

HEINL RADIO BUSINESS LETTER

INSURANCE BUILDING

WASHINGTON, D. C.

ISSUED TWICE A WEEK AND CONTAINING THE LATEST INFORMATION REGARDING THE RULINGS OF THE FEDERAL RADIO COMMISSION, RADIO LEGISLATION, DEPARTMENT OF COMMERCE REGULATIONS, CHANGES IN WAVELENGTH, CALL LETTERS AND POWER, PATENTS, EXPORTS, FEDERAL TRADE COMMISSION RULINGS AND OTHER MATTERS OF INTEREST TO BROADCASTERS AND MANUFACTURERS. :: :: CONFIDENTIAL—NOT FOR PUBLICATION. :: ::



INDEX TO ISSUE OF JULY 2, 1931

Patent Pool And End Of U. S. Suit Loom.....	1, 1a
Mackay Opens Newark Plants.....	1b
Short Wave Corporation Plan Approved.....	2
Request For New York City Television Station.....	3
New Suit Filed Against RCA.....	4
Radio Control In Canadian Parliament.....	4
Navy Closes Six Compass Stations.....	5
New Aircraft Radio Designed For "Akron".....	5
Frequency Tests Gain In Accuracy.....	6
Jolliffe Returns; Lauds U. S. Radio.....	7
Television Demonstration In Washington.....	8
Applications Received By Federal Radio Commission.....	8

No. 448

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PATENT POOL AND END OF U.S. SUIT LOOM

Creation of an open patent pool in the radio industry and the entering of a consent decree in the anti-trust suit brought by the Department of Justice against the Radio Corporation of America are expected to result from a series of conferences, held secretly for the last several months and to be resumed in September.

Should the open patent pool be agreed to definitely next fall, the Radio Corporation will escape not only the Department of Justice prosecution but also probably the chief attack that the Radio Protective Association had contemplated instigating in Congress next winter on account of the Radio Commission decision, Oswald F. Schuette, executive secretary, declared that this breaking up of the so-called patent monopoly is what the radio independents have been fighting for four years.

Judge Warren Olney, jr., special assistant to the Attorney General in the RCA case, said that the Department of Justice suit would be dropped if the negotiations are successfully concluded.

The proposed pool is understood to be somewhat similar to the automobile pool save that royalties will be retained for the protection of the inventors and sponsors in the radio industry set-up.

The full text of the statement issued this week by the Department of Justice follows:

"It was stated today (July 1) that conferences have been going on for some time between the Department of Justice and the principal defendants in the anti-trust suit brought by the Government against the Radio Corporation of America, General Electric Company, Westinghouse Electric & Manufacturing Company, American Telephone & Telegraph Company and certain other companies.

"The Radio Corporation of America was originally formed by the General Electric Company to acquire the American Marconi Company, which was a British-owned company, owned the Marconi patents and was the principal factor in the wireless communication field in America. In the view of the Department there was nothing illegal in this, but almost immediately upon the formation of the Radio Corporation, there began the making of a series of contracts between the defendants as to the use of their respective patents in the radio and allied fields.

"In the view of the Department, these agreements in a number of their important provisions were illegal as designed to prevent and suppress competition between the parties. It should be said that the defendants deny wholly that the agreements made by them were illegal or had the purpose or effect charged by the Government.

"It developed at the conferences, however, that regardless of the legality or illegality of their contracts the principal defendants were ready to change them so as to make them unobjectionable in the view of the Department. It also appeared that the principal defendants would, in addition, consider favorably creating an open patent pool, whereby the use of their patents in the radio and certain allied fields would be open to the public generally upon fair and reasonable terms to be fixed by independent trustees.

"Such a pool would, in the opinion of the Department, if practicable, be of distinct advantage to the public both as opening the patents of the particular defendants to general use and also as serving as the beginning of an open patent pool into which all patents important in the radio field might be brought and their use made open to the public on terms fair and reasonable to patent owners on the one side and the industry on the other and the industry be largely relieved of interminable and expensive disputes over patent rights. In the consideration of these matters the Department has kept in close touch with the representatives of the independents in the radio industry and the creation of such a patent pool is one of the proposals advanced by them as a possible solution.

"The creation of such a pool is a matter that requires careful consideration both as to detail and as to its effect upon the industry in order to determine both its desirability and its practicability, and there has been no definite commitment as yet either by the Department or by the defendants in regard to it. They have agreed, however, that the creation of such a pool warrants earnest consideration and that the parties will genuinely endeavor to formulate an acceptable plan embodying it.

"In order to permit the further consideration by both sides of this proposal for an open patent pool, the conferences have been adjourned until September, when they are to be resumed and pursued without interruption to a conclusion."

Immediately afterward Mr. Schuette issued a statement, which follows, in part:

"Attorney General Mitchell's announcement of the surrender of the radio trust is the decisive victory for which the independent radio industry has been fighting for four years.

"The willingness of the Radio Corporation of America, the General Electric company, the Westinghouse Electric and Manufacturing company and the American Telephone and Telegraph Company to change the patent agreements which created the radio trust 'so as to make them unobjectionable in the view of the Department of Justice' will end the patent racketeering which has been the chief complaint of the independent industry.

"It will also mean the end of the exclusive traffic agreements by which the radio trust has been able to keep independent competitors off the air, as well as of other illegal practices which have figured in its efforts to monopolize radio.

"But all this cannot recompense the independent industry or the public for the injury which has been done, and it would therefore be no warrant for a cessation of the Government's warfare against the trust, even though it might require three years more of fighting to win the final dissolution of the trust in the courts."

* * * * *

MACKAY OPENS NEWARK PLANTS.

Clarence H. Mackay, president of the Mackay Radio and Telegraph Company, announced today that the two Newark factories now controlled by his company have been reopened and a considerable number of new employees will be engaged between now and September. These factories have been closed down for a short period, and were formerly operated by the Kolster Radio Corporation. The majority of this additional personnel, said Mr. Mackay, will be directly engaged in the manufacture of the new Kolster International Radio Broadcast Receiver, which will be placed on the market early in August.

Trade response in the United States, South America, and abroad was credited for this aggressive move.

A large part of the personnel will be engaged in the manufacturing of the Kolster radio compass and radiotelegraph communication equipment, not only for the international system but for installation on American merchant ships, which comprises the Mackay radio marine services.

A separate department will be maintained for the manufacture of high powered vacuum tubes for transmitting purposes.

