licensee of the foreign patents of Standard-I. G. Co., rights under any future patents of licensee.

7. Schedule A, cancel paragraph (e).

In witness whereof, the parties hereto have cause this agreement to be executed by their proper officers thereunto duly authorized, and their corporate seals to be affixed and attested this _____ day of 1935.

HYDRO PATENTS CO.,

[SEAL] By _____, *President.*

Attest:

_____,
Secretary.

SUBSCRIBING COMPANIES

STANDARD OIL DEVELOPMENT CO.,

[SEAL] By _____, *President.*

Attest:

_____,
Secretary.

_____,

[SEAL] By _____, *President.*

Attest:

_____,
Secretary.

_____,

[SEAL] By _____, *President.*

Attest:

_____,
Secretary.

RATIFYING SUBSIDIARIES

_____,

[SEAL] By _____, *President.*

Attest:

_____,
Secretary.

_____,

[SEAL] By _____, *President.*

Attest:

_____,
Secretary.

_____,

[SEAL] By _____, *President.*

Attest:

_____,
Secretary.

SOCONY-VACUUM OIL CO., INC.,
New York, January 15, 1936.

Hon. WILLIAM E. SIROVICH,
Chairman United States, Committee on Patents,
House of Representatives, New York, N. Y.

SIR: This will reply to your letters dated November 6, 1935, addressed, respectively, to Standard Oil Co. of New York, and Socony Vacuum, Inc. Our company was formerly named Standard Oil Co. of New York and is now named Socony-Vacuum Oil Co., Inc., the corporation being the same in both instances.

We give below such information as we can respecting the several items listed in your letter upon which you request information:

Item 1.—Attached hereto is a list of unexpired United States patents owned by Socony-Vacuum Oil Co., Inc., and its subsidiaries, as of January 1, 1936, said list being identified as enclosure 1.

This company is not a member of a patent pool or a party to any patent pooling agreement. We have from time to time acquired licenses under patents owned by others, and have paid very substantial amounts of money in acquiring such license rights. We have issued licenses to others under some of our patents. In

Digitized by Google

acquiring some of our licenses, we have issued licenses under some of our own patents as part consideration for the licenses which we acquired.

It is impossible to furnish a list of patents now being used by us under our licenses. This would involve an opinion as to whether any one of our extensive refining and other operations comes within the scope of any claim of any patent under which we have a license. Further, such a question is determinable only by the courts. Also, our licenses ordinarily do not enumerate particular patents but rather cover rights in certain subject matter, for example, pyrolytic cracking. Our object of acquiring such licenses in certain fields is to give us the right to use improvements in such fields which have been developed by others, to give us greater freedom in design and operation in such fields,to give us greater freedom from threat of patent litigation, and to obviate the impossible task of trying to determine what particular patents owned by others might be infringed by each one of our extremely large number of almost constantly changing operations.

Item 2.—Our patent policy is to obtain patents covering meritorious inventions originating in our laboratories, refineries, etc. Our research laboratories and refineries are constantly striving to improve our present operations, equipment, and products, and to develop new products and processes, and we try to obtain patent protection of scope which will cover these improvements. Most of such improvements and inventions are actually used. Frequently the use of patented inventions is discontinued because they have become outmoded. Sometimes two or more alternative improvements or solutions of a problem are made, one of which is used but the others are also made the subject of patent applications. Sometimes long-range inventions are made which have no practicable immediate use but which have potential value for future use. Our policy is to patent new developments, not keep them secret. It is not our policy to patent new inventions or to purchase patents in an effort to keep them out of use. It is our policy to use our new inventions wherever possible. It is ordinarily our policy, not only to use our new inventions for ourselves, but to make them available for use by other responsible interests at reasonable terms.

Item 3.—We are not members of any organization or association dealing with patents, and therefore have no constitution or bylaws or articles of agreement relating thereto.

Items 4 and 5.—This company is not a member of a patent pool or a party to any patent-pooling agreement. As above stated, we have acquired licenses in certain fields in which we have granted licenses under some of our patents as part consideration for the licenses which we acquired. The most important of these fields is cracking. In the field of pyrolytic cracking, for example, we have a license under the cracking patents of Gasoline Products Co., Inc., the Texas Co., Standard Oil Co. (Indiana), Standard Oil Co., a corporation of New Jersey, and the Atlantic Refining Co., for which we have paid very substantial sums of money. Under this cracking license we also have certain immunities from suit under the cracking patents of United Gasoline Corporation, Universal Oil Products Co., Shell Union Oil Corporation, Standard Oil Co. of California, and the Gulf Oil Corporation of Pennsylvania. In addition to the fees which we have paid for these licenses and immunities, we have granted a license under our own pyrolytic cracking patents to Gasoline Products Co., Inc., and its licensees. We have not shared and do not share in any license fees or royalties paid by other licensees under these pyrolytic cracking patents; we are free to grant licenses to others under our own pyrolytic-cracking patents and are willing to do so at reasonable terms; no other company, interest, or group has any authority to determine or influence our policy with respect to our own patents; we have no authority to grant licenses under cracking patents other than our own or to control or influence the policy of any other company as to whether it shall or shall not grant licenses under its pyrolytic-cracking patents, or to whom, or upon what terms. Other fields in which we have patent license rights from others are hydrogenation, catalytic cracking and refining, solvent refining, and dewaxing, and miscellaneous smaller fields. The only major fields in which we have issued a license under our own patents in consideration for the license which we received are cracking and hydrogenation. Our hydrogenation license was acquired to insure us a position in this field for the future; we are not conducting hydrogenation operations at the present time. We have issued certain licenses under our own patents in the field of special chemical products and processes. We do not have any forms of licensing or other agreements; each license is drafted independently to define the terms of that particular agreement.

Item 6.—As stated, this company is not a member of a patent pool or a party to any patent-pooling agreement. The issued unexpired United States patents under which we have granted licenses are included in the attached list designated

Digitized by Google

enclosure 1, which list gives the date, number, and inventor of each patent. In substantially all of these patents the inventor was an employee of the company at the time he made the invention. Assignment from employee to company is ordinarily made at or about the time of filing the application for patent. It is impossible to state or estimate the individual value of these patents; our patents are carried on our books at a relatively nominal valuation, less than $100,000.

Item 7.—We do not own or control any patents which are used as a basis for charter or corporation franchise.

Item 8.—As stated above, the inventors of substantially all of our patents were employees of assignee at the time their respective inventions were made, and most of them still are employees of the company. The company has assignment of invention contracts with its employees who are employed in a capacity where they are expected to make inventions as a part of their regular work, these contracts being limited to inventions along the line of the company's business. The employees with whom the company has such contracts are principally research and laboratory men, together with some additional technical men and engineers. No assignemnt of invention contract is entered into between the company and its general run of employees; i. e., employees whose work is not of such nature that they are expected to make inventions as a part of their regular work. The company has a system of payments or rewards for certain classes of suggestions and inventions, and in certain instances has released rights in inventions to the individual inventor. With respect to men employed in capacities where they are expected to make improvements and inventions, the accomplishments of each man along this line are considered by the company in determing salary.

Item 9.—Such information as can be given on this item has already been given under the preceding items, particularly items 1, 4, and 5.

Item 10.—We are not a party to a patent pool and in no wise do we conduct a patent licensing policy with reference to members or nonmembers of any patent pool. Our general patent policy is to issue licenses under our patents whenever and to whatever parties it is in our judgment to do so as a desirable transaction in the ordinary course of business, and upon such terms as in our judgment are fair and reasonable in any particular case, the same as we do with respect to other contracts in the ordinary conduct of our business. Sometimes we deem it advisable to issue licenses with the exclusive provisions, as for example, we have done with chemical companies in the case of chemical specialties, and sometimes we deem it advisable to issue only a nonexclusive license, retaining full rights to license others, as we have done in the case of cracking.

Item 11.—We are not members of any patent pool, and have no commitments or policy involving eligibility requirements respecting patent licenses. We consider it essential in the regular course of our business to maintain an active program of research, development, and patents, and it is our policy to utilize the results of this program as best we can in furthering the legitimate interests of the company, in such ways as improve our own products and processes, protecting ourselves against attacks of patent infringement by others, deriving income, and protecting ourselves against lawless appropriation by others of new developments which we have made as the result of costly research.

Item 12.—In general we are in accord with the improvements in Patent Office practice which have been put into effect during the term of the present Commissioner. We would favor consideration of further changes in the patent laws and rules which would further the following objects: (1) Expediting and reducing the expense of adjudication of patents by the courts, (2) expediting patent prosecution before the Patent Office, particularly in interference proceedings, (3) preventing patent applications pending for excessively long periods in the Patent Office before issuance, (4) preventing expansion or revision in any substance of claims in pending applications to cover growing commercial practices in industry or to cover inventions of other applicants, (5) prohibiting addition or modification of claims by amendment in patent applications to cover subject matter which the application as originally filed does not clearly indicate was intended to be claimed as invention, (6) restricting class claims in chemical applications to breadth which is clearly justified upon the basis of the specific examples disclosed in the application as originally filed, (7) refusing class claims in chemical cases where it is shown that certain members of the class are inoperative or devoid of utility for the purpose stated, (8) requiring in chemical product claims a restrictive statement of the utility of the product unless the product is the result of chemical reaction and is thereby a new composition of matter, (9) limitation of the term of patents to 17 years from the date of issuance or 20 years from the

Digitized by Google

date of filing, whichever term first expires, (10) refusing to permit, in applications which have been pending before the Patent Office for more than 3 years, claims which are not based in their entirety upon explicit statements of inventions contained in the application before expiration of said 3 years, (11) a single final court of patent appeals consisting of judges having technical and scientific qualifications, (12) continuance of adequate salaries for Patent Office examining staff and progressive increase in salary level to make Patent Office positions as attractive as possible to high-class men for long term employment.

Respectfully,

DALLAS R. LAMONT.

Unexpired United States patents owned by Socony-Vacuum Oil Co., Inc., and its subsidiaries, as of Jan. 1, 1936

Patent no.	Date	Inventor
1296224	Mar. 4, 1919	Smart, H. C.
1310164	July 15, 1919	Leslie, E. H.
1327990	Jan. 13, 1920	French, C. L.
1337823	Apr. 20, 1920	Leslie, E. H., et al.
1337542	do	Cannon, H., et al.
1356878	Oct. 26, 1920	Newton, D. L.
1359147	Nov. 16, 1920	Baldwin, E. A.
1377878	May 10, 1921	French, C. L.
1391325	Sept. 20, 1921	Killian, F. B.
1395405	Nov. 1, 1921	Folant, W. S.
1397113	Nov. 15, 1921	Prutzman, P. W.
1399792	Dec. 13, 1921	Prutzman, P. W., et al.
1300419	do	Chamberlain, H. P.
1401372	Dec. 27, 1921	Sutherland, R. F.
1402231	Jan. 3, 1922	Hooper, C. L.
1404374	Jan. 24, 1922	Chappell, M. L., et al.
1404375	do	Do.
1405099	Jan. 31, 1922	Cooke, G. W.
1411436	Apr. 4, 1922	Imfeld, J. G.
1413160	Apr. 18, 1922	Dickey, S. J.
1422057	July 4, 1922	Hooper, C. L.
1425712	Aug. 15, 1922	Stockford, C. E.
1426099	do	Prutzman, P. W.
1437689	Dec. 5, 1922	Smart, H. C.
1442677	Jan. 16, 1923	MacArthur, W. J.
1463362	July 31, 1923	Hooper, C. L., et al.
Re. 15678	Aug. 21, 1923	MacArthur, W. J.
1465671	do	Hubbard, W. E.
1469218	Oct. 2, 1923	Hooper, C. L.
1471201	Oct. 16, 1923	Prutzman, P. W., et al.
1477394	Dec. 11, 1923	Thatcher, H. S.
1488805	Apr. 1, 1924	Chappell, M. L., et al.
1489932	Apr. 8, 1924	Dickey, S. J.
1492184	Apr. 29, 1924	Weir, J. W., et al.
1497717	June 17, 1924	Folant, W. S.
1501877	July 15, 1924	Zoul, C. V.
1502547	July 22, 1924	Calvert, R., et al.
1507943	Sept. 9, 1924	VanLeuven, L. B., et al.
1512637	Oct. 21, 1924	Robinson, A. F.
1512638	do	Do.
1539096	May 26, 1925	Perry, L. H.
1547682	July 28, 1925	Prutzman, P. W.
1547712	do	Zoul, C. V.
1549068	Aug. 11, 1925	Dickey, S. J.
1551909	Sept. 1, 1925	Prutzman, P. W.
Re. 16439	Oct. 12, 1926	Do.
1561999	Nov. 17, 1925	Do.
1562000	do	Prutzman, P. W., et al.
1562001	do	Do.
1562868	Nov. 24, 1925	Chappell, M. L.
1564501	Dec. 8, 1925	Weir, J. W.
1569695	Jan. 12, 1926	Zoul, C. V.
1572465	Feb. 9, 1926	Black, J. C., et al.
1580631	Apr. 13, 1926	Rather, J. B.
1581369	Apr. 20, 1926	Weir, J. W.
1582869	Apr. 27, 1926	Filter, F. R.
1586954	June 1, 1926	Templeton, J. M.
1590646	June 29, 1926	Roe, L. D.
1594781	Aug. 3, 1926	Lamb, H. B.
1595616	Aug. 10, 1926	Prutzman, P. W.
1597046	Aug. 24, 1926	Bohnhardt, C. F. H.
1598254	Aug. 31, 1926	Prutzman, P. W., et al.
1598255	Aug. 21, 1926	Do.
1598256	Aug. 31, 1926	Prutzman, P. W., et al.
1599715	Sept. 14, 1926	Do.
1603174	Oct. 12, 1926	Weir, J. W.
1610637	Dec. 14, 1926	Wertz, A. L.
1622671	Mar. 29, 1927	Rather, J. B., et al.
1623696	Apr. 5, 1927	Nugent, B. C.
1625195	Apr. 19, 1927	Dickey, S. J.
1629690	May 24, 1927	Fentress, G. E.
1631748	June 7, 1927	Martin, C. E.
1633052	June 21, 1927	Watts, J. S.
1633871	June 28, 1927	Prutzman, P. W.
1639988	Aug. 23, 1927	Dickey, S. J., et al.
1642871	Sept. 30, 1927	Chappell, M. L., et al.
1646562	Oct. 25, 1927	Snow, E. J.
1646570	do	Atwood, E. H., et al.
1651088	Nov. 29, 1927	Fentress, G. E.
1652399	Dec. 13, 1927	Dickey, S. J.
1652903	do	Martin, C. E.
1653735	Dec. 27, 1927	Prutzman, P. W.
1655175	Jan. 3, 1928	Benjamin, V. C.
1655817	Jan. 10, 1928	Marsh, H. N.
1656997	Jan. 24, 1928	Black, J. C.
1658262	Feb. 7, 1928	Sperry, R. A., et al.
1659645	Feb. 21, 1928	Watts, J. S.
1659782	do	Moran, R. C.
1662995	Mar. 20, 1928	Atwood, E. H., et al.
1663014	do	Lowman, M. C., et al.
1665110	Apr. 3, 1928	Olsen, G. F.
1665111	do	Do.
1665189	do	Roth, E. W.
1665190	do	Do.
1666525	Apr. 17, 1928	Bohnhardt, C. F. H.
1667984	May 1, 1928	Prutzman, P. W.
1675294	June 26, 1928	Filter, F. R.
1678286	July 24, 1928	Fentress, G. E.
1678287	do	Do.
1678376	do	Bowlus, G. H.
1682544	Aug. 28, 1928	Young, M. S.
1682713	do	Roth, E. W.
1691687	Nov. 13, 1928	Watts, J. S.
1692756	Nov. 20, 1928	Moran, R. C.
1697321	Jan. 1, 1929	Marsh, H. N.
1704206	Mar. 5, 1929	Olsen, G. F.
1713661	May 21, 1929	Kemball, W. F., et al.
1715670	June 4, 1929	Olsen, G. F.
1720144	July 9, 1929	Do.
1724510	Aug. 13, 1929	Do.
Des. 81833	Aug. 19, 1930	Harding, J. B.
1727785	Sept. 10, 1929	Roth, E. W.
1728156	do	Wheeler, R. C., et al.
1729203	Sept. 24, 1929	Bowman, P. J.
1730591	Oct. 8, 1929	Robertson, W. B.
Re. 16439	Oct. 12, 1926	Prutzman, P. W.
1733238	Oct. 29, 1929	Phillips, L. A.
1733459	do	Hooper, C. L., et al.
1733551	do	Moeller, B. A.
1735336	Nov. 12, 1929	Paradise, N. F.
1737578	Dec. 3, 1929	Fentress, G. E.
1739675	Dec. 17, 1929	Howard, J. H., et al.
1742393	Jan. 7, 1930	Hooper, C. L., et al.
1742623	do	Turner, J. F., et al.
1743131	Jan. 14, 1930	Grace, V. F.
1744543	Jan. 21, 1930	Do.

Digitized by Google

Unexpired United States patents owned by Socony-Vacuum Oil Co., Inc., and its subsidiaries, as of Jan. 1, 1936—Continued

Patent no.	Date	Inventor
1745837	Feb. 4, 1930	Olsen, G. F.
1745952	----do----	Prutzman, P. W.
1754401	Apr. 15, 1930	Prutzman, P. W., et al.
1757355	May 6, 1930	Benjamin, V. C., et al.
1759219	May 20, 1930	Bowlus, G. H.
1769475	July 1, 1930	Teitsworth, C. S.
1769476	----do----	Do.
1774928	Sept. 2, 1930	Land, M.
1776598	Sept. 23, 1930	Rather, J. B., et al.
1778247	Oct. 14, 1930	Denton, H. A.
1778252	----do----	Fentress, G. F.
1781292	Nov. 11, 1930	McCracken, J. A.
1781293	----do----	Do.
1781294	----do----	Do.
1781295	----do----	Do.
1781298	----do----	Prutzman, P. W.
1781299	----do----	Do.
1781300	----do----	Do.
1784262	Dec. 9, 1930	Wheeler, R. C., et al.
1788094	Jan. 6, 1931	Fletcher, A.
1792003	Feb. 10, 1931	Dickey, S. J., et al.
1798780	Mar. 31, 1931	Bowlus, G. H.
1798785	----do----	Carter, F. C.
1798799	----do----	MacArthur, W. J.
1800964	Apr. 14, 1931	Sheldon, H. W.
1800975	----do----	Abrams, H. F., et al.
1804089	May 5, 1931	Cochran, B. L.
1804683	May 12, 1931	Gardiner, J.
Des. 84324	June 9, 1931	Bowen, M. W.
1810353	June 16, 1931	Johnson, R. P.
1812351	June 30, 1931	Marsh, H. N.
1818134	Aug. 11, 1931	Hooper, C. L., et al.
1818274	----do----	Prutzman, P. W.
1818278	----do----	Siler, R. W.
1818295	----do----	Bohnhardt, C. F. H.
1818297	----do----	Bowlus, G. H.
1820657	Aug. 25, 1931	Francis, A. W.
1824238	Sept. 22, 1931	Scott, W. O.
1831571	Nov. 10, 1931	MacArthur, W. J.
1831572	----do----	Do.
1836029	Dec. 15, 1931	Hutt, A. E.
1841070	Jan. 12, 1932	Story, B. W.
1849137	Mar. 15, 1932	Dawkins, D. G.
1849181	----do----	Francis, C.
1849188	----do----	Hayes, H.
1849190	----do----	Jackson, R. H.
1849201	----do----	Niemann, W. F.
1850561	Mar. 22, 1932	Moran, R. C.
1851395	Mar. 29, 1932	MacArthur, W. J.
1851422	----do----	Durando, E. G.
1853351	Apr. 12, 1932	Hayes, H.
1853769	----do----	Kilchenstein, J. L.
1861999	June 7, 1932	Bowlus, G. H.
1866049	July 5, 1932	Marsh, H. N.
1868900	July 26, 1932	Hayes, H.
1869023	----do----	Pritchard, A. B.
1889101	Nov. 29, 1932	Moeller, B. A.
1890474	Dec. 13, 1932	Tietig, C.
1868900	July 26, 1932	Hayes, H.
1890886	Dec. 13, 1932	Rather, J. B.
1891396	Dec. 20, 1932	Prutzman, P. W.
1891401	Dec. 20, 1932	Bowlus, G. H.
1895683	Jan. 31, 1933	Roth, E. W., et al.
1896610	Feb. 7, 1933	Counce, H. R.
1897203	Feb. 14, 1933	Lenarth, C. C.
1901634	Mar. 14, 1933	Dawkins, D. G.
1909985	May 23, 1933	Rather, J. B., et al.
1910157	----do----	Filter, F. R.
1913049	June 6, 1933	Dunham, G. S.
1913838	June 13, 1933	Kelley, W. D.
1913845	----do----	Marsh, H. N., et al.
1914371	June 20, 1933	Hutt, A. E.
1916437	July 4, 1933	Rather, J. B., et al.
1916438	----do----	Do.
1916766	----do----	Lytel, H. M.
1918268	July 18, 1933	Hinckley, C. E., et al.
1918278	----do----	Marshall, E. C., et al.
1926115	Sept. 12, 1933	Seymour, E. D.
1926116	----do----	Sheldon, H. W.
1928494	Sept. 26, 1933	Irwin, R. R., et al.
1931016	Oct. 17, 1933	Bridges, K. L.
1935614	Nov. 21, 1933	Conn, W. G.
1947575	Feb. 20, 1934	Young, M. S., et al.
1948325	----do----	Anderson, J. L., et al.
1949786	Mar. 6, 1934	Dickey, S. J.
1951205	Mar 13, 1934	Rather, J B., et al.
1951206	----do----	Do.
1951207	----do----	Do.
1951208	----do----	Do.
Re. 19179	May 22, 1934	Wheeler, R. C., et al.
1954371	Apr. 10, 1934	Tarte, C. E., et al.
1959315	May 15, 1934	Rather. J. B., et al.
1959316	----do----	Do.
1959317	----do----	Do.
1963489	June 19, 1934	Fuller, E. W., et al.
1967683	July 24, 1934	Ostrander, A. J.
1967690	----do----	Sherman, W. T.
1967699	----do----	Young, M. S.
1968673	July 31, 1934	Ellis, C A.
Des. 93328	Sept. 18, 1934	Browe, R. C.
1979081	Oct. 30, 1934	Schott, W. P.
1984005	Dec. 11, 1934	Young, M. S.
1986204	Jan. 1, 1935	Johnson, A. S.
1989528	Jan. 29, 1935	Rather, J. B., et al.
1992133	Feb. 19, 1935	Tarte, C. E.
1998122	Apr. 16, 1935	Dunham, G S.
1998123	----do----	Do.
2000105	May 7, 1935	Story, B. W., et al.
2002645	May 28, 1935	Rather, J. B., et al.
Des. 95906	June 11, 1935	Geddes, N. B., et al.
2006388	July 2, 1935	Ellis, F. E.
2009079	July 23, 1935	Burkhard, M. J.
2009347	----do----	Sheldon, H. W.
2012446	Aug. 27, 1935	Edwards, McK. C., et al.
2016421	Oct. 8, 1935	Eichner, E. R.
2022267	Nov. 26, 1935	Zeek, O. B.
2023499	Dec. 10, 1935	Winter, A. N.
2023545	----do----	Pummill, E. T.
2023546	----do----	Do.
2025517	Dec. 24, 1935	King, R. D.

INCANDESCENT LAMP MANUFACTURERS' ASSOCIATION,
New York, August 26, 1935.

Mr. ROBERT ROBINS,
Fifth Avenue Hotel, Fifth Avenue and Ninth Street, New York City.

DEAR MR. ROBINS: We beg to acknowledge you letter of August 24 and thank you very much for the same.

Owing to the fact that this is a holiday week, if convenient for you, we would like to make an appointment for some time next week. Will you kindly set a date and if you like, you may telephone us at Algonquin 4–6737 when it will be convenient for you to see us.

Thanking you in advance for an early reply, we remain

Very truly yours,

INCANDESCENT LAMP MANUFACTURERS' ASSOCIATION,
By LOUIS KLEIN, *Secretary.*

Digitized by Google

INCANDESCENT LAMP MANUFACTURERS' ASSOCIATION,
Newark, N. J., August 10, 1935.

Hon. WILLIAM I. SIROVICH,
Member of Congress from New York City, Congressional Office Building, Washington, D. C.

DEAR DR. SIROVICH: We are an association of independent incandescent lamp manufacturers, ordinarily known as electric light bulbs.

Our industry is one which is dominated entirely by a monopoly group consisting of the General Electric Co. and its licensees and the Westinghouse Lamp Co. This monopoly group manufacture and control about 93 percent of all electric incandescent lamps manufactured in this country.

Since the inception of this industry, they have maintained a patent monopoly and by constant intimidation, threats of suits and actual suits instituted against small independent manufacturers, jobbers, and dealers, are today still continuing their monopoly.

At the time that the N. R. A. was inaugurated, we filed a vigorous protest complaining of the unfair practice of the monopoly group, in that they unfairly maintained a patent monopoly and we prepared a very comprehensive brief giving the entire history of the patent situation in the incandescent lamp industry. We will be glad to forward a copy of this brief to you, as it clearly sets forth the unfair methods used by the monopoly group to maintain their patent monopoly.

Due to the fact that they are such a large and powerful corporation with unlimited financial means, it is very easy for them to maintain this patent monopoly, as the small independent manufacturers cannot fight against such unfair odds.

We heartily approve of your bill calling for an investigation of patent racketeering and pooling and the members of our association will be glad to give you any assistance and information which you may require. Many of our members are thoroughly familiar with the methods of the monopoly group as regards their patent racketeering practices and at the present time, there are several suits pending which have been instituted by the monopoly group against independent manufacturers. In one suit a decision was rendered in favor of the independent manufacturer against the monopoly group, but which is now on appeal.

We would be glad, if given an opportunity, to talk to you personally at sometime when you are in New York, as we feel that we can give you some valuable information at such an interview. We place at your disposal any and all assistance which we can render and trust that you will acknowledge this communication and let us hear from you at a very early date.

Very truly yours,

INCANDESCENT LAMP MANUFACTURERS' ASSOCIATION.
By LOUIS KLEIN, *Secretary.*

INCANDESCENT LAMP MANUFACTURERS' ASSOCIATION,
New York, August 20, 1935.

Hon. WILLIAM I. SIROVICH,
Member of Congress from New York City,
Congressional Office Building, Washington, D. C.

DEAR DR. SIROVICH: We were pleased to receive your letter of August 12 and in reply to the same, we are mailing you under separate cover via parcel post a copy of the brief which was submitted by our association to the National Recovery Administration at the time that we filed our protest.

At that time we took the position that the N. R. A. was inaugurated to promote codes of fair competition protecting the large manufacturer against the unfair competition of the small manufacturer. What we wanted was a code of fair competition to protect the small manufacturer against the unfair competition of the large manufacturer.

We have a great mass of correspondence on file covering this situation, and at that time Senator Nye had some correspondence on this subject with Gen. Hugh S. Johnson and Donald Richberg.

We also respectfully refer you to the Congressional Record of Tuesday, May 22, 1934, volume 78, number 113, pages 9507 to 9514 inclusive, covering the comments of Senator Nye on this very situation; also the report of the findings of the National Recovery Review Board headed by Clarence Darrow who reported that while there was a monopolistic control, this was not due as a result of the code, but they nevertheless agreed that there was a monopolistic control.

Digitized by Google

The copy of the brief which we are sending you was prepared by Willis B. Rice, a patent attorney of long experience who is an instructor of patent law at New York University. He is probably more conversant with the patent activities of the General Electric Co., its licensees, and the Westinghouse Lamp Co., than anyone else in this country, and he would no doubt be very glad to supply you with any other information which you may require.

We trust that the information submitted will be of value to you, and if we can be of further assistance please do not hesitate to call on us.

Very truly yours,

INCANDESCENT LAMP MANUFACTURERS' ASSOCIATION.
By LOUIS KLEIN, *Secretary.*

AUGUST 24, 1935.

INCANDESCENT LAMP MANUFACTURERS' ASSOCIATION,
45 East Seventeenth Street, New York, N. Y.

(Attention Louis Klein, Secretary.)

GENTLEMEN: Your letter of August 20 has been referred to me for my attention. I accordingly acknowledge receipt of the brief covering the patent activities of the General Electric Co. in the incandescent lamp field. I would like to discuss this matter in greater detail and can be reached at the committee's offices, room 230-A, Fifth Avenue Hotel, New York City, sometime during the middle of next week.

Very truly yours,

ROBERT ROBINS,
Economic Advisor, Patent Committee
Investigating Patent Pooling Agreements.

BEFORE THE ADMINISTRATOR OF THE NATIONAL INDUSTRIAL RECOVERY ACT RE HEARING OF NEMA CODE

BRIEF IN SUPPORT OF THE PROPOSED SUPPLEMENTARY CODE FOR LAMP MANUFACTURE

I. DEFINITION

The Independent Manufacturers making this petition for a code of fair practice comprise those persons who are manufacturing incandescent electric lamps in the United States in both household and miniature sizes without paying patent royalty to the General Electric Company. The term "monopoly" or "monopoly group" is used herein to comprise the General Electric Company who have been the owners of the patents under which the patent monopoly was enforced, together with its licensees.

II. CONDITIONS IN THE INDUSTRY WHICH DEMAND A SPECIAL ANTI-MONOPOLY CODE

Lamp manufacture has been the subject of a monopoly that has dominated the entire industry and has been extremely profitable. It was originally created under the patent law in 1880, but on expiration of the original patents in 1899, a very considerable competition came in until, as we are informed, the monopoly control fell in a few years to 51% in 1903. To stop this landslide and regain control, the monopoly secretly bought a controlling interest in the majority of its competitors, and the National Lamp Association was formed which reached price fixing agreements with substantially all of the remaining companies. These consolidations and agreements then were as illegal as they are now. Soon thereafter the Just and Hanamann patent was acquired and patent licenses were use to take the place of the price fixing agreements, and the monopoly was thus maintained until 1933 when the last lamp patent expired.

As we shall show hereinafter, it is the purpose and meaning of the patent law that the right to exclude others from the invention for seventeen years is granted to the inventor *in exchange* for the complete surrender of the monopoly when the patents have expired.

The Independents do not challenge the right of any patent owner to use any valid patent in any proper way and the assertion that we are making an attack upon the patent law or upon patent rights or that we are seeking to deprive anyone of property of any kind or prevent the legitimate and proper use of it can best be explained as an attempt to prejudice the petition of the Independents by the

Digitized by Google

suggestion that we want to appropriate some one else's property. There is no foundation whatsoever for such a claim. The Independents seek to have all rights respected *including their own*. For that purpose they want to prevent the illegal and unfair use of powers and property to maintain the monopoly, and they want this restraint to go only so far as those practices are illegal and unfair.

SUMMARY OF THE MONOPOLISTIC PRACTICES

The matters complained of form a plan to maintain a lamp monopoly, and comprise certain acts coordinated to handicap manufacture by independent manufacturers and take away their customers. These, which will be given in detail later, include:

(a) Certain contracts and agreements in restraint of trade to control the supply of materials and equipment.

(b) Threatening of customers with suits without establishing the right to make such threats knowing that such practice gives the independent manufacturer no chance to assert his rights.

(c) The maintenance of the lamp monopoly by commercial monopolies on certain raw materials and supplies contrary to law.

(d) The indirect maintenance of the lamp monopoly by suits on patents which do not cover lamps.

(e) The deliberate and false disparagement of the quality of goods made by the Independents, to destroy their good-will.

The specific provisions to cure these evils will be discussed at a later point.

This is not the time nor the tribunal in which to challenge the validity of any patents of the monopoly, when properly used, but we do content that these patents do not even pretend to cover the lamp industry, and that the use made of them is illegal, and unfair and for the purpose of maintaining a monopoly not granted by the patents and not warranted by any law. It is only insofar as these patents are improperly and illegally used that we ask their restraint.

III. The National Recovery Administration Is the Proper Source of Relief

THE PRESIDENT'S INTERPRETATION

It is the purpose of NIRA, as we understand it, to bring about a forward step in our industrial economy, curtailing where necessary unbridled individualism to bring it into coordination with modern social conditions and to eliminate any existing habits and practices which may no longer be allowed to undermine or work against the public welfare.

The President of the United States is quoted as stating in his Poughkeepsie address:

"* * * Here and there, in spots that are altogether too rare, there is a town or a city or a county or even a State that has through its own interest—the interest of its own citizenship—become conscious of the fact that under the old order, the social or the economic or the political life of the community was drifting downhill through lack of action or because of adherence to old rules that have been promulgated to fit conditions of a bygone age.

"In such individual cases aroused citizens have chosen new servants or have changed the form of conducting their local affairs to the advantage of the community without destroying the principles of self-government, that are inherent in our American civilization.

"You and I know that in a sense this arousing of people's interest is what has occurred throughout the country in this year 1933, and has made itself felt in the national capital. I think it is the first time in our history that the nation as a whole regardless of party has approved drastic changes in the methods and forms of the functions of government without destroying the basic principles.

"Perhaps I can best illustrate the change that I am talking about by putting it this way—that we have been extending to our national life the old principle of the local community, the principle that no individual man, woman, or child, has a right to do things that hurt their neighbors. And on this Neighbors Day I think we can properly emphasize that word. * * *

* * * * * * *

"As this principle was extended it became unfair to our neighbors if we—any individual or association of individuals—sought to make unfair profits from monopolies in things that everybody had to use such as gas, electric lights and railroad tickets and freight rates and things of that kind.

* * * * * * *

Digitized by Google

"Now the extension of the idea of not hurting our neighbors is recognized today as no infringement on the guarantee of personal liberty—personal liberty to the individual. * * *

"We are engaged today, as you know—not just the Government in Washington, but groups of citizens everywhere, in reviewing all kinds of human relationships and in these reviews we are asking an old question in a new form. We are saying *'Is this practice, is this custom, something which is being done at the expense of the many?'* and the many are the neighbors. * * *"

This speech as quoted in the public press for August 26th, 1933, suggests that many things which are tolerated in one state of society become antisocial as society advances. It may be inferred from that speech that it is the President's interpretation of N. R. A. that such a revaluation must now be taken to eliminate antisocial acts, whether or not in fact they be illegal acts as the laws heretofore have been interpreted.