In addition to the manufacturing division, a laboratory is being established in Newark, which will soon employ a large corps of engineers who will engage in development and research work in all branches of the radio art, and who will work closely with the laboratories of International Communications Laboratories.

* * * * *

SHORT WAVE CORPORATION PLAN APPROVED

An international exchange of radio programs, affecting about 100 independent broadcasting stations in this country, will be inaugurated shortly as a result of the approval of the plan of the Short Wave Broadcasting Corporation, of New York, by the Federal Radio Commission.

Good will between the United States and remote nations of the world, as well as establishment of markets for American short wave receivers, is one of the chief aims of sponsors of the enterprise. Arrangements have already been made to rebroadcast programs throughout Latin America, it is said, and negotiations are under way for the rebroadcast of programs in Japan and China.

The Aviation Radio Station, Inc., of New York, is joined with the Short Wave company in the undertaking. The first operates the broadcasting station WRNY, while the second has the short wave station W2XAL. The Short Wave Corporation also operates a television station and is engaged in the manufacture of both television and short wave receiving sets.

The Italian Embassy has informed the Radio Commission that it is interested in the interchange of programs between Italy and this country. Negotiations for this exchange have already been started.

Preliminary arrangements have been made to rebroadcast American programs in Chile, Peru, Brazil, Bolivia, Argentina, Cuba and Mexico through the medium of ten centrally located stations.

The project is financed by certain aviation interests in this country and abroad. Among the backers are C. W. Cuthell, James C. Wilson, and C. M. Keys.

While more programs will probably originate in this country than abroad, enough programs will be rebroadcast in the United States to give Americans an idea of radio entertainment in some of the more remote foreign nations. The undertaking will be non-commercial because of regulations of the Radio Commission although foreign markets will likely be opened for short wave receivers.

Chief Examiner Ellis A. Yost, in his report to the Radio Commission on four applications having to do with the project, recommended that they all be granted. The applications were for renewal of license of Station W2XAL; for an increase in the power of the station from 500 to 15,000 watts, with the completion date extended to July 1, 1932; for assignment of the license of the station from Aviation Radio Station to the new corporation and for similar assignment of the construction permit for the new transmitter of increased output to the Short Wave Broadcasting Company.

Mr. Yost's conclusions, which were sustained by the Commission, are as follows:

1. The applicant has been diligently occupied in the conduct of experimental work in connection with short wave or high frequency broadcast.

2. It has used its best efforts to insure the rebroadcast of its programs in foreign countries.

3. The proposed assignee, Short Wave Broadcasting Corporation, is financially sound and is peculiarly suited for the conduct of short wave broadcasting (a) through its connection with the Short Wave and Television Corporation, whose valuable technical assistance and advice will be available to it, and (b) by being a subsidiary of Aviation Radio Station, Inc., the sponsors of which have valuable connections in the United States and throughout the entire world, which will be available to the assignee.

4. There is a need for a short wave broadcasting station independent of the large chains.

5. The frequencies in question are registered at Berne for use by W2XAL and it is therefore important that these registrations be kept intact and that W2XAL continue its experimental operation and development thereon.

6. The applicant is seriously engaged in improving the technic of the art of relay broadcasting.

7. The Short Wave Broadcasting Corporation has laid out an extensive experimental program of research for relay broadcasting.

8. The operation of this station by the applicant and its proposed operation by the Short Wave Broadcasting Corporation has been and is in the interests of public convenience and necessity.

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REQUEST FOR NEW YORK CITY TELEVISION STATION

A new television station for New York City, designed to operate in the ultra high frequencies as well as in the regular experimental channels, is awaiting the sanction of the Federal Radio Commission. The application was filed by the Easton Coil Company, Inc., of New York City. Power of 500 watts is requested.

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NEW SUIT FILED AGAINST RCA

A bill of complaint alleging that the Radio Corporation of America has assumed managing control of a patents pool was filed in the Federal Court at Wilmington, Del., Tuesday, by the Poughkeepsie (N.Y.) Gold Seal Electric Corporation.

The bill alleges that the corporation has entered into a conspiracy with the Western Electric Company, United Fruit Company, General Electric Company and American Telephone and Telegraph Company to monopolize the manufacture of radio sets and to lessen competition in interstate and foreign commerce.

The Court is asked to enjoin the Radio Corporation from utilizing any of the patents or other rights of the individual members of the alleged combination and also from continuing managing control of the combination.

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RADIO CONTROL IN CANADIAN PARLIAMENT

The following Canadian Press story from Ottawa appeared in the Wednesday New York Times:

"Control of radio broadcasting in Canada belongs to the Dominion Parliament and not to the Provincial Legislatures.

"This was the decision of a majority of the judges of the Supreme Court in Canada, handed down today in the radio reference.

"In dissenting judgments, Justices Rinfret and Lamont took the stand that the Provinces were entitled to a measure of control, particularly over radio receiving.

"The case turned on the construction of the British North America act. It was brought about by the action of the Province of Quebec, which contested the Dominion's claim to complete legislative control over radio. At the hearing, the Provinces of Ontario and New Brunswick actively supported the claims of Quebec, and other Provinces held watching briefs.

"An appeal is likely to be made from this decision to the Judicial Committee of the Privy Council.

"The court's decision is expected to have an important bearing on the proposed scheme of nationalizing radio broadcasting in Canada, as recommended last year by the Royal Commission headed by Sir John Aird. Should the present decision be confirmed by the Privy Council, nothing would stand in the way of such nationalization."

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NAVY CLOSES SIX COMPASS STATIONS

The Navy Department announced recently the discontinuance of six radio direction finder stations, effective October 1st, at Cape May, N. J.; Thatcher's Island, Mass.; Poyner's Hill, N. C.; North Island, S. C.; Point Huoneme, Cal., and Fort Stevens, Ore.

The abandonment of these stations will mean the saving of about \$57,000 annually.

One minute saved in the transmission of each dispatch handled by the naval shore communication service during the fiscal year ended recently, would have meant a time saving of seven years, according to the Naval Communications Service, Captain S. C. Hooper, Director of Naval Communications, declared.

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NEW AIRCRAFT RADIO DESIGNED FOR "AKRON"

Specially-designed radio equipment, comprising the most powerful apparatus constructed for aircraft work, will be installed in the new naval airship "Akron", the Bureau of Aeronautics, Department of the Navy, has announced.

The apparatus which will be employed weighs only 1,000 pounds, the maximum weight having been reduced 400 pounds below the maximum allowed in specifications, the announcement said. The announcement follows in full text:

When the U. S. S. "Akron" Navy dirigible, is completed, her radio equipment will be the most powerful installed in aircraft as well as the lightest in weight and the smallest in size for its power.

When bids for the manufacture of the "Akron's" radio equipment were advertised, the Navy specified that the maximum weight allowance was 1,400 pounds and offered a bonus for every pound below that weight, and for speed in delivery. The Westinghouse Electric Manufacturing Company was awarded the contract, and by design, attention to details, and the use of light materials, brought the weight of the "Akron's" radio equipment down to 1,000 pounds.

The specifications for the "Akron's" radio equipment were prepared by the Navy from its experience with radio equipment aboard the U. S. S. "Los Angeles."

The "Akron" will have a high frequency, an intermediate frequency, and a direction finding receiving set. Two trailing, reel-up type antennas will be installed in the new ship, one 500 ft. long, weighted by a 20-pound "fish", and the other 150 feet long, with a 15-pound "fish". In addition, a fixed wire antenna will run along a longitudinal girder at the turn of the bilge and will be secured between short struts extending out from the hull of the airship, the location eliminating the possibility of this antenna being fouled during landing and handling operations.

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FREQUENCY TESTS GAIN IN ACCURACY

Errors of less than one part in a million in the standard frequency radio signals transmitted by National Bureau of Standards as an aid in testing laboratories, manufacturers or transmitting stations in checking their frequency standards, indicate the increasing degree of accuracy of this service, according to Director George K. Burgess.

The bureau of Standards has provided standard-frequency radio signals at scheduled times throughout the past eight years.

During the present year, the service includes transmission every Tuesday for two hours in the afternoon and two hours in the evening. Errors in the frequency of the transmission are now considerably less than one part in a million. Plans have been made for still further improving the services by increasing the power and adding more frequencies, so that the signals will be available for reliable reception everywhere in the United States. In addition, it is expected that they will be transmitted for several hours each day. It is expected that the accuracy of the frequencies transmitted will be within one part in 10 million. The Bureau's program contemplates extending the service until it is available everywhere at all times.

The standard frequency signals will be available for the checking of frequency standards anywhere in the country by testing laboratories, manufacturers, or transmitting stations. The availability of this means of direct checking is expected to aid materially in the accurate maintenance of transmitted station frequencies and thus contribute to the reduction of radio interference.

Eventually the service may be put on the air continuously 24 hours every day. If this project comes to fruition, stations may be directly controlled by the received standard frequency signals. This will permit putting all of the stations of the country on a single frequency control. It will make more practicable the synchronizing of broadcasting stations so as to permit multiple operation of such station on a single frequency.

Ample tests have shown that the frequencies are constant to the accuracies stated for short as well as long-time intervals. Since frequency is the reciprocal of time these transmissions thus give a time duration service as well as a frequency service, that is, scientific observers, jewelers, and others interested in extremely accurate short intervals of time can utilize these signals for their purposes. The signals will not in any sense give the same information as actual time signals, but will give accurate time intervals or rates.

A number of additional services will be available from these standard frequency transmissions. It is expected to put one or more modulation frequencies on the high frequency carriers transmitted. An audio frequency will be useful for radio purposes and physical measurements, and may also serve as a synchronizing frequency for television transmission and reception.

Consideration is being given to placing a 60-cycle modulation on the transmissions with a view to aiding electric power systems in accurate synchronization in order to advance the interconnection of electric power supply systems in various parts of the country, and also to improve the accuracy of electric clocks. The waves transmitted will also be valuable for reception measurements by scientists and laboratories interested in the phenomena of wave transmission. It is thus expected to have the signals serve as the basis of cooperative research on radio wave phenomena.

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JOLLIFFE RETURNS; LAUDS U. S. RADIO

Just returned from a European trip, Dr. C. B. Jolliffe, Chief Engineer of the Federal Radio Commission, is more confident than ever that the radio industry in the United States is superior to that abroad both in technique and programs. He was a delegate to the International Technical Consulting Committee on Communications meeting in Copenhagen.

Explaining that the problem of broadcasting in Europe is inherently more difficult than in this country, Dr. Jolliffe added that "rather loose methods are employed" abroad. Moreover, he said: "The choice of programs is limited and the entertainment has not been adapted to the split-second radio schedule manifest here."

Receiving sets used in Europe are inferior to those employed in America, he said, and a greater amount of interference results because of the 9-kilocycle separation between channels as against the 10-kilocycles required in this country.

Discussions at Copenhagen were almost altogether technical and dealt with engineering developments, ship-to-shore telephone communication, and such problems rather than broadcasting, which was not considered officially.

Other members of the United States delegation were: Senator-elect Wallace White, of Maine, Chairman, and Dr. J. H. Dellinger, Chief of the Radio Section, Bureau of Standards. Technical advisers were: Dr. Irvin Stewart, Department of State; Dr. C. C. McIlwraith, Bureau of Standards; Gerald C. Gross, Radio Commission; Lieut. Commdr. E. M. Webster, Coast Guard; Lieut. Commdr. J. R. Redman, Navy; and Lieuts. W. T. Guest and T. H. Maddocks, Army.

Maj. K. B. Warner, Secretary of the American Radio Relay League, was a Special Advisor, and Vinton Chapin, State Department, served as Secretary.

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TELEVISION DEMONSTRATION IN WASHINGTON

Television images projected on a motion picture screen six feet square were exhibited at the Mayflower Hotel in Washington this week by the Sanabria Television Corporation of New York City. Numerous Federal officials, radio engineers, and newspaper representatives were present.

The pictures were transmitted by wire, first to a small screen and then to the large, from both photographs and living images. Ulises A. Sanabria, of Chicago, inventor of the system, conducted the exhibition.

Several of the guests went before the microphone and were televised clearly enough to be easily recognizable to the audience. Among these were Col. Thad Brown, General Counsel of the Radio Commission; Lieut. E. K. Jett, engineer of the Commission; and Frank L. Morrison, Secretary of the American Federation of Labor.

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APPLICATIONS RECEIVED BY FEDERAL RADIO COMMISSION

July 1 - WHAS, Louisville Times Co., and The Courier-Journal Co., Louisville, Ky., C. P. for changes in equipment; Dr. F. P. Cerniglia, Harrison & Jackson St.,s Monroe, La., C. P. resubmitted and amended to request 1310 kc., sharing time with Station KRMD (facilities of Station KTSL) instead of 1500 kc., and unlimited time; WMT, Waterloo Broadcasting Co., Waterloo, Iowa., direct measurement of antenna input; WREN, Jenny Wren Co., Lawrence, Kans., C. P. to move transmitter from Lawrence, Kans., to "South of Tonganoxie, Kans."