That the codes are not confined to remedying abuses which have been held heretofore illegal is clear. Under the codes established under N. R. A., many acts have been condemned which have heretofore been legal, for example in the matter of Child Labor alone. Many decades of agitation had produced no tangible result but this result was accomplished in short order under the Recovery Administration. Even though Child Labor was legal, it was so distinctively antisocial that its abolition by a code has met with universal approval. It is clear that the Recovery Act contemplates that acts shall now be forbidden which previously were not illegal.

The monopoly in electric lights, which is one of the ones chosen by the President as an example of the kind of monopoly to which the public should not be subjected, is the monopoly which the abuses herein complained of are designed to foster, and which is now so nearly complete.

IMPORTANCE OF QUESTIONS INVOLVED

The importance of the questions herein involved is very great and the correct answer may determine whether our industrial system shall pass permanently into the hands of huge monopolies through monopolistic practices falsely excused under the cloak of the Patent Law, with the ultimate effect of destroying democratic government altogether, or whether, on the other hand, we shall return to the democratic principles on which our government was founded, and maintain a substantial measure of individualism consonant with the maintenance of public welfare.

As we read the Recovery Act the improvement of immediate conditions was only part of the problem. It was clearly intended that such relief should not itself carry the seeds of still greater disasters.

The former requires a new conception of the relation of capital to labor by which the purchasing power shall be built up; but the latter requires a new conception of the relation of capital to the public. The thought that monopolies shall not be permitted dominates the Act.

To achieve the increased purchasing power momentarily at the expense of giving monopoly an intrenchment is to feed the stomach and to create a malignant cancer. The price is too high to pay.

We believe the Administration has rightfully up to this point laid stress first upon an increase of purchasing power, but this must not blind the Administration to the still more important point that depressions are temporary disasters, while monopolies are themselves the very roots of disaster. And this the Recovery Act recognizes.

The principles here involved do not concern alone the welfare of a few Independent Lamp Manufacturers whose welfare might, if necessary, conceivably be sacrificed to the public good. *These principles concern the right of the public to be free from economic slavery* or, on the contrary, the right of the Monopoly Group to crush all Independent Manufacturing through misuse of the Law.

The Monopoly Group controls 93% of the Industry. It has already almost completely achieved its result. But it is no argument that this protest should be set aside because of the small volume of manufacture of the Independent Manufacturers. On the contrary, that fact in itself shows the crucial need of immediate administrative relief. It is no defense of a tyranny in its suppression of liberty that it has been nearly successful.

The General Electric Company's defense of its monopoly on the grounds of the patent law is without legal foundation. The principle has been repeatedly stated by the Supreme Court. The acts complained of are plain violations of the Anti-Trust laws and of other laws, and without defense.

Digitized by Google

Patent law is not a thing apart, having a peculiar code of conduct; it follows the ordinary principles of our law, of which it is but a part. We need to discuss it here because the General Electric Company are attempting to use it as a smoke screen for their monopoly. We wish to show that it is only a smoke screen. We wish further to show that so far from justifying these monopolistic practices, the patent law places even heavier obligations upon the General Electric Company to surrender their monopoly.

The Patent law has not been substantially changed since its foundation in 1790 and during that time our industrial system has met a complete revolution, and selfish interests have been zealous to expand and distort the Law to their own advantage.

If the principles of the Law as originally adopted are adhered to, we will find ourselves on safe ground, but if the new deal is to restore liberty and bring about a new orientation of selfish interests around the public good, it will be necessary to see these original principles with a clear eye through the fog which has been raised to obscure them for private gain.

OTHER REMEDIES ARE INADEQUATE IN THE EMERGENCY

The contention has been put forward that the Independent Manufacturers are seeking relief from the wrong source. That they should apply to the Federal Trade Commission or to the Courts or to Congress. We suspect that whatever relief we sought, the contention would be the same; that the present practical relief should not be granted, but instead that we should seek some other more distant or more difficult relief. If they could finally drive us to seek relief from the King of England or from the Wizard of Oz, their victory would be complete.

We submit that the NRA, under NIRA, has the power and the duty and the machinery for relief and that no other form of relief would be adequate or complete or sufficiently prompt.

The remedy of suing for unfair competition in the Courts has long been available. It has accomplished good results in proper cases. It is doubtful, however, whether such a suit could be brought by a group of manufacturers such as this to prevent unfair competition against them as a class. The question might depend upon whether there was a sufficient community of interest to join them together in a single action such as would be necessary to cover all of the transactions.

The Federal Trade Commission has not been authorized to administer NIRA and on that account a petition to it would also possess serious limits. The courts and the Federal Trade Commission in General have felt at liberty to condemn only practices which are along well established lines, leaving new problems to be met by legislation. Congress has in general given attention only to those evils which disturb large volumes of business and then the relief must be in such form that it will apply to all persons similarly situated. The conditions in business, however, vary greatly, and practices which are essential to the establishment of sound business in one industry may be grossly unfair and discriminatory in another.

The NRA affords an ideal solution to this very problem. It gives each industry a chance to determine what the standard of unfair practices shall be and that standard is applied only to the particular industry in which it arose. The NRA, moreover, gives a far greater flexibility of procedure and of relief so that an industry does not need to be strangled by red tape.

It is true that certain of the practices complained of are violations of the Anti-Trust Laws. One of them is a violation of the libel laws and certain others of them are violations of existing standards of fair practice. It is possible, therefore, to propose for each of these an alternative form of relief. Some of them would be at least a partial defense against unlawful suits. Others would not. But no other form of relief could consider the illegality of the plan as a whole and grant complete relief.

Some of these acts are not in themselves illegal when considered individually. They become illegal only as a part of an illegal plan so that the questions here raised could not be considered except in a tribunal having complete jurisdiction over the entire field.

It is said to have been a motto of a great general to "divide and conquer." To separate the questions here involved from N. I. R. A., on which it is founded, would divide the separate parts of the plan from each other and separate them into individual acts so that the illegality of the plan would be lost sight of. In part also, it would divide the causes of action presented by the individual manufacturers, comprising the association, from each other, in part at least, compelling each to stand alone to be suppressed with ease.

Digitized by Google

The Independents, however, are not seeking relief only from certain individual acts, but rather from the entire plan and conspiracy, of which all of these acts are integral parts. It is a unitary plan and requires a unitary remedy which only N. R. A. can give.

No other agency has such broad powers to define unfair competition and no other agency can grant relief before the patient dies.

IV. THE ESTABLISHMENT OF A CODE OF FAIR COMPETITION UNDER N. I. R. A. SEEMS TO PRECLUDE ALL OTHER REMEDIES AGAINST UNFAIR COMPETITION EXCEPTING AS AGAINST SUCH PRACTICES AS ARE EXPRESSLY INCLUDED IN THE CODE

Section 3 (b) of N. I. R. A. provides:

"After the President shall have approved any such code, the provisions of such code shall be *the standards* of fair competition for such trade or industry or subdivision thereof." (Italics ours.)

The Act does not purport to state that when a code condemns certain acts, these acts shall be deemed unfair *in addition to all acts* which have been otherwise heretofore considered unfair. On the contrary, it wipes the slate clean and starts afresh. It establishes a *new standard* complete and absolute in itself: The code itself shall establish the standards. If this be true, it is just as clear that no normal practice which is not condemned in that code, is unfair, as it is clear that those practices which are condemned shall be deemed unfair. A new standard of fair competition is set up by the code which replaces all existing standards, however, they may have been established.

The phraseology at the end of Paragraph 3 (b) "but nothing in this title shall be construed to impair the powers of the Federal Trade Commission under such act as amended" relates to the *powers* of the Federal Trade Commission and not to the *standards of fair competition which have been established.* The powers of the Federal Trade Commission are to investigate and determine whether unfair practices exist but the statute itself now states what those unfair practices are, namely, they are those practices which are expressly condemned by the codes and no others.

Not content, however, with the provision expressly establishing the new standard of fair competition, by reason of the codes, Section 5 of N. I. R. A. expressly states:

"While this title is in effect, any code, agreement or license approved, prescribed, or issued and in effect under this title and *any action complying with the provisions thereof* taken during such period shall be exempt from the provisions of the Anti-Trust laws of the United States."

Clearly if the General Electric Company has adopted a code which tolerates these practices and that code is approved by the President, any act complying with the provisions thereof shall be exempt from the provisions of the Anti-Trust Laws.

This does not refer solely to those practices which are directly referred to and expressly authorized by name by the code. This is clearly evidenced by the fact that the code establishes a *standard of fair competition*, and any act which *does not violate that standard complies with that code.*

It follows, therefore, that since the acts of which we complain are not violations of the NEMA Code, then these acts comply with that code and hence all such actions are free from the Anti-Trust Laws of the United States. Thus it appears that once the NEMA code has been adopted by the General Electric Company, the independent lamp manufacturers are without recourse to the Courts for action, and must seek relief from NRA.

At the oral hearing, Mr. Richberg suggested that this line of reasoning seems to go too far in that a competitor should still be allowed a defense against deliberate fraud even though not forbidden by the code. There is a very great difference between fraudulent practices which are malum per se and monopolistic practices which are more in the nature of malum prohibitum. We would not contend that NIRA reverses the moral code, but we do contend that by its own wording *it establishes a new code of fair competition, which must be full and complete in itself, particularly with regard to monopolistic practices.*

Digitized by Google

V. THE NEMA CODE ALONE AND OF ITSELF IS NOT A PROPER CODE FOR THE LAMP INDUSTRY BECAUSE IT WORKS TO THE PREJUDICE OF SMALL MANUFACTURERS, IT PROMOTES MONOPOLY AND PERMITS MONOPOLISTIC PRACTICES

The Code has been approved by the President and accepted by the monopoly. As we see it, therefore, the question is no longer open whether the monopoly shall be subject to a code in their lamp business. That question has already been answered "yes" both by the Administration and by the monopoly. The only remaining question, therefore, is whether that code, as applied to the lamp industry, properly protects shall manufacturers or permits monopolistic practices, and whether otherwise it carries out the intent of the Statute.

If the Code does promote monopoly and if it does permit monopolistic practices, it is not in accordance with the Statute and it is the duty of NRA to correct it.

THE CODE HAS INCREASED COSTS WITH NO CORRESPONDING BENEFIT TO SMALL MANUFACTURERS

The NEMA Code has raised the wages of the employees of small manufacturers. It has also decreased the weekly hours of labor. To the extent that this latter means new help, it means inexperienced help; to the extent that it means a decreased production, it means greater proportionate overhead. Both of these mean increased costs. These are of great economic advantage to the country and are proper in themselves but it was not the purpose of the law that they should cost the lives of small manufacturers.

Added to the above increased costs is the increased costs of materials resulting from the application of the new principles to the basic manufacturers, including raw materials and parts.

The harassing tactics of the monopoly have heretofore imposed upon independents an additional and artificial increase of expenses, including losses of orders, increased cost of selling, return and cancellation of orders, difficulty of raising capital, expenses of meeting unfair competition, and paying unnecessary legal fees, which have reduced their margn of profit to a minimum in spite of their low overhead. It has seemed to us that the General Electric have used the cost of defending patent suits as a commercial weapon.

Now, however, they are faced by a serious situation when new increased costs are imposed upon them. They cannot materially raise prices because the upper price limit is fixed by the Monopoly, and they must undersell to counterbalance the heavy advertising. They, therefore, face extinction if the Monopoly is permitted to continue to place obstacles in their path.

The increased costs are a result of acts of NRA. It is proper, therefore, for the Independents to seek from NRA that relief which will make compliance possible.

THE N. E. M. A. CODE LACKS THE SAFEGUARDS AGAINST MONOPOLY, WHICH THE STATUTE REQUIRES

The NIRA places as the condition for approval of a code by the President: "provided that such code or codes shall not *permit* monopolies or monopolistic practices".

This provision is in addition to the express provision that the code shall not be designed to promote monopolies and that it shall not discriminate against small manufacturers. If, therefore, any practices exist which promote monopolies and the code *permits* those practices to continue, the Code does not contain those safeguards which are expressly required by the Statute.

We note that the law does not limit the prohibition to "illegal monopolies." We do not believe that the wording is intended to interfere with those monopolies expressly created by Statue under the patent law and we believe the true meaning to be a new "rule of reason" as though the Statute included the word illegal.

The monopoly to which we object, however, is not a monopoly of any patented article, *it is a monopoly not granted by patent* and not warranted by law.

The practices we object to are both designed to promote and clearly do "promote monopoly", and that monopoly is an *illegal monopoly*. NEMA Code places no restrictions on them, hence the NEMA Code clearly "permits monopolies and monopolistic practices". In the *lamp industry* the NEMA Code *does not meet with the basic essentials which the Recovery Act requires.*

Digitized by Google

VI. The Independents are not Attacking any Property Rights Whatsoever

The Code provisions do not deprive the General Electric Company of any patent rights. They may still use every valid patent, in every way warranted by existing law, except for the provision that they may not harass customers without giving the manufacturer a chance to defend. This latter practice is obviously oppressive.

The Code does not attempt to make any finding of facts. It lays down certain rules which are based upon established law and it leaves to the Administrator, in particular cases, the finding of fact as to whether any particular contract, invention or patent comes within those established rules.

For example, if the inside frost patent or the Mitchell & White patent or the Pacz patent has in fact been identified by the General Electric Company with the monopoly, as they have heretofore emjoyed it, and *if* it be found that the switch from clear bulbs to inside frost bulbs was achieved by the General Electric Company *for the purpose* of enabling them to continue illegally to maintain their monopoly on the tungsten lamp as the independents charge, then that particular invention clearly becomes a part of the public domain under the doctrine established in the *June Manufacturing case*, 163 U. S. 181. For the legal argument on this point see a later page.

Under such circumstances, the inside frost patent is not in any sense confiscated. It has been enjoyed by its owner much more fully if it had been held alone, and the remainder of its term has been dedicated to the public by the General Electric Company under their own act. Presumably they have determined that by using the patent as a part of the greater monopoly, they could secure the maximum return from it.

The right to contract ordinarily a fundamental right is a violation of the law, particularly the Anti-Trust Laws, when used as the General Electric Company have used it. It has been firmly established in our law that any manufacturer has a right to sell his goods when and where he pleases, whether he cares to give a reason or not, selecting his customers either with or without reason. That right was expressly affirmed by the Supreme Court in the *United States* v. *Colgate*, 250 U. S. 300. The code of fair competition proposed by the Independents makes no challenge to that right whatsoever.

It is equally clearly established, however, that a manufacturer may not use the right to contract as a means to promote monopoly. (*Sanitary Mfg. Co. case*, 226 U. S. 20; *Carbice case*, 283 U. S. 27; *Morgan Envelope case*, 152 U. S. 425; *Motion Pictuce Patents case*, 243 U. S. 502).

The doctrine of the free right to contract presupposes conditions of fair competition. It grants no right to any person to utilize the power to contract directly or intentionally to defeat his own public obligations, or to create monopolies, or in any other manner to act contrary to law.

Under the foregoing circumstances, we believe that no provision of the code violates any provision of the Constitution.

We shall devote a special section of this brief to the legal aspects of these clauses, after a more detailed history of the industry to show their necessity.

VII. The Independents Have Endeavored to Cooperate to Set Up or Cause to be Set Up a Code for All Lamp Manufacturers But Cannot Get Cooperation From the Monopoly Group Without Government Aid

The Independent Manufacturers have endeavored to persuade the Monopoly Group to form a code of fair practice for the lamp industry, to which they could adhere, and their efforts to that end have been substantially ignored. They have also invited the Monopoly Group to cooperate with them in the formation of a code for the lamp industry and such invitations have not been accepted.

The unfair practices herein complained of comprise a definite policy deliberately adopted by the Monopoly Group. It is not surprising, therefore, that that Group are unwilling to cooperate with independent manufacturers in the establishment of a code of fair competition, to destroy those practices and it is not surprising that they are unwilling to enter into any code which might challenge their right to the monopoly they so strongly attempt to maintain, however illegal it may be.

The Independents then created and submitted a proposed code for criticism and comment and sent a copy to every company in the Monopoly. They have received, however, no assistance from any member of that group.

Digitized by Google

VIII. THE HISTORY OF THE LAMP INDUSTRY INSOFAR AS IT AFFECTS THIS PETITION

The first significant use of incandescent lighting seems to have been by Grove in England, who used incandescent filaments of platinum, the only high melting point metal available to him. He placed his filaments both in a vacuum and in the best neutral gas he could get—nitrogen. His light was very satisfactory in its quality and lasted for hours. This step was revolutionary. There were two factors which prevented the immediate introduction of the invention, the first was the source of power and the second was the filament.

At the time of Grove there was no commercial production of electric power and he was dependent on chemical batteries. Such batteries were extremely expensive when used as a primary source of power and could not be so used commercially No lighting system with such limitations could go into extensive use until the development of commercial electric power, and that did not occur until several decades after Grove's work.

Then the light of an incandescent filament increases very fast with each increase in temperature. To get a bright light, Grove used his filament at a bright white heat, which is near the melting point of platinum. The length of life of such a lamp at such temperature was, therefore, limited.

Swan later produced a lamp with a filament of carbon which has a higher melting point. This went into extensive use in England.

Edison made two contributions to this industry. He found, after many experiments, a source of carbon from which an improved filament could be made, and he enclosed the filament completely in glass.

More important than either of these lamp improvements, however, were his contributions which improved the practical production of electric power. These two lamp improvements were the original Edison patents, #205,144 and #223,498. They came into possession of the Edison Electric Light Company, and commenced the monopoly of the electric-lamp industry in 1880. For several years subsequent to 1880 the Edison Electric Light Company and the United States Electric Light Company were "the only manufacturers of incandescent lighting apparatus in this country doing any considerable business." (See *Edison Elec. Light Co.* v. *Sawyer Mann Elec. Co.*, 53 Fed. 592.) A few years later the Edison Electric Co. successfully brought suit against the United States Electric Light Co. (44 Fed. 295, 47 Fed. 454, and 52 Fed. 300).

During the period of the monopoly, they appear to have controlled not only the manufacture of electric lights, but also, in part at least, the installation of such lights in buildings and the furnishing of electric power for sue with such lights.

The Edison Electric Light Company appears to have become the General Electric Company about the middle nineties (see 53 F. R. 592). The research laboratories were formally organized in 1900.

The history of the monopoly, as we are informed of it, is illuminating. Necessarily many of the facts are within their own exclusive possession.

After the beginning of the century, the basic Edison patents had expired. The monopoly thereupon partly lost its hold and a large number of competitors arose which left to the General Electric Company, as we are informed, only about 51% of the business for themselves.

The General Electric Company secretly purchased a majority stock interest in a large number of its competitors, but continued to operate them in apparent competition, until restrained from doing so.

The General Electric Company entered into a combination with its competitors, known as the National Electric Lamp Association. The meetings of this association were held at their own private Island, called Association Island, in the St. Lawrence River, outside of the jurisdiction of the United States, and price-fixing agreements were reached.

Thus, if these facts be true, we may look through the whitewash of the General Electric publicity department. The monopoly was not regained by them through the "research work" on which Mr. Swope lays such stress. It was regained by secret purchase of competitors, and by agreements with those they could not control. In complete harmony with this policy, it continued to acquire patents, which might serve as an excuse for price fixing, as in the *Standard Sanitary Mfg. Co. case.*

The company then acquired, by purchase from others as well as from their own employees, a large number of patents, mostly on constructural details, which naturally arose in the course of manufacture, which the monopoly alone controlled.

Digitized by Google

These patents were not acquired in an open competitive market. On the contrary, during their monopoly, that company was the only substantial market to whom lamp patents or improvements could be sold. Through their original lamp monopoly, therefore, and as a part of it, they thus acquired substantially every improvement patent in the lamp industry, and they used each patent, not for its own individual monopolistic power, but to add to the strength of the whole.

Under these circumstances, with a coordinated desire for price fixing which included all but a very few independents, there was no competitive market for the sale of lamp inventions. As a result, any inventor, if he desired to market his invention at all, was compelled to accept the terms of the monopoly.

It thus came that the invention of the tungsten lamp came into the hands of the General Electric Company and the Coolidge and Langmuir patents resulted from the actual work of manufacture of tungsten lamps.

Concerning these three patents, the Supreme Court stated (*U. S.* v. *G. E.*, 272 U. S. 475–481):

"The General Electric Company is the owner of three patents—one of 1912 to Just & Hanaman, the basis patent for the use of tungsten filaments in the manufacture of electric lamps; the Coolidge patent of 1913, covering a process of manufacturing tungsten filaments by which their tensile strength and endurance is greatly increased; and, third, the Langmuir patent of 1916, which is for the use of gas in the bulb, by which the intensity of the light is substantially heightened. These three patents *cover completely the making of the modern electric lights with the tungsten filaments* and secure to the General Electric Company the monopoly of their making, using, and vending."

NATURE OF THE LAMP MONOPOLY—THE INDUSTRY HAS NOT BEEN A NATURAL MONOPOLY

This industry has not been a natural monopoly or one secured by superior business ability. On the contrary it was only attained through frequent resort to the United States Courts under the patent law. Upon the original Edison patents, the following cases are reported: 53 Fed. 592, 54 Fed. 504, 56 Fed. 496, 57 Fed. 616, 57 Fed. 642, 58 Fed. 573, 58 Fed. 878, 59 Fed. 358, 59 Fed. 691, 60 Fed. 276, 60 Fed. 397, 61 Fed. 834, 62 Fed. 397, 64 Fed. 229, 65 Fed. 212, 65 Fed. 551.

Subsequently, the three basic tungsten lamp patents were sustained in numerous other decisions, of which the following are reported: 233 F. R. 96, 267 F. R. 824, 280 F. R. 856, 261 F. R. 606, 277 F. R. 290, 286 F. R. 175, 266 F. R. 994, 280 F. R. 852, 292 F. R. 562. 298 F. R. 579, 10 Fed. R. (2d) 159, 10 Fed. R. (2d) 851, 17 Fed. R. (2d) 90, 28 Fed. R. (2d) 64.

These lists, of course, take no account of the very large number of cases in which threats were successful without suit or published report.

Particularly during the latter part of this period, the monopoly was very effective, and notwithstanding the fact that the earlier lamp patents had long expired, the General Electric Company and its licensees in the year 1921 controlled 93% of the entire lamp business of the country and that business amounted to $68,300,000. (See *U. S.* v. *G. E.*, 272 U. S. 476, at 481.)

The profits from this business were stated by a witness in the case of *G. E.* v. *Mallory*, to have been many million dollars per year, which was several times as great as all the profits from all the other manifold activities of that great corporation combined, and a report of the New York State Legislative Committee after investigation showed that the marginal profit for the lamp industry of the General Electric Company was several times as great as from the other sources of its business.

Coupling these enormous profits, this high margin of profit, and the great preponderance of this profit over any other business done by the General Electric Company, and the necessity of frequent recourse to the courts to sustain it, it is fair to assume that the magnitude of this business and the dominant position assumed by the General Electric Company and the consequent power attained are a direct result of the patent law and of the power of the United States courts to enforce that law.

We cannot assume that this preponderance is the result of superior business acumen or general business efficiency, since there is no reason to believe that the business efficiency of the company in its other activities was any less than its business activities in the lamp industry; the only apparent difference being that in the lamp industry the monopoly was fostered by the United States courts.

The expiration of these patents, however, made no material change in the commercial situation. During the term of the patents, the General Electric Company and its licensees made in 1921, 93% of domestic manufacture and the

Digitized by Google

figures of Mr. Reed at the hearing, when corrected to exclude imports, give the exact same percentage of 93% today.

Still more interesting is the fact that the division between the General Electric Company and its licensees is almost the same. Mr. Reed's figures, as we remember them, were General Electric 49%, licensees 22%, imports 24%, independents 5%, which on the basis of domestic manufacture would work out:

	1921, under basic patents	1933, after patents expired
	Percent	*Percent*
General Elec. Co	69	64
Licensees	24	29
Independents	7	7

The General Electric Company contends that the monopoly is now a proper one under other patents. We will show that this is not true and that the monopoly has been and remains a single indivisible unit. The General Electric Company *make no defense* of the monopolistic practices. Their answer will be taken up in detail in a separate portion of this brief.

IX. Purpose, Limits, and Obligations of a Patent Grant

1. A patent is not a natural right but is a special privilege granted for the public benefit.

No inventor had any right to his invention at common law. His only remedies were against fraud and breach of trust. If an inventor used an invention publicly or if anybody honestly came into possession of it, the public had the full right to use it, for the inventor had no right of ownership.

On the other hand, the right of the public to do business freely without restraint was a common law right recognized as early as the case of the Cloth Workers of Ipswich (1 Abbot patent cases, p. 6), in which the court stated:

"The King * * * may make ordinances for the Government of any trade but thereby he cannot make a monopoly for that is to take away free trade and *that is the birth right* of every subject."

The early patents in England were not granted as a matter of right but by the King's favor and then they were sustained only under express conditions and limits similar to those imposed today in this country. Even the Statute of Monopolies granted no rights to inventors in this respect.

The patent owner, therefore, asserts a statutory right granted for a limited time for a specific purpose in derogation of a common law right of free men. Clearly the patent right must be extended only insofar as its purpose and intent demand.

The right to grant patents in the United States comes from article I, section 8, of the Constitution, which provides:

"The Congress shall have power * * * to promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries."

This clause places two important constitutional limits upon the grant. First, it shall be to promote the progess of science and the useful arts. Second, the monopoly shall be for a limited time. Congress acting under this clause has deemed a period of 17 years to be a fair reward to the inventor upon the express condition that the inventor shall fully and freely instruct the public how to use the invention after the expiration of the patent term.

Patent rights are not granted solely for private gain. The primary purpose is to secure to the public the full benefit of the invention at the end of the term.

In *Kendall* v. *Winsor* (62 U. S. 322, 327) the court states:

"It is undeniably true, that the limited and temporary monopoly granted to inventors *was never designed for their exclusive profit or advantage;* the benefit to the public or community at large was another and doubtless the primary object in granting and securing that monopoly. This was at once the equivalent given by the public for benefits bestowed, by the genius and meditations and skill of individuals and the incentive to further efforts for the same important objects. The true policy and ends of the patent law enacted under this Government are disclosed in that article of the Constitution the source of all these laws, viz: 'to

Digitized by Google

promote the progress of science and the useful arts', contemplating and necessarily implying their extention and increasing adaptation to the uses of society. * * * By correct induction from these truths, it follows, that *the inventor who designedly, and with the view of applying it indefinitely and exclusively for his own profit, withholds his invention from the public, comes not within the policy or objects of the Constitution or Acts of Congress.* He does not promote, and, *if aided in his design, would* impede, the progress of science and the useful arts. And with a very bad grace could he appeal for favor or protection to that society which, if he had not injured, he certainly had neither benefited nor intended to benefit. * * * The rights and interests whether of the public or of individuals can never be made to yield to schemes of selfishness or cupidity: * * *. Whilst the remuneration of genius and useful ingenuity is a duty incumbent upon the public, the rights and welfare of the community must be fairly dealt with and effectually guarded. Considerations of individual emolument can never be permitted to operate to the injury of these." (Italics ours.)

Sixty years later, in 1917, in the *Motion Picture Patents Case* (243 U. S. 502, 510) the court stated:

"Since *Pennock* v. *Dialogue* (2 Pet. I) was decided in 1829 this Court has consistently held that the primary purpose of our patent law is not the creation of private fortunes for the owners of patents, but is 'to promote the progress of science and useful arts'."

And again in *Dr. Miles Medical Co.* v. *Park & Sons Co.* (220 U. S. 373, 401) quoting from *Grant* v. *Raymond* (6 Pet. 241):

"The great object and intention of the act (The Patent Act) is to secure to the public the advantages to be derived from the discoveries of individuals, and the means it employes are the compensation made to those individuals for the time and labor devoted to these discoveries by the exclusive right to make, use, and sell the things discovered for a limited time."

2. A patent is in fact a bargain between the public and the inventor. The public grants a right of exclusion for 17 years and in exchange the inventor agrees to make a complete disclosure and a complete surrender of the monopoly when the patent expires (*Cent. Elec. Co.* v. *Westinghouse*, 191 F. R. 350, Walker on Patents, 6th d., p. 18).

The complete disclosure and complete surrender of the monopoly at the earliest possible moment are the consideration to the public for the grant of the monopoly. In fact this disclosure is of value only in order to surrender the invention when the term is ended.

Any act by the inventor designed to prolong the effective period of the monopoly is inconsistent with the acceptance of the monopoly in good faith, as stated in *Woodbridge* v. *U. S.* (263 U. S. 50, 55–61):

"It was the legislative intention that the term should run from the date of the issue of the patent, and that, at the end of that time, the public might derive from the full specifications required in the application accompanying the patent, knowledge sufficient to enable it freely to make and use the invention. The Court quotes with approval from *McBeth Evans Glass Co.* v. *General Electric* (246 Fed. 695, p. 61):

" 'The policy of the patent law to secure to the public the full benefit of inventions after expiration of the fixed term deemed sufficient reasonably to stimulate invention, would be defeated if an inventor could withhold his invention from the public for an indefinite time for his own profit, and *that the right to preserve it a monopoly in an invention by keeping it a trade secret and the right to secure its protection under the patent law were inconsistent and could not both be exercised by an inventor.*' (Italics ours.)

"The gist of the reason for the conclusion there was the same as here, that the purpose and result of the conduct of the inventor were unduly to postpone the time when the public could enjoy the free use of the invention, page 60.

"And the Court quotes from in re Mower, 15 App. D. C. 144–152, p. 61:

" 'The patent laws are founded on a large public policy to promote the progress of science and the useful arts. The public, therefore, is a most material party to, and should be duly considered in, every application for patent. * * * ' "

The use of the invention by the inventor or the public during the existence of the monopoly and any incidental benefit derived is no part of the consideration for which the patent is granted, and the inventor has the full right to withhold the invention altogether from use for the entire period if he so desires.

As quoted by the Supreme Court from the *Button Fastener case* (47 U. S. App. 146):

"If he sees fit, he may reserve to himself the exclusive use of his invention or discovery. If he will neither use his device nor permit others to use it, he had

Digitized by Google

but suppressed his own * * *. A suppression can endure but for the life of the patent and the disclosure he has made will enable all to enjoy the fruit of his genius." (*Bement* v. *National Harrow Co.*, 186 U. S. 70–90.)

See also *Paper Bag Case* (210 U. S. 405, 425); *Bloomer* v. *McQuewan* (14 How. 539 at 549); *Crown Co.* v. *Nye* (261 U. S. 24).

Some phases of the *Button Fastener case* have been overruled, but this phase has been approved.

Any act which tends to defeat the prompt and complete surrender of the monopoly will forfeit the patentee's rights. If the patentee tries to prolong the patent or postpone the end of the term, the patent will be void; if he attempts by some other act to prolong the monopoly those acts meet with condemnation, and the purpose defeated as the particular facts demand.

Any such act or subterfuge of the inventor to extend the period of monopoly beyond the statutory period is inconsistent with the acceptance of a patent in good faith and if brought to the attention of the courts, will void the patent, as was stated by the Supreme Court in *Pennock* v. *Dialogue* (27 U. S. 1 at 19):

"While one great object was, by holding out a reasonable reward to inventors and giving them an exclusive right to their inventions for a limited period, to stimulate the efforts of genius, the main object was 'to promote the progress of science and useful arts', and this could be done best by giving the public at large a right to make, construct, use, and vend the thing invented at as early a period as possible, having due regard to the rights of the inventor.

"If an inventor should be permitted to hold back from the knowledge of the public the secrets of his invention, if he should for a long period of years retain the monopoly and make and sell his invention publicly, and thus get the whole profits of it, relying upon his superior skill and knowledge of the structure; and then and then only, when the danger of competition should force him to secure the exclusive right, he should be allowed to take out a patent, and thus exclude the public from any further use than what should be derived under it during his 14 years; it would materially retard the progress of science and the useful arts and give a premium to those who should be least prompt to communicate their discoveries."

The patent owner who has enjoyed a patent monopoly for the statutory period may not extend that period even in part, and may not defeat the complete surrender by identifying with that original monopoly another monopoly having a longer period to run with the intent that after expiration of the first monopoly he may still control substantially the same subject matter through the second monopoly in defiance of the rights of the public. Such a case was clearly set forth in the *Singer Manufacturing Co.* v. *June* (163 U. S. 169 at 181). In that case the plaintiff having enjoyed a monopoly of sewing machines under the various Singer patents and having advertised these machines as made by the Singer Co., registered the word "Singer" as its trade mark for the purpose of keeping a partial control over the business after the patents had expired. Concerning this phase of the transaction, the Supreme Court stated (at p. 181):

"The omission of the name, indicating the origin of manufacture and the substitution of the word 'Singer', just before the expiration of the patents, suggest a coincident relation of purpose which is not explained by any testimony in the record. *This coincidence between the expiration of the patents and the appearance of the trade mark on the machines and the use of the word 'Singer' alone tends to create a strong implication that the company, with the knowledge that the patents, which covered their machines, were about to expire, substituted the trade mark for the plain designation of the source of manufacture* theretofore continuously used and added the word 'Singer', which had become the designation by which the public knew the machine, as a distinctive and separate mark, *in order thereby to retain in the company the real fruits of the monopoly when that monopoly had passed away.*" (Italics ours.)

The Supreme Court in the *June Manufacturing case* established a doctrine that where the patentee has so identified the later monopoly with the former one that the later one would interfere with the rights of the public to take full advantage of the expiration of the expired patent, the interfering monopoly must fail. By identifying this trade mark monopoly, with the patent monopoly, which he was bound to surrender, the patent owner places himself in the position of having dedicated his trade mark to the public.

Concerning this procedure, the Court stated (p. 185):

"It is self evident that on the expiration of a patent the monopoly created by it ceases to exist, and the right to make the thing formerly covered by the patent becomes public property. It is upon this condition that the patent is granted.