Applications Other Than Broadcasting

June 27 - Aeronautical Radio, Inc.: KFM, Sacramento, Calif., and KQX, Bakersfield, Calif., license covering C. P. for 3160, 3166, 3172, 3178, 5570, 5660 kc., 400 watts; Easton Coil Co., Inc., New York, N. Y., new C. P. for 2750 to 2850, 43000 to 46000, 48500 to 50300, 60000 to 80000 kc., 500 watts, visual broadcasting service; WOA, Pan American Airways, Inc., New York, N. Y., modification of license for temporary authorization to communicate with Plane NR-211, and additional frequencies of 12210, 8015 kc.

July 1 - W2XAV, Bell Telephone Laboratories, Inc., Ocean Township, N. J., Portable, renewal of special experimental license for 17300, 18310 kc., 100 watts & 5 watts; KIP, American Radio News Corp., S. San Francisco, Calif., modification of C. P. for extension of C. period from 8/1/31 to 11/30/31 and change in equipment; WSDE, Aeronautical Radio, Inc., Birmingham, Ala., license covering C. P. for 3484, 5630 kc., 400 watts, aeronautical service; Atlantic Broadcasting Corp., portables, (4) initial location, 485 Madison Ave. New York City, new C. P.s for 1544, 2476 kc., temporary broadcast pickup service, 2 for 50 watts, 2 for 1 watt; WPDX, City of Detroit, Police Dept., Detroit, Mich., C. P. for 2410 kc., 50 watts, police service (for change in transmitter).

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PATENTS, PATENT SUIT, AND DESIGNS GRANTED

The following patents were granted during the week ending June 30, 1931:

- 1,811,839. Sound Transmission. Harold D. Arnold, Summit, N. J., assignor to Bell Telephone Laboratories, Inc., New York, N. Y. Filed June 14, 1929.
- 1,811,841. Sound Reproducing System. John C. Benjamin, New York, N. Y., assignor to Bell Telephone Laboratories, Inc., New York, N. Y. Filed July 13, 1928.
- 1,811,856. Switching Device for Radio and Phonograph Combinations. Maurice B. Long, Glen Ridge, N. J., assignor to Western Electric Company, Inc., New York, N. Y. Original application filed October 1, 1926, Divided and this application filed May 26, 1927.
- 1,811,858. Control System for Transmission of Signals. Ohmer R. Miller, Floral Park, N. Y., assignor to Bell Telephone Laboratories, Inc., New York, N. Y. Filed April 30, 1929.
- 1,811,861. Illuminating Apparatus. Alexander Nyman, Dobbs Ferry, N. Y., assignor to Radio Patents Corporation, New York, N. Y. Filed October 20, 1926.
- 1,811,895. Light Control System. Richard Howland Ranger, Newark, N. J., assignor to Radio Corporation of America. Filed October 31, 1928.
- 1,811,905. Means To Control Cross Talk. Herman A. Affel, Ridge-wood, N. J., and Allen Carpe, New York, N. Y., assignors to American Telephone and Telegraph Co. Filed June 26, 1928.
- 1,811,915. Means to Control Cross Talk. Allen Carpe, New York, N. Y., assignor to American Telephone and Telegraph Company. Filed June 26, 1928.
- 1,811,941. Apparatus for Reducing Disturbing Currents. Clyde R. Keith, East Orange, N. J., assignor to Bell Telephone Laboratories, Inc., New York, N. Y. Filed June 20, 1928.
- 1,811,985. Sound Resonating and Amplifying Device. Christian A. Volf, Jr., Weehawken, N. J., assignor to Murray T. Quigg, New York County, N. Y. Filed December 1, 1928.
- 1,812,066. Electric Detector and Frequency Changing System. Frederick Emmons Terman, Stanford University, Calif. Filed March 7, 1927.

- 1,812,525. Radio Tuning Mechanism. Winslow Goodwin, Chicago, Ill., assignor to Crow Name Plate & Manufacturing Co., Chicago, Ill. Filed October 11, 1930.
- 1,812,545. Electromagnetic Relay. Carl Erik Jean Nilson, Stockholm, Sweden, assignor to Telefonaktiebolaget L.M. Ericsson, Stockholm, Sweden, Filed August 22, 1929, and in Sweden, August 24, 1928.
- 1,812,550. Phonograph Disk. Armando Alvares Penteado, Paris, France. Filed July 8, 1929, and in France June 12, 1929.
- 1,812,558. Vacuum Tube Device. James Robert Robertson, London, England, Filed January 11, 1928, and in Great Britain, January 22, 1927.
- 1,812,570. Multiplex Transmitter. William P. Stunz, Lansdowne, Md., assignor to Safe Deposit and Trust Co., of Baltimore, Md., as trustee under the will of George R. Webb. Filed January 6, 1928.
- 1,812,571. Telephonic Instrument. William P. Stunz, Lansdowne, Md., assignor to Safe Deposit and Trust Company, Baltimore, Md. Filed May 9, 1928.
- 1,812,619. Sound Reproduction. David G. Blattner, Bogota, N. J., assignor to Bell Telephone Laboratories, Inc., New York, N. Y. Filed February 24, 1928.
- 1,812,634. Sound Reproducer. Warren C. Jones, Flushing, N. Y., assignor to Bell Telephone Laboratories, Inc., New York, N. Y. Filed June 23, 1928.
- 1,812,664. Electrical Condenser and Method of Making It. William H. Friess, Montclair, N. J., assignor to Wireless Specialty Apparatus Co., Boston, Mass. Original application filed December 5, 1921. Divided and this application filed December 5, 1923.
- 1,812,695. Loop Aerial. Albert G. Harms, Chicago, Ill. Filed April 12, 1926.
- 1,812,713. Electrical Condenser. John A. Proctor, Lexington and William M. Bailey, Lynn, Mass., assignors to Wireless Specialty Apparatus Co., Boston, Mass. Filed January 23, 1925.
- 1,812,751. Phonograph Record. Charles J. Mensman, Washington, D.C., Original application filed April 24, 1923. Divided and this application filed November 19, 1927.
- 1,812,763. Photo-Electric Device. William E. Story, Jr., Worcester, Mass., assignor to General Electric Co. Filed April 6, 1925. Renewed December 17, 1929.