Digitized by Google

It follows, as a matter of course, that on the termination of the patent there passes to the public the right to make the machine in the form in which it was constructed during the patent. * * * It equally follows from the cessation of the monopoly and the falling of the patented device into the domain of things public, that along with the public ownership of the device there must also necessarily pass to the public the generic designation of the thing which has arisen during the monopoly, in consequence of *the designation having been acquiesed in by the owner, either tacitly by accepting the benefits of the monopoly* or *expressly by his having so connected the name with the machine as to lend countenance to the resulting dedication.* * * * To say otherwise would be to hold * * * *that the patentee or manufacturer could take the benefit and advantage of the patent upon the condition that at its termination the monopoly should cease, and yet when the end was reached, disregard the public dedication and practically perpetuate indefinitely an exclusive right.*" (Italics ours.)

This farseeing doctrine was announced by the Supreme Court in 1895 without dissent. It was shortly after the Sherman Law had been passed when the country was in its first organized struggle against an uncontrolled "rugged individualism" which was placing the mass of the people at the mercy of the exploiting class. That case announced a doctrine fully sustaining the present petition of the independent lamp manufacturers.

We have now moved on. The whole course of development under the present administration has shown that uncontrolled "rugged individualism" is an anachronism in modern society. It is a contradiction in itself; it is a plea of the exploiting class for the right to suppress all individualism but their own; it is inconsistent with the preservation of human liberty.

To ignore that principle now, or to curtail it, would be a step backward instead of forward; it would place the public again at the mercy of predatory wealth against which we have been struggling for 43 years, and it would defeat the very policies of the present administration which have given such hope to the Nation.

In the *Singer case* the patentee made no attempt to stop the public from using the inventions which had been incorporated in the combined monopoly—what it did was much less serious. All that it did attempt to do was to reserve for itself a portion of the prestige which the previous ownership of the patent had given to it.

The Court was so zealous to insure that the public should have the *full and complete right to enter into the entire monopoly without any strings attached to it,* that it held that the patentee should not even preserve to himself that prestige.

The instant case is far stronger because the General Electric Company is actually attempting to hold back *a very material portion of the inventions comprising the monopoly itself, which they protected by the patent*—that is, to withhold from the public the very inventions which gave the monopoly value.

There might be some dispute as to whether the Court was too strict in the *June case,* but in the present case the General Electric Company is trying to steal the very heart out of the monopoly and keep it for itself.

The principle established is clear: that when the public has the right to the monopoly, it must be *a full and complete right with no strings attached to it and no limits placed upon it by the patent owner.*

To accomplish the same end of defeating the patent law, the General Electric Company has acquired patents on articles and processes auxiliary to lamp manufacture and are now endeavoring by these patents to prolong the lamp monopoly in the same manner that the Singer Company did.

It is true that in the *Singer Company case* the right involved was a trade mark and not a patent but there is no inherent distinction between the monopoly granted under a trade mark and the monopoly granted under a patent which would alter the reasoning of that case in any detail. A trade-mark right is established by exclusive use of the mark and the Singer Company had unquestionably the complete right to that mark except for the general principle herein before referred to, namely, that by identifying the one monopoly with the other they by their own act dedicate the second monopoly to the public on expiration of the first.

It is true that mention is made in the *Singer case* that a certain special screw was still covered by an unexpired patent and was referred to by the Court as not being free to the public on that account, but it is obvious from the decision that this was a minor detail which had not in fact been identified with the Singer monopoly. The fact that this detail was not an inherent part of the former monopoly was evidenced by the fact that *the defendant did not use it or claim any*

Digitized by Google

right to use it and made and sold competitive machines without it. The actual knob that the defendant did put on the machines it made, intended to look like the operative screw of the Singer machine, was not an operative element but was a dummy which was in *fact deceptive and misleading* and constituted an attempt to infringe on the plaintiff's good will. Even, therefore, if the defendant has had a right to use the invention involved, it had no excuse to use a device which served no purpose but to mislead the public as to the origin of the goods.

Whether the defendant would have been held to have the right to use this invention in good faith was not involved in the *Singer case,* as the defendant made no claim of such right.

Upon this point the statement of the General Electric Company on page 3 contains the following (G. E. Formal Statement):

"The holding in the *Singer case* cannot be explained away on the ground that the screw was a 'minor detail', not 'identified' with the original monopoly. If a patent on a 'minor detail' did not expire with the fundamental patents, in the *Singer case,* surely patents on important and valuable lamp improvements such as the inside frost, the non-sag wire, and the Mitchell and White, as well as the recent machinery patents, were not dedicated to the public, namely by reason of the expiration of earlier fundamental patents. * * *"

No one would contend, of course, that the expiration of one patent necessarily results in the dedication of another patent to the public. The broad principle has no bearing upon this case. The question here is whether the public shall have the right to use the invention which the patentee protected by his monopoly, and to use those things which gave that monopoly its sole value, or whether, on the other hand, the General Electric Company can maintain its monopoly for 17 years on a patent from which even they themselves learned nothing, according to the testimony of Dr. Whitney, the head of the Research Laboratories, and then when the patent expires, will retain the same monopoly by keeping all the essential data necessary to make it a practical success to themselves.

This subject will be discussed at greater length under a subsequent heading concerning the General Electric Company's principle of keeping as much information secret as possible in breach of good faith with the public.

In any event, however, *even if we concede the General Electric Company's outstanding patents being valid* to their fullest scope and enforceable in full against every defendant in every legitimate way. Yet they offered no justification for the maintenance of a monopoly on an unpatented article, even directly.

A PATENT RIGHT IS QUITE LIMITED IN MANY WAYS AND IS NOT A LICENSE TO VIOLATE THE LAW

It has been repeatedly held by the Supreme Court that a patent monopoly is an instrument of the public in promoting the progress of science and the useful arts, and it under no circumstances gives the patentee a right to utilize it for the accomplishment of unlawful ends. The cases on this point are numerous but sufficient here to refer to the following:

In the *Sanitary Mfg. Co. case* (226 U. S. 20–49), the patentee had a patent on an apparatus for manufacture of bath tubs and licensed it to the various manufacturers, placing limitations upon their manufacture and fixing prices. In that case the contention of the bath tub monopoly was the same as the contention of the General Electric Company here namely, that they were entitled to violate the antitrust laws because of their ownership of the patents, and that their agreements were in fact patent licenses and lawful.

The Supreme Court swept this contention aside, saying:

"The added element of the patent in the case at Bar cannot confer immunity from a like condemnation, for the reasons we have stated. * * * Rights conveyed by patents are indeed very definite and extensive, but they do not give any more than other rights an universal license against positive prohibitions. The Sherman Law is a limitation of rights which may be pushed to evil consequences and, therefore, restrained."

ONE OF THE EXPRESS LIMITATIONS OF THE PATENT GRANT IS THAT IT MAY BE USED TO MONOPOLIZE ONLY THE EXPRESS ARTICLE CLAIMED IN THE PATENT AND MAY NOT BE USED TO CONTROL ANOTHER ARTICLE

The right of a patent owner to use a patent for one article to secure a monopoly upon another article has been expressly denied in emphatic terms by the Supreme Court in a number of cases. Patent owners have been ingenious to find some pretense of evading this plain doctrine of the Supreme Court and they have

Digitized by Google

advanced sophistical reasoning why each case should be deemed an exception to the express policy of the Supreme Court.

In the early patent law, (*Bement* v. *National Harrow*, 186 U. S. 70; *The Button Fastener case*, supra, and *Henry* v. *Dick*, 224 U. S. I), the Courts held that a patent owner could control absolutely the use of the patented device but this has been expressly repudiated in modern times, a typical instance being the case of *Motion Picture Patents* v. *Universal* (243, U. S. 502).

In the *Motion Picture case* the patentees, having a patent on a film feeding mechanism, attempted to control the films to be used with that mechanism by a license restriction, in order to monopolize the sale of films. This was held to be beyond the power of the patentee, the Court stating (243 U. S. 516):

"It is argued as a merit of this system of sale under a license notice that the public is benefited by the sale of the machine at what is practically its cost and by the fact that the owner of the patent makes its entire profit from the sale of the supplies with which it is operated. This fact, if it be a fact, instead of commending, is the clearest possible condemnation of the practice adopted, *for it proves that under color of its patent the owner intends to and does derive its profit not from the invention on which the law gives it a monopoly, but from the unpatented supplies with which it is used and which are wholly without the scope of this patent monopoly*, thus in effect extending the power to the owner of the patents to fix the price to the public of the unpatented supplies as effectively as he may fix the price on the patented machine." (Italics ours.)

In the *Morgan Envelope* v. *Albany Paper Co. case* (152 U. S. 425), the patent owner had a patent for a combination of a fixture with a roll of paper which cooperated in a novel manner. It attempted to use this combination patent to control the sale of the rolls of paper and that practice met with a strong condemnation of the Court who affirmed the dismissal of the bill upon this point.

More recently the Dryice Company attempted the same result by refusing to grant licenses unless the licensee purchased supplies from that company (*Carbice Corp.* v. *Amer. Patents Corp.*, 283 U. S. 27). There the patent related to a combination package involving a carton of ice cream with a small container of frozen carbon dioxide embodied inside of it. The Dryice Company endeavored to secure a monopoly of frozen carbon dioxide by granting with the sale of the carbon dioxide a license to use it in making the patented package; and it refrained from granting any license to persons who did not use their dryice in the patented package.

There could be no objection to the licensing by the patent owner. The real legal objection lay in their *refusing to grant* licenses *for the purpose of creating an illegal* monopoly.

The Court held that this *refusal* to grant licenses for the purpose of creating a monopoly in an unpatented article was so serious an offense against the laws of the United States that it denied any relief in the Courts to the patent owner, thereby in effect destroying its patent, notwithstanding the fact that this patent was clearly infringed. The Court stated (Page 33):

"Control over the supply of such unpatented material is beyond the scope of the patentee's monopoly; *and this limitation, inherent in the patent grant is not dependent upon the peculiar function or character of the unpatented material or on the way in which it is used.* Relief is denied because the Dryice Corp. is attempting without sanction of law, to employ its patent to secure a limited monopoly of unpatented material used in applying the invention. * * * They (the plaintiff) supply merely one of the several materials entering into the combination and on that commodity they have not been granted a monopoly. Their attempt to secure one cannot be sanctioned." (Italics ours.)

The Court makes it clear that it condemns the refusal to grant licenses where the refusal is for the purpose of securing a monopoly not warranted by the patent. After stating that the patentee may prohibit the use of the invention, or may grant licenses, it continues (Page 31):

"But it *may not exact as a condition of a license* that unpatented materials used in connection with the invention shall be purchased only from the licensor." [Italics ours.]

In the Motion Picture case and other like cases, the Court could defeat the unlawful object of the patent owner by holding the license restriction void. In the Dryice case the suit was not brought to enforce patent restrictions, but for patent infringement. The Court had no power to grant licenses so it denied relief to the plaintiff altogether upon the sole and express ground that the plaintiff's plan of use of its patent was unlawful.

Digitized by Google

These cases can easily be reconciled and can only be reconciled on the ground that the Court will not pay too much attention to legal artifices, but it will take whatever action is necessary to *keep the patentee from using his patent monopoly to help in controlling any other article.*

It is clear, therefore, that a patentee may control only the thing patented to him, and he violates the law when he seeks to control some other article. The General Electric Company holds no present patent for a lamp, and all such patents have expired. It violates the law when it still seeks to control the lamp through patents for other things.

X. The Lamp Monopoly Today is the Same Monopoly as That Protected by the Basic Patents

We have already called attention to the fact that today, after the Just & Hanamann, Coolidge & Langmuir patents have expired, the control of the monopoly group is the same exact percentage of the business that it was in 1921 during the term of the patents. The Supreme Court states (undoubtedly from General Electric sources), that under the patents it then controlled 93% of domestic production and they now give figures to NRA which shows 93%. The General Electric Company's "licensees" are the same group that were licensed before, and it would be interesting to know whether even the royalties and quotas were not the same.

Mr. Reed, of the General Electric Company, in order to minimize the importance of the expiration of these three patents suggested at the hearing that there were no such things as basic patents. He called attention to the fact that the General Electric Company has a large number of patents of which some expired and some are acquired each year so that there was no basic monopoly to expire. This present contention of the General Electric Company *after* the expiration of the three patents, is in marked contrast with the statement from the Supreme Court previously quoted (*U. S.* v. *G., supra*):

"* * * These three patents cover completely the making of the modern electric lights with the tungsten filaments, and secure to the General Electric Company the monopoly of their making, using, and vending."

That the Supreme Court statement undoubtedly represented at that time the contention of the General Electric Company, but then the patents had not expired. They have had their dance and would now like to cheat the piper of his fee.

The General Electric Company for some years regarded their lamp monopoly as a single monopoly. They treated it as such and represented it to the public as such.

The lamp licenses granted by the General Electric Company were of the blanket variety in which they granted the right to manufacture lamps under a long list of patents, in which the three basic patents were included. Whenever improvements were made, the General Electric Company would automatically include these as a part of the general monopoly.

When suing lamp infringers during this patent term, it was these basic lamp patents on which reliance was placed. When they brought suits for infringement of the *machinery* patents, it was against machinery manufacturers for the sole purpose of preventing them from helping independent lamp manufacturers.

We can find no record of their ever having sued a manufacturer for infringement for selling machinery to the General Electric Company's lamp licensees. They have never used any of these patents except directly or indirectly *to control lamp manufacture.*

The General Electric Company itself stated at the time that it was a single monopoly

As clear evidence of the identity of the present monopoly with the basic monopoly, we call attention to the suit brought by the General Electric Company against the Hofmann Company in the Court of Chancery of New Jersey in the year 1931.

We had intended to submit an affidavit of the attorney for the Hofmann Co., giving the facts in this case, but the attorney has since withdrawn his offer and has stated that his commercial situation was such that he would not be able to give an affidavit until July. We do not know what form of intimidation was employed, but counsel for the independent lamp manufacturers has found strange difficulty in getting persons to give any evidence against this monopoly, no matter how aggrieved they may be, placing their refusals on the ground of fear of commercial retaliation, such as was visited on Mr. Glasgow.

Digitized by Google

We have, therefore, in lieu of such a statement of attorney, attached certain portions of the record which speak for themselves.

In that controversy it appears from the pleadings that in the year 1924 the General Electric Company entered into a contract with the Hofmann Company granting them a license to manufacture machinery for lamp manufacture under eighteen patents which included substantially all of their important lamp machinery patents. That contract had several important phases.

Manufacturing and selling rights were granted *without royalty of any kind* by the Hofmann Company, showing clearly that it was the intention of the General Electric Company to *make its profit out of the lamp business* and not out of its machinery.

Moreover, the license authorized the Hofmann Company to make such machinery and to sell it *only to persons who had licenses from the General Electric Company, to manufacture lamps.*

The contract directly stated:

"* * * it being the intention of the parties hereto that it shall be publicly known that the only purpose of granting of this license is to afford said domestic licensees (for lamp manufacture) an opportunity to obtain the licensed machinery" for use in making lamps in accordance with their license. This contract was breached by the General Electric Company and on February 24, 1930, a new settlement agreement was reached, including the payment to the Hofmann Company of $65,000 in cash, and releasing both sides of all breaches of the early contract.

Subsequently in 1931, the General Electric Company brought the bill of complaint (the basis of the *General Electric Company* v. *Hofmann* suit above referred to) and in the bill stated the following:

"The business of the Incandescent Lamp Department of the General Electric Company *is the manufacture and sale of incandescent lamps.* Upwards of millions of dollars have been expended by said incandescent lamp department in the development of new and improved machinery and equipment *for the manufacture of incandescent lamps*, all of which was done for the primary purpose *of improving the quality of incandescent lamps* made and sold by the General Electric Company and in reducing the cost of their manufacture. *It was not done for the purpose of engaging in the business of manufacture for sale of lamp machinery.*

"Paragraph 7: The new and improved lamp making machinery developed by the incandescent lamp department from time to time was *not intended for the use of other lamp manufacturers.* Complainant (The General Electric) decided to make an arrangement whereby its (lamp) licensees could have a source of supply where they could purchase lamp making equipment substantially identical with that used by the General Electric, said source of supply to be in addition to the one theretofore provided.

"Paragraph 8: For the purpose stated in Paragraph 7, a written contract was entered into on April 26, 1926, * * * in which the defendant, The Hofmann Co. * * * was licensed to manufacture and sell *only to specific domestic lamp licensees of the General Electric Company*, the lamp making machinery and equipment heretofore described. In order to enable the defendants to build *for said licensees* standard lamp making machinery substantially identical to the standard lamp making machinery manufactured by the General Electric for its own use, the complainant agreed in said contract to furnish to defendants drawings of said standard lamp making machinery."

Incidentally it is interesting to note that of those 18 patents under which the license was granted, four were for the alleged Mitchell-White invention, which were therefore licensed without royalty to serve the lamp licensees. They now seek to use this invention to extend the lamp monopoly.

Today they are still making the same lamps by the same machines and processes, obtaining royalty from the same licensees and still control the same proportion of the business and are still making just as strenuous efforts to wreck the business of all lamp competitors they cannot control, as they did during the existence of the patent monopoly. Not one important factor has been added, and the basic patents have expired. Of its lamp monopoly we may say with Tennyson:

"But men may come and men may go,
But I go on forever,"

The General Electric Company did not then, while the patents lasted, make and sell or license the making of any bulbs under the Pipkin patent except for the manufacturing needs of itself and its licensees *in making lamps.* The same situation exists today.

Digitized by Google

It did not then make and sell tungsten wire alleged to be under the Pacz patent except for the manufacturing needs of itself and its licensees *in making lamps*. The same is true today.

It did not then license the use of Mitchell & White constructions to anyone except for the manufacturing needs of its licensees *in making lamps*. And the same policy exists today.

It has never made any attempt to take any profit from any of those except as a part of the "business of making incandescent lamps."

XI. We Do Not Depend on Any Interpretation of the Patent Law. The Acts Complained of Are Illegal and Unfair and the Remedial Provisions Proposed Are Appropriate and Just

This petition of the Independents is not dependent upon any construction of the patent law. The acts complained of are unfair and illegal without involving any construction of the patent law whatsoever.

Some of these acts such as the deliberate libel of a competitor's goods required no comment to show their illegality once the use of such tactics is proved. All of them are monopolistic in character, in violation of the Antitrust laws and for the purpose of creating an illegal monopoly.

We want strongly to emphasize the fact that *we are making no complaint of the patent law*. We are making complaint of the *monopolistic practices* which are clearly contrary to law.

The patent law comes into this picture only in two respects. First, the General Electric Company, unable to deny the monopoly, are pleading justification on the ground of the patent law. A discussion of the patent law is thus essential to show that such a plea is utterly without foundation.

Second, the privileges which the General Electric Company has received under the patent law have placed it under *still more emphatic obligations* to abandon this monopoly, so that what otherwise might be a *mere violation of the Antitrust laws*, becomes in addition a *breach of good faith or even fraud*.

We have already stated that the rights we desire to have protected are not dependent on the patent law. In approaching the problem, however, it will be clearer to discuss the "inventions" now claimed by them first. This will make the illegality of the monopoly more clear.

PARTICULAR INVENTIONS NOW MISUSED—THE PIPKIN OR INSIDE FROST PATENT

It has long been known that a concentrated point of brilliant light is hard on the eyes and it has been known that grinding or frosting the surface of a piece of glass will distribute that brilliance over a large area so that it is no longer objectionable.

Up to July 1, 1925, the standard electric lamp had a clear bulb, and lamps of the diffusing type were considered as special lamps and effected the diffusion by frosting, opal glass, and spray tinting of glass. In 1924, clear lamps constituted 85 to 90% of the total lamp production, while diffusing lamps constituted only 10 to 15% of such total, not including those of the type known as miniature lamps, such as used on Christmas trees.

There is a very definite reason why the frosting of bulbs came out at the time it did. The early lamps having the filament looped back and forth did not require a frosted glass and frosting when not desired is objectionable because it absorbs some of the light and it makes it possible for inferior lamps to pass inspection for the inside of the lamp is not visible.

In the early twenties, the General Electric Company introduced the large-size lamp with a closely coiled filament in a neutral gas and the independents introduced the small-size lamp with the coiled filament in vacuum. Such a lamp would present a very brilliant point of light which is painful to the eyes. This resulted, therefore, in the adoption of the frosted globe.

In 1924 Marvin Pipkin of the General Electric Co. was working upon the frosting of glass bulbs and he frosted some bulbs on the inside in a manner which produced a very fragile bulb and then frosted other bulbs in a slightly different manner to produce a much stronger bulb. As a result, he claimed to have discovered that bulbs frosted on the inside had always been fragile until he developed a process of overcoming that difficulty.

We may here state parenthetically that the Independents have produced evidence which they believe conclusive that Dr. Pipkin set up a straw man to knock him down. That the process which produces the fragile bulb was an artificial process and not the normal process in use. They believe they have

Digitized by Google

established that the frosting of bulbs by the normal commercial process used at the time did not produce a fragile bulb. If this be true, his contention of having met a problem and solved it, that is, of having made any invention, is without foundation. This position is clearly sustained by the opinion of Judge Jones which was offered in the record. The correctness of either of these two positions, however, has no direct bearing on this petition.

Application for patent was filed on February 4, 1924, for this Pipkin method and included claims both to the method and to the article produced. The claims were repeatedly rejected by the Patent Office on references, and the application finally abandoned.

A second application for patent, with some additional features and a more elaborate description of the method, was filed on June 29, 1925, and eventually resulted in patent No. 1687510, issued October 16, 1928. While this application, as filed, included both article and method claims the method claims, some of which were allowed, were cancelled, so that the article claims of the patent, as stated by the applicant, *might not be limited in any way by the method described for producing the article*. The claims were skillfully drawn to include any inside frosted lamp having brightness reduction and strength suitable and desirable for commercial requirements. The patent contains two claims, claim 1, for example, reading as follows:

"*Claim 1.* A glass electric lamp bulb having its interior surface frosted by etching so that the maximum brightness of an ordinary incandescent lamp comprising such a bulb will be less than 25 percent of that of said lamp with a clear bulb, said interior bulb surface being characterized by the presence of rounded as distinguished from sharp angular crevices to such an extent that the strength to resist breakage by impact is greater than 20 percent of that of the clear bulb."

The scope and indefiniteness of this claim are apparent.

The phrase in this claim concerning the maximum brightness being less than 25% refers to the fact that the pin point of light as you gaze directly at the filament, will be so spread out over a larger area that the maximum intensity of illumination will be reduced. It does not mean that the amount of light coming from the lamp is reduced to 25%.

INSIDE FROSTING LAMPS WERE MADE THE STANDARD TO TAKE THE PLACE OF THE CLEAR LAMPS

In 1924, twelve years of the Just & Hanamann patent had expired, and the General Electric Company were faced with the possibility of surrender of their monopoly. In the few following years and before Just & Hanamann expired, the research and development committee for the General Electric Company decided to make inside frosted lamps the standard type. Dr. Jeffries of the General Electric Company testified that this was for the purpose of "standardizing and reducing the number of styles", but it is significant that the "standardization" led them directly into the type of lamp on which they hoped to continue to maintain patent protection and away from the lamp which was to be surrendered to the public.

Automatic machinery for the inside frosting of bulbs, according to the Pipkin method, was then developed and the commercial production and sale of these lamps was commenced on a large scale July 1, 1925.

These inside frosted lamps at first sold for slightly more than the clear lamps and within a short time were reduced in price to less than that of the clear lamps, thus inducing the public to purchase the inside frosted instead of the clear lamps. For example, the inside frosted 40-watt lamp, starting with its first production on July 1, 1925, sold for 30¢ as against 27¢ for the same clear lamp, and 32¢ for outside frosted; on January 1, 1926, the price of inside frosted dropped to 27¢, the price of the clear lamp; on September 1, 1926, both clear and inside frosted lamps were reduced to 25¢; the clear lamp then continued to sell for 25¢ and the inside frosted on April 1, 1927, was reduced to 23¢, and on July 1, 1928, to 20¢, thus making inside frosted lamps 5¢ cheaper than clear lamps and 10¢ cheaper than outside frosted. On July 1, 1928, the clear lamps were placed on a special list, being considered as special lamps.

It is significant that notwithstanding the inside frosted lamp was the same as the clear lamp, except that it required an additional operation to effect the frosting, it sold for less than the clear lamp. This was apparently done to establish the inside frosted lamp, on which application for broad patent protection was then pending, as the standard lamp in lieu of the clear lamp on which broad patent protection was about to expire. That this worked is shown by the following statement by Dr. Jeffries in the suit of the *General Electric Co.* v. *Save Sales Co.*, brought under the Pipkin inside frosted lamp patent (rec. p. 22):

Digitized by Google

"Whereas prior to its introduction the amount of the business relating to frosted bulbs was some 10 to 15 percent of the total, when the Pipkin invention went into use, the percentage jumped to something like 25 to 90 percent of the total number of large lamps sold, and since that time the inside frost has maintained the position as practically the universal type of lamp, and even sme of the larger wattage lamps now are put out with the inside frosted bulb. In general, I may say that the General Electric Company has made hundreds of millions of the inside frosted lamps."

THIS PATENT WAS PLANNED AND USED AS PART OF A PLAN TO DEFEAT THE SURRENDER OF THE MONOPOLY

Through this transaction it appears clear that the purpose of the General Electric Company was the same as the purpose of the Singer Co. in the *June Manufacturing case*, namely, to secure a new monopoly which would hold over after the expiration of the basic patents. If the patent had merely been introduced on a competitive basis, this purpose would not be so clear, but where its advertising concentrated upon it and it was given a price differential to push its introduction, to replace the other, it clearly forms its part in this scheme to maintain the monopoly.

The General Electric Company is in the position of having deliberately sought to destroy (and with considerable success) the value of the clear-lamp monopoly it had enjoyed before returning it to the public.

The General Electric Company has not made any attempt to make any profit from this alleged inside frost invention patented to it. It has not sold bulbs or licensed them for manufacture or sale with any attempt to make its profit from them. Instead it has licensed them for manufacture and sale only to the Corning Glass Works, without royalty, for sale only to persons licensed by the General Electric to make lamps. The Corning Glass Works has refused to sell such bulbs to independents, giving as a reason that their contract with the General Electric Co. forbids it.

The General Electric Company has sold them for the deliberate and express purpose of *taking its profit not from the bulb which was patented to it, but from the lamp on which the patent had expired*, in direct conflict with the decision of the Supreme Court in the Dryice and similar cases.

THE MITCHELL AND WHITE PATENT

(Because of the nature of the drawings referred to they are held in the files of the Committee on Patents, House of Representatives, Washington, D. C.)

The original tungsten lamps were made, See Figure 1, by putting two electric wires, called "leading in" wires, and if desired, a filament support through a glass tube, marked in Figures 1, 2, and 3 as the "press tube", and thereafter heating this tube at one end and pressing the glass into a solid mass or "press" around the wires (see fig. 2) thus sealing the tube and holding the wires in place. The filament was then attached to the projecting ends of the leading in wires. The element so formed comprises the inside portion of an electric lamp.

This press is then inserted into the neck of a glass bulb (see fig. 2) and the glass neck is melted and fused to the flared end of the press tube completely sealing the bulb (see fig. 3), cutting off the surplus end of the neck.

It was necessary to have some method of exhausting the air. This was done commercially by making a hole in the outer side of the bulb and fusing a glass "exhaust tube" to the hole. (See fig. 2.) The air was exhausted through this tube, after which the bulb was sealed by melting the walls of the tube together close to the bulbs (see fig. 3) and removing the projecting portion of the tube. This left a tip on the end of the bulb where the tube had been. A base was then put on the bottom.

In 1903 Jaeger (Jaeger Patent #729182), not connected with the General Electric Company, devised a lamp in which the tip was eliminated and the bulb was exhausted through a tube within the press tube. This is shown in figure 4. The construction of the lamp is the same as before except that the exhaust tube is inserted into and sealed to the inside wall of the press tube instead of to the end of the bulb. (See fig. 4.) This lamp was exhausted and the tube was sealed close enough to the lamp so that the tip of the exhaust tube after it was sealed would be completely concealed by the base of the lamp. This was a considerable improvement over the older practice.

Apparently the General Electric Company never adopted this construction in that form, which they could not monopolize. As soon, however, as Mitchell & White made a variation of the construction some fifteen or twenty years later they

Digitized by Google

claimed to have originated the entire idea, and claimed it in their patent application. This Mitchell & White variation is shown in figures 5 and 6.

In this form the exhaust tube is inserted through the press tube before the press tube is pressed together around the wires, so that the exhaust tube is firmly sealed into the press. When the press tube was closed around the wires, it also closed the exhaust tube. To remedy this a small hole was blown through the press while the glass was still hot.

Otherwise the invention was the same as Jaeger's. The General Electric Company has repeatedly claimed that this invention gave the tipless lamp to the world although they already knew of the Jaeger patent. When they tried to get away with this in the Courts, the claim was flatly repudiated in the following terms.

"In view of these facts we are of the opinion that to holdjthe defendants structure and infringement would logically result in holding that, embodying as it does Jaeger's device, the later anticipates Mitchell and White, but as we view it, Jaeger did not anticipate Mitchell and White." (*G. E.* v. *Eisler*, 20 Fed. 2.)

The Court thereupon proceeds to sustain its specific construction as a patentable improvement for that detail.

Notwithstanding this holding, Mr. Reed still says that the invention "resulted in the elimination of the unsightly tip at the end of the bulb". To us it seems like a futile attempt to steal credit which is in fact due to Jaeger.

It thus appears clear that there is no possible validity in this patent except a specific alternative process of making the Jaeger lamp.

This invention was included with Just and Hanamann in the list of patents under which its lamp licensees were licensed to make lamps. So far as we can ascertain, no severable charge was made for it and no reduction in royalty was allowed if this patent was not used.

The invention was among those directly included in the license to the Hofmann Machinery Company to be manufactured by them without royalty, as a part of the General Electric Company's service to its lamp licensees.

Certainly in any such procedure there as no attempt to get any profit from this invention as distinguished from making the profit from lamps. At that time the lamps were patented and it was legal to monopolize them. Now the lamps are not patented and it is not legal, and yet the same practice continues.

The General Electric Company has never, so far as we can ascertain licensed anyone separately under this patent, nor has it ever made any difference in license fee when this invention was used or not. The "standard machinery" furnished to its licensees contained this invention and no extra charge was made on that account as a license fee.

It is only now after the basic patents, under which the licensees were protected, have expired that the General Electric Company shifts its ground and attempts to exact royalty for that which was formerly regarded as a free part of the monopoly

This invention covers the inside portion of a lamp and it is now usually completely concealed in a frosted bulb. The manufacturer, of course, knows what process of manufacture has been employed, but the dealers and users cannot see from the outside and cannot determine the construction of the interior without destroying the lamp. The General Electric Company have made a practice to bring suits against such dealers and users.

Since no purchaser can destroy every lamp he buys, to test its infringement, there is no way he can purchase independent lamps and avoid the danger of this vicious and unfair attack.

THE PACZ PATENT

The manufacture of drawn tungsten wire, from the beginning proved an uncertain thing. The metal in the form of a powder is softened by intense heat and pressed into a rod, then with special heat treatments it is drawn into wire. The result, however, is not uniform. (See Affi. of Dr. Laise in the record.)

When the manufacture of lamps, having the filament in the form of a fine coil spring was introduced, it was found that with some wire there was a tendency for the spring to sag between supports. This changed the distance between adjacent turns of the spring and destroyed the proper effectiveness of the lamp. At the beginning a large proportion of the wire was subject to this defect, perhaps one-quarter to two-thirds, the remainder being substantially free from this difficulty. As the technique improved, the proportion was materially lowered.

Dr. Pacz of the General Electric Laboratories found that by using the better heat treatment and by combining with the metal certain other substances, such as silicates, that the proportion of non-sag wire could be increased. The coiled filament lamps which were made standard, were the cause of the work on the

Digitized by Google

non-sagging, and the non-sag wire was regulaly furnished to the General Electric Company's licensees to manufacture lamps, and was regularly incoporated in the lamps of the General Electric Company and its licensees after that time. No special licensee fee was charged for the use of this alleged invention. No such wire was generally sold to the public but it was confined to the General Electric Company and its lamp licensees.

The Pacz patent in its terms is not fined to wire made in accordance with processes devised by him, but is in terms to the physical wire. It is in such broad language that the General Electric Company contends that it covers every commercial form of wire, which does not sag in use.

THE USE OF THESE PATENTS BY THE GENERAL ELECTRIC COMPANY TO MAINTAIN THE LAMP MONOPOLY IS CONTRARY TO LAW

The General Electric Company is not making any attempt to use any of these three patents to make any profit out of the article patented, but instead is seeking to make its entire profit from the unpatented lamp. This practice is contary to a clear line of Supreme Court decisions:

Motion Picture Patents (243 U. S. 502), *Heyer* v. *Duplicator* (263 U. S. 100), *Morgan Envelope* v. *Albany* (152 U. S. 425), *Carbice case* (283 U. S. 27), and numerous lower Court decisions.

Moreover, since these patents were definitely used as an essential part of the basic monopoly, and were responsible for a very important part of the profit of that monopoly, because they were so indentified, they cannot now be withheld from the public. The public is entitled to make what the patentee made, to get his profit where the patentee got it: in short, to enter fully into the monopoly the patentee enjoyed under the basic patents in the form he enjoyed it.

Furthermore, since they are under obligation to surrender the monopoly and are instead conspiring and planning to prevent that surrender, these acts becc me a fraud upon the public and a breach of good faith. (*Singer* v. *June; Pennock* v. *Dialogue; Woodbridge* v. *U. S.;* and *Kendall* v. *Winsor;* all cited supra.

To remedy these evils, we have proposed the following clauses:

Code VIII: "No manufacturer having commercial control of any particular art and having any patent right relating thereto shall use said control and patent right to secure or maintain a partial or complete monopoly over articles not specifically claimed in said patent."