- 1,812,764. Photo-Electric Device. William E. Story, Jr., Worcester, Mass., assignor to General Electric Co. Original application filed April 6, 1925. Divided and this application filed April 25, 1929.
- 1,812,828. Switch Or Commutating Means. Frank Gray, New York, N. Y., assignor to Bell Telephone Laboratories, Inc., New York, Filed October 18, 1928.

Adverse Decision In Interference

Pat. 1,689,564. Fletcher Thorington, Means for the radio-translation of phonographically recorded sound waves, decided June 11, 1931, claims 2 and 3, (in interferences involving the indicated claims of the following patents final decisions have been rendered that the respective patentees were not the first inventors with respect to the claims listed).

Patent Suit

1,545,207, 1,617,179, 1,617,180, C. G. Smith, Electrical apparatus; 1,617,171, same, Method and apparatus for the rectification of alternating currents; 1,617,172, 1,617,177, same, Production of electrical variations; 1,617,174, same, Electrical apparatus and method; 1,617,179, 1,617,181, V. Bush, Electrical apparatus, filed April 22, 1931, D. C., Mass., Doc. E 3419, Raytheon, Inc., et al. v. Selectron Corp. et al.

Designs

- 84,505. Radio Cabinet. Albert Aurilli, Lake Worth, Fla. Filed December 26, 1930. Term of patent 3½ years.
- 84,530. Radio Cabinet. Raymond Loewy, New York, N. Y., assignor to Westinghouse Electric & Manufacturing Co. Filed March 7, 1931. Term of patent 14 years.
- 84,540. Radio Cabinet Or Similar Article. George J. Pike, Grand Rapids, Mich., assignor to General Motors Radio Corporation, Dayton, Ohio. Filed May 8, 1931. Term of patent 7 years
- 84,543. for all with the exception of 84,543 which is for 3½ years.
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HEINL RADIO BUSINESS LETTER

INSURANCE BUILDING

WASHINGTON, D. C.

ISSUED TWICE A WEEK AND CONTAINING THE LATEST INFORMATION REGARDING THE RULINGS OF THE FEDERAL RADIO COMMISSION, RADIO LEGISLATION, DEPARTMENT OF COMMERCE REGULATIONS, CHANGES IN WAVELENGTH, CALL LETTERS AND POWER, PATENTS, EXPORTS, FEDERAL TRADE COMMISSION RULINGS AND OTHER MATTERS OF INTEREST TO BROADCASTERS AND MANUFACTURERS. :: :: CONFIDENTIAL—NOT FOR PUBLICATION. :: ::

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INDEX TO ISSUE OF JULY 6, 1931.

Major Chains Expand Short Wave Services.....	2
New Station Recommended For York, Pa.	3
City-Owned Station Shows Profit.....	3
Comments Of Independents Favor Patent Pool.....	4
Business Letter Briefs.....	6
Hearst Reported Negotiating For WCAE.....	6
Dunlap Writes Radio Advertising Handbook.....	7

No. 449

MAJOR CHAINS EXPAND SHORT WAVE SERVICES

Always looking for new worlds to conquer, the National Broadcasting Company and the Columbia Broadcasting System are planning to increase their short wave facilities so as to prepare for new stunt broadcasts. Applications to the Federal Radio Commission indicate this trend toward special-event broadcasts.

The networks already have achieved marked success in the use of portable short wave sets in broadcast pick-up service. Transmitters of but one watt output, strapped to the backs of the announcers, have been used to "feed" the networks. Such "stunt" broadcasts have been made from submarines under water, surface craft on the high-seas and airplanes overhead. A broadcast has been accomplished from a zoo. A parachute jumper has described his descent with a microphone cupped over his lips and the low-powered short wave transmitter on his back.

In regular program transmission, short wave rebroadcasts from nearly every corner of the world now have become commonplace within a year. Nation-wide hook-up of stations, which formerly were accorded only events of extraordinary importance, now are matters of nightly schedule on the networks.

Columbia has filed with the Commission applications for authority to build four additional portable short-wave transmitters for use in special events broadcasts. It already has two such sets.

Two of the new sets would be of only one watt power, of the type carried by the announcer on his back, with the antenna usually projecting over his head. The other two would be 50-watt transmitters, usually loaded on trucks, and carried to the scene of the event to be broadcast.

National Broadcasting Co., also is planning expansion of its special broadcast service, and probably will seek license for additional portable sets.

With the advantage of such short-wave rebroadcasting apparent, the Commission last Autumn set aside six short wave frequencies for "temporary broadcast pick-up service." Two of these were assigned to the NBC, two to Columbia, and the remaining two for use of independent stations when the occasions warrant. Although 90-day licenses are issued to the networks for the frequencies assigned them, they must file with the Commission at least 24 hours in advance, applications setting forth the use to be made of them, and the event to be broadcast.

NBC has allocated for its use the frequencies of 1584 to 2392 kilocycles. Columbia has 1544 and 2476 kilocycles, and the independent channels are 1564 and 2368.

The Commission's order specifies that such short-wave facilities may be used only in event wire facilities are not available. The procedure usually is for the portable transmitter to be located near to the "pick-up" receiving set, which feeds the program to the network or the regular broadcasting station. The distance to be covered by the short wave portable usually is small, so that the signals picked up will be of sufficient strength and crispness to be amplified with good quality over the broadcasting network.

The Commission also has set aside frequencies of the same character for motion picture companies under extraordinary circumstances. Short wave channels may be used for communication between the home studios and parties "on location", when wire line facilities are not available, and to expedite the production of the pictures.

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NEW STATION RECOMMENDED FOR YORK, PA.

Award of a construction permit to the York Broadcasting Company, York, Pa., with an assignment of 1000 kilocycles, 1,000 watts, with daytime operation, was recommended to the Federal Radio Commission last week by Chief Examiner Ellis A. Yost.

The Chief Examiner's report points out that Pennsylvania is 7.9 units under-quota and that the Second Zone is 8.54 units below quota. The granting of the application, he adds, would raise increase the units of the State and Second Zone by .5 unit.

Granting of the application will not cause heterodyne or cross-talk interference, the report states, and a greater need exists for a station at York than at Lancaster.

At the same time, Mr. Yost recommended denial of the application of Kirk Johnson & Co., of Lancaster, Pa., for a construction permit.