Code X: "If the Code Authority for the Incandescent Lamp Industry shall find that any employer has enjoyed a substantial monopoly of any product by reason of a United States patent, and that the said patent has expired and that the said employer used in the commercial manufacture, use and sale of the said product in the form that the said product was manufactured, used or sold by him under the protection of said patent, any auxiliary inventions or patents, and if the Code Authority shall further find that the said inventions were so used by said employer or were used to such an extent, that they became an intimate integral or important part of the operations of said employer under the protection of said patent monopoly, then the said auxiliary inventions or patents shall be deemed to be a part of the monopoly protected under the said patent monopoly and it shall be deemed to have been dedicated to the public with the expiration of the dominating patent, and the said Code Authority shall so declare. Any use of any such patent to discriminate against Independent employers or to prolong the monopoly over the product, either in whole or in part, as that monooply was previously enjoyed by the said employer, shall be deemed unfair competition."

Paragraph VIII places no limits whatever upon the use of any patent to control the invention claimed, but it does prevent the patent being used as a cloak or alibi for illegal monopolies.

Manufacturers have always tried to secure monopolies and patents have offered an inviting field because it suggests a plausible excuse that monopolies based on patents are legal. As we have shown, however, the decisions of the Supreme Court speak in no uncertain terms to the contrary. (*Sanitary Mfg. Co. case* cited supra.)

There is no warrant in law for any kind of "monopoly based on patents", except the exact and specific monopoly recited in the claims of the patent itself. Any attempt to use a patent for one thing to secure a monopoly of something else is illegal and gets no support whatsoever from the patent law. A monopoly from patents must be, therefore, either the exact monopoly granted or it has no legality at all.

Digitized by Google

The law was once more complaisant to extend the inventor's rights (*Bement* v. *Harrow*, 186 U. S. 70; *Paper Bag case*, 210 U. S. 405; *Henry* v. *Dick*, 224 U. S. 1). Those doctrines have now been directly repudiated in a greater recognition of the public interest in many decisions, for example, *Motion Picture Patents case* (243 U. S. 402); *Morgan Envelope* v. *Albany Paper case* (152 U. S. 425); *Carbice case* (283 U. S. 24). The proposed section VIII, however, does not go as far as the law. It is limited only to cases where the patent owner has commercial control and under such circumstances misuses his patent rights.

Proposed Section X is limited to cases in which the Code Authority shall find as a matter of fact that certain patents have been dedicated to the public and says such patents may no longer be enforced.

With a proper definition of "dedicated to the public" such a clause cannot be questioned.

The phrase chosen to define "dedicated to the public" is in accordance with the reasoning of the *June Manufacturing case*. It rests upon the principles there established that the public is entitled to the things that made the monopoly worth while to the patentee, and any attempt to defeat that right is wrongful.

THE USE OF COMMERCIAL MONOPOLIES TO PROLONG THE LAMP MONOPOLY—TUNGSTEN WIRE

There was no commercial market for tungsten wire except for the manufacture of tungsten lamps, of which the General Electric Company hold 93% of the business. The manufacture of this wire is a difficult thing. To be made uniform, it must be made in large quantities. The General Electric Company, having the monopoly of the sale of lamps, kept a monopoly of the manufacture of the wire and now use the monopoly of the wire to maintain the monopoly of the lamp.

Independents manufacture wire of high quality, but its characteristics are necessarily less uniform and certain because of the smaller volume manufactured. This imposes on the independent manufacturers a higher wire cost which discriminates in favor of the monopoly.

Ordinarily a manufacturer may choose his customers at will (*U. S.* v. *Colgate*, 250 U. S. 300). But there are peculiar factors in this case which demand a different marked article in competition with other equivalent articles; it is a commercial monopoly of an important commercial product, having no commercial rival. Moreover, that monopoly was acquired as a part of a patent monopoly which is now expired; and it is so tied up with that lamp monopoly that it assists in maintaining that lamp monopoly now after it is illegal.

The situation demands a remedy because it is creating an illegal monopoly in lamps and it demands a remedy because it is a part of the patent monopoly which must now be surrendered.

The General Electric Company today refuses to sell tungsten wire for lamp manufacture except to its own lamp licensees, and it is using this refusal to prolong its lamp monopoly.

LAMP MACHINERY

We stated in our former brief that there are no important patents on lamp machinery today.

The General Electric Company has challenged the statement, citing by inference, certain fully automatic lamp machines, and certain machines for frosting bulbs. The first are not important to this discussion for no independent manufacturer has a volume of production which would warrant the use of such machinery. The frosting machine does not make lamps but bulbs. This latter machine has already been discussed under the headline "Inside Frost Patents".

The statement, therefore, that there are no important lamp patents, so far as this discussion is concerned, still stands as a fact.

Some machinery is manufactured by the General Electric Company or by concerns commercially dominated by the General Electric. Some equipment is made by other manufacturers. In both cases, the General Electric Company has endeavored to restrict or prevent the acquisition of such machinery and equipment by independent lamp manufacturers. This is done by contracts in restraint of trade and by intimidation.

Any attempt to bring patents into this discussion is but an attempt to confuse the issue by a smoke screen.

For the life of the lamp patents, the machinery patents were used to support that lamp monopoly. Now, however, that the lamp and machinery patents have expired, they resort to contracts in restraint of trade and coercion to retain the monopoly.

Digitized by Google

Considering first the machinery of the General Electric Company's expired patents, this was always regarded by that company as a part of its lamp monopoly. It never licensed the manufacture of any of its machines while the patents existed, except for the use of itself and its lamp licensees. When it did grant a license to Hofmann Company it did not even ask for royalty. It said itself that its business was to make lamps and that the machinery was to assist in making lamps in its own plants.

The General Electric denied that it was attempting to prevent independents from getting lamp machinery, and in the denial it seems to us that they misrepresented the Hofmann Case. The facts, as will be seen from the record, are:

In 1926, the original contract was entered into between the General Electric Company and the Hofmann Company, which was a straight patent license on eighteen patents. Its purpose was "to provide a source of machinery for its lamp licensees." In this contract the General Electric Company agreed to loan to the Hofmann Company the "drawings of its licensed machinery", together with blue prints and instructions, and the Hofmann Company agreed "to take and cause to be taken reasonable care to insure that said drawings and said property shall be kept confidential."

Subsequently, on February 24, 1930, a disagreement arose and a new agreement of settlement was entered into containing a complete release on both sides of all claims of breach of the former agreement and cancellation of the license, the General Electric Company paying Sixty-Five Thousand Dollars. By this second agreement, the Hofmann Company agreed to return all drawings and blue prints, and then follows the paragraph:

"The Hofmann Co. has on hand certain patterns which it has made up at its own expense from the blue prints and other information furnished to it by the General Electric Co., which said patterns are capable of use by the Hofmann Co. in the manufacture of machinery other than lamp-making machinery, covered by the patents of the General Electric, and the Hofmann Co. agrees that no license is to be implied to it under any patent of the General Electric Co. by reason of its retention of said patterns."

By this it is clear intent that the Hofmann Co. shall keep on using the information embodied in the patterns after returning the drawings, *except insofar as it might be stopped by patents.* Meantime, all the important patents expired.

Then the General Electric Company brought suit, praying:

"Wherefore, Petitioner respectfully prays that this Honorable Court will make an order directing the defendants to show cause why they should not be restrained from making or manufacturing any machinery of the National, Edison, or General Electric types."

This prayer contains no reference to patents, and the machine patents had expired, except Mitchell and White, which had been declared invalid.

There can be no substantial contention that this suit was a suit to prevent patent infringement because it is brought in a state court having no patent jurisdiction and makes no prayer for patent relief.

The contention of Mr. Reed at the hearing on January 4th, 1934, that this suit was to prevent the pirating of confidential data is in direct conflict with the facts shown by the foregoing quotations. The settlement agreement wipes out the original agreement and all breaches of it, granting complete release to both sides and the settlement agreement clearly shows that the Hofmann Company are *free* to use the unpatented data and information.

Of still greater importance, however, is the fact that Mr. Reed's contention would itself convict the General Electric Company of bad faith. The machinery had all been patented to the General Electric Company and this fact alone *is inconsistent with there being any important secret information in regard to it.* As quoted by the Supreme Court from McBeth Evans Glass Case in *Woodbridge* v. *U. S.* supra:

"The right to preserve a monopoly in an invention by keeping it a secret and the right to secure its protection under the patent law *were inconsistent and could not* both be exercised by an inventor."

If this suit was brought to prevent Hofmann from making standard machinery after patents on it had expired, how does Mr. Reed reconcile this with his reply:

"* * * The General Electric Company has no agreement with any manufacturer of machinery which prevents the latter from selling unpatented machinery to anyone. * * *"

It seems clear either that the statement by Mr. Reed is false on an important and material issue, for the General Electric Company's contention in the Hofmann suit is directly to the contrary, or else the General Electric Company brought

Digitized by Google

the Hofmann suit knowing that the Hofmann contract did not support the contention they were making.

In either case, it is clear that the fact of bringing the suit does emphatically constitute an attempt on the part of the General Electric Company to embarrass the Hofmann Company and thereby to harass independent lamp manufacturers and prevent them from getting lamp machinery even when the machinery is not patented.

CONTRACTS BY GENERAL ELECTRIC IN RESTRAINT OF TRADE

The General Electric Company has pursued a corresponding policy with regard to machinery made by other concerns. Mr. Rosenthal, himself a lamp manufacturer and a man who has had a long connection with the industry, states in his affidavit:

"It has been a frequent experience of independent manufacturers to be told that they could not purchase machinery, materials, or apparatus because the sellers had made exclusive contracts with General Electric Company, which prevented such sales. * * *

"I attach the following letters as examples of this type of refusal but by far the largest number of these refusals have been by word of mouth so that no written evidence is available.

"In general these have included the control of tungsten, the metal from which filaments are made; the gas which is used in filling lamps, frosted bulbs from which the frosted bulb lamp is made, as well as many patented and unpatented pieces of apparatus, machinery and minor materials and supplies."

Exclusive contracts are not necessarily vicious in effect if there be other adequate sources of supply, or if there be substitutable articles, but such contracts are plain violations of the Anti-Trust Laws, when designed to promote monopoly or to restrain trade, and are particularly vicious when used to defeat the surrender of the lamp monopoly.

We believe we have shown that these contracts are to promote the lamp monopoly and to restrain the trade of the independents. They are serious factors toward that end because as in many cases such as the case of the DeVilbiss Co., the products are not made elsewhere, and in the case of lamp machinery there are but two independent lamp machinery companies of which they are already attempting to suppress one.

The type of violation of the Anti-Trust Laws here involved has nothing to do with those cooperative efforts which are necessary to prevent cut-throat competition by NRA. In fact these monopolistic contracts are one of the worst phases of cut-throat competition by the monopoly.

If it was the object of NIRA to ease off the Anti-Trust Laws to permit the achievements of the public objects of that Act, it was certainly not the purpose to grant immunity for contracts which are solely to crush independent competition that cannot be met in a fair field.

This is an excellent illustration, therefore, of the fact that clause 5 of NIRA places a corresponding duty on NRA, to prohibit unfair practices in restraint of trade. If the codes give leeway to achieve a good end, they must expressly prevent that same leeway being used against the public interest, and contrary to law.

We are proposing two clauses of fair competition which are submitted as substitutes for provisions suggested, by NEMA.

We shall discuss them at this point because we feel that they are so closely related to the problems here discussed that they should not be separated and partly because such clauses originated with us, and the clauses worded by NEMA are so worded as to be worthless. We shall leave discussion of the NEMA provisions to a special consideration. We shall here present the necessity of the two clauses we propose.

THE GENERAL ELECTRIC UNFAIRLY THREATENS CUSTOMERS OF COMPETITORS TO CREATE MONOPOLY

The section proposed on this point reads as follows:

Code V. "No employer or person handling the products of an employer shall in any manner threaten with suit for infringement of patent or trade marks any person dealing in or using the products of another employer until he first shall have established his patent and its infringement by the product specified in a suit against the employer manufacturing said product."

The patent law grants to a patentee the right to exclude others from making, selling and using, but these three rights are not of equal force. The Supreme Court has determined that the right to control the use is limited and is incidental

Digitized by Google

only to giving the inventor a proper profit from the invention (*Morgan Envelope case; Motion Picture Patents case; Dryice case, supra*).

In a proper case, the right to sue a defendant for the unlawful use of an invention is not questioned. For example, when the invention is a process, the use of it is the only thing the inventor can tax. This is clearly not intended, however, to give the patentee any right to use the patent unfairly, or to stretch it beyond the legitimate collection of a royalty or profit from the inventor, and especially not to create other monopolies.

THE GENERAL ELECTRIC THREATENS DEALERS AND USERS WHO DO NOT HAVE SUFFICIENT FINANCIAL INTEREST TO DEFEND THEIR RIGHTS

The independent lamp manufacturers make and sell lamps as they believe they have a right to do. These lamps are sold through dealers and to buyers throughout the country who in general have no great commercial interest as to what lamp they use, except for the differences in quality or price. A large number of such dealers and buyers have been threatened with suits for patent infringement.

Mr. Rosenthal attaches twelve letters from prospective buyers showing the direct loss of orders of importance because of such threats and in addition, he states, what must be apparent any way, that the number of orders lost without such letters being available is many more.

The effect of such threats can easily be understood. The inside frost patent has just been declared invalid in the first suit brought against a lamp manufacturer, but before that time a number of the threats made by the General Electric Company have been made upon this patent. No dealer or buyer could face with comfort the threats of supplying the costs of such a patent suit. If this invalidity is sustained on appeal, every threat made on this patent was without justification. Mr. Freeman and Mr. Thomashower show that they were put out of the lamp business by such unfounded threats. Mr. Reed says that they sold imported lamps, but as a fact, these gentlemen also sell domestic lamps.

A PATENT OWNER CAN PROTECT EVERY VALID RIGHT TO HIS INVENTION WITHOUT THREATS AGAINST USERS

If it be the desire of the patent owner to maintain his patent, common sense and common fairness demands that he stop infringement at the source, by proceedings against the manufacturer. The policy of cutting off the customers is dictated by a desire to shoot the independent in the back. It is the same motive that actuates the machine-gun gangster.

The provision suggested places the only limitation upon the patent owner, that he shall not threaten the public generally until he has established the validity of his threats.

The Code provision would not destroy any fair value of any patent. If a patent is valid and infringed, it might still be enforced even against a user or dealer, but to do so, the patentee must first play fair and show that his patent is valid and infringed.

THE GENERAL ELECTRIC COMPANY FOR PERSONAL ADVANTAGE HAS REPEATEDLY SPREAD FALSE AND MISLEADING STATEMENTS ABOUT INDEPENDENT LAMPS

The other code provision suggested as a substitute for a corresponding NEMA provision is:

"No employer shall defame a competitor by words or acts imputing to him dishonorable conduct, inability to perform contracts, questionable credit standing, or by disparagement of the grade or quality of his goods."

This clause is identical with the Clause XII (b) proposed by NEMA, except that the words "false or deceptive" have been omitted before the word "disparagement."

This clause would seem to require little argument.

As shown by the affidavits attached, the General Electric Company has repeatedly made false and misleading statements about competitors' goods which have very seriously damaged the independents as a whole, as well as the particular independents concerned.

To summarize some of these facts:

The General Electric Company sent out a report of the Better Business Bureau of Columbus (see Bernstein affidavit), which purported to show that lamps of the Sun-Glo Company were grossly inferior to General Electric lamps. This report was widely distributed and did great damage.

Digitized by Google

The General Electric Company does not now contend that the report represented the true facts and it clearly appears that it does not.

The Sun-Glo Lamp Company sued the General Electric Co. in Court and the defense of the General Electric Co. was that it, the General Electric Co., had been so gullible that it had swallowed the statement of the Better Business Bureau, apparently without investigation. (See extracts from records hereto attached.) The plea of gullibility is supported by the fact that in spite of the public disclosures by the Senate Committee and Senator Brookhart, which clearly showed that the "Reputable citizens" were but figureheads and that the Better Business Bureau itself was maintained to pander to stock jobbing, yet the General Electric Co. still represents them as an organization of reputable citizens, to prevent fraud.

Still it is difficult to believe the defense of gullibility in this case where the matter at issue was the testing of certain lamps about which the Better Business Bureau knew little or nothing, whereas the General Electric Company itself is equipped with the best of testing laboratories and lamp experts and has itself evolved rules of procedure necessary to give value to the results.

The General Electric Co. claims that the United States Bureau of Standards tested the lamps, but they do not say that that Bureau selected the method of testing or approved the conclusions. The tests were direct violations of the rules of procedure which the General Electric Co. had established. That bulletin expressly states that a test of six lamps or so would be more apt to be misleading than helpful, and yet the test upon which they based their contention of the Sun-Glo lamp was a test of five lamps which had apparently been sold as defective or seconds. The actual tests made were, therefore, of a kind on which the General Electric Company's own testing rules state no fair comparison can be based. (See affidavit of Mr. Bernstein.) The tests were inadequate, the conclusions unwarranted and contrary to fact and the pamphlet grossly misleading. The lamps of the Sun-Glo Manufacturing Co. are substantially equal to the best lamps made.

This Sun-Glo suit apparently taught the General Electric Co. caution, but not fair play.

The next attack was against International lamps. (See affidavit of Mr. Glasgow.) It purported to be based on tests, but here the tests were still more faulty. This statement was sent to all the important buyers of the Carolinas. The attack was vicious and false, and it was anonymous and without date.

In spite of its annymity, however, there can be no real doubt of its origin.

The document on its face is clearly a sales pamphlet in behalf of General Electric lamps. It is marked upon its title page:

"Actual Tests Made Comparing The Value of General Electric Mazda Lamps with non Mazda Lamps.

"The Results Speak For Themselves—BUY General Electric Mazda Always."

It is incredible that such a statement could have been so made and distributed except on behalf of the General Electric Co., and it will be remembered as brought out in *U. S.* v. *G. E.*, *supra*, the persons selling General Electric lamps are *direct agents*, as distinguished from mere jobbers. This agency system was adopted for the express purpose of enabling it to fix retail prices. Even if this statement was made by an agent, therefore, it can hardly absolve the General Electric Co.

Again the affidavit of Mr. Glasgow shows that Mr. Thomas of the Mill Supply Co., the local General Electric agent, "had taken up with him (Mr. Perry who made the tests) and he (Mr. Perry) authorized the distribution to all of his mills." If Mr. Thomas thus got permission to send it out, and it was in fact sent out, it is hard to believe it was not sent out by him.

Moreover, Mr. Glasgow sent broadcast a pamphlet copy of which is attached to his affidavit, carrying in the front page in huge red letters:

"A REPLY TO GENERAL ELECTRIC'S ANONYMOUS PROPAGANDA PAMPHLET ATTACKING INTERNATIONAL HYGRADE AND ALL NON MAZDA LAMPS."

This reply pamphlet clearly stated the facts above outlined and contained the proof showing the General Electric pamphlet to be false.

But there is no evidence we can find of *any denial* by General Electric Company that they send out the document, and no claim that the General Electric pamphlet was true.

They have gotten the full benefit of this libelous statement and have made no effort at reparation, correction, or retraction. On the contrary, the General Electric instead of making retraction or correction, dropped the matter of the

Digitized by Google

pamphlet and within sixty days brought suit against Mr. Glasgow, for patent infringement. The General Electric Co. well know that International Lamps are made by the lamp company of that name, and well know that Mr. Glasgow had no financial interest in the matter warranting a defense. Such procedure reminds one of the tactics of any other bully who will argue so long as he wins, but if the argument goes against him, he uses brass knuckles.

The third consecutive assault upon the independents was directed upon the Jewel Company. As shown by Mr. Herzberg's affidavit, a very similar statement was issued purporting to be based on tests made:

"JEWEL INCANDESCENT LAMPS"

"READINGS TAKEN BY OHIO STATE UNIVERSITY"

Then follows certain data with the conclusion:

"On the average, these lamps consume 38% more watts than that marked on the bulb and are 19% less efficient than lamps of standard make."

On investigation, the facts disclose:

1. The tests were not made by Ohio State University, which University knew nothing of them, the University states:

"You will be interested to know that the Ohio State University has never tested the lamps you mention. In fact the University does not undertake such work for outside concerns for any commercial purpose; furthermore, the University does not allow its name to be used in connection with any commercial venture of advertising or sales promotion.

"I find, however, that Dr. K. Y. Tang, who is a professor in this department, did some sort of testing on such lamps. He did this as a private consultant inasmuch as he is an Illumination Engineer and takes work on his own time, and the University has nothing to do with his tests or results as long as he or his clients do not use the name of the Ohio State University."

2. Mr. Tang, who made certain tests, made them on the understanding they would not be so used "as it was used" and he had *no evidence whether the lamps were Jewel Lamps or not*—in his own words:

"Last Spring I made some efficiency tests on 'Jewel' mushroom lamps. At the time of test, I was given the understanding that the data would not be used as it was used and, hence, did not check very closely whether these lamps were etched or stamped with the 'Jewel' brand on the bulb."

Every one of these three manufacturers have had tests made under conditions which are recognized as fair, and these tests show that all of the brands of lamps are of high quality, comparing favorably with any lamps made.

The attacks are thus shown to be false, damaging, and without excuse.

The meaning and purpose of the Code clause proposed are self evident. The libel laws without any code afford a certain measure of relief against such vicious attacks when and after the victim *proves* them false and *proves* actual damages. This by no means rectifies the evil—it takes so long to litigate the truth in a Court of law that the damages to the victim may be irreparable and the actual provable damages, even though in themselves serious, are so slight compared to the intangible damages which cannot be proved. The manufacturer loses possible customers, and also prospects that he hasn't even heard of. Orders are withheld or cancelled where no reason or motive are assigned.

In actual practice a manufacturer may be put out of business without hope of regaining his trade.

The Code provision makes the mere issuance of such a pamphlet unfair competition thereby eliminating the evil at its source.

These attacks on Independent Head Lamps affect all independents. The Glasgow pamphlet contained the phrase in large letters on the title page "comparing G. E. with *Non-Mazda Lamps*." That is not an attack alone on International lamps, but is a libel of all *non-Mazda Lamps*.

The Better Business Bureau pamphlet contained photographs of a number of lamps among which Sun-Glo lamps were included, with the clear inference that unless you brought Mazda lamps you were buying fraudulent lamps.

The Ohio State University Bulletin was headed "A Racket in Incandescent Lamps" and stated:

"Agents for various brands of so-called Mushroom lamps are making a door to door canvas with a product which is often inferior to lamps of recognized standard quality."

The rest of the pamphlet compares "Non G. E." lamps as though they were one class with "Standard" lamps by which they obviously mean their own lamps.

Digitized by Google

The general advertising of the General Electric Company distinguishes between General Electric lamps and "Liar" lamps, between General Electric lamps and leaky faucets, so that the public has been led to classify all non-G. E. lamps together. For this reason every independent is adversely affected by each libelous statement issued by the monopoly against any of them.

REFILLED LAMPS

This provision should not meet with opposition. Some concerns take old lamps, open up the glass, insert a new filament and again seal the lamp. Such a lamp is not a new lamp nor the equal of a new lamp but that fact is not apparent to the buyer. On this account it may be sold and it is sold to persons who believe it to be a new lamp. We do not believe it can be questioned that such lamps should be so marked as to let the buyer know what he is purchasing.

THE GENERAL ELECTRIC COMPANY HAVE CONCEALED CRITICAL INFORMATION IN FRAUD OF THE PUBLIC

The Patent Statute provides (section 4888):

"Before any inventor or discoverer shall receive a patent * * * he * * * shall file in the Patent Office a written description of the same and of the manner and process of making, constructing, compounding and using it *in such full, clear, concise and in the art of science to which it pertains or with which it is most nearly connected to make, construct, compound and use the same* and in case of a machine, he shall explain the principle thereof *and the best mode* in which he has contemplated applying that principle * * *."

Such a description has been a requirement from the inventor from the beginning of our patent law. The wording was adopted at a time when inventions were substantially independent of each other and inventions in a given field did not follow each other in rapid sequence.

The obligation upon the patent owner to surrender its monopoly after the patents expire carries with it the obligation in *good faith to surrender it fully and freely in the form in which it was enjoyed by it under the patent.* (See *Singer Mfg. Co.* v. *June, supra: Kendall* v. *Winsor, supra: Dr. Miles Medical Co.* v. *Park & Sons, supra; Pennock* v. *Dialogue* (27 U. S. 1); *Woodbridge* v. *U. S.* (263 U. S. 50).)

This complete surrender of the monopoly of which the disclosure is a part is the only consideration passing to the public for the grant. If the patent owner could avoid the disclosure and still get the grant he would be able to eat his cake and still have it. Tnis policy was emphatically condemned in *U. S.* v. *Woodbridge* (263 U. S. 54).

Patentees have frequently skated on pretty thin ice in this respect, and the defense has been raised in many suits.

We know of no company heretofore which has been so brazen or contemptuous as to admit this charge and even *claim it in Court*, except the General Electric Company in the Hofman suit.

THE GENERAL ELECTRIC SYSTEM OF PATENTS WITH A STRING ATTACHED

The excerpts from the record attached hereto show that when the General Electric Company originally granted the license under its 18 machine patents to the Hofman Company it gave also certain data, blue prints and instructions. At that time the machines were patented and the license contained a provision that this data was to be kept confidential. As to the nature of this data, the General Electric Company states:

"In order to enable the defendants to build for said licensees standard lamp making machinery substantially identical to the standard lamp making machinery manufactured by the General Electric for its own use, the complainant agreed in said contract to furnish the defendants drawings of said standard lamp making machinery.

"Paragraph 10. If the defendant had not been furnished with the drawings and blue prints of the General Co., above referred to, it would have been necessary for the defendants to expend very large amounts of money, time and effort to make detailed drawings and group assemblies before it could manufacture such lamp making machinery.

"Paragraph 11. Complainant further says that all of the blue prints, drawings and other data hereinbefore referred to were of strictly confidential nature and are closely guarded (kept under lock and key) with the greatest care by complainant."

Digitized by Google

Here we see the General Electric Company admitting its system of patents with a string attached. During the patent period, while the Courts will protect the monopoly this system gives every appearance of complying with the law, but when the patent expires the whole substance of the invention is retained by pulling on the string. The public has possession of the patent disclosure, but that disclosure is no good. The General Electric keeps the important part of the information " under lock and key."

In the early days, when the law was formed, it was assumed that the description contained in the patent would be enough to enable the public to take the monopoly at the expiration of the patent. Since that time our economic life has so changed that the best known method of working out the invention today may be completely superceded or discarded tomorrow, and it follows that a basic protection obtained upon a nebulous idea with a wholly impractical background may be supplemented by subsequent improvement and developments which alone make it of great value. Under such circumstances, the monopoly is obtained on a patent which describes a substantially useless invention, useless so far as the disclosure is concerned, but value is given to it by subsequent information to which the public may be strangers. The inventor is thus able to divorce the document which gives him the monopoly from the information which gives that monopoly value, and thus completely defeat the object of the patent law.

No better illustration of this principle could be given than that of the lamp industry. The basic patent for the tungsten lamp which protected that lamp from 1912 to 1929 was the Just & Hannamann patent. Incandescent lamps having filaments of platinum and of carbon were well known before 1890.

The validity of the Just & Hannamann patent is now no concern. It has been repeatedly sustained and it has now expired. Let that rest in peace.

We are, however, very much concerned with determining just what value the surrender of this monopoly is to the public. We have seen that the surrender is intended to be commensurate with the monopoly enjoyed by the patentees. It was to be a quid pro quo. The General Electric admit the surrender of the matter disclosed in the patent, but does their obligation end there? To answer this we must look at the situation as it was, to see what the patent discloses.

The suitability of a wire for a filament in an incandescent lamp is determined by its ability to stand up at high temperature and one of the foremost workers in the field predicted that the coming filament must therefore be made from one of the seven or eight metals whose melting point was higher than we were then able to measure, for there were no other possibilities. Among those high melting point metals were osmium, tantalum, molybdenum and tungsten. No one then knew how to determine the melting point of any of these and no one could tell until a filament was in fact made which would prove most suitable. Just & Hannamann had no greater knowledge than anyone else. They filed the application for a molybdenum filament and only included tungsten as a possible alternative because it was chemically closely related. The higher melting point of tungsten was not known not for several years and *it was not discovered by Just and Hannamann.*

The only difficulty of making lamps of these high-melting-point metals lay in the fact that these metals, including the metal tungsten, were intractable and no practical process for handling them was known, and so far as the record shows, no practical process was ever discovered by Just & Hannamann.

THE BASIC JUST & HANNAMANN PATENT LAID HEAVY TRIBUTE ON THE ART, BUT IN ITSELF IT GAVE THE WORLD NOTHING, IT TAUGHT THE WORLD NOTHING AND ITS SURRENDER ALONE WOULD SURRENDER NOTHING

Just & Hannamann filed that application shortly after the beginning of the century and the only credit which can be attributed to them is that they disclosed in an application in the United States Patent Office a theoretical process alleged to be for the manufacture of a molybdenum or tungsten filament and, therefore, in theory they were the first to enable the public to make such a lamp. We say in theory because they did not in fact disclose *any practical process or any process which has ever been useful to anyone, and they did not in fact enable anyone ever to make a lamp.*

The patent disclosed a large number of processes all but one of which are concededly inoperative. The one remaining process was sustained by the Court not on the ground that it was *operative,* for its operativeness was directly challenged by numerous witnesses, and it was supported only by the testimony of an expert on the permanent salaried staff of the General Electric Company. It

Digitized by Google

was sustained on the ground that the defendants had not clearly *proved* that it was *inoperative*. It was, in fact, but a theoretical guess and it was a bad guess since it placed molybdenum above tungsten. It was made without practical knowledge or experience behind it.

If the patentees had been limited to what they added to the store of human knowledge, that is their alleged processes, *they would have received no reward*, but the patent in the hands of General Electric's attorneys, did not claim the process only: the patent claimed every kind of tungsten filament *itself* even when made by practical operative processes discovered by others; in fact by whatever process manufactured.

It was a typical example of a practice all too frequent, of seeking a monopoly based on guess work. If the guess is bad it does not cost the guesser anything but if it turns out to have any possibilities of even doubtful value it at once gives the guesser a stranglehold on all the real development work of the industry.

It was a deliberate scheme to stand at the crossroads and levy tollon all successful rivals.

The process disclosed by the patentee was so useless that no lamp has ever been made in accordance with it. Certain experimental lamps were made by the General Electric Company for the purpose of litigation long years after the alleged invention, and long after commercial lamps had been made by practical processes. These were made at great expense or almost regardless of expense, and when made there was grave doubt as to whether they were made in accordance with the processes disclosed and grave doubt as to whether they constituted lamps made in accordance with the patent.

It was concerning this patent that the Head of the Research Department of the General Electric Company stated:

From Dr. Whitney's testimony:

Q. "So far as your knowledge goes as electric company research director, you do not know and cannot state that any such information or experience, useful and used in the commercial manufacture of tungsten filaments and tungsten lamps are so acquired from Just & Hannamann or their representatives?"

A. "From my knowledge I cannot.

Q. "So far as you know, did the General Electric ever utilize for any purpose any practical or scientific knowledge gained from Just & Hannamann as is distinguished from other sources, insofar as relates to the manufacture of tungsten filaments or lamps." (G. E. v. Mallory Record Exhibit.)

A. "I do not know of any."

The General Electric Company owned this patent for several years; but when they determined to manufacture tungsten lamps on a commercial scale, the process of the patent was so ineffective that it taught them nothing of how to make such lamps. When practical lamp manufacture was intended, they were compelled to seek their information from other sources.

Auer Von Welsbach of Germany was the first person ever practically to make tungsten lamps—

Testimony of Howell:

"The Auer Company were the first company in the world to successfully make tungsten filament lamps. They made and sold them. They were using them commercially in the Spring of 1906 before anybody else did. * * * They had no patents * * * We did get their factory processes of manufacture and learned from them to make pressed filament tungsten lamps". (G. E. v. Mallory Record Exhibit.)

and before the General Electric Company succeeded in manufacturing them commercially, it sent experts to Germany to learn the art from him and then brought one of his experts to the United States and finally imported his machinery. Even then the lamps made were of relatively poor quality and the General Electric Company was compelled to spend large sums for research and development work in order to make a practical commercial lamp on which its success depended.

The point of this argument lies here: The surrender of the processes of Just & Hannamann surrenders nothing of value. The shell disclosed to the public by the expiration of the Just & Hannamann patent was completely empty and if the General Electric Company had depended upon the knowledge disclosed in that patent, its monopoly would not have been worth the paper the patent was printed upon, yet now that that patent has expired, it is endeavoring, insofar as possible, to surrender only that useless information of Just & Hannamann and to retain secret to itself all the practical information upon which the successful lamp depends.

Digitized by Google

In this connection it should be remembered that the Tungsten lamp came from Europe and Just & Hannamann were not the ones who invented the lamp first in Europe. But by a freak of our patent law an applicant for patent in the United States *from abroad* is not anticipated by prior use abroad, no matter how extensive unless that first inventor filed an application for patent or published his work.

We are reminded of the statement of the Supreme Court in Atlantic Works v. Brady, 107 U. S. 199.

"Such an indiscriminate creation of exclusive privileges tends rather to obstruct than to stimulate invention. It creates a class of speculative schemers who make it their business—to watch the advancing wave of improvement and gather its foam in the form of patented monopolies which enable them to lay a heavy tax upon the industry of the country without contributing anything to the real advancement of the arts.

"It embarrasses the honest pursuit of business with fear and apprehension of concealed liens and unknown liabilities to lawsuits and vexatious accountings for profits made in good faith."

We think it highly important to remember that the value of the Just & Hannamann monopoly lay, not at all in what the patentees disclosed to the world, but solely upon the work of subsequent and other inventors which they monopolized through it.

A situation such as this arises because the change in our industrial system and the capacity of patent owners has distorted the patent law from its true meaning with the many collective legislations.

Where a patent describes an invention completely in the form the patentee uses it under his monopoly, the public may at once enter into the monopoly at the expiration of the patent. This was true with practically all the early patents. In modern times, however, where patent after patent is taken out upon different phases of the same device, a new situation arises which the patent law did not contemplate.

A patent is intended to give a monopoly of a single invention for a limited time, and after such it is a property right; but there is no more legal justification for a monopoly of patents than for a monopoly of other commodities. Unless this principle is clearly understood and rigidly enforced, the patent ceases to be beneficial and becomes a menace.

The public has not been niggardly in its reward to these inventors and their assignees, and it would be difficult to find a patent monopoly in the entire world that has been more lavishly profitable during its life. The efforts of the General Electric Company, therefore, to maintain this monopoly after its legal term has expired, are not only base ingratitude for favors received, but a direct attempt to cheat the public of the purchase price after it has enjoyed the purchased article to the full. It is a "taking advantage of the patent upon the condition that at its termination the monopoly should cease and yet when the end was reached, disregard the dedication and practically perpetuate indefinitely the exclusive right", as expressly condemned in the Singer Case, supra.

It savors of the old bowery song:

"I went into an auction store,
I will never go there any more.
The Auctioneer he showed some socks,
'Now', said he, 'who'll put up for the box?'
Someone said 'Two Dollars', I paid three,
He *emptied the box*, and he gave it to me.
'I sold you the box, not the socks', said he,
And I'll never go there any more."

The General Electric Company following this noble precedent, have emptied the box before delivering it to the public.

XIII. The Answer of the General Electric Is Ambidexterous and Evasive

There are contradictions in the General Electric's position which we ourselves cannot explain in any reasonable way. We think it useful to call attention to these. If they of themselves call for deductions, the deductions will not be ours.

The General Electric have endeavored to obscrure the real issue by distorting the question.

The answer formally filed with the NRA on behalf of the General Electric says:

"The substance of the present petition appears to be that there should be a code which would order the General Electric to place its patents at the disposal

Digitized by Google

of the petitioners (its competitors) and to furnish them with lamp making machinery and with the materials from which lamps are fabricated."

There is no resemblance that we can discover between this "substance" and any request we have made. We contend that certain acts have occurred which as a matter of law have given certain things to the public. The General Electric Company do not deny the acts and do not seriously challenge the law. By what sense of fairness do they paraphrase our request in such a manner as to omit the whole point at issue?

We have never suggested that *all* patents were dedicated to the public, but have left the decision to the Code Authority. Evidently either the paraphrase of the General Electric is grossly deceptive or it concedes that all the patents have been illegally used. We have no present reason to believe the latter, but we can see no fair and honorable reason and no possibility of honest mistake in a summary so misleading on so important a point.

The same type of gross misleading occurs in all the résumés made by the General Electric of the various points we have requested. We will not prolong this brief by taking up this point on every code provision, since one is illustrative of all. The paraphrase of our request 1–A is as follows:

"To require the General Electric Company and the manufacturers licensed under its patents to place at the disposal of Petitioners the materials, elements, and parts from which lamps are fabricated. In other words, to compel the General Electric to deal with the Petitioners."

This paraphrase leaves out the following limitation which qualifies the demand and forms the entire basis for it. It was worded *at that time* in the following language:

"1. No person or company, who has had any interest in any patent, shall, after the expiration of said patent, *with the intent* or *with the effect* wholly or in part to *prolong the monopoly secured by said patent*, or to prevent or interfere with or handicap the public in the free exercise of said invention in every form and to the full extent that said monopoly was exercised by him during the life of the patent."

There are questions for legitimate difference of opinion in this matter, such, for example, as to the limits of the monopoly the General Electric is bound to surrender, but the General Electric does not raise any of these; instead it tries to obscure the issue by raising false issues that we are attacking property rights.

THE GENERAL ELECTRIC HAS DISTORTED THE FACTS

We have called attention to the fact that the General Electric's formal statement before the NRA states they "have no contracts to prevent independent lamp manufacturers from getting unpatented machinery", whereas in the Hoffman case they asked a State Judge having no jurisdiction over patents to restrain the Hoffman Company from "making any machinery" of certain types. This conflict is no mere matter of words, it is a direct and false or misleading denial by the General Electric of a major point at issue.

We have already shown that the General Electric answer is misleading in its claim that the tipless lamp was the result of their research and that the frosted lamp came from their laboratories. Neither of these misrepresentations could be an innocent error. Both matters are well known to them. These statements are only parts of the "build-up" to create the impression, wholly unwarranted by the facts, that independents are trying to ride on the research work of the General Electric. On the contrary, it is the General Electric that for years has levied tribute on an art which was the creation of others.

MR. SWOPE'S LETTER

When the General Electric President conferred with the Independents, Mr. Swope listened courteously to our position and subsequently wrote us a letter, copy of which is in the record. This letter is a denial of any intention to remedy any of these evils. More than half of the letter is taken up by praise of the General Electric Research laboratories with the inference that progress had come only from them and that outsiders were attempting to reap where they did not sow. The General Electric Publicity Department are responsible for this impression. They have christened the Research laboratories as the "House of Magic", and have built up its prestige by heavy advertising.

To an attorney, the effect of such an action by a company dependent on patents presents sinister possibilities, and apprehension is justified by the facts. In the case of *General Electric* v. *Mallory* (294 Fed. 562), nearly a score of exhibits were

Digitized by Google

introduced to build up this prestige and to build up the prestige of one of the patentees in that suit who, on the permanent salaried staff of the General Electric, acted as a patent expert before the court.

No such "build-up" was available to the defendants.

In view of these facts with their possibilities of perverting justice, it is important to see what these laboratories have brought forth.

Remembering that 90% of the General Electric's profits is from the lamp manufacture, we may well measure the importance of their work by their contribution to lamp manufacture. What then are the important steps forward in lamp manufacture?

These facts come from the Court records of *General Electric* v. *Mallory*, supra, and *General Electric* v. *Eisler*, supra.

The origin of the incandescent lamp was Grove in England.

The origin of the Carbon lamp was Swan in England.

The origin of the idea of a high melting point metal (osmium, tungsten, or the like) was Moisant in France.

The first actual osmium lamp was from Auer Gesellshaft in Germany.

The first actual Tantalum lamp was from Semens & Halske of Germany.

The first use of a neutral gas as a filling was from Grove in England.

The first tipless lamp was from Jaeger, a German in the United States.

Not one of these inventions came from the House of Magic, and nothing that has come from that House of Magic, so far as the lamp industry is concerned, ranks with any of them.

All of these were the work of "outsiders", and yet all but one or two of these inventions were used by the General Electric Company, and many of them by virtue of the expiration of other peoples' patents.

It hardly becomes the General Electric Company to lay too much stress on the origin of the development of the electric lamp, or to base its case on its own research contributions.

Perhaps we should rather apply the term House of Magic to the General Electric publicity department.

SUMMARY

We find no denial, therefore, that the General Electric are using their patents to prolong the lamp monopolies, although no lamp patents exist today; no denial that they have libeled independents; no denial that they have deliberately tried to drive competitors from business by threats against customers; no denial that the monopoly they now maintain by these methods is the same monopoly they maintained under the patents.

What is their defense?

Practically none. Their attitude was most clearly shown at the hearing toward the manufacturers of Christmas tree lighting outfits, and stripped of its camouflage it amounts to this: The lamp business is their own personal possession, even in those fields where they have a one hundred percent monopoly, and they intend to keep it so. They have no obligation to serve the public impartially or without discrimination.

They fail to appreciate that the right to be served fairly is a paramount right of society.

We believe that we have shown that the General Electric Company and its licensees are maintaining an illegal monopoly in electric lamps of unusually dominant proportions, being now about 93% of all of the domestic manufacture.

This monopoly has proved so profitable that substantially all of the profits of that corporation (about 90%) came from it. This would permit that corporation to undermine all independent manufacture in all other electrical fields, for even if they determined to sell their other products at cost to keep out competitors it would have but slight effect upon the profits of the General Electric Company.

The acts of the General Electric Company which have been used to maintain this monopoly have been illegal and unfair. The plea that this monopoly is justified by patents is wholly without foundation, and should meet the same treatment that the same plea received in the Sanitary Manufacturing Company case. The bringing in of the Patent Law into this question as a justification is a smoke screen to protect an illegal monopoly.

Every code provision is within some degree a curtailment of "rights" formerly exercised: a curtailment for the public good. Where the performance of the Recovery Act requires it is intended that such practices or "rights" shall be curtailed. The making of unfair contracts, the unfair coercion of a competitor or the unfair bribing of a competitor's employees, stand on no different footing

Digitized by Google

than the unfair use of any other propriety or "right." There is nothing sacrosanct in patents which makes them override the law or places any patent owner above the law. A patent gives him no rights whatsoever except the legal monopolization of the particular thing claimed within statutory limits.

We believe we have therefore shown that the express requirement of the Recovery Act is that it shall not permit monopolies or monopolistic practices, and especially since the Anti-Trust Laws are set aside, requires that the Code itself shall contain sufficient provision to prevent monopoly. Any code, therefore, which does not contain such provisions, has no legal standing, and the President has no legal authority for approving it.

The NEMA Code contains no such provisions, and hence is not a proper code under the law.

The increased costs to which manufacturers are subjected under the New Deal make the unfair practices of the General Electric Company more disastrous. We do not complain that the increased costs are unduly burdensome because *these are for the public good*, but we do complain that because of these increased costs the General Electric's unfair practices become an intolerable burden, and *these practices are contrary to the public welfare.*

The General Electric Company, controlling 93% of the industry, can completely control the retail prices. Subjecting the independents further to the harassment, handicaps, and threats that they have heretofore subjected them, will force the independents out of business in view of the increased costs of the NEMA code, unless these practices are ameliorated. Since, therefore, the increased costs are imposed by the NEMA Code, the NEMA Code itself will produce monopoly if these practices are not remedied.

The elimination of situations of this kind was one of the clear and evident purposes of the passage of the Recovery Act. This is a clear situation of monopoly by unfair practices, and if this situation is not remedied it is a travesty to speak of a code of fair competition, and the NRA have not performed the duties which the statutes have placed upon them.

Wherefore, we believe that it is the duty of the NRA to revise the NEMA Code, or in the alternative to provide a special code, to prohibit the illegal use of patents to produce monopolies not intended by the patents and to prohibit the monopolistic practices hereinbefore outlined.

WILLIS B. RICE, *Counsel.*

EXTRACTS FROM THE RECORD IN THE CASE OF GENERAL ELECTRIC COMPANY VS. HOFMANN MANUFACTUING CO. IN COURT OF CHANCERY OF NEW JERSEY

QUOTATIONS FROM THE ORIGINAL AGREEMENT OF APRIL 26, 1924, ATTACHED TO THE BILL AS AN EXHIBIT

"and Whereas the Hofmann Company desires to obtain a license under said U. S. patents to manufacture in the United States patented lamp making machinery and appliances embodying the inventions of said patents, and to supply said domestic licensees with said patented lamp making machinery and appliances for use in the manufacture of tungsten lamps. * * * Now, Therefore, * * * the General Electric Company hereby grants to the Hofmann Company under the U. S. patents listed in the annexed Schedule B and such other U. S. patents as may from time to time be added to said Schedule by the General Electric Company subject to the provisions, terms, and limits herein contained * * * a free non-exclusive * * * license without royalty to make lamp making machinery and appliances embodying the inventions of any of the said U. S. Patents * * * or any invention on which the General Electric has made application for U. S. Patent, and to sell said lamp making machinery and appliances to said domestic licensees of the General Electric listed in Schedule A, but only for their own use in the manufacture and refilling of tungsten lamps within the U. S. and for no other purpose.

"The Hofmann Company is not licensed to sell licensed machinery to purchasers * * * other than those who are listed in Schedule A at the time the order for said machinery is received * * *, it being the intention of the parties hereto that it shall be publicly known that the only purpose in the granting of this license is to afford said domestic licensees an opportunity to obtain licensed machinery for use in making lamps in accordance with their license.

"In order that the Hofmann Company may be in a position to build for any licensee listed in Schedule A standard licensed lamp making machinery, which

Digitized by Google

said licensee is entitled to under its license and which shall be similar to standard licensed machinery manufactured by the General Electric Company, and in regular use in its factories in the commercial production of tungsten lamps, the General Electric will * * * loan to the Hofmann Company drawings of its standard licensed machinery.

"All drawings, blue prints, and written instructions, if any * * * shall remain the property of the General Electric Company, and be returned to it upon demand. (The Hofmann Company agree) to take and cause to be taken all reasonable care to insure that said drawings and said property shall be kept confidential. * * *"

LIST OF PATENTS UNDER WHICH LICENSE WAS GIVEN

928670	1010914	1220836	1423957
955442	1011523	1306643	1453594
973625	1013124	1326121	1453595
980767	1119642	1423956	1475192
966936	1128120		

(The patents 1423956 and 7, and 1453594 are Mitchell & White patents.)

G. E. v. HOFMANN

EXTRACTS FORM THE BILL OF COMPLAINT ITSELF

Paragraph 5: The business of the incandescent lamp department of the General Electric is the manufacture and sale of incandescent lamps. Upwards of millions of dollars have been expended by said incandescent lamp department in the development of new and improved machinery and equipment for the manufacture of incandescent lamps, all of which was done for the primary purpose of improving the quality of incandescent lamps made and sold by the General Electric and in reducing the cost of their manufacture. It was not done for the purpose of engaging in the business of manufacturing for sale of lamp machinery.

Paragraph 7: The new and improved lamp making machinery developed by the incandescent lamp department from time to time was not intended for the use of other lamp manufacturers. Complainant decided to make an arrangement whereby its licensees could have a source of supply where they could purchase lamp making equipment substantially identical with that used by the General Electric, said source of supply to be in addition to the one theretofore provided.

Paragraph 8: For the purpose stated in Paragraph 7, a written contract was entered into on April 26, 1926 * * * in which the defendant, the Hofmann Company * * * was licensed to manufacture and sell only to specific domestic lamp licensees of the General Electric Company, the lamp making machinery and equipment heretofore described.

In order to enable the defendants to build for said licensees standard lamp making machinery substantially identical to the standard lamp making machinery manufactured by the General Electric for its own use, the complainant agreed in said contract to furnish to defendants drawings of said standard lamp making machinery.

Paragraph 10: If the defendant had not been furnished with the drawings and blue prints of the General Electric Company above referred to, it would have been necessary for the defendants to expend very large amounts of money, time, and effort to make detailed drawings and group assemblies before it could manufacture such lamp making machinery.

Paragraph 11: Complainant further says that all of the blue prints, drawings, and other data hereinbefore referred to were of strictly confidential nature and are closely guarded (kept under lock and key) with the greatest care by complainant.

Paragraph 16: This agreement was terminated February 4, 1930.

Paragraph 35: Subsequent to the date when they were no longer licensed or authorized by the complainant to manufacture or offer for sale electric lamp making machinery or parts therefor, of the General Electric, National, or Edison types, said Alfred Hofmann and Company did manufacture and sell in a sum exceeding $200,000, electric lamp making machinery, appliances, and parts thereof of the General Electric, National, and Edison types.

Digitized by Google

G. E. v. HOFMANN

EXTRACTS FROM THE AGREEMENT OF FEBRUARY 24TH, 1930, CANCELLING THE FORMER AGREEMENT—ATTACHED TO BILL OF COMPLAINT AS EXHIBIT

The consideration is the payment by the General Electric Company to the Hofmann Company of $65,000 in cash. The companies agree completely to cancel the former agreement and any claims for damages arising out of it or out of its breach by either party, completely and absolutely.

The Hofmann Company agrees to return all drawings and blue prints but then follows this paragraph:

"The Hofmann Company has on hand certain patterns which it has made up at its own expense from the blue prints and other information furnished to it by the General Electric, which said patterns are capable of use by the Hofmann Company in the manufacture of machinery other than lamp making machinery covered by the patents of the General Electric, and the Hofmann Company agrees that no license is to be implied to it under any patent of the General Electric Company by reason of its retention of said patterns."

Quotation from the Motion for Preliminary Injunction:

"Wherefore, Petitioner respectfully prays that this Honorable Court will make an order directing the defendants to show cause why they should not be restrained from making or manufacturing any machinery of the National, Edison, or General Electric types."

From Mr. Walsheim's brief on Preliminary Injunction:

"Alfred Hofmann commenced making lamp machinery in 1912 and put out a complete line of automatic lamp making machinery prior to 1924. Hofmann had designed, made, and sold to the General Electric Company in 1920, $25,000 worth of lamp making machinery together with working drawings of some of this machinery and that machinery was adopted and used by the General Electric Company. During 1912 and 1914 Hofmann had frequently repaired and reconditioned lamp making machinery manufactured by the General Electric and prior to 1924 he had become fully familiar with the incandescent lamp making machinery manufactured and used by the General Electric Company.

EXTRACTS FROM THE RECORD OF GENERAL ELECTRIC COMPANY *vs.* P. R. MALLORY (294 FED. 562) SOUTHERN DISTRICT, NEW YORK

From the plaintiff's reply in a brief on a motion for preliminary injunction:

"If the intelligence, learning, skill, or moral character of Just & Hannamann were in issue of this suit, doubtless some of the material the defendant has brought together would be interesting (page 9) * * *. Where Just & Hannamann signed anything that an incompetent patent solicitor put before them, and of the fact that the Austrian patent solicitor was stupid, defendant furnishes ample proof, or whether they were subject to fits of temporary aboration, we do not know, but we do know that no such palpable absurd statements as that referred to, no matter who made them, can alter the facts, which facts the Court has already carefully and authoritatively found."

The statements referred to were made under oath by Just & Hannamann at a time when the General Electric owned their application.

From testimony of Dr. Whitney, Head of Research Department of General Electric:

Q. "So far as your knowledge goes as electric company, you do not know and cannot state that any such information or experience, useful and used in the commercial manufacture of tungsten filaments and tungsten lamps, was so acquired from Just & Hannamann or their representatives?

A. "From my knowledge I cannot.

Q. "So far as you know, did the General Electric ever utilize for any purpose any practical or scientific knowledge gained from Just & Hannamann as is distinguished from other sources, insofar as relates to the manufacture of tungsten filaments or lamps?

A. "I do not know of any."

From testimony of Mr. Howell, Head of Lamp Production Department of the General Electric Co.:

"The Auer Company were the first company in the world to successfully make tungsten-filament lamps. They made and sold them. They were using them commercially in the Spring of 1906 before anybody else did. * * * They had no patents * * *. We did get their factory processes of manufacture and learned from them to make pressed filament tungsten lamps. * * * The

Digitized by Google

nitrogen lamp should always be used shaded from the direct vision (these were concentrated filament lamps)."

Howell states that many details were necessary to make tungsten lamps that had to be worked out in the factory.

Siemens & Halske were making drawn filament tantalum in 1906. The General Electric laboratories were founded in 1900. Dr. Fink states, relative to the part about 1906 and 1907, "practically all our work was commercially adoption. If there was any purely scientific investigation going on at that time I did not know of it."

The following is an extract from the record of a letter Dr. Whitney wrote on September 3, 1904:

"In 1903 we were led to the conclusion that an element should, in general, be preferred to the compounds for filament materials. * * * There were then perhaps nine of these (elements) which, because of their other properties, might make useful filaments. * * * Tantanium, vanadium, zirconium, molybdenum, tantalum, tungsten, thorium, and uranium. * * * We seem by our own knowledge to be forced to consider tantalum and tungsten as the most promising of all metallic elements. No one knows the melting point of either of them."

There were 17 exhibits in the Mallory suit of publicity laudatory of the General Electric Company.

BEECH-NUT PACKING CO.,
Canajoharie, N. Y., February 26, 1936.

Hon. WILLIAM I. SIROVICH,
Chairman, Committee on Patents, House of Representatives,
Fifth Avenue Hotel, 24 Fifth Avenue, New York, N. Y.

DEAR SIR: Referring to our letter to you of December 3, we are pleased to now be able to furnish the information requested in your letter of November 12.

We are not at the present time, and so far as we are able to recall have never been, a party to any cross-licensing or patent-pooling agreements of any kind.

We enclose what we believe to be a complete list of all letters patent of the United States which are owned by Beech-Nut Packing Co.

The patents marked with an asterisk (*) on the list before the patent number are those that we are using at the present time. Substantially all of the other patents, we believe, we have used at some time. The best reason we can give for not using those other patents at the present time is that the subject matters have been superseded by improvements, or for other reasons present conditions in our business do not warrant the use of the subject matters of the patents.

Referring to paragraph 8 of your letter, the inventors of the subject matters of most of the patents have been, or are, employees of Beech-Nut Packing Co., and the inventions were made in the course of their employment. The employees in most instances make out-and-out assignments of the inventions and resulting patents to Beech-Nut Packing Co.

In the case of the patents marked with a double asterisk (**) before the name of the inventor on the list, the inventors are still employed by Beech-Nut Packing Co.

In the case of the patents marked with a triple asterisk (***) before the name of the inventor on the list, the inventors were employed by Beech-Nut Packing Co. at the time of filing of the patent applications, but they have since left our employ or have retired or are deceased.

In the case of the patents marked with a quadruple asterisk (****) before the name of the inventor, the inventions were developed outside of our organization and have been purchased by us.

Referring to paragraph 3 of your letter, we enclose copies of incorporation papers as follows:

1. Bylaws of Beech-Nut Packing Co.
2. Copy of certificate of incorporation.
3. Copy of amendment to certificate.
4. Certificate of increase of capital stock.
5. Certificate of increase of capital stock of Beech-Nut Packing Co.
6. Certificate authorizing preferred stock and the classification of stock of Beech-Nut Packing Co.
7. Certificate to increase the number of directors of Beech-Nut Packing Co.
8. Certificate to increase the number of directors of Beech-Nut Packing Co.
9. Certificate on increase of capital stock.

Digitized by Google

10. Certificate of increase of capital stock of Beech-Nut Packing Co.
11. Certificate of change in par value of shares of the common stock of Beech-Nut Packing Co.
12. Certificate of increase of authorized common stock and increase in number of shares of common stock.
13. Certificate of reduction of capital stock by reduction in the number of its shares of preferred stock.
14. Certificate of increase of capital stock and number of shares of Beech-Nut Packing Co.

We have carefully considered paragraph 12 of your letter but are unable to suggest any amendments to existing patent laws of the United States. So far as we are concerned, we have the greatest respect for the patent laws and believe that they in their present form are of great benefit to the country as a whole and far superior to the patent laws of any foreign country.

If we can be of further assistance, please advise.

Respectfully yours,

BEECH-NUT PACKING CO.,
F. E. BARBOUR, *Vice President.*

FE:S

Letters patent of the United States owned by Beech-Nut Packing Co.

Patent no.	Inventors	Date issued	Titles
*1291821	***Harry P. Forte	Jan. 21, 1919	Tablet Stacking Machines.
1346257	**Clarence N. Robinson	July 13, 1920	Hermetic Closures for Receptacles.
*1369159	***W. A. Beatty	Feb. 22, 1921	Moisture Proof Packages.
1402136	***.....do	Jan. 3, 1922	Process for Manufacture of Catsup.
1406252	****M. K. Weill and ***M. L. Cornell.	Feb. 14, 1922	Methods of and Apparatus for Separating Metal from Paper.
1415782	****Henry P. Brace	May 9, 1922	Improvement in Display Stands.
1418271	***W. A. Beatty	June 6, 1922	Treatment of Rubber.
1523870	***Harry P. Forte	Jan. 20, 1925	Candy Packages.
1526039	**W. C. Arkell and ***Marion G. Masten.	Feb. 10, 1925	Chewing Gum and Methods of Making Same.
1532831	***Marion G. Masten	Apr. 7, 1935	Preserving and Packing of Flavors.
1539400	***Charles W. Neusbaum	May 26, 1925	Wrapping and Sealing Machines.
*1573120	****Benjamin S. Penley	Feb. 16, 1926	Sheet Producing and Stacking Apparatus.
*1594191	***W. A. Beatty	July 27, 1926	Jelutong Products and Methods of Making the Same.
1615542	***E. P. Gros	Jan. 25, 1927	Coffee Percolator.
*1630763	****Paul H. Raymer	May 31, 1927	Useful Improvements in Chewing Gum.
1657272	***Charles W. Neusbaum	Jan. 24, 1928	Containers for Preserving Foods.
1694897	***W. B. C. Washburn	Dec. 11, 1928	Distributing Devices.
1664981	***Donald W. Howe, **Earl R. Pickett, **Douglas M. McBean.	Apr. 3, 1928	Method of Cleaning Chicle and Similar Gums.
1674435	***Marston L. Hamlin	June 19, 1928	Jelutong Products and Methods of Producing Same.
*1700303	***Theodore Bauer	Jan. 29, 1929	Means for and Methods of Forming Gum.
1753957	***W. B. C. Washburn	Apr. 8, 1930	Distributing Devices.
1771126	****Clarence H. Kelsea	July 22, 1930	Display Stands.
*1874973	**Ed. J. Hambrecht	Aug. 30, 1932	Candy Conditioning Apparatus.
1890063	**Douglas M. McBean	Dec. 6, 1932	Testing Apparatus and Methods.
*1918329	**John Gore	July 18, 1933	Display Stands.
*1980815	**Douglas M. McBean	Nov. 13, 1934	Article Sorting Machine.
*1985211	**.....do	Dec. 18, 1934	Delivery Mechanism for Printing Machines.
*1985832	**Albert Kneaskern	Dec. 25, 1934	Gum Wrapping Machines.
[1] 64997	**William H. Maichle	June 24, 1924	For a Display Stand for Confections.
[1] 66030	**.....do	Nov. 18, 1924	Do.
[1] 74877	***Jos. W. Esworthy	Apr. 10, 1928	Vending Machine Casing.

* indicates patents that we are using at the present time.
** indicates that inventors are still employed by us.
*** indicates that inventors were employed by us at time of filing of patent applications but have since left our employ, or have retired, or are deceased.
**** indicates inventions which were developed outside of our organization and have been purchased by us.
[1] Design.

BYLAWS OF BEECH-NUT PACKING CO.

ARTICLE I. DIRECTORS

1. Directors of the company shall be elected by ballot at the annual meeting of stockholders of the corporation, or at any special meeting of stockholders called for that purpose, and shall be chosen by a plurality of the votes, either in person or by proxy, of the stockholders entitled to vote at such meeting.

Digitized by Google

2. Vacancies in the board of directors occurring during the year may be filled by a majority vote of the remaining members of the board, at any regular meeting of the board or at any special meeting called for the purpose.

3. The board of directors shall hold regular meetings at the office of the company in Canajoharie, N. Y., on the third Thursday of each month, at 10 a. m. Special meetings may also be called by the president or any two of the directors and held upon 1 day's notice.

4. A majority of the members of the board, at any time in office, shall constitute a quorum for the transaction of business.

ARTICLE II. OFFICERS

1. The officers of the company shall be a president, one or more vice presidents, secretary, assistant secretary, treasurer, and assistant treasurer, all of whom shall be elected by the board of directors at the meeting to be held subsequent to the annual meeting of the stockhlders. The president, vice presidents, secretary, and treasurer shall be directors of the company, but the assistant secretary and assistant treasurer need not be either directors or stockholders.

2. The president shall preside at all meetings of the board of directors and shall act as chairman at the meetings of stockholders. He shall, under the control and supervision of the directors, have general management of the company's affairs, and shall generally superintend the business of the company.

3. The vice president, first elected, in the absence or incapacity of the president, shall have and may exercise the powers and duties of the president.

4. The treasurer shall have the custody of and be responsible for the moneys of the corporation, subject always to the control and supervision of the board of directors. He shall deposit all funds of the company in such banks or trust companies as the directors may designate. He shall keep his bank accounts in the name of the company. He shall exhibit his books and accounts to the directors upon application at the office of the company in Canajoharie, N. Y. At each each annual meeting of the stockholders he shall present a full statement of the financial affairs of the company. He shall exhibit his books and accounts, whenever required by the president, to such auditors as may be in the employ of the company and shall furnish to such auditors the aid and assistance that will enable them to properly audit and state the financial affairs of the company. He shall generally perform all the duties appertaining to his office.

5. The secretary shall have the custody of and be responsible for the papers books, and records of the corporation, subject always to the control and supervision of the board of directors. He shall keep a record, in proper books provided for the purpose, of all meetings and proceedings of the board of directors and also the minutes of all stockholders' meetings. He shall record the votes of the corporation and shall keep such other records and shall attend to such correspondence of the company as the board of directors shall direct. He shall notify the directors and stockholders of their respective meetings, and shall in general do and perform all the duties appertaining to his office.

6. The assistant treasurer, in the absence or incapacity of the treasurer, shall have and may exercise the powers and duties of the treasurer. He shall have and perform such other duties as may be from time to time imposed upon him by the board of directors.

7. The assistant secretary, in the absence or incapacity of the secretary, shall have and may exercise the powers and duties of the secretary. He shall have and perform such other duties as may be from time to time imposed upon him by the board of directors.

8. Vacancies among the officers of the company occurring during the year shall be filled by a majority vote of the whole number of directors in office, at any regular meeting of the board, or at any special meeting called for the purpose.

9. No officer, as such, shall have power to sign on behalf of the company any check, draft, or note unless he be authorized thereto by resolution of the board of directors.

ARTICLE III. MEETINGS

1. The annual meeting of the stockholders of the company shall be held at the office of the company in Canajoharie, N. Y., on the first Tuesday after the 10th of March of each year, at 11 in the forenoon. The secretary or assistant secretary shall send through the post office, at least 10 days before such meeting, a notice thereof addressed to each stockholder entitled to vote at such meeting at his address as it appears upon the books of the corporation. No publication of such notice shall be required.

Digitized by Google

2. Special meetings of the stockholders may be called by the president, or a majority of the board of directors, upon 10 days' notice to each stockholder of record entitled to vote upon the question or proposition to be submitted at such meeting, such notice to contain a statement of the business to be transacted at such meeting, and shall be served personally or sent through the post office addressed to each stockholder so entitled to vote at his address as it appears upon the books of the corporation, and no publication shall be required except publication of notice be required by statute. No business other than that specified in the call for the meeting shall be transacted at any such special meeting.

3. At all meetings of the stockholders, except as may be otherwise provided by law, it shall be necessary that stockholders representing, in person or by proxy, a majority of the issued common capital stock shall be present to constitute a quorum.

4. The board of directors may close the transfer books in their discretion for a period not exceeding 30 days preceding any meeting, annual or special, of the stockholders, or the day appointed for the payment of a dividend.

ARTICLE IV. STOCK

1. All certificates of stock shall be signed by the president or a vice president, and by the treasurer or secretary, and the seal of the company shall be affixed thereto; provided, however, that if such certificates are countersigned by a transfer agent and by a registrar the signatures of said officers and the seal of the corporation upon such certificate may be facsimiles, engraved or printed thereon.

2. Transfers of shares of stock shall be made upon the books of the company by the holder in person or by attorney duly authorized and on surrender of the certificate or certificates for such shares.

ARTICLE V. SEAL

1. The seal of the corporation shall be circular in form, with the words "Beech-Nut Packing Co." on the circumference and the words and figures "Incorporated 1899" in the center.

ARTICLE VI. INSPECTORS OF ELECTION

1. Two inspectors of election shall be chosen at each annual meeting of the stockholders of the company to serve for the ensuing year. If any inspector shall refuse to serve or shall not be present at the time his services are required the meeting may appoint an inspector in his place.

ARTICLE VII. AMENDMENTS

1. These bylaws may be altered or amended at any regular meeting of the board of directors, or at any special meeting called for the purpose, in either case upon the affirmative votes of two thirds of the directors in office at the time.

2. These bylaws may also be altered or amended at any annual or special meeting of the stockholders, called in conformity with article III hereof, upon a majority vote of the stockholders entitled to vote at such meeting.

CERTIFICATE OF INCORPORATION

We, the undersigned, all being persons of full age and at least two-thirds being citizens of the United States and at least one of us a resident of the State of New York, desiring to form a stock corporation, pursuant to the provisions of the business corporations, law of the State of New York, do hereby make, sign, acknowledge, and file this certificate for that purpose as follows:

First. The name of the proposed corporation is Beech-Nut Packing Company.

Second. The purposes for which it is to be formed are to purchase or otherwise acquire, sell, trade in, cure, pack, smoke, treat, and prepare for the market all kinds of animal and food products and goods, wares, and merchandise of every class and description; to conduct the business of slaughtering animals or a general abattoir and cold-storage business; to conduct a general trading and manufacturing business; to apply for, register, purchase, or otherwise acquire, and to hold, own, use, and operate, and to sell, assign, grant licenses in respect of and otherwise dispose of and deal with and turn to account, any and all inventions, improvements, formulas, processes, trade names and trade marks, copyrights, letters patent of the United States, and of any and all foreign countries, and patent rights of all kinds relating to the business above mentioned; to enter into,

Digitized by Google

make, perform, and carry out contracts of every kind and for any lawful purpose with any person, firm, association, or corporation relating to the business aforesaid; and in general to do any and all acts necessary and convenient for the most ample exercise of all the purposes and objects above expressed or connected therewith.

Third. The amount of the capital stock is one hundred and fifty thousand (150,000) dollars.

Fourth. The number of shares of which the capital stock shall consist is fifteen hundred (1,500) of the par value of one hundred (100) dollars per share and the amount of capital with which the company shall begin business is five hundred (500) dollars.

Fifth. Its principal business office is to be located in the town of Canajoharie, in the county of Montgomery, in the State of New York.

Sixth. Its duration is to be one hundred (100) years.

Seventh. The number of its directors is to be three.

Eighth. The names and post-office addresses of the directors for the first year are as follows: Edward B. Burnap, Canajoharie, N. Y.; Frederick J. Winston, 32 Nassau Street, New York; and William J. Arkell, Canajoharie, N. Y.

Ninth. The names and post-office addresses of the subscribers and a statement of the number of shares of stock which each agrees to take in the corporation, are as follows:

	Number of shares
Edward B. Burnap, Canajoharie, N. Y	1
Frederick J. Winston, 32 Nassau St., New York	1
William J. Arkell, Canajoharie, N. Y	3
Total	5

In witness whereof, we have made, signed, acknowledged, and filed this certificate in duplicate. Dated this 27th day of December 1899.