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CITY-OWNED STATION SHOWS PROFIT

Station WRR, owned by the City of Dallas, Texas, showed a profit of \$11,899 for the first half of 1931, according to Variety. The station is operated by John Thorwald, Manager, on a 60-40 basis, the city getting 60 per cent of profits and sharing the expenses equally.

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COMMENTS OF INDEPENDENTS FAVOR PATENT POOL

The July issue of Electronics carries comments from several industrial leaders on the proposal to establish an open patent pool in the radio industry; the comments follow in part:

Morris Metcalf, United American Bosch Corporation, Springfield, Mass.:

"I am strongly of the belief that the time has come for the industry to establish a patent pooling arrangement under the leadership of the RMA, and the more important holding groups or it will be done for us in ways that will be to the disadvantage of the radio industry."

H. B. Richmond, Treasurer, General Radio Company:

"Now if ever, the time has arrived for the industry to pool its resources to reduce the burden imposed by the present untenable patent situation."

B. J. Grigsby, President, Grigsby- Grunow Company, Chicago, Ill.:

"Patent threats, royalty demands, and litigation over patents have been a paramount factor in disturbing the industry and preventing cooperation on matters of vital common interest..... It has been clearly demonstrated that these intolerable conditions can be remedied only by a pooling of patents along the line of the RMA plan patterned after that of the automobile industry. Under such a plan there is a free interchange of patent information and the resources of the industry are made available for joint defense against invalid patents and improper royalty demands, and for the acquisition of patent rights of common interest."

Edgar Rickard, President, Hazeltine Corporation, Jersey City, N. J.:

"Hazeltine Corporation has always been in favor of the broad principle of a patent pool for the radio industry. Its present attitude, although favorable, is conditional upon the safeguarding of its rights that have been established in expensive and bitterly contested litigation against infringers."

"We have no desire to block any constructive move to establish whatever desirable result an industry-wide patent pool might bring about; therefore we would be ready and willing to give serious consideration to any concrete plan that may be proposed. We will not, however, acquiesce in any plan that does not fully take into consideration our rights."

Powell Crosley, Jr., President, Crosley Radio Corporation, Cincinnati, Ohio:

"Attempts toward bringing about patent-pooling plan sound fine, but is it reasonable? Economic conditions in radio industry certainly require alleviation of present excessive royalties to make such a plan workable.

"Start will have to be made at top, working down, rather than at bottom, working up, if you know what I mean."

C. C. Colby, President, Samson Electric Company, Canton, Mass.:

"For many years I have favored patent pooling in the radio industry as an economic necessity. Today the need is greater than ever. It would stimulate development, standardize equipment, improve products, result in cost reductions, and bring a united industry into a cooperative effort that will avoid unprofitable litigation and gain the good will of the American people. This is necessary today if radio is to consistently advance..... However there must be an industry pooling of patents and not a mere paternal licensing arrangement such as the industry has had and is now suffering under."

Herbert H. Frost, President, Frost-Minton Company, New York City:

"The stabilization of the radio industry cannot be effected until patent pooling becomes a reality. Continuation under existing conditions means a continuation of litigation, uncertainty and artificial costs, which in themselves prevent stabilization of any industry."

Ernest Kauer, President, CeCo Manufacturing Company, Providence, R. I.:

"The automotive industry has found it profitable, over a period of years, to pool their patents. In addition, the lack of patent litigation, in the automotive industry, since the original pooling agreements, speaks for itself. We believe that the benefits derived from the pooling of patents in the radio industry will be proportionately as great as those derived in the automotive industry."

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: BUSINESS LETTER BRIEFS :
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The U. S. Civil Service Commission has announced an open competitive examination for vacancies in the field service of the Radio Division of the Department of Commerce. The job is that of Assistant Inspector with an entrance salary of \$2,400. Applications must be filed before July 21st.

Radio transmitting and receiving stations along the Cap-to-Cairo air route in Africa will be constructed by the Marconi Company, according to advices received by the Department of Commerce from Benjamin Thaw, Jr., First Secretary of the American Embassy at London.

The opening of direct radio services from Mukden to San Francisco and Berlin on June 15th gives China practically worldwide radio communication.

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HEARST REPORTED NEGOTIATING FOR WCAE

William Randolph Hearst is reported to be negotiating for Station WCAE, the Gimbel Brothers station at Pittsburgh, for a price of \$900,000, according to Variety.

The Pittsburgh station, which takes NBC programs, showed a profit of \$73,000 last year, Variety continues. Acquirement of WCAE would give Hearst his first fully-owned station though he has a share of WGBS, of New York.

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HEINL RADIO BUSINESS LETTER

INSURANCE BUILDING

WASHINGTON, D. C.



ISSUED TWICE A WEEK AND CONTAINING THE LATEST INFORMATION REGARDING THE RULINGS OF THE FEDERAL RADIO COMMISSION, RADIO LEGISLATION, DEPARTMENT OF COMMERCE REGULATIONS, CHANGES IN WAVELENGTH, CALL LETTERS AND POWER, PATENTS, EXPORTS, FEDERAL TRADE COMMISSION RULINGS AND OTHER MATTERS OF INTEREST TO BROADCASTERS AND MANUFACTURERS. :: :: CONFIDENTIAL—NOT FOR PUBLICATION. :: ::



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INDEX TO ISSUE OF JULY 9, 1931.

Radio Recorder For Checking Stations Accepted.....2

Radio Useful To Smithsonian Institution.....3

Seven Temporary Licenses Granted.....4

Holds Press Need Not Fear Radio.....4

Special Antenna For 33-Story Building.....5

Appeals Filed By WFI and WSPA.....5

Business Letter Briefs.....6

NBC Acquires Waldorf-Astoria Rights.....7

Perryman Offers Three New Tubes.....7

Plans Automatic SOS Alarms.....7

Applications Received By Federal Radio Commission.....8

Decisions Of The Federal Radio Commission.....9

No. 450

RADIO RECORDER FOR CHECKING STATIONS ACCEPTED

Broadcasters suspected of violating any of the regulations of the Federal Radio Commission had better watch their step henceforth or have a good alibi ready when summoned for a hearing.

An especially-designed radio recorder for checking stations was accepted this week by the Commission, following a successful demonstration, for use in gathering evidence against broadcasting stations under investigation. There will no longer be any question as to the authenticity of reported misconduct, for the records will be available for reproduction at the hearing.