E. B. BURNAP.
FREDERICK J. WINSTON.
WILLIAM J. ARKELL.

STATE OF NEW YORK,
County of New York, ss:

On this 27th day of December 1899, before me personally came Frederick J. Winston and William J. Arkell, to me personally known to be two of the persons described in and who made and signed the foregoing certificate, and they severally duly acknowledged to me that they made, signed, and executed the same for the uses and purposes therein set forth.

[SEAL] BERTHA L. CLARK, *Notary Public.*

STATE OF NEW YORK,
County of Montgomery, ss:

On this 28th day of December 1899, before me personally came Edward B. Burnap, to me personally known to be one of the persons described in and who made and signed the foregoing certificate, and he duly acknowledged to me that he made, signed, and executed the same for the uses and purposes therein set forth.

[SEAL] W. M. MURRAY, *Notary Public.*

(Indorsed:) Certificate of incorporation of Beech-Nut Packing Co. Dated December 27, 1899. Tax for privilege of organization of this corporation, $187.50. Under chapter 908, laws of 1896. Paid to State treasurer before filing. State of New York. Office of secretary of state. Filed and recorded December 29, 1899. J. B. H. Mongin, deputy secretary of state.

We, the undersigned, being a majority of the directors of Beech-Nut Packing Co., a corporation formed under the provisions of the business corporations' law of the State of New York, do hereby certify:

That the amount of the capital stock of said corporation is one hundred and fifty thousand (150,000) dollars, and that one-half thereof has been paid in.

In witness whereof, we have made, signed, and acknowledged this certificate in duplicate, and have hereunto set our hands this 10th day of January 1900.

BARTLETT ARKELL.
WALTER H. LIPE.
E. B. BURNAP.

Digitized by Google

STATE OF NEW YORK,
County of Montogmery, ss:

On this 10th day of January 1900, before me personally came, Bartlett Arkell, Walter H. Lipe, and Edward B. Burnap, to me personally known and known to me to be the persons described in and who executed the foregoing certificate and they severally acknowledged to me that they executed the same.

W. M. MURRAY, *Notary Public.*

STATE OF NEW YORK,
County of New York:

Bartlett Arkell and Walter H. Lipe, being severally duly sworn, each for himself, deposes and says that he, the said Bartlett Arkell, is the president of Beech-Nut Packing Co., and that he, the said Walter H. Lipe, is the treasurer thereof; that the statements contained in the foregoing certificate are true.

BARTLETT ARKELL.
WALTER H. LIPE.

Sworn to before me this 10th day of January 1900.

W. M. MURRAY, *Notary Public.*

We, the undersigned, Bartlett Arkell, president, and Walter H. Lipe, secretary, respectively, of the Beech-Nut Packing Co., a domestic stock corporation, do hereby make the following certificate of the proceedings of the meeting of the stockholders of said company, held pursuant to section 47 of the stock corporation law of the State of New York, for the purpose of obtaining consent to classify the capital stock into preferred and common as follows, to wit:

A special meeting of the stockholders of the Beech-Nut Packing Co. was held at the office of the company in the village of Canajoharie, in the county of Montgomery, and the State of New York, on the 7th day of February 1903, at 10:30 o'clock in the forenoon of that day for the purpose of voting on a proposition to classify into common and preferred stock the authorized increase of capital stock of the company, amounting to $100,000.

A meeting was called for that purpose upon notice such as is required for the annual meeting of the corporation, viz, a notice outlining the business to be transacted at the meeting is required to be published for two successive weeks next preceding the meeting in some newspaper published in the county in which the principal office of the company is located, and notice mailed or served personally upon each stockholder at least 10 days before the meeting. The following is a true copy of said notice:

"NOTICE

"A special meeting of the stockholders of the Beech-Nut Packing Co. will be held on the 7th day of February 1903, at 10:30 a. m., at the office of such company, in the village of Canajoharie, Montgomery County, N. Y., for the purpose of voting upon a proposition to increase its capital stock from $150,000 to $250,000, the increase to consist of 1,000 shares of the par value of $100 each, and to make such increase preferred stock, cumulative, with 7 percent per annum dividend thereon, to be paid before any dividend is paid upon the common stock, and in the event of a dissolution of the corporation such preferred stock to be paid from the assets of the company in full before the application of any proceeds of the corporation is made upon the common stock; also to amend, or authorize the amendment of the bylaws of the company, so as to carry into effect any resolution adopted respecting the increase of the capital stock of the company, if increase be authorized.

"Canajoharie, N. Y., January 22, 1903.

"BARTLETT ARKELL, *President.*
"WALTER H. LIPE, *Secretary.*"

At the time and place specified in said notice stockholders of record appeared in person or by proxy owning at least two-thirds of the capital stock of the company, and organized by electing from the number Bartlett Arkell as chairman of the meeting and Walter H. Lipe as secretary thereof. Upon a call of the roll of the stockholders of record the following were found to be present in person, or by proxy, viz:

	Shares
Bartlett Arkell	599
Walter H. Lipe	304
E. B. Burnap	1
Sarah H. Arkell, by Bartlett Arkell, proxy	130

Digitized by Google

	Shares
Bertelle Gillam, by Bartlett Arkell, proxy	140
L. T. Hallett	5
Total	1,179

Upon motion duly made and carried, the proxies presented were ordered to be placed on file.

Proof that the meeting was called upon notice such as is required for the annual meeting of the corporation was read, and ordered placed on file.

Upon motion, a vote was then taken of those present in person, or by proxy, upon the following preamble and resolution, to wit:

Whereas the stockholders of this corporation have at this meeting authorized an increase of the capital stock from $150,000, the present amount, to the sum of $250,000 the increase to consist of 1,000 shares of the par value of $100 each, the entire capital stock to consist of $250,000 of 2,500 shares of the par value of $100 each,

Whereas the present capital stock of the corporation consists wholly of one class of stock, and it has been found desirable to classify the stock of the corporation into common and preferred, so that the $150,000 of the original capital stock shall be common, consisting of 1,500 shares of the par value of $100 each, and so that the increased capital stock of $100,000 consisting of 1,000 shares of the par value of $100 each, shall be preferred stock, and that said preferred stock shall be entitled to preference and priority over the common stock.

ON MOTION

Voted: That the capital stock of the corporation as increased this day and now amounting to $250,000 be classified so that $150,000 thereof consisting of 1,500 shares of the par value of $100 each shall be common stock, and so that $100,000 thereof being the authorized increase of capital stock consisting of 1,000 shares of the par value of $100 each shall be preferred stock, and that said preferred stock shall be entitled to preference and priority over the common stock in manner following: The holders of the preferred stock shall be entitled to receive, annually, all net earnings of the company determined and declared as dividends in each fiscal year up to, but not exceeding, 7 percent per annum upon all outstanding preferred stock before any dividend shall be set apart or paid upon the common stock; and the dividends upon the preferred stock shall be cumulative, but the preferred stock shall not be entitled to participate in any additional earnings or profits. All money determined applicable to dividends in excess of the amount payable upon the preferred stock shall be declared payable, and be paid, on the common stock. In case of liquidation or dissolution of the company, the holders of preferred stock shall be entitled to receive cash to the amount of their preferred stock at par before any payment is made upon the common stock but shall not thereafter participate in any of the property of the company or proceeds realized on liquidation or dissolution. The preferred stock shall have no voting rights or power.

Resolved further, That the president and secretary of this corporation be, and they are hereby, authorized and directed to execute and file proper certificates of the proceedings of this meeting in the offices, respectively, of the secretary of state and the county clerk of the county of Montgomery, and to take all proceedings and do all acts and things that may be necessary to comply with the provisions of sections 42 and 47 of the stock corporation law of the State of New York as amended, and applicable to and regulating the issuing of preferred and common stock, and increasing capital stock."

A sufficient number of votes, to wit, the votes of stockholders owning 1,179 shares of stock of the corporation out of a total of 1,500 shares of stock issued and outstanding, having been cast in favor of the foregoing resolutions, the same were declared duly adopted.

On motion duly made and carried, the meeting was then adjourned.

In witness whereof, we have made, signed and sworn to this certificate in duplicate.

BARTLETT ARKELL,
President.
WALTER H. LIPE,
Secretary.

Digitized by Google

STATE OF NEW YORK,
County of Montgomery, ss:

Bartlett Arkell and Walter H. Lipe, being duly sworn, do depose and say, and each for himself deposes and says that said Bartlett Arkell is the president of the Beech-Nut Packing Co., the corporation above named, and said Walter H. Lipe is the secretary thereof; that he has read the foregoing certificate of the proceedings of the meeting and the stockholders of said corporation, and that the same is true.

BARTLETT ARKELL.
WALTER H. LIPE.

Sworn to before me this 7th day of February 1903.

L. T. HALLETT,
Notary Public, Montgomery County, N. Y.

We, the undersigned, Bartlett Arkell, chairman, and Walter H. Lipe, secretary, respectively, at a special meeting of the stockholders of the Beech-Nut Packing Co., a domestic corporation, held for the purpose of increasing its capital stock, do hereby certify that prior to such meeting a notice stating the time, place, and object thereof, and the amount of the increase proposed, signed by the president and secretary, was published once a week for at least 2 successive weeks in the Canajoharie Radii, a newspaper in the county where the principal office of said corporation is located.

"NOTICE

"A special meeting of the stockholders of Beech-Nut Packing Co. will be held on the 7th day of February, 1903, at 10:30 a. m., at the office of such company, in the village of Canajoharie, Montgomery County, N. Y., for the purpose of voting upon a proposition to increase its capital stock from $150,000 to $250,000, the increase to consist of 1,000 shares of the par value of $100 each, and to make such increase preferred stock, cumulative, with 7 percent per annum dividend thereon, to be paid before any dividend is paid upon the common stock, and in the event of a dissolution of the corporation such preferred stock to be paid from the assets of the company in full before application of any proceeds of the corporation is made upon the common stock; also to amend, or authorize the amendment of the bylaws of the company, so as to carry into effect any resolution adopted respecting the increase of the capital stock of the company, if increase be authorized.

"Canjoharie, N. Y., January 22, 1903.

"BARTLETT ARKELL,
"*President.*
"WALTER H. LIPE,
"*Secretary.*"

That a copy of such notice was duly mailed, postage prepaid, to each stockholder of such corporation at his or her last known post-office address, at least 2 weeks before the meeting; that at the time and place in such notice named, stockholders appeared in person or by proxy in numbers representing at least two-thirds of all the shares of stock of such corporation, to wit: 1,179 shares, and organized such meeting by choosing from their number the undersigned, Bartlett Arkell, as chairman, and Walter H. Lipe, secretary, thereof; that the notice of the meeting and proof of the proper publishing and mailing thereof was presented; that upon motion, a vote was then taken by those present in person, or by proxy, upon the following resolution:

"*Resolved*, That the capital stock of the Beech-Nut Packing Co. be increased from the present amount, to wit: $150,000, consisting of 1,500 shares of the par value of $100 each, to $250,000 to consist of 2,500 shares of the par value of $100 each."

That stockholders owning 1,179 shares of stock, being at least two-thirds of all the stock of the corporation, voted in favor of such resolution; no stockholder voted against its adoption.

That a sufficient number of votes having been cast in favor of such increase, such resolution was declared duly adopted.

That the amount of capital of the said corporation heretofore authorized is $150,000, and the whole thereof has been actually issued; and that the amount of the increased capital stock is $100,000, making the entire capital stock $250,000.

In witness whereof, we have made, signed, verified, and acknowledged this certificate in duplicate, dated this 7th day of February 1903.

BARTLETT ARKELL, *Chairman.*
WALTER H. LIPE, *Secretary.*

Digitized by Google

STATE OF NEW NORK,
County of Montgomery, ss:

Bartlett Arkell, chairman, and Walter H. Lipe, secretary, respectively of the aforesaid meeting, being severally duly sworn, do depose and say and each for himself deposes and says that he has read the foregoing certificate subscribed by him and knows the contents thereof, and that the same is true.

BARTLETT ARKELL.
WALTER H. LIPE.

Sworn to before me this 7th day of February, 1903.

L. T. HALLETT, *Notary Public.*

STATE OF NEW YORK,
County of Montgomery, ss:

On this 7th day of February 1903, before me personally came Bartlett Arkell and Walter H. Lipe, to me personally known to be the persons described in and who made, signed, and verified the foregoing certificate and severally duly acknowledged to me that they made, signed, and verified the same for the uses and purposes therein set forth.

L. T. HALLETT, *Notary Public.*

AMENDMENT TO CERTIFICATE

At a special term of the supreme court held at the county courthouse in the village of Ballston Spa, N. Y., on the 3d day of October 1910.

Present: Hon. H. T. Kellogg, justice.

In the matter of application of Beech-Nut Packing Co. for an order amending its certificates of incorporation.

On reading and filing the petition of Beech-Nut Packing Co., verified by its president on September 12, 1910, and notice of motion for this time and place based thereon, with proof of timely service upon the attorney general of a copy of said petition, notice of motion and of this order as proposed, and on motion of J. S. L'Amoreaux of counsel for said petitioner, moving, it is

Ordered that the prayer of said petition be granted and the original certificate of incorporation of said Beech-Nut Packing Co., filed and recorded in the office of the secretary of state and in the office of the clerk of Montgomery County, N. Y., on or about December 29, 1899, be and it is amended by adding the following provision at the end of paragraph second thereof, so as to truly set forth all the objects and purposes for which it was intended to incorporate said corporation, to wit:

"Also to purchase, acquire, own, and hold real estate for every purpose, and erect houses and buildings thereon and otherwise improve the same; to act as landlord in respect to any property it may own at any time; to sell, mortgage, pledge, lease, or otherwise dispose of any property it may own at any time; and it may purchase, acquire, hold, and dispose of the stocks, bonds, and other evidences of indebtedness of any corporation, domestic, or foreign, and issue in exchange therefor its stock, bonds, or other obligations, subject, however, to the provisions of law."

But said amendment is made without prejudice to any pending action or proceeding, or to any rights accrued previously hereto.

And permission is given said petitioner to file and record such amended certificate with the secretary of state and the clerk of Montgomery County.

Enter in Montgomery County.

H. T. KELLOGG, J. S. C.

CERTIFICATE OF INCREASE OF CAPITAL STOCK

We, the undersigned, Bartlett Arkell, chairman and Walter H. Lipe, secretary, respectively, of a special meeting of the stockholders of Beech-Nut Packing Co., a domestic stock corporation, held for the purpose of increasing its capital stock, do hereby certify—

That prior to such meeting a notice stating the time, place, and object thereof, and the amount of the increase proposed, signed by the president and the secretary, was published once a week fo at least 2 successive weeks in the Canajoharie Radii, a newspaper in the county where the principal business office of such corporation is located. That the following is a true copy of such notice:

"A special meeting of the stockholders of Beech-Nut Packing Co. will be held on the 29th day of November 1913, at 11 o'clock a. m. at the office of said company at Canajoharie, Montgomery County, N. Y., for the purpose of voting

Digitized by Google

upon a proposition to increase its capital stock from $250,000, consisting of 1,000 shares of preferred and 1,500 shares of common stock, each of the par value of $100, to $1,000,000, to consist of 1,000 shares of preferred and 9,000 shares of common stock, each of the par value of $100.

"Dated, November 8, 1913.

"BARTLETT ARKELL, *President.*
"F. E. BARBOUR, *Secretary.*"

That a copy of such notice was also duly mailed, postage prepaid, to each stockholder of such corporation at his last known post-office address, at least 2 weeks before the meeting.

That at the time and place specified in such notice stockholders appeared in person or by proxy, the number representing a majority of all the shares of stock of such corporation, and organized said meeting by choosing from their number the undersigned Bartlett Arkell as chairman and Walter H. Lipe as secretary thereof.

That the notice of the meeting and proof of the proper publication and mailing thereof was presented.

That upon motion a vote was then taken of those present in person or by proxy upon the following resolutions:

"*Resolved*, That the capital stock of Beech-Nut Packing Co. be increased from the present amount thereof, to wit, $250,000, consisting of 1,000 shares of preferred and 1,500 shares of common stock, each of the par value of $100, to $1,000,000 to consist of 1,000 shares of preferred and 9,000 shares of common stock, each of the par value of $100.

"*Resolved*, That the chairman and secretary of this meeting be and the yare hereby authorized and directed to make, sign, verify, and acknowledge the certificates of proceedings required by statute, and cause one of such certificates to be filed and recorded in the office of the clerk of Montgomery County, and a duplicate thereof in the office of the Secretary of State, and to do all acts and things that may be necessary to comply with the provisions of law, applicable to and regulating such increase of capital stock."

That stockholders owning more than a majority in amount of all the stock of the corporation voted in favor of the adoption of said resolutions, and no stockholder voted against their adoption, to wit, stockholders owning 1,590 shares of common stock and stockholders owning 13 shares of preferred stock voted in favr of such resolutions.

That a sufficient number of votes having been cast in favor of such increase of capital stock, such resolutions were declared duly adopted.

That the amount of capital stock of said corporation heretofore authorized is $250,000, and the proportion thereof actually issued is $250,000. That the amount to which the capital stock is increased is $1,000,000. The amount of increase is $750,000, all common stock.

In witness whereof, we have made, signed, verified, and acknowledged this certificate in duplicate. Dated the 29th day of November 1913.

BARTLETT ARKELL, *Chairman.*
WALTER H. LIPE, *Secretary.*

STATE OF NEW YORK,
County of Montgomery, ss:

Bartlett Arkell, chairman, and Walter H. Lipe, secretary, respectively, of the aforesaid meeting being severally duly sworn, do depose and say, and each for himself deposes and says that he has read the foregoing certificate subscribed by him, and knows the contents thereof and that the same is true.

BARTLETT ARKELL.
WALTER H. LIPE.

Sworn to before me this 29th day of November 1913.

E. W. SHINEMAN, *Notary Public.*

STATE OF NEW YORK,
County of Montgomery, ss:

On this 29th day of November 1913, before me personally came Bartlett Arkell and Walter H. Lipe, to me personally known to be the persons described in and who made, signed, and verified the foregoing certificate and severally duly acknowledged to me that they made, signed, and verified the same for the uses and purposes therein set forth.

E. W. SHINEMAN, *Notary Public.*

Digitized by Google

CERTIFICATE OF INCREASE OF CAPITAL STOCK OF BEECH-NUT PACKING CO.

We, the undersigned, Walter H. Lipe, chairman, and Frank E. Barbour, secretary, respectively, of a special meeting of the stockholders of Beech-Nut Packing Co., a domestic stock corporation, held for the purpose of increasing its capital stock, do hereby certify:

That prior to such meeting a notice, stating the time, place, and object thereof, and the amount of the increase proposed, signed by the president and the secretary, was published once a week, for at least 2 successive weeks, in the Canajoharie Courier, a newspaper in the county where the principal business office of such corporation is located.

That the following is a true copy of such notice:

NOTICE TO STOCKHOLDERS

CANAJOHARIE, N. Y., *August 27, 1919.*

Notice is hereby given that a special meeting of the stockholders of Beech-Nut Packing Co. will be held on the 12th day of September 1919, at 9 o'clock in the forenoon, at the office of said company in the village of Canajoharie, N. Y., for the purpose of voting upon a proposition to increase the capital stock of said corporation from $1,000,000, consisting of 10,000 shares of the par value of $100 each, to $2,900,000, to consist of 29,000 shares of the par value of $100 each; to authorize the issuance of $1,900,000 in amount of new preferred stock, to be known as preferred stock class B and to have the preferances and be subject to the limitations in favor of the common stock below stated; to classify the total authorized capital stock of said corporation, amounting to $2,900,000, so that $900,000 thereof, to consist of 9,000 shares of the par value of $100 each, shall be common stock and so that $2,000,000 thereof, to consist of 20,000 shares of the par value of $100 each, shall be preferred stock; to classify said preferred stock so that 19,000 shares thereof, being the said authorized new issue of preferred, shall be designated as preferred stock class B, and 1,000 shares thereof, being that which is now outstanding, shall be designated as "preferred stock class A"; to authorize and fix the preferences which said preferred stock class B shall have and the rights which it shall have and those which it shall be subject to; to authorize the sale of said new preferred stock when issued; to authorize the exchange of said preferred stock class A for preferred stock class B, share for share; and to vote upon the following resolutions which will be offered for adoption at said meeting, to wit:

Resolved, That the capital stock of Beech-Nut Packing Co. be increased from the present amount thereof, to wit: $1,000,000, consisting of 10,000 shares of the par value of $100 each, to $2,900,000, to consist of 29,000 shares of the par value of $100 each.

Further resolved, That the issuance of $1,900,000 in amount of new preferred stock to be authorized.

Further resolved, That the total authorized capital stock of said corporation, amounting to $2,900,000, be classified so that $900,000 thereof, to consist of 9,000 shares of the par value of $100 each, shall be common stock and so that $2,000,000 thereof to consist of 20,000 shares of the par value of $100 each, shall be preferred stock; that 19,000 shares of said preferred stock, being the said authorized new issue of preferred, are hereby designated and classified as preferred stock class B, and 1,000 shares of said preferred stock, being the old issue which is outstanding at the date of this classification, are hereby designated and classified as preferred stock class A. Preferred stock of class A may be converted into preferred stock of class B and exchanged therefor, share for share. The issuance of shares of class B stock required for such exchange are hereby authorized, as they may be required for that purpose, but only upon surrender for exchange of a corresponding number of shares of class A stock, and as such conversion and exchange of shares occurs the outstanding number of shares of class B stock will be automatically increased and the number of outstanding shares of class A stock will be decreased and the latter will become automatically extinguished in such process of conversion. Such right of conversion and exchange shall be applicable to the shares of said old preferred issue that have been already purchased with funds of the company and are being held in the name of its treasurer. The rights of the holders of preferred stock class A, in respect of any shares that are at any time outstanding, shall be superior to the rights of the holders of preferred stock class B in all things that have attached thereto by reason of issuance.

Digitized by Google

Preferred stock class B shall have the preferences over and be subject to the limitations in favor of the common stock following: It shall be entitled to dividends in each year, payable quarterly on the 15th days of January, April, July, and October, at the rate of 7 percent per annum. Such dividends are to be paid or provided for in each year before any dividends are paid on the common stock in that year, and such preferred dividends shall be cumulative. It shall be entitled to no further dividends. In case of dissolution or total liquidation of the corporate assets such preferred stock shall be paid in full at par, with accrued dividends, before any payment is made on common stock, but it shall be entitled to no further distribution or payment. It shall have no vote at any meeting for the election of directors, and shall not be entitled to notice of any such meeting, unless the accumulated dividends to which it is entitled, at the time notice of such meeting is required to be given, amount to 7 percent or more, and when any such right to vote shall have accrued it shall cease to be operative whenever such dividend default is cured. The stock of the corporation may be increased or reduced without reference to the present proportion of common or preferred as to each other. Said preferred stock shall have no right to vote on a proposition to increase or reduce common stock, but shall be entitled to vote on increase or reduction of preferred stock. If the common stock be increased at any time, the holders of said preferred stock shall have no subscription rights or other rights which would entitle them to any of the new or increased common stock. After January 1, 1925, said preferred stock may be redeemed and retired, in whole or in part, on any dividend payment date, on the basis of $115 per share and accrued dividends, provided the corporation shall at least 30 days before the time affixed for redemption notify the holders in writing, mailed to their addresses appearing upon the books of the transfer agency, that it will be redeemed or partially redeemed at the time named upon presentation of the certificates at a bank in the city of New York to be also named. Partial redemption may occur from time to time, and in each instance shall be upon a percentage and pro-rata basis of the total outstanding issue and the notice of redemption shall specify what percentage of the same will be redeemed. Such notice having been given, payment by the corporation to the bank so designated of the money required to redeem shall operate as a redemption either in whole or to the extent of the percentage for which payment is made, as the case may be, and the oustanding certificates may be endorsed or stamped to show the amount or percentage redeemed. No further dividends shall accrue upon that portion or percentage of the stock which is to redeemed.

Further resolved, That the present holders of common stock shall have the right to exchange their holdings, share for share, for a like number of shares of the new issue so classified as common stock. The price at which shares of said preferred stock class B shall be sold may be fixed by the board of directors but shall be not less than par.

Also a resolution authorizing the proper officer to execute and file certificates of the proceedings of the meeting agreeably to the provisions of the statute.

BARTLETT ARKELL, *President*,
FRANK E. BARBOUR, *Secretary*.

That a copy of such notice was also duly mailed, postage prepaid, to each stockholder of such corporation, at his last known post-office address, at least 2 weeks before the meeting.

That at the time and place specified in such notice, stockholders appeared in person or by proxy, in numbers representing at least a majority of all the shares of stock of such corporation, and organized said meeting by choosing from their number the undersigned Walter H. Lipe, as chairman and Frank E. Barbour as secretary thereof.

That the notice of the meeting and proof of the proper publishing and mailing thereof was presented.

That there were also presented at said meeting, and filed with the corporation, the written authorizations and consents of the owners and holders of 9,000 shares, out of a total outstanding issue of 10,000 shares of capital stock, that the capital stock of the corporation be increased from $1,000,000, the present amount, to $2,900,000 to consist of 29,000 shares of the par value of 100 each.

That, upon motion, a vote was then taken of those present in person or by proxy upon the following resolution:

"*Resolved*, That the capital stock of Beech-Nut Packing Co. be increased from the present amount thereof, to-wit: $1,000,000, consisting of 10,000 shares of the par value of $100 each, to $2,900,000, to consist of 29,000 shares of the par value of $100 each.

Digitized by Google

"*Further resolved*, That the chairman and secretary of this meeting be, and they are hereby authorized and directed to make, sign, verify, and acknowledge the certificates of proceedings required by statute on increase of capital stock, and cause one of such certificates to be filed and recorded in the office of the clerk of Montgomery County, and a duplicate thereof in the office of the Secretary of State, and to do all acts and things that may be necessary to comply with the provisions of law applicable to and regulating such increase of capital stock."

That stockholders, owning 9,940 shares of stock, being at least a majority of all the stock of the corporation, voted in favor of such resolution; and stockholders voted against its adoption.

That a sufficient number of votes having been cast in favor of such increase, such resolution was declared duly adopted.

That the amount of capital stock of said corporation heretofore authorized is $1,000,000 and the proportion thereof actually issued is $1,000,000; and that the amount of the increased capital stock is $2,900,000.

In witness whereof, we have made, signed, verified, and acknowledged this certificate in duplicate.

Dated this 12th day of September 1919.

WALTER H. LIPE, *Chairman*,
FRANK E. BARBOUR, *Secretary*.

STATE OF NEW YORK,
County of Montgomery, ss:

Walter H. Lipe, chairman, and Frank E. Barbour, secretary, respectively, of the aforesaid meeting, being severally duly sworn, do depose and say, and each for himself deposes and says, that he has read the foregoing certificate subscribed by him and knows its contents, and that the same is true.

WALTER H. LIPE, *Chairman*,
FRANK E. BARBOUR, *Secretary*.

Sworn to before me this 12th day of September 1919.

E. W. SHINEMAN, *Notary Public*.

STATE OF NEW YORK,
County of Montgomery, ss:

On this 12th day of September 1919, before me personally came Walter H. Lipe and Frank E. Barbour, to me personally known to be the persons described in and who made, signed, and verified the foregoing certificate, and severally duly acknowledged to me that they made, signed and verified the same for the uses and purposes therein set forth.

E. W. SHINEMAN,
Notary Public.

CERTIFICATE AUTHORIZING PREFERRED STOCK AND THE CLASSIFICATION OF STOCK OF BEECH-NUT PACKING CO.

We, the undersigned, Walter H. Lipe, vice president, and Frank E. Barbour, secretary, respectively, of Beech-Nut Packing Co., a domestic stock corporation, do hereby make the following certificate of the prodeedings of a meeting of the stockholders of said company held, pursuant to section 61 of the Stock Corporation Law, for the purpose of obtaining consent to issue preferred stock and to classify into preferred and common stock the total authorized capital stock of said company, amounting to $2,900,000.

A special meeting of the stockholders of said company was held at the office of the company in the village of Canajoharie, county of Montgomery, State of New York, on the 12th day of September 1919, at 9 o'clock in the forenoon of that day, for the purpose of voting upon a proposition to authorize the issuance of $1,900,000 in amount of new preferred stock and to classify into common and preferred stock the total authorized capital stock, which previously and at the same meeting had been increased to $2,900,000.

The meeting was called for that purpose upon notice such as is required for the annual meeting of the corporation, namely: Publication of notice once a week for at least 2 successive weeks in a newspaper published in the county of Montgomery and mailing of notice at least 10 days prior to the meeting to each stockholder at his last known post-office address.

Digitized by Google

The following is a true copy of said notice:

NOTICE TO STOCKHOLDERS

CANAJOHARIE, N. Y., *August 27, 1919.*

Notice is hereby given that a special meeting of the stockholders of Beech-Nut Packing Co. will be held on the 12th day of September 1919, at 9 o'clock in the forenoon, at the office of said company in the village of Canajoharie, N. Y., for the purpose of voting upon a proposition to increase the capital stock of said corporation from $1,000,000, consisting of 10,000 shares of the par value of $100 each, to $2,900,000, to consist of 29,000 shares of the par value of $100 each; to authorize the issuance of $1,900,000 in amount of new preferred stock, to be known as preferred stock class B and to have the preferences and be subject to the limitations in favor of the common stock below stated; to classify the total authorized capital stock of said corporation, amounting to $2,900,000, so that $900,000 thereof, to consist of 9,000 shares of the par value of $100 each, shall be common stock and so that $2,000,000 thereof, to consist of 20,000 shares of the par value of $100 each, shall be preferred stock; to classify said preferred stock so that 19,000 shares thereof, being the said authorized new issue of preferred, shall be designated as preferred stock class B, and 1,000 shares thereof, being that which is now outstanding, shall be designated as preferred stock class A; to authorize and fix the preferences which said preferred stock class B shall have and the rights which it shall have and those which it shall be subject to; to authorize the sale of said new preferred stock when issued; to authorize the exchange of said preferred stock class A for preferred stock class B, share for share; and to vote upon the following resolutions which will be offered for adoption at said meeting, to wit:

Resolved, That the capital stock of Beech-Nut Packing Co. be increased from the present amount thereof, to wit: $1,000,000, consisting of 10,000 shares of the par value of $100 each, to $2,900,000, to consist of 29,000 shares of the par value of $100 each.

Further resolved, That the issuance of $1,900,000 in amount of new preferred stock to be authorized.

Further resolved, That the total authorized capital stock of said corporation, amounting to $2,900,000, be classified so that $900,000 thereof, to consist of 9,000 shares of the par value of $100 each, shall be common stock and so that $2,000,000 thereof, to consist of 20,000 shares of the par value of $100 each, shall be preferred stock; that 19,000 shares of said preferred stock, being the said authorized new issue of preferred, are hereby designated and classified as preferred stock class B, and 1,000 shares of said preferred stock, being the old issue which is outstanding at the date of this classification, are hereby designated and classified as preferred stock class A. Preferred stock of class A may be converted into preferred stock of class B and exchanged therefor, share for share. The issuance of shares of class B stock required for such exchange are hereby authorized, so they may be required for that purpose, but only upon surrender for exchange of a corresponding number of shares of class A stock, and as such conversion and exchange of shares occurs the outstanding number of shares of class B stock will be automatically increased and the number of outstanding shares of class A stock will be decreased and the latter will become automatically extinguished in such process of conversion. Such right of conversion and exchange shall be applicable to the shares of said old preferred issue that have been already purchased with funds of the company and are being held in the name of its treasurer. The rights of the holders of preferred stock class A, in respect of any shares that are at any time outstanding, shall be superior to the rights of the holders of preferred stock class B in all things that have attached thereto by reason of issuance.

Preferred stock class B shall have the preferences over and be subject to the limitations in favor of the common stock following: It shall be entitled to dividends in each year payable quarterly on the 15th days of January, April, July, and October, at the rate of 7 percent per annum. Such dividends are to be paid or provided for in each year before any dividends are paid on the common stock in that year, and such preferred dividends shall be cumulative. It shall be entitled to no further dividends. In case of dissolution or total liquidation of the corporate assets such preferred stock shall be paid in full at par, with accrued dividends, before any payment is made on common stock, but it shall be entitled to no further distribution or payment. It shall have no vote at any meeting for the election of directors, and shall not be entitled to notice of any such meeting,

Digitized by Google

unless the accumulated dividends to which it is entitled, at the time notice of such meeting is required to be given, amount to 7 percent or more, and when any such right to vote shall have accrued it shall cease to be operative whenever such dividend default is cured. The stock of the corporation may be increased or reduced without reference to the present proportion of common or preferred as to each other. Said preferred stock shall have no right to vote on a proposition to increase or reduce common stock, but shall be entitled to vote on increase or reduction of preferred stock. If the common stock be increased at any time, the holders of said preferred stock shall have no subscription rights or other rights which would entitle them to any of the new or increased common stock. After January 1, 1925, said preferred stock may be redeemed and retired, in whole or in part, on any dividend payment date, on the basis of $115 per share and accrued dividends, provided the corporation shall at least 30 days before the time affixed for redemption notify the holders in writing, mailed to their addresses appearing upon the books of the transfer agency, that it will be redeemed or partially redeemed at the time named upon presentation of the certificates at a bank in the city of New York to be also named. Partial redemption may occur from time to time, and in each instance shall be upon a percentage and prorata basis of the total outstanding issue and the notice of redemption shall specify what percentage of the same will be redeemed. Such notice having been given, payment by the corporation to the bank so designated of the money required to redeem shall operate as a redemption either in whole or to the extent of the percentage for which payment is made, as the case may be, and the outstanding certificates may be endorsed or stamped to show the amount or percentage redeemed. No further dividend shall accrue upon that portion or percentage of the stock which is so redeemed.

Further resolved, That the present holders of common stock shall have the right to exchange their holdings, share for share, for a like number of shares of the new issue so classified as common stock. The price at which shares of said preferred stock class B shall be sold may be fixed by the board of directors but shall be not less than par.

Also a resolution authorizing the proper officers to execute and file certfiicates of the proceedings of the meeting agreeably to the provisions of the statute.

BARTLETT ARKELL,
Pcesident.
FRANK E. BARBOUR,
Secretary.

At the time and place specified in such notice, stockholders of record appeared in person or by proxy owning at least two-thirds of the capital stock of the company and organized by electing from their number Walter H. Lipe as chairman of the meeting and Frank E. Barbour as secretary thereof.

Upon a call of the roll of stockholders of record, the following were found to be present, in person or by proxy, viz:

	Number of shares owned and held
Bartlett Arkell	4,080
William Clark Arkell	416
Bertelle Gillam Barbour	960
Frank E. Barbour	100
Mattie M. Brumley	30
Edward B. Burnap	6
Col. W. Davis	12
John S. Ellithorp	186
Edwin D. Greene	12
Bertha V. Hallett	42
Lyell T. Hallett	174
Christina G. Lipe	1,400
Walter H. Lipe	1,000
Walter H. Lipe, treasurer	940
Raymond P. Lipe	270
Stafford Mosher	50
Celestia J. Mosher	10
Laura Arkell Platt	150
Marie E. Tompkins	30
Fred G. Waner	12
Birdsey Warner (estate)	60
Stock represented	9,940

Digitized by Google

Upon motion, duly made and carried, the proxies presented were ordered to be placed on file.

Proof that the meeting was called upon notice such as is required for the annual meeting of the corporation was read and ordered placed on file. Such proof was in affidavit form and showed that said notice (a copy of which is above set out) was published once a week for three successive weeks in the Canajoharie Courier, a newspaper published in said county of Montgomery, to wit on the dates August 27, September 3, and September 10, 1919, and that the secretary of the corporation on the 27th day of August 1919 mailed a copy of such notice, postage prepaid, to each stockholder of record of said corporation at his last known post-office address.

There were also presented at said meeting, and filed with the corporation, the written authorizations and consents of the owners and holders of all the common capital stock of the corporation, to wit, 9,000 shares, that $1,900,000 in amount of new preferred stock be issued, and that the total capital stock of the corporation, $2,900,000 in amount, be classified into $2,000,000 of preferred stock and $900,000 of common stock, the par value of the shares in each class to be $100 each.

A resolution having been first adopted at said meeting increasing the capital stock of said corporation from $1,000,000 to $2,900,000 and directing the chairman and secretary of the meeting to make and file the proper certificates showing such increase.

Upon motion, a vote was then taken of those present, in person or by proxy, upon the following resolutions and the adoption thereof, to wit:

"*Resolved*, That the issuance of $1,900,000 in amount of new preferred stock be authorized.

"*Further resolved*, That the total authorized capital stock of said corporation, amounting to $2,900,000, be classified so that $900,000 thereof, to consist of 9,000 shares of the par value of $100 each, shall be common stock and so that $2,000,000 thereof, to consist of 20,000 shares of the par value of $100 each, shall be preferred stock; that 19,000 shares of said preferred stock, being the said authorized new issue of preferred, are hereby designated and classified as preferred stock, class B, and 1,000 shares of said preferred stock, being the old issue which is outstanding at the date of this classification, are hereby designated and classified as preferred stock, class A. Preferred stock of class A may be converted into preferred stock of class B and exchanged therefor, share for share. The issuance of shares of class B stock required for such exchange are hereby authorized, as they may be required for that purpose, but only upon surrender for exchange of a corresponding number of shares of class A stock, and as such conversion and exchange of shares occurs the outstanding number of shares of class B stock will be automatically increased and the number of outstanding shares of class A stock will be decreased and the latter will become automatically extinguished in such process of conversion. Such right of conversion and exchange shall be applicable to the shares of said old preferred issue that have been already purchased with funds of the company and are being held in the name of its treasurer. The rights of the holders of preferred stock, class A, in respect of any shares that are at any time outstanding, shall be superior to the rights of the holders of preferred stock, class B, in all things that have attached thereto by reason of issuance. Preferred stock, class B, shall have the preferences over and be subject to the limitations in favor of the common stock following: It shall be entitled to dividends in each year, payable quarterly on the 15th day of January, April, July, and October, at the rate of 7 percent per annum. Such dividends are to be paid or provided for in each year before any dividends are paid on the common stock in that year, and such preferred dividends shall be cumulative. It shall be entitled to no further dividends. In case of dissolution or total liquidation of the corporate assets, such preferred stock shall be paid in full at par, with accrued dividends, before any payment is made on common stock, but it shall be entitled to no further distribution or payment. It shall have no vote at any meeting for the election of directors and shall not be entitled to notice of any such meeting, unless the accumulated dividends to which it is entitled, at the time notice of such meeting is required to be given, amount to 7 percent or more, and when any such right to vote shall have accrued it shall cease to be operative whenever such dividend default is cured. The stock of the corporation may be increased or reduced without reference to the present proportion of common or preferred as to each other. Said preferred stock shall have no right to vote on a proposition to increase or reduce common stock but shall be entitled to vote on increase or reduction of preferred stock. If the common stock be increased at any time, the

Digitized by Google

holders of said preferred stock shall have no subscription rights or other rights which would entitle them to any of the new or increased common stock. After January 1, 1925, said preferred stock may be redeemed and retired, in whole or in part, on any dividend payment date, on the basis of $115 per share and accrued dividends, provided the corporation shall, at least 30 days before the time fixed for redemption, notify the holders in writing, mailed to their addresses appearing upon the books of the transfer agency, that it will be redeemed or partially redeemed at the time named upon presentation of the certificates at a bank in the city of New York to be also named. Partial redemption may occur from time to time, and in each instance shall be upon a percentage and pro-rata basis of the total outstanding issue, and the notice of redemption shall specify what percentage of the same will be redeemed. Such notice having been given, payment by the corporation to the bank so designated of the money required to redeem shall operate as a redemption either in whole or to the extent of the percentage for which payment is made, as the case may be, and the outstanding certificates may be endorsed or stamped to show the amount or percentage redeemed. No further dividends shall accrue upon that portion or percentage of the stock which is so redeemed.

"*Further resolved*, That the present holders of common stock shall have the right to exchange their holdings, share for share, for a like number of shares of the new issue so classified as common stock. The price at which shares of said preferred stock, class B, shall be sold may be fixed by the board of directors but shall be not less than par.

"*Further resolved*, That the president or vice president, and the secretary or assistant secretary, of this corporation be, and they are hereby, authorized and directed to execute and file proper certificates of the foregoing proceedings of this meeting in the offices, respectively, of the secretary of State and the county clerk of the county of Montgomery, and to take all proceedings and do all acts and things that may be necessary to comply with the provisions of section 61 of the stock corporation law of the State of New York, as amended and applicable to and regulating the issuing of preferred and common stock."

A sufficient number of votes, to wit, the votes of stockholders owning 9,940 shares of stock of the corporation out of a total of 10,000 shares of stock issued and outstanding, having been cast in favor of the foregoing resolutions, the same were declared duly adopted; that every stockholder owning and holding common capital stock of the corporation voted in favor of the adoption of said resolutions.

On motion, duly made and carried, the meeting was then adjourned.

In witness whereof, we have made, signed, and sworn to this certificate in duplicate.

Dated, September 12, 1919.

WALTER H. LIPE,
Vice President.
FRANK E. BARBOUR,
Secretary.

STATE OF NEW YORK,
County of Montgomery, ss:

Walter H. Lipe and Frank E. Barbour, being duly sworn, do depose and say, and each for himself deposes and says, that said Walter H. Lipe is the vice president of Beech-Nut Packing Co., the corporation above mentioned, and said Frank E. Barbour is the secretary thereof; that he has read the foregoing certificate of the proceedings of the meeting of stockholders of said corporation, and that the same is true.

WALTER H. LIPE.
FRANK E. BARBOUR.

Sworn to before me this 12th day of September 1919.

E. W. SHINEMAN, *Notary Public.*

CERTIFICATE TO INCREASE THE NUMBER OF DIRECTORS OF BEECH-NUT PACKING CO.

We, the undersigned, do hereby certify that the following is a correct transcript of the minutes of proceedings of a meeting of the stockholders of Beech-Nut Packing Co., held pursuant to section 26 of the stock corporation law, to wit:

CANAJOHARIE, N. Y., *September 12, 1919.*

A special meeting of the stockholders of Beech-Nut Packing Co., a stock corporation, was held this day at 9:30 a. m. to determine whether the number of its directors shall be increased.

Digitized by Google

Such meeting was held at the office of the company on 2 weeks' notice in writing to each stockholder of record; such notice having been served personally, or by mail, postage prepaid, directed to each stockholder at his last known post-office address.

Pursuant to such notice the meeting was held at the time and place mentioned, stockholders owning more than a majority of the stock of the corporation being present in person or by proxy.

Such meeting was duly organized by choosing Walter H. Lipe as president and Frank E. Barbour as secretary thereof. The notice of the meeting and proof of the due service thereof were read and filed in the office of the corporation at the time of such meeting. There were also presented and filed the consents in writing of the owners and holders of 9,000 shares, out of a total outstanding issue of 10,000 shares of capital stock, that the number of directors of the corporation be increased from three to six. On motion of William Clark Arkell, duly seconded, the following resolution was offered for adoption and was voted upon by stockholders:

"*Resolved*, That the number of directors of Beech-Nut Packing Co. be increased from three, the present number, to six."

Upon a canvass of the votes cast upon said resolution, it was found that stockholders owning 9,940 shares of stock of the corporation, being more than a majority of the stock thereof, voted in favor of said resolution, and no stockholders voted against its adoption.

Such resolution was thereupon declared duly adopted, and the meeting adjourned.

In witness whereof, we have made, signed, and verified this certificate in duplicate this 12th day of September 1919.

WALTER H. LIPE,
President.
FRANK E. BARBOUR,
Secretary.

STATE OF NEW YORK,
County of Montgomery, ss:

Walter H. Lipe and Frank E. Barbour, being severally duly sworn, depose and say, and each for himself deposes and says, that he, the said Walter H. Lipe, was the president, and he, the said Frank E. Barbour, was the secretary of the meeting of stockholders of Beech-Nut Packing Co. held to determine whether the number of directors thereof shall be increased; and that the foregoing is a correct transcript of the proceedings of such meeting entered in the minutes of the corporation.

WALTER H. LIPE,
President.
FRANK E. BARBOUR,
Secretary.

Sworn to before me this 12th day of September 1919.

E. W. SHINEMAN, *Notary Public.*

CERTIFICATE TO INCREASE THE NUMBER OF DIRECTORS OF BEECH-NUT PACKING CO.

We, the undersigned, do hereby certify that the following is a correct transcript of the minutes of proceedings of a meeting of the stockholders of Beech-Nut Packing Co., held pursuant to section 26 of the stock corporation law, to wit:

CANAJOHARIE, N. Y., *March 15, 1921.*

A special meeting of the stockholders of Beech-Nut Packing Co., a stock corporation, was held this day at 10 a. m., to determine whether the number of its directors shall be increased.

Such meeting was held at the office of the company on 2 weeks' notice in writing to each stockholder of record; such notice having been served personally, or by mail, postage prepaid, directed to each stockholder at his last known post-office address.

Pursuant to such notice the meeting was held at the time and place mentioned, stockholders owning more than a majority of the stock of the corporation being present in person or by proxy.

Such meeting was duly organized by choosing Bartlett Arkell as president and William C. Arkell as secretary thereof. The notice of the meeting and proof of the due service were read and filed in the office of the corporation at the time of such meeting.

Digitized by Google

On motion of Frank E. Barbour, duly seconded, the following resolution was offered for adoption and was voted upon by stockholders:

"*Resolved*, That the number of directors of Beech-Nut Packing Co. be increased from six, the present number, to seven."

Upon a canvass of the votes cast upon said resolution, it was found that stockholders owning 15,171 shares of stock of the corporation, being more than a majority of the stock thereof, voted in favor of said resolution, and no stockholders voted against its adoption.

Such resolution was thereupon declared duly adopted and the meeting adjourned.

In witness whereof, we have made, signed, and verified this certificate in duplicate this 15th day of March 1921.

BARTLETT ARKELL, *President.*
WILLIAM C. ARKELL, *Secretary.*

STATE OF NEW YORK,
County of Montgomery, ss:

Bartlett Arkell and William C. Arkell, being severally duly sworn, depose and say, and each for himself deposes and says, that he, the said Bartlett Arkell, was the president, and he, the said William C. Arkell, was the secretary of the meeting of stockholders of Beech-Nut Packing Co. held to determine whether the number of directors thereof shall be increased; and that the foregoing is a correct transcript of the proceedings of such meeting entered in the minutes of the corporation.

BARTLETT ARKELL, *President.*
WILLIAM C. ARKELL, *Secretary.*

Sworn to before me this 15th day of March 1921.

E. W. SHINEMAN, *Notary Public.*

CERTIFICATE OF INCREASE OF CAPITAL STOCK

We, the undersigned, Frank E. Barbour, chairman, and William Clark Arkell, secretary, respectively, of a special meeting of the stockholders of Beech-Nut Packing Co., a domestic corporation, held for the purpose of increasing its capital stock, do hereby certify:

That prior to such meeting a notice, stating the time, place, and object thereof, and the amount of the increase proposed signed by the president and the secretary, was published once a week, for at least 2 successive weeks, in the Canajoharie Courier, a newspaper in the county where the principal business office of such corporation is located.

That the following is a true copy of such notice:

NOTICE TO STOCKHOLDERS

CANAJOHARIE, N. Y., *July 13, 1921.*

Notice is hereby given that a special meeting of the stockholders of Beech-Nut Packing Co. will be held on the 2d day of August 1921, at 10 a. m. at the office of said company in the village of Canajoharie, N. Y., for the purpose of voting upon a proposition to increase the capital stock of said corporation from $2,900,000 consisting of 20,000 shares of preferred stock and 9,000 shares of common stock, of the par value of $100 each, to $3,000,000, to consist of 20,000 shares of preferred stock and 10,000 shares of common stock, of the par value of $100 each; to authorize the issuance of $100,000 in amount of new common capital stock, and to vote upon the following resolutions which will be offered for adoption at said meeting, to wit:

Resolved, That the capital stock of Beech-Nut Packing Co. be increased from the present amount thereof, to wit: $2,900,000, consisting of 20,000 shares of preferred stock and 9,000 shares of common stock, of the par value of $100 each, to $3,000,000, to consist of 20,000 shares of preferred stock and 10,000 shares of common stock, of the par value of $100 each.

Further resolved, That the issuance of $100,000 in amount of new common capital stock be authorized.

Further resolved, That all of the said $100,000 in amount of new common stock be issued to employees of said corporation, at a price per share to be fixed by the board of directors but not less than $200, and that the proper officers are authorized to make allotment thereof, from time to time, and to issue the shares therefor and deliver the same upon receipt for the treasury of such purchase price.

Digitized by Google

Also a resolution authorizing the proper officers to execute and file certificates of the proceedings of the meeting agreeably to statute.

BARTLETT ARKELL, *President.*
WILLIAM C. ARKELL, *Secretary.*

That a copy of such notice was also duly mailed, postage prepaid, to each stockholder of such corporation, at his last known post-office address, at least 2 weeks before the meeting.

That at the time and place specified in such notice, stockholders appeared in person or by proxy, in numbers representing at least a majority of all the shares of stock of such corporation, and organized said meeting by choosing from their number the undersigned Frank E. Barbour as chairman and William Clark Arkell as secretary thereof.

That the notice of the meeting and proof of the proper publishing and mailing thereof was presented.

That upon motion a vote was then taken of those present in person or by proxy upon the following resolutions:

"*Resolved,* That the capital stock of Beech-Nut Packing Co. be increased from the present amount thereof, to wit: $2,900,000, consisting of 20,000 shares of preferred stock and 9,000 shares of common stock, of the par value of $100 each, to $3,000,000, to consist of 20,000 shares of preferred stock and 10,000 shares of common stock, of the par value of $100 each.

"*Further resolved,* That the issuance of $100,000 in amount of new common stock be issued to employees of said corporation, at a price per share to be fixed by the board of directors but not less than $200 and that the proper officers are authorized to make allotment thereof, from time to time, and to issue the shares therefor and deliver the same upon receipt for the treasury of such purchase price.

"*Further resolved,* That the chairman and secretary of this meeting be, and they are hereby authorized and directed to make, sign, verify, and acknowledge the certificates of proceedings required by statute on increase of capital stock, and cause one of such certificates to be filed and recorded in the office of the clerk of Montgomery County, and a duplicate thereof in the office of the secretary of state, and to do all acts and things that may be necessary to comply with the provisions of law applicable to and regulating such increase of capital stock."

That stockholders owning 14,295 shares of stock, being at least a majority of all the stock of the corporation, voted in favor of such resolutions; and no stockholders voted against their adoption.

That a sufficient number of votes having been cast in favor of such increase, such resolutions were declared duly adopted.

That the amount of capital stock of said corporation heretofore authorized is $2,900,000 and the proportion thereof actually issued is $2,024,500.

That the amount of the increased capital stock is $3,000,000.

The amount of increase is $100,000, all common stock.

In witness whereof we have made, signed, verified, and acknowledged this certificate in duplicate.

Dated this 2d day of August 1921.

FRANK E. BARBOUR, *Chairman.*
WILLIAM CLARK ARKELL, *Secretary.*

STATE OF NEW YORK,
County of Montgomery, ss:

Frank E. Barbour, chairman, and William Clark Arkell, secretary, respectively, of the aforesaid meeting, being severally duly sworn, do depose and say, and each for himself deposes and says, that he has read the foregoing certificate subscribed by him, and knows its contents, and that the same is true.

FRANK E. BARBOUR, *Chairman.*
WILLIAM CLARK ARKELL, *Secretary.*

Sworn to before me this 2d day of August 1921.

E. W. SHINEMAN, *Notary Public.*

STATE OF NEW YORK,
County of Montgomery, ss:

On this 2d day of August 1921, before me personally came Frank E. Barbour and William Clark Arkell, to me personally known to be the persons described in and who made, signed, and verified the foregoing certificate, and severally duly acknowledged to me that they made, signed, and verified the same for the uses and purposes therein set forth.

E. W. SHINEMAN, *Notary Public.*

Digitized by Google

STATE OF NEW YORK,
Department of State, ss:

I certify that I have compared the preceding copy with the original certificate to increase the capital stock of Beech-Nut Packing Co., filed in this department on the 9th day of August 1921, and that such copy is a correct transcript therefrom and of the whole of such original.

Witness my hand and the official seal of the department of state, at the city of Albany, this 25th day of June 1930.

FRANK S. SHARP,
Deputy Secretary of State.

CERTIFICATE OF INCREASE OF CAPITAL STOCK OF BEECH-NUT PACKING CO.

We, Bartlett Arkell, chairman, and W. C. Arkell, secretary, of a special meeting of stockholders of Beech-Nut Packing Co., a domestic corporation organized and existing under and pursuant to the laws of the State of New York, which meeting was duly called and held pursuant to the stock corporation law of the State of New York, for the purpose of increasing the capital stock of said company, do hereby certify, pursuant to the stock corporation law:

(*a*) That said meeting was called for said purpose in the manner provided by law and by the bylaws of the company, to wit, by the board of directors of said company at a meeting of said board duly called and held on the 17th of April 1922, by resolutions duly passed by said board, which resolutions are as follows:

"*Resolved*, that it is advisable for this company to increase the amount of its authorized capital stock from the present amount thereof, namely, $3,000,000 divided into 30,000 shares of the par value of $100 each, of which $2,000,000, consisting of 20,000 shares of $100 each is preferred stock (class A and class B), and the remaining $1,000,000 consisting of 10,000 shares of $100 each is common stock, to $7,000,000 divided into 70,000 shares of the par value of $100 each, of which $2,000,000, consisting of 20,000 shares of $100 each shall be preferred stock (class A and class B) and the remaining $5,000,000 consisting of 50,000 shares of $100 each shall be common stock; being an increase of $4,000,000 consisting of 40,000 shares of common stock of $100 each (the preferred stock, both class A and class B, to remain as at present authorized); and

"*Resolved*, that the president and secretary are hereby directed to call a special meeting of stockholders of the company, to be held at the principal office of the company in the village of Canajoharie, State of New York, at 11 a. m. on Wednesday, May 3, 1922, for the purpose of voting upon the increase of capital stock (to consist of $4,000,000 additional common stock) hereby proposed and for the purpose, if such increase is authorized, of changing the par value of the common stock as so increased from $100 per share to $20 per share."

(*b*) That as appears by the affidavits of publication and mailing herein set forth, a notice of the meeting stating the time, place and object, and the amount of the increase proposed, signed by the president and the secretary, was published once a week for at least 2 successive weeks, in the Canajoharie Courier, a newspaper published in the village of Canajoharie, county of Montgomery, the county where the principal business office of the said company is located, and a copy of said notice was duly mailed to each stockholder at his last known post-office address at least 2 weeks before the meeting.

(*c*) That at the time and place specified in said notice, the stockholders appeared in person or by proxy in numbers representing 5 shares of preferred stock class A, 5,750 shares of preferred stock class B, and 9,692 shares of common stock, being more than two-thirds of all the shares of stock of said company, and organized by choosing from their number Bartlett Arkell as chairman and W. C. Arkell as secretary.

(*d*) That the secretary produced and read the original notice of meeting signed by the president and the secretary of the company, and also produced and read affidavits of publication and of the mailing of the notice of meeting, as required by section 63 of the stock-corporatoin law. That copies of said notice and said affidavits of publication and mailing thereof were, on motion duly made, seconded, and unanimously carried, ordered spread upon the minutes of the meeting, and the originals in duplicate of affidavits were ordered to be included in the certificates of the proceedings of said meeting showing a compliance with the provisions of law to be made by the chairman and secretary of the meeting under section 64 of the stock-corporation law.

Digitized by Google

(*e*) That said affidavit of mailing reads as follows:

STATE OF NEW YORK,
County of New York, ss:

F. B. Watkins, being duly sworn, deposes and says that he is an employee of the New York Trust Co., the transfer agent of the preferred stock class B of Beech-Nut Packing Co., a New York corporation; that on the 18th day of April 1922, in accordance with the provisions of law and the bylaws of the said Beech-Nut Packing Co., he mailed to each stockholder owning preferred stock class A and class B, and common stock, at his last known post-office address, a notice of the special meeting of stockholders of the said Beech-Nut Packing Co., called to be held on the 3d day of May 1922 at the principal office of the company in the village of Canajoharie, county of Montgomery, State of New York, a copy of which notice is hereby annexed and made a part hereof by depositing in the Hudson Terminal Station of the Post Office, Borough of Manhattan, city of New York, on the said 18th day of April 1922, being at least 2 weeks before the meeting, a copy of said notice securely enclosed in a postpaid envelope addressed to such stockholders at the last known post-office address thereof.

F. B. WATKINS.

Sworn to before me this 1st day of May 1922.

CHARLES H. PECK,
Notary Public, New York County.

(*f*) That said notice to the stockholders reads as follows:

BEECH-NUT PACKING CO., CANAJOHARIE, N. Y.

A special meeting of stockholders of Beech-Nut Packing Co. is called to be held at the principal office of the company, in the village of Canajoharie, N. Y., on Wednesday, May 3, 1922, at 11 o'clock in the forenoon, for the purpose of voting upon a proposition to increase the capital stock of said company from $3,000,000, the present amount, consisting of 20,000 shares of preferred stock, classes A and B, of the par value of $100 each, and 10,000 shares of common stock, of the par value of $100 each, to $7,000,000, to consist of 20,000 shares of preferred stock, classes A and B, of the par value of $100 each (being the present authorized amount of preferred stock), and 50,000 shares of common stock, of the par value of $100 each; and, provided such increase of stock is authorized, to vote upon a further proposition to change the par value of the common stock, as so increased from $100 to $20, so that the authorized common stock will then consist of 250,000 shares of the par value of $20 each; and for the transaction of such other business as may properly come before the meeting.

By order of the board of directors.

Dated, April 18, 1922.

BARTLETT ARKELL, *President.*
W. C. ARKELL, *Secretary.*

(*g*) That said affidavit of publication reads as follows:

STATE OF NEW YORK,
Montgomery County, ss:

William B. Forman, being duly sworn, saith that he is one of the editors and proprietors of the Canajoharie Courier, a weekly newspaper printed and published in the village of Canajoharie, county and State aforesaid; and that an advertisement, of which the annexed is a copy (cut from the columns of said paper), has been regularly published in said paper once in each week for 3 successive weeks, commencing on the 19th day of April in the year of our Lord 1922 and ending on the 3d day of May 1922.

WILLIAM B. FORMAN.

Subscribed and sworn to before me this 3d day of May 1922.

[SEAL] FRED M. GEORTNER, *Notary Public.*

(*h*) That the chairman thereupon appointed Edward W. Shineman and Clifford E. Smith inspectors of election. The inspectors of election thereupon entered upon the performance of their duties and took and subscribed the following oath:

Digitized by Google

STATE OF NEW YORK,
County of Montgomery, ss:

We, the undersigned inspectors of election, duly appointed to act at a special meeting of the stockholders of Beech-Nut Packing Co., held at the principal office of the company at Canajoharie, N. Y., on the 3d day of May 1922, being severally duly sworn, do depose and say, and each for himself deposes and says, that he will faithfully execute the duties of inspector at such meeting with strict impartiality and according to the best of his ability.

EDWARD W. SHINEMAN.
CLIFFORD E. SMITH.

Subscribed and sworn to before me this 3d day of May 1922.

FRED M. GEORTNER, *Notary Public.*

That the following resolutions were offered and duly seconded by stockholders of the company:

"*Resolved*, that an increase of the capital stock of Beech-Nut Packing Co. from $3,000,000 divided into 30,000 shares of the par value of $100 each of which $2,000,000 consisting of 20,000 shares of the par value of $100 each is preferred stock (class A consisting of 50 shares of the par value of $100 each and class B consisting of 19,950 shares of the par value of $100 each, subject to increase in class B and decrease in class A, as provided by the certificate of incorporation, as amended) and the remaining $1,000,000 consisting of 10,000 shares of the par value of $100 each is common stock to $7,000,000 divided into 70,000 shares of the par value of $100 each, of which $2,000,000 consisting of 20,000 shares of par value of $100 each shall be preferred stock (class A consisting of 50 shares of the par value of $100 each and class B consisting of 19,950 shares of the par value of $100 each, subject to increase in class B and decrease in class A, as provided by the certificate of incorporation, as amended) and the remaining $5,000,000 consisting of 50,000 shares of the par value of $100 each, shall be common stock, being an increase of $4,000,000 consisting of 40,000 shares of common stock of the par value of $100 each, be, and the same hereby is, authorized; and further

"*Resolved*, that the chairman and secretary of this meeting be, and they hereby are, authorized and directed to make, sign, verify and acknowledge the certificates of proceedings required by statute and cause one of said certificates to be filed and recorded in the office of the clerk of Montgomery County, and a duplicate thereof in the office of the secretary of state and to do all acts and things necessary to comply with the provisions of law applicable to and regulating such increase of capital stock."

The polls were thereupon declared to be open for the reception of votes upon the said resolutions. All of the votes having been received, the polls were declared closed and the votes canvassed by the inspectors of election.

The result of the vote taken at such meeting upon the resolutions authorizing the increase in the capital stock of said company was as follows:

In favor of said resolutions and of the proposed increase of capital stock 5 shares of preferred stock class A, 5,750 shares of preferred stock class B, 9,692 shares of common stock.

Opposed to said resolutions and increase, no shares of preferred stock class A, no shares of preferred stock class B, and no shares of common stock. Said vote in favor of said resolutions and the proposed increase were more than two-thirds of the capital stock of said Beech-Nut Packing Co.

The chairman thereupon declared the said resolutions duly adopted and the proposed increase of said capital stock authorized by the owners of 15,447 shares of the capital stock of Beech-Nut Packing Co., being two-thirds of all of the outstanding stock of Beech-Nut Packing Co., to wit, the vote of 15,447 shares out of 21,245 shares issued and outstanding.

On motion duly made and carried the meeting adjourned.

(*i*) That the amount of capital theretofore authorized is $3,000,000; that the proportion thereof actually issued is $2,124,500; that the amount of increased capital is $7,000,000, consisting of 70,000 shares of the par value of $100 each divided into 20,000 shares of the par value of $100 each of preferred stock (50 shares being class A preferred stock and 19,950 shares being class B preferred stock) and 50,000 shares of the par value of $100 of common stock being an

Digitized by Google

increase of $4,000,000 of common stock divided into 40,000 shares at the par value of $100 each.

In witness whereof, we have signed, verified, and acknowledged this certificate in duplicate this 3d day of May 1922.

BARTLETT ARKELL,
Chairman.

W. C. ARKELL,
Secretary.

STATE OF NEW YORK,
County of Montgomery, ss:

On this 3d day of May 1922, before me personally came Bartlett Arkell and W. C. Arkell to me severally known and known to me to be the individuals described in and who executed the foregoing certificate, and they severally acknowledged to me that they executed the same.

[SEAL] FRED M. GEORTNER,
Notary Public.

CERTIFICATE OF CHANGE IN PAR VALUE OF SHARES OF THE COMMON STOCK OF BEECH-NUT PACKING CO.

We, Bartlett Arkell, chairman and W. C. Arkell, secretary, of a special meeting of stockholders of Beech-Nut Packing Co., a domestic corporation organized and existing under and pursuant to the laws of the State of New York, which meeting was duly called and held pursuant to the stock corporation law of the State of New York for the purpose of increasing the number of shares into which its capital stock is divided, do hereby certify pursuant to the stock corporation law:

(*a*) That said meeting was called for the purpose and in the manner provided by law and the bylaws of the said company, to wit, by the board of directors of said company, at a meeting of said board duly called and held on the 17th day of April 1922 by resolutions duly passed by said board, which resolutions read as follows:

"*Resolved*, That upon such increase being authorized by the stockholders it is advisable that the par value of the shares of common stock be reduced from $100 to $20 so that the amount of common stock, as so increased and changed, will be $5,000,000, consisting of 250,000 shares of the par value of $20 each (the shares of preferred stock, class A and class B, to remain shares of the par value of $100); and

"*Resolved*, That the president and secretary are hereby directed to call a special meeting of stockholders of the company, to be held at the principal office of the company, in the village of Canajoharie, State of New York, at 11 a. m. on Wednesday, May 3, 1922, for the purpose of voting upon the increase of capital stock (to consist of $4,000,000 additional common stock) hereby proposed and for the purpose, if such increase is authorized, of changing the par value of the common stock as so increased from $100 per share to $20 per share."

(*b*) That as appears by the affidavits of publication and mailing herein set forth, a notice of the meeting stating the time, place, and object and the amount of the increase proposed, signed by the president and the secretary, was published once a week for at least 2 successive weeks, in the Canajoharie Courier, a newspaper published in the village of Canajoharie, county of Montgomery, the county where the principal business office of the said company is located, and a copy of said notice was duly mailed to each stockholder at his last known post-office address at least 2 weeks before the meeting.

(*c*) That at the time and place specified in said notice, the stockholders appeared in person or by proxy in numbers representing 5 shares of preferred stock class A, 5,750 shares of preferred stock class B, and 9,692 shares of common stock, being more than two-thirds of all the shares of stock of said company, and organized by choosing from their number Bartlett Arkell as chairman and W. C. Arkell as secretary.

(*d*) That the secretary produced and read the original notice of meeting signed by the president and the secretary of the company, and also produced and read affidavits of publication and of the mailing of the notice of meeting, as required by section 63 of the stock corporation law. That copies of said notice and said affidavits of publication and mailing thereof were, on motion duly made, seconded and unanimously carried, ordered spread upon the minutes of the meeting, and the originals in duplicate of said affidavits were ordered to be included in the certificates of the proceedings of said meeting showing a compliance with the provisions of law to be made by the chairman and secretary of the meeting under section 64 of the stock corporation law.

Digitized by Google

(*e*) That said affidavit of mailing reads as follows:

STATE OF NEW YORK,
County of New York, ss:

F. B. Watkins, being duly sworn, deposes and says, that he is an employee of the New York Trust Co., the transfer agent of the preferred stock class B of Beech-Nut Packing Co., a New York corporation; that on the 18th day of April 1922 in accordance with the provisions of law and the bylaws of the said Beech-Nut Packing Co., he mailed to each stockholder owning preferred stock class A and class B, and common stock, at his last known post-office address, a notice of the special meeting of stockholders of the said Beech-Nut Packing Co. called to be held on the 3d day of May 1922 at the principal office of the company in the village of Canajoharie, county of Montgomery, State of New York, copy of which notice is hereby annexed and made a part hereof by depositing in the Hudson Terminal Station of the post office, Borough of Manhattan, city of New York, on the said 18th day of April 1922, being at least 2 weeks before the meeting, a copy of said notice securely enclosed in a post-paid sealed envelope addressed to such stockholders at the last known post office address thereof.

F. B. WATKINS.

Sworn to before me this 1st day of May 1922.

CHARLES H. PECK,
Notary Public.

Certificate filed in New York.

(*f*) That said notice to the stockholders reads as follows:

BEECH-NUT PACKING CO.,
Canajoharie, N. Y.

A special meeting of stockholders of Beech-Nut Packing Co. is called to be held at the principal office of the company, in the village of Canajoharie, N. Y., on Wednesday, May 3, 1922, at 11 o'clock in the forenoon, for the purpose of voting upon a proposition to increase the capital stock of said company from $3,000,000, the present amount, consisting of 20,000 shares of preferred stock, classes A and B, of the par value of $100 each and 10,000 shares of common stock, of the par value of $100 each, to $7,000,000 to consist of 20,000 shares of preferred stock, classes A and B, of the par value of $100 each (being the present authorized amount of preferred stock) and 50,000 shares of common stock, of the par value of $100 each; and, provided, such increase of stock is authorized, to vote upon a further proposition to change the par value of the common stock, as so increased from $100 to $20, so that the authorized common stock will then consist of 250,000 shares of the par value of $20 each; and for the transaction of such other business as may properly come before the meeting.