The machine, developed by RCA Photophone, Inc., will not only produce a more accurate verbatim transcription, but will be cheaper than past methods in that it will replace a corps of stenographers who have worked in relays when a lengthy report on a station's program was desired.

The apparatus, which cost approximately \$1,000 was manufactured at Camden, N. J., by the RCA Victor Co., on order of the Photophone Company. It consists of three portable units, electrically operated by regular alternating current. In the units are a recorder containing two motor-driven turntables, which operate continuously and are overlapping, a recording amplifier, a microphone, and a highly selective receiving set. With this combination, it is possible to pick up a particular station and record its entire program on the pregrooved blank disc records. The principle, it was explained, is the same, along general lines, as the "home-recording" radio receiving sets.

"We believe the operation of this device will solve many of the problems that have been confronting us for several years", said Acting Chairman E. O. Sykes, following the demonstration.

"With it we will be able to record radio broadcasts in any section of the country and have a permanent record for use in any emergency. Heretofore we have been obliged to resort to stenographic reports and oftentimes they have proven unsatisfactory. Now we shall have an absolutely perfect record which, if need be, can be introduced at hearings before the Commission's Examiners to support the allegations in the Commission's bill of complaint.

"With this new device in operation, we shall be able to maintain close contact with all broadcasting activities and when it becomes generally known that we have installed the apparatus, we believe it will be the means of lessening the number of infractions against the Commission's rules and regulations. The portability of the apparatus, which can be transported in three small cases, will make it possible for it to be transported, when necessary, to remote places where it will be operated by a radio engineer who shall be competent to qualify as an expert at any necessary hearings."

James W. Baldwin, Secretary of the Commission, declared that use of the new apparatus should result both in increased efficiency and economy in the conduct of radio hearings. In lieu of sending out for affidavits in support of complaints against particular stations under investigation, he explained that recordings will be made, providing a complete report on the particular station's activity, at a fraction of the cost of hiring stenographic reporters. In several instances the cost of stenographic transcriptions, he said, has equalled or exceeded the cost of the apparatus itself.

Dr. C. B. Jolliffe, Chief Engineer of the Commission, emphasized the value of such a device in the gathering of evidence. Any station that can be received with satisfactory quality may have its programs recorded for possible future use by the Commission on matters affecting its renewal of license in the public interest, he said.

It was explained that special needles must be used to successfully record and reproduce a record. Records can be reproduced immediately after the recording has been completed on an instrument having the speed of 33-1/3 revolutions per minute.

In addition to Acting Chairman Sykes, Chief Engineer Jolliffe, and Secretary Baldwin, other Commission officials who witnessed the demonstration were Acting General Counsel Duke M. Patrick, Assistant General Counsel Paul D. P. Spearman, George S. Smith, Chief, License Division, and G. Franklin Wisner, Chief, Information Section.

The demonstration was arranged and presented by Gerald K. Rudolph, Director of Publicity and Advertising of RCA Photophone; W. S. Wakem, Engineer of RCA Photophone, and J. A. Terrell, Engineer of RCA-Victor.

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RADIO USEFUL TO SMITHSONIAN INSTITUTION

Radio is the best medium available for uncovering valuable material for museums, particularly items of historical interest, Austin H. Clark, Curator of Echinoderms at the Smithsonian Institution, at Washington, D. C., declared in a statement this week.

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SEVEN TEMPORARY LICENSES GRANTED

Issuance of temporary licenses to seven broadcasting stations for failure to arrive at time-sharing agreements as to the use of their wavelengths, or for failure to file copies of their regular operating schedules, pursuant to radio regulations, was announced this week by the Federal Radio Commission.

Stations given temporary licenses for failure to reach time-sharing agreements were WPG, Atlantic City, WLWL, New York City, and WWL, New Orleans. The temporary licenses are from August 1st, after which renewal applications will be designated for hearing.

Stations given temporary licenses from August 1st for failure to file copies of their regular operating schedules in accordance with General Order No. 105, are KMO, Tacoma, Washington; KFVD, Culver City, Calif., KMPC, Beverly Hills, Calif., and KWJJ, Portland, Oregon. These stations also will be designated for hearing on renewal applications.

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HOLDS PRESS NEED NOT FEAR RADIO

Harold H. Anderson, an associate of Dr. George H. Gallup in newspaper research, declared at the recent Southern Publishers' convention in Asheville, N. C., that a survey had been made of interest in radio programs in metropolitan centers at 7 o'clock in the evening, when a prominent feature was being broadcast.

By personal call and by telephone in separate tests, the investigators determined that 79 per cent of all households called upon were home at the time, that 85 per cent of those at home owned radio sets, that 47 per cent of the set owners were listening at the moment, but that only 35 per cent of those listening could identify the station, the program, or the sponsor.

Newspapers, he said, had little to fear from the radio as a competitor. While it was undoubtedly suited to the advertising of certain firms, its general applicability as an advertising medium was doubtful, and that publishers could without difficulty determine for themselves the amount of "blue sky" being claimed by local broadcasters in their assertions of local coverage.

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SPECIAL ANTENNA FOR 33-STORY BUILDING

Arrangements for the installation of a special antenna receiving system for the operation of radio receivers in each of the 425 offices in a modern 33-story building now under construction at Philadelphia for the Philadelphia Saving Fund Society, have just been completed, according to the RCA Victor Company, Inc.

The new structure will be the first large office building in the United States to make such elaborate provision for modern radio reception, according to George Cole, Manager of the Centralized Radio Section of RCA Victor.

The radio equipment will be a newly developed "Antenaplex" receiving system from the Camden Laboratories, Mr. Cole said. Two single antennae located on the roof of the building will supply antenna and ground connections from a wallplate socket to approximately 500 receiving sets of any standard type, providing equal operating efficiency for each receiver regardless of location. The new system eliminates the electrical interference usual in business districts with large steel buildings, through the use of a specially shielded, metal "Cabloy" conduit scarcely a quarter of an inch in diameter.

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APPEALS FILED BY WFI AND WSPA

An appeal from a recent decision of the Federal Radio Commission refusing the application of Radio Station WFI for modification of its license to increase its power from 500 to 1000 watts has just been filed in the Court of Appeals of the District of Columbia by Methuel M. Webster, Jr., and Paul M. Segal, attorneys for Strawbridge & Clothier, of Philadelphia, Pa., owners of the station.

The appeal claims that the Commission erred in not granting the application, and states that no one opposed the application during the hearings before the Commission. Pennsylvania is an underquota State in an underquota Zone, according to the appeal.