By order of the board of directors.
Dated April 18, 1922.

BARTLETT ARKELL, *President.*
W. C. ARKELL, *Secretary.*

(*g*) That said affidavit of publication reads as follows:

STATE OF NEW YORK,
Montgomery County, ss:

William B. Forman being duly sworn saith that he is one of the editors and proprietors of the Canajoharie Courier, a weekly newspaper printed and published in the village of Canajoharie, county and State aforesaid; and that an advertisement, of which the annexed is a copy (cut from the columns of said paper) has been regularly published in said paper once in each week, for three successive weeks, commencing on the 19th day of April in the year of our Lord, 1922, and ending on the 3d day of May 1922.

WILLIAM B. FORMAN.

Subscribed and sworn to before me this 3d day of May, 1922.

[SEAL] FRED M. GEORTNER, *Notary Public.*

(*h*) That the chairman thereupon appointed Edward W. Shineman and Cliffrod E. Smith, inspectors of election. The inspectors of election thereupon entered upon the performance of their duties and took and subscribed the following oath:

STATE OF NEW YORK,
County of Montgomery, ss:

We, the undersigned inspectors of election, duly appointed to act at a special meeting of the stockholders of Beech-Nut Packing Co., held at the principal office

Digitized by Google

of the Company at Canajoharie, N. Y., on the 3d day of May, 1922, being severally duly sworn, do depose and say, and each for himself deposes and says, that he will faithfully execute the duties of inspector at such meeting with strict impartiality and according to the best of his ability.

EDWARD W. SHINEMAN.
CLIFFORD E. SMITH.

Subscribed and sworn to before me this 3d day of May 1922.

FRED M. GEORTNER, *Notary Public.*

That the following resolutions were offered and duly seconded by stockholders of the company:

"Whereas, pursuant to resolutions previously adopted at this meeting, the authorized capital has been increased from $3,000,000 to $7,000,000.

"*Resolved*, That the par value of the common stock of this company be reduced from $100 per share to $20 per share and that the number of shares of common stock of the company be increased from 50,000 shares to 250,000 shares, so that the present capital stock of the company, to wit, 70,000 shares, of which 20,000 shares consist of preferred stock of the par value of $100 each (50 shares being class A preferred stock and 19,950 shares being class B preferred stock) and 50,000 shares of the par value of $100 each being common stock shall consist of 270,000 shares of which 20,000 shares shall be preferred stock of the par value of $100 each (class A consisting of 50 shares of the par value of $100 each and class B consisting of 19,950 shares of the par value of $100 each), and 250,000 shares shall be common stock of the par value of $20 each; and further

"*Resolved*, That the holders of the present outstanding common stock shall be entitled to receive in exchange for each such share of $100 par value, five shares of $20 par value; and further

"*Resolved*, That the chairman and secretary of this meeting be, and they hereby are, authorized and directed to make, sign, verify, and acknowledge the certificates of proceedings required by statute and cause one of said certificates to be filed and recorded in the office of the clerk of Montgomery County, and a duplicate thereof in the office of the secretary of state, and to do all acts and things necessary to comply with the provisions of law applicable to and regulating such increase of capital stock and change of par value thereof."

The polls were thereupon declared to be open for the reception of votes upon the said resolution. All of the votes having been received, the polls were declared closed and the votes canvassed by the inspectors of election.

The result of the vote taken at such meeting upon the resolutions authorizing the change in the par value of the shares of the common stock was as follows:

In favor of said resolutions of the proposed increase of the number of shares and change of par value of the capital stock 5 shares of preferred stock class A, 5,750 shares of preferred stock class B, 9,692 shares of common stock.

Opposed to said resolutions and increase, no shares of preferred stock class A, no shares of preferred stock class B, and no shares of common stock. Said vote in favor of said resolutions and the proposed increase of the number of shares of capital stock were more than two-thirds of the capital stock of the said Beech-Nut Packing Co.

In witness whereof, we have signed, verified, and acknowledged this certificate in duplicate this 3d day of May 1922.

BARTLETT ARKELL, *Chairman.*
W. C. ARKELL, *Secretary.*

STATE OF NEW YORK,
County of Montgomery, ss;

On this 3d day of May 1922, before me personally came Bartlett Arkell and W. C. Arkell to me severally known and known to me to be the individuals described in and who executed the foregoing certificate, and they severally acknowledged to me that they executed the same.

FRED M. GEORTNER, *Notary Public.*

CERTIFICATE OF INCREASE OF CAPITAL STOCK OF BEECH-NUT PACKING CO. PURSUANT TO SECTION 36 OF THE STOCK CORPORATION LAW

Beech-Nut Packing Co. does hereby file this certificate for the purpose of increasing the amount of its capital stock, pursuant to section 36 of the stock corporation law of the State of New York, and states:

That it is a stock corporation incorporated under the name "Beech-Nut Packing Co." by a certificate of incorporation filed in the office of the Secretary of State of the State of New York on December 29, 1899.

Digitized by Google

That the total amount of its authorized capital stock previously to the the filing of this certificate was $7,000,000, divided into shares having a par value.

That the total number of shares which it is already authorized to issue is 270,000, all of which have a par value, to wit, 20,000 having a par value of $100 each and 250,000 having a par value of $20 each.

That the said shares already authorized are classified as follows, with the number of shares in each class and the designations, preferences, privileges, and voting powers, or restrictions or qualifications thereof, as here stated:

Forty-five shares outstanding, of an authorized issue of 1,000 shares, having a par value of $100 each, are classified as preferred stock, class A, and are entitled yearly to 7 percent cumulative dividends before any dividends are set apart or paid upon the other stock, and in case of dissolution or liquidation shall be paid at par before any payment is made on the other stock. They have no voting rights or power as was stated in the resolution authorizing their issuance. They may be converted into preferred stock, class B, and exchanged therefor, share for share, and when and as so exchanged become automatically extinguished.

Twenty thousand shares, having a par value of $100 each, are classified as preferred stock, class B (of which only 11,195 shares have been issued). They are entitled yearly to 7 percent cumulative dividends before any dividends are paid on common stock, and in case of dissolution or liquidation shall be paid at par before any payment is made on account of common stock. They have no vote for election of directors unless dividends thereon be unpaid to the amount of 7 percent or more, nor right to vote on a proposition to increase or reduce common stock (as stated in the resolution authorizing their issuance), and common stock may be increased or reduced without reference to the proportion of common or preferred to each other. The holders have no subscription rights or other rights in new or increased common stock. The whole or any part may be redeemed after January 1, 1925, on any dividend payment date by payment of $115 per share upon 30 days' redemption notice mailed to holders; 45 of the unissued shares are subject to issue to the holders of the 45 shares outstanding of preferred stock, class A, and can be issued only in exchange therefor in the process of conversion.

Two hundred and fifty thousand shares, having a par value of $20 each, are classified as common stock, and subject to the preferences, privileges and rights attaching to the Preferred stock, as above set out, the holders thereof have all the rights in respect thereof that are given by law to the holders of common capital stock.

The number of shares of stock of each class issued and outstanding is: Preferred, class A, 45 shares; preferred, class B, 11,195 shares; common stock, 250,000 shares.

The amount to which the capital stock is increased is $9,500,000. The increase is an increase of the common stock from 250,000 shares, having a par value of $20 each, to 375,000 shares, having a par value of $20 each.

The total number of shares, including those previously authorized, which the corporation may henceforth have, all of which have a par value, together with the par value of each, is as follows:

Forty-five shares of preferred stock, class A, having a par value of $100 each, which are convertible into a like number of shares of preferred stock, class B;

Nineteen thousand nine hundred and fifty-five shares of preferred stock, class B, having a par value of $100 each, which may be automatically increased up to 20,000 shares by conversion, share for share, of the outstanding 45 shares of preferred stock, class A;

And 375,000 shares of common stock, having a par value of $20 each.

None of the shares previously authorized are to be reclassified and none of those authorized hereby are to be classified. The authorization is to increase the common stock (already classified as such) by the issuance of $125,000 new shares of the par value of $20 each, and this certificate does not alter the preferences of any outstanding shares nor authorize shares having preferences which are in any respect superior to those of any outstanding shares.

In witness whereof, this certificate is subscribed and acknowledged in duplicate by the president and secretary of said corporation, this 14th day of November 1923.

BARTLETT ARKELL, *President.*
WILLIAM CLARK ARKELL, *Secretary.*

STATE OF NEW YORK,
County of Montgomery, ss;

On this 14th day of November 1923 before me personally came Bartlett Arkell and William Clark Arkell, to me known and known to me to be the president

Digitized by Google

and secretary, respectively, of Beech-Nut Packing Co., and known to me to be the individuals described in and who executed the foregoing instrument, and they severally acknowledged to me that they executed the same.

E. W. SHINEMAN, *Notary Public.*

STATE OF NEW YORK,
County of Montgomery, ss;

Bartlett Arkell and William Clark Arkell being severally duly sworn, each for himself deposes and says that the said Bartlett Arkell is the president of Beech-Nut Packing Co., the corporation described in the foregoing certificate, and the said William Clark Arkell is the Secretary thereof; that they have been authorized to execute and file such certificate by the votes, cast in person or by proxy, of the holders of record of two-thirds of the outstanding shares of the capital stock of said corporation entitled to vote to increase the amount of the capital stock of said corporation, Beech-Nut Packing Co., and that such votes were cast at a stockholders' meeting held on the 14th day of November 1923 upon notice pursuant to section 45 of the stock corporation law of the State of New York.

BARTLETT ARKELL.
WILLIAM CLARK ARKELL.

Sworn to before me this 14th day of November 1923.

E. W. SHINEMAN, *Notary Public.*

CERTIFICATE OF INCREASE OF AUTHORIZED COMMON STOCK AND INCREASE IN NUMBER OF SHARES OF COMMON STOCK OF BEECH-NUT PACKING CO.

Pursuant to section 36 of the stock corporation law, we, F. E. Barbour and W. C. Arkell, being respectively the vice president and secretary of Beech-Nut Packing Co., do hereby certify:

(1) The name of the corporation is Beech-Nut Packing Co.

(2) The certificate of incorporation was filed in the office of the secretary of state of New York on the 29th day of December 1899, and a duplicate original thereof was filed in the office of the clerk of Montgomery County on the 28th day of December 1899.

(3) The total amount of the previously authorized capital stock is nine million five hundred thousand dollars ($9,500,000).

(4) The total number of shares which the corporation is already authorized to issue is three hundred nine-five thousand (395,000) shares, of which twenty thousand (20,000) shares have a par value of one hundred dollars ($100) each and three hundred seventy-five thousand (375,000) shares have a par value of twenty dollars ($20) each.

(5) The number of shares in each class already authorized and the designations, preferences, privileges, and voting powers or restrictions or qualifications thereof are as follows:

Forty-five (45) shares of preferred stock, class A, having a par value of one hundred dollars ($100) each, which are convertible into a like number of shares of preferred stock, class B;

Nineteen thousand nine hundred fifty-five (19,955) shares of preferred stock, class B, having a par value of one hundred dollars ($100) each, which may be automatically increased up to twenty thousand (20,000) shares by conversion, share for share, of the outstanding forty-five (45) shares of preferred stock class A;

Three hundred seventy-five thousand (375,000) shares of common stock having a par value of twenty dollars ($20) each.

Shares of preferred stock, class A, are entitled yearly to 7 percent cumulative dividends before any dividends are set apart or paid upon the other stock, and in case of dissolution or liquidation shall be paid at par before any payment is made on the other stock. They have no voting rights or power as was stated in the resolution authorizing their issuance. They may be converted into preferred stock, class B, and exchanged therefor, share for share, and when and as so exchanged become automatically extinguished.

Shares of preferred stock, class B, are entitled yearly to 7 percent cumulative dividends before any dividends are paid on common stock, and in case of dissolution or liquidation shall be paid at par before any payment is made on account of common stock. They have no vote for election of directors unless dividends thereon be unpaid to the amount of 7 percent or more, nor right to vote on a proposition to increase or reduce common stock (as stated in the resolution

Digitized by Google

authorizing their issuance), and common stock may be increased or reduced without reference to the proportion of common or preferred to each other. The holders have no subscription rights or other rights in new or increased common stock. The whole or any part of said preferred stock, class B, may be redeemed after January 1, 1925, on any dividend payment date by payment of one hundred fifteen dollars ($115) per share upon 30 days' redemption notice mailed to holders. Forty-five (45) of the unissued shares are subject to issue to the holders of the forty-five (45) shares outstanding of preferred stock, class A, and can be issued only in exchange therefor in the process of conversion.

The common stock is subject to the preferences, privileges, and rights attaching to the preferred stock, as above set out, and the holders thereof have all the rights in respect thereof that are given by law to the holders of common capital stock.

(6) The total number of shares of each class issued and outstanding is forty-five (45) shares of preferred stock, class A, nine thousand nine hundred fifty-five (9,955) shares of preferred stock, class B, and three hundred seventy-five thousand (375,000) shares of common stock.

(7) The amount of the capital stock, which the corporation shall henceforth have, is ten million five hundred thousand dollars ($10,500,000).

(8) The total number of shares, including those previously authorized, which the corporation may henceforth have, is four hundred forty-five thousand (445,000), of which twenty thousand (20,000) shares are to have a par value of one hundred dollars ($100) each, and four hundred twenty-five thousand (425,000) shares are to have a par value of twenty dollars ($20) each.

(9) The total number of shares, including those previously authorized, are to be classified so as to consist of forty-five (45) shares of preferred stock, class A, nineteen thousand nine hundred fifty-five (19,955) shares of preferred stock, class B, and four hundred twenty-five thousand (425,000) shares of common stock, having the same designations, preferences, privileges, and voting powers, or restrictions or qualifications thereof as are set forth in paragraph no. 5 above.

In witness whereof, the undersigned corporation has caused this certificate to be executed this 9th day of November 1927.

BEECH-NUT PACKING CO.,
By FRANK E. BARBOUR, *Vice President.*

Attest:

W. C. ARKELL, *Secretary.*

STATE OF NEW YORK,
County of Montgomery, ss:

On the 9th day of November 1927 before me came F. E. Barbour and W. C. Arkell, to me known and known to me to be respectively the vice president and secretary of Beech-Nut Packing Co., and to be the persons described in and who executed the foregoing instrument, and they severally acknowledged to me that they executed the same.

FRED M. GEORTNER, *Notary Public.*

STATE OF NEW YORK,
County of Montgomery, ss:

F. E. Barbour and W. C. Arkell, being severally duly sworn, say that he, the said F. E. Barbour, is a vice president of Beech-Nut Packing Co., a corporation of the State of New York, and he, the said W. C. Arkell, is secretary thereof; that they have been authorized to execute and file the foregoing certificate by the votes cast in person or by proxy of the holders of record of a majority of the outstanding shares of the corporation entitled to vote thereon; and that said votes were cast at a atockholders' meeting held on the 9th day of November 1927, upon notice pursuant to section 45 of the stock corporation law.

FRANK E. BARBOUR.
W. C. ARKELL.

Sworn to before me this 9th day of November 1927.

FRED M. GOERTNER, *Notary Public.*

Commission expires March 30, 1928.

Digitized by Google

CERTIFICATE OF REDUCTION OF CAPITAL STOCK BY REDUCTION IN THE NUMBER OF ITS SHARES OF PREFERRED STOCK OF BEECH-NUT PACKING CO., PURSUANT TO SECTION 36 OF THE STOCK CORPORATION LAW

We, W. C. Arkell and G. W. Sharpe, being respectively a vice president and assistant secretary of Beech-Nut Packing Co., do hereby certify—

(1) The name of the corporation is Beech-Nut Packing Co.

(2) The certificate of incorporation was filed in the office of the secretary of state of New York on the 29th day of December 1899, and a duplicate original thereof was filed in the office of the clerk of Montgomery County on the 28th day of December 1899.

(3) The total amount of the previously authorized capital stock is ten million five hundred thousand dollars ($10,500,000).

(4) The total number of shares which the corporation is already authorized to issue is four hundred forty-five thousand (445,000), of which twenty thousand (20,000) shares have a par value of one hundred dollars ($100) each and four hundred twenty-five thousand (425,000) shares have a par value of twenty dollars ($20) each.

(5) The number of shares of each class already authorized and the designations, preferences, privileges, and voting powers or restrictions or qualifications thereof, are as follows:

Forty-five (45) shares of preferred stock, class A, having a par value of one hundred dollars ($100) each, which are convertible into a like number of shares of preferred stock, class B:

Nineteen thousand nine hundred fifty-five (19,955) shares of preferred stock, class B, having a par value of one hundred dollars ($100) each, which may be automatically increased up to twenty-thousand (20,000) shares by conversion, share for share, of the outstanding forty-five (45) shares of preferred stock, class A:

Four hundred twenty-five thousand (425,000) shares of common stock having a par value of twenty dollars ($20) each.

Shares of preferred stock, class A, are entitled yearly to 7 percent cumulative dividends before any dividends are set apart or paid upon the other stock, and in case of dissolution or liquidation shall be paid at par before any payment is made on the other stock. They have no voting rights or power as was stated in the resolution authorizing their issuance. They may be converted into preferred stock, class B, and exchanged therefor, share for share, and when and as to exchanged become automatically extinguished.

Shares of preferred stock, class B, are entitled yearly to 7 percent cumulative dividends before any dividends are paid on common stock, and in case of dissolution or liquidation shall be paid at par before any payment is made on account of common stock. They have no vote for election of directors unless dividends thereon be unpaid to the amount of 7 percent or more, nor right to vote on a proposition to increase or reduce common stock (as stated in the resolution authorizing their issuance), and common stock may be increased or reduced without reference to the proportion of common or preferred to each other. The holders have no subscription rights or other rights in new or increased common stock. The whole or any part of said preferred stock, class B, may be redeemed after January 1, 1925, on any dividend payment date by payment of one hundred fifteen dollars ($115) per share upon thirty days' redemption notice mailed to holders. Forty-five (45) of the unissued shares are subject to issue to the holders of the forty-five (45) shares outstanding of preferred stock, class A, and can be issued only in exchange therefor in the process of conversion.

The common stock is subject to the preferences, privileges, and rights attaching to the preferred stock, as above set out, and the holders thereof have all the rights in respect thereof that are given by law to the holders of common capital stock.

(6) The total number of shares of each class issued and outstanding is forty-five (45) shares of preferred stock, class A, and four hundred twenty-five thousand (425,000) shares of common stock.

(7) The amount of the capital stock which the corporation shall henceforth have is eight million five hundred nine thousand dollars ($8,509,000).

(8) The total number of shares, including those previously authorized, which the corporation may henceforth have, is four hundred twenty-five thousand ninety (425,090) shares, of which ninety (90) shares are to have a par value of one hundred dollars ($100) each and four hundred twenty-five thousand (425,000) shares are to have a par value of twenty dollars ($20) each.

Digitized by Google

(9) The total number of shares, including those previoulsy authorized, are to be classified so as to consist of forty-five (45) shares of preferred stock, class A, forty-five (45) shares of preferred stock, class B, and four hundred twenty-five thousand (425,000) shares of common stock, having the same designations, preferences, privileges, and voting powers, or restrictions or qualifications thereof as are set forth in paragraph numbered 5 above.

In witness whereof, the corporation has caused this certificate to be executed this 13th day of March 1928.

W. C. ARKELL, *Vice President.*
G. W. SHARPE, *Assistant Secretary.*

STATE OF NEW YORK,
County of Montgomery, ss:

On the 13th day of March 1928, before me came W. C. Arkell and G. W. Sharpe, to me known and known to me to be respectively the vice president and assistant secretary of Beach-Nut Packing Co., and to be the persons described in and who executed the foregoing instrument, and they severally acknowledged to me that they executed the same.

FRED M. GEORTNER, *Notary Public.*

STATE OF NEW YORK,
County of Montgomery, ss:

W. C. Arkell and G. W. Sharpe, being severally duly sworn, say: That he, the said W. C. Arkell, is a vice president of Beech-Nut Packing Co., a corporation of the State of New York, and he, the said G. W. Sharpe, is assistant secretary thereof; that they have been authorized to execute and file the foregoing certificate by the votes case in person or by proxy of the holders of record of a majority of the outstanding shares of the corporation entitled to vote thereon; and that said votes were cast at a stockholders' meeting held on the 13th day of March 1928, upon notice pursuant to section 45 of the stock corporation law.

W. C. ARKELL.
G. W. SHARPE.

Sworn to before me this 13th day of March 1928.

F. M. GEORTNER, *Notary Public.*

STATE OF NEW YORK,
County of Montgomery, ss:

W. C. Arkell, being first duly sworn, deposes and says, that he is a vice president of Beech-Nut Packing Co.; that the proposed reduction of capital stock or any distribution of assets made pursuant thereto, will not reduce the actual value of the assets of the corporation to an amount less than the total amount of the debts and liabilities of the corporation plus the amount, as reduced, of its issued capital stock.

W. C. ARKELL.

Sworn to and subscribed before me this 13th day of March 1928.

F. M. GEORTNER, *Notary Public.*

STATE OF NEW YORK,
County of Montgomery, ss:

W. C. Arkell, E. W. Shineman, L. T. Hallett, and J. S. Ellithorp, Jr., being first duly sworn, depose and say and each for himself deposes and says:

That they constitute a majority of the board of directors of Beech-Nut Packing Co.; that the proposed reduction of capital stock or any distribution of assets made pursuant thereto, will not reduce the actual value of the assets of the corporation to an amount less than the total amount of the debts and liabilities of the corporation plus the amount, as reduced, of its issued capital stock.

W. C. ARKELL,
E. W. SHINEMAN,
L. T. HALLETT,
J. S. ELLITHORP, JR.

Sworn to and subscribed before me this 13th day of March 1928.

FRED M. GEORTNER.

Digitized by Google

CERTIFICATE OF INCREASE OF CAPITAL STOCK AND NUMBER OF SHARES OF BEECH-NUT PACKING CO.

Pursuant to section 36 of the stock corporation law, we, the undersigned, being the vice president and secretary, respectively, of Beech-Nut Packing Co., do hereby certify:

1. The name of the corporation is Beech-Nut Packing Co.

2. The certificate of incorporation was filed in the office of the secretary of state of New York on the 29th day of December 1899.

3. The total amount of the previously authorized capital stock is eight million five hundred and nine thousand dollars ($8,509,000).

4. The total number of shares which the corporation is already authorized to issue is four hundred and twenty-five thousand and ninety shares (425,090) of which ninety (90) shares have a par value of one hundred dollars ($100) each, and four hundred and twenty-five thousand (425,000) shares have a par value of twenty dollars ($20) each.

5. Of the shares already authorized, forty-five (45) shares are preferred stock, class A; forty-five (45) shares are preferred stock, class B, and four hundred and twenty-five thousand (425,000) shares are common stock, the designations, preferences, privileges, and voting powers, or restrictions or qualifications thereof, of said preferred stock, classes A and B, and said common stock are as follows:

Shares of preferred stock, class A, are entitled yearly to 7 percent cumulative dividends before any dividends are set apart or paid upon other stock, and in case of dissolution or liquidation shall be paid at par before any payment is made on the other stock. They have no voting rights or power, as was stated in the resolution authorizing their issuance. They may be converted into preferred stock, class B, and exchanged therefor, share for share, and when and as so exchanged become automatically extinguished.

Shares of preferred stock, class B, are entitled yearly to 7 percent cumulative dividends before any dividends are paid on common stock, and in case of dissolution of liquidation shall be paid at par before any payment is made on account of common stock. They have no vote for election of directors unless dividends thereon be unpaid to the amount lf 7 percent or more, nor right to vote on a proposition to increase or reduce common stock (as stated in the resolution authorizing their issuance), and common stock may be increased or reduced without reference to the proportion of common or preferred to each other. The holders have no subscription rights or other rights in new or increased common stock. The whole or any part of said preferred stock, class B, may be redeemed after January 1, 1925, or any dividend payment date by payment of one hundred and fifteen dollars ($115) per share upon 30 days' redemption notice mailed to the holders. Forty-five (45) of the unissued shares are subject to issue to the holders of the 45 shares outstanding of preferred stock, class A, and can be issued only in exchange therefor in the process of conversion.

The common stock is subject to the preferences, privileges, and rights attaching to the preferred stock as above set out, and the holders thereof have all the rights in respect thereof that are given by law to the holders of common capital stock.

6. The total number of shares of each class issued and outstanding is forty-five (45) shares of preferred stock, class A, and four hundred and twenty-five thousand (425,000) shares of common stock.

7. The amount of the capital stock which the corporation shall henceforth have is nine million five hundred and nine thousand ($9,509,000) dollars.

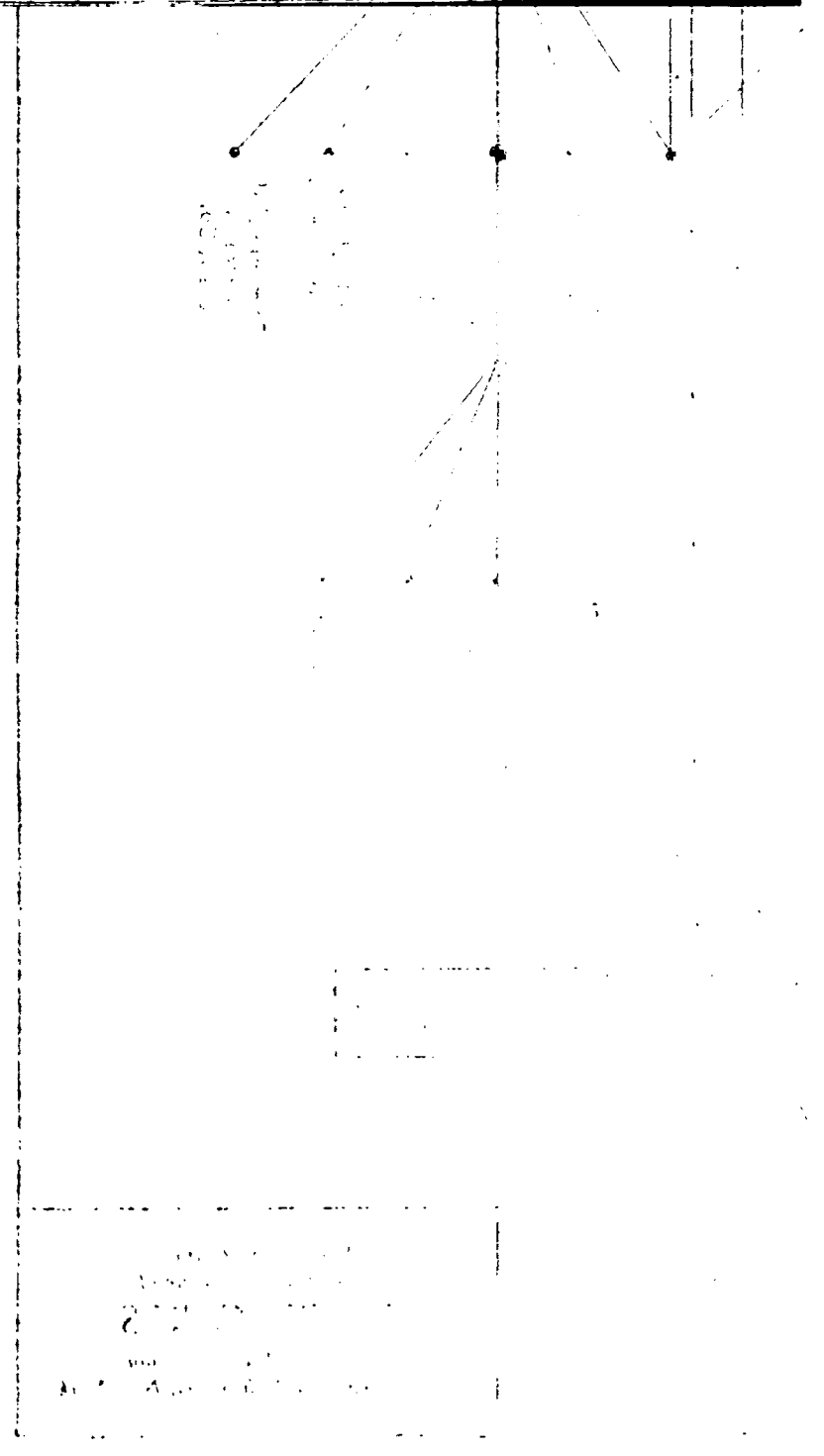
8. The total number of shares, including those previously authorized, which the corporation may henceforth have is four hundred and seventy-five thousand and ninety (475,090) shares, of which ninety (90) shares shall have a par value of one hundred ($100) dollars each, and four hundred and seventy five thousand (475,000) shall have a par value of twenty ($20) dollars each.

9. Of the four hundred and seventy-five thousand and ninety (475,090) shares which the corporation may henceforth have, forty-five (45) shares shall be preferred stock, class A, forty-five (45) shares shall be preferred stock, class B, and four hundred and seventy-five thousand (475,000) shares shall be common stock. The designations, preferences, privileges, and voting powers or restrictions or qualifications of said preferred stock, classes A and B, and said common stock shall be as set forth in paragraph 5 hereof.

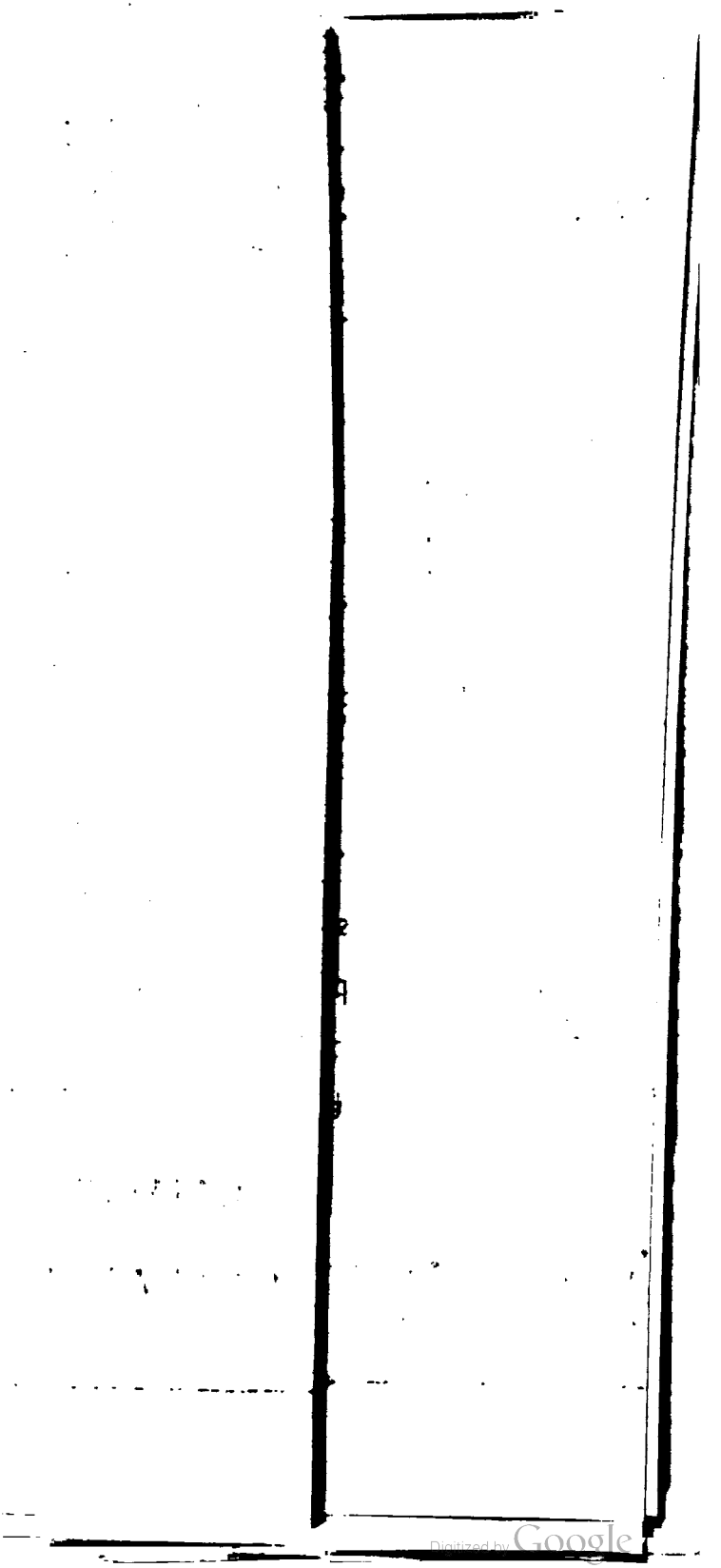
In witness whereof, the undersigned have executed this certificate this 21st day of November 1929.

F. E. BARBOUR, *Vice President.*
W. C. ARKELL, *Secretary.*

Digitized by Google



Digitized by Google


Digitized by Google

STATE OF NEW YORK,
County of Montgomery, ss:

On the 21st day of November 1929 before me came F. E. Barbour and W. C. Arkell, to me known, and known to me, to be respectively, the vice president and secretary of Beech-Nut Packing Co., and to be the persons described in and who executed the foregoing instrument, and they severally acknowledged to me that they executed the same.

FRED M. GEORTNER,
Notary Public.

STATE OF NEW YORK,
County of Montgomery, ss:

F. E. Barbour and W. C. Arkell, being severally duly sworn, say: That he, the said F. E. Barbour, is a vice president of Beech-Nut Packing Co., a corporation of the State of New York, and he, the said W. C. Arkell, is secretary thereof; that they have been authorized to execute and file the foregoing certificate by the votes cast in person or by proxy of the holders of record of a majority of the outstanding shares of the corporation entitled to vote thereon; and that said votes were cast at a stockholders' meeting held on the 21st day of November 1929, upon notice pursuant to section 45 of the stock corporation law.

F. E. BARBOUR.
W. C. ARKELL.

Sworn to before me this 21st day of November 1929.

FRED M. GEORTNER,
Notary Public.

Digitized by Google

Digitized by Google

Digitized by Google

Digitized by Google

Digitized by Google

UNIVERSITY OF MINNESOTA
3 1951 D03 671337 F

Digitized by Google