Notice of appeal of the recent decision of the Radio Commission in which Radio Station WSPA, at Spartansburg, S. C., was denied its application for 500 watts power on 590 kilocycles, unlimited time, also has just been filed in the Court of Appeals of the District of Columbia.

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: BUSINESS LETTER BRIEFS :
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The Kentucky Press Association at its recent convention named a committee to investigate radio and its competition with newspapers. The committee will report at the Winter meeting.

Klau-Van Pieteron-Dunlap Associates, Inc., of Milwaukee, has been selected by the Zenith Manufacturing Corporation to direct its advertising.

The Cincinnati Post has taken over operation of WFBE, lowest-powered station in the Queen City. Bod Segal has been made temporary manager. The Post is understood to hold an option for purchase of station after a reasonable period of experimentation.

Erwin Wasey & Co., of Chicago, will handle the national radio broadcasting for Montgomery Ward & Company, which started July 1st over NBC coast-to-coast network.

The Oregon Editorial Association at its recent convention adopted a resolution declaring that radio programs should be run as paid advertising instead of news.

The Crosley Radio Corporation of Cincinnati, on July 8th filed with the Federal Radio Commission an application for a new television station to be located at Cincinnati with 1,000 watts power. The channel requested is that of 2100 to 2200 kilocycles. The company now operates broadcasting stations WLW and WSAI, in Cincinnati.

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NBC ACQUIRES WALDORF-ASTORIA RIGHTS

Exclusive broadcasting rights on all music and functions of public interest sponsored by the New Waldorf-Astoria Hotel, which is to open on October 3rd, were acquired by the National Broadcasting Company in negotiations completed yesterday between M. H. Aylesworth, President of the radio network, and Lucius Boomer, President of the hotel corporation. Daily broadcasts of orchestral music and Sunday programs or organ recitals are planned. Meetings of general interest held there and talks by prominent persons will also be transmitted nationally over the NBC networks.

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PERRYMAN OFFERS THREE NEW TUBES

In response to a growing demand for more efficient radio tubes, to be employed in battery operated receivers, especially those designed for broadcast reception aboard motor boats, the Perryman Electric Company has presented three new tubes. These tubes are known as types P236, P237 and P 238 and have been especially designed to meet the requirements which motor boat, auto and portable radio receivers will place upon them.

The P236 is a type of screen grid, the P238, a pentode amplifier, and the third, the P237, a general purpose tube. These one-quarter ampere tubes draw six volts and are of the indirect heater type. They have been ruggedly designed so that their construction will off-set the vibration which is inherent to most mediums using portable battery operated receivers.

Joseph D. R. Freed, President of the Perryman Electric Company, in making the announcement of the new tubes, pointed to the fact that over sixty percent of the inboard motor boats now being shown at local yacht clubs and motor boat show rooms, feature special radio equipment and in most cases, built-in aerials.

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PLANS AUTOMATIC SOS ALARMS

Development of automatic radio distress alarms for use on the seas in both submarine and surface craft is the aim of the Submarine Signaling Co., which yesterday filed with the Federal Radio Commission an application for authority to conduct practical air tests of apparatus it has developed.

In the application, T. R. Madden, of Boston, president of the company, explained that the 15-watt transmitter sought would be used to test automatic distress radio apparatus under actual operating conditions. Four experimental channels of 1664, 2398, 3256 and 4795 kilocycles are requested.

"This company", he stated, "is engaged in the manufacture and development of sonic and radio aids to navigation, particularly of automatic radio distress alarms. In order to perfect this equipment upon which the safety of life at sea may often be dependent, it is necessary to test it under actual operating conditions. These conditions cannot be satisfactorily simulated in the laboratory.

"We therefore believe that the operation of the proposed station will be in the public convenience, interest and necessity, and promote the safety of life at sea by furthering the development of radio distress alarms and other navigational aids."

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APPLICATIONS RECEIVED BY FEDERAL RADIO COMMISSION

July 8 - WAAM, Inc., Newark, N. J., C. P. to make changes in equipment; WMAK, Buffalo Broadcasting Corp., Buffalo, N. Y., voluntary assignment of license to Niagara Falls Broadcasting Corp., C. P. to move transmitter and studio to Niagara Falls, make changes in equipment, change power from 1 KW to 500 w.; North Mississippi Broadcasting Corp., Texarkana, Ark., C. P. to erect new station to use 1,200 kc., 100 w., daytime, facilities to be withdrawn from WDIX, C. P. to move transmitter and studio from Tupelo, Miss., to Greenville, S. C., change frequency from 1500 kc., to 1310 kc., and hours of operation from Unlimited to daytime; WKBH, WKBH, Inc., Lacrosse, Wis., modification of license amended to request simultaneous operation with KSO until 6 P.M., dividing time thereafter instead of until 7 P.M.; KSEI, KSEI Broadcasting Association, Pocatello, Idaho, C. P. to make changes in equipment; KWG, Portable Wireless Telephone Co., Stockton, Calif., license to cover C. P. granted March 13, 1931, for changes in equipment; KFXY, Mary M. Costigan, Flagstaff, Ariz., voluntary assignment of C. P. and license to Albert H. Schermann.

Applications, Other Than Broadcasting

W2XDJ, Bell Telephone Laboratories, Inc., Ocean Township, N. J., renewal of special experimental license for 3422.5, 4752.5, 6755, 8560, 9170, 9750, 9870, 12840, 13390, 10550, 14470, 14590, 16270, 18340, 19220, 19820, 21060, 17120, 21420 kc., 25 KW; W2XDG Same Co., and location, renewal for 4752.5, 6755, 8560, 9170, 9750, 9870, 12840, 13390, 10550, 14470, 14590, 16270, 18340, 19220, 21060, 17120, 21420, 3422.5, 19820 kc., 5 KW, experimental (special);

W3XAG, Police Department, Baltimore, Md., license covering C. P. for 1712, 2416 kc., 50 w., special experimental, for test purposes; Submarine Signal Company, Boston, Mass., new C. P. for 1604, 2398, 3256, 4795 kc., 15 w., experimental service; The Crosley Radio Corp., Cincinnati, Ohio, new C. P. for 2100 to 2200 kc., 1 Kw., visual broadcasting.

KGPM, City of San Jose, Police Dept., San Jose, Calif., modification of C. P. for extension of C. P. period from 6/9/31 to 12/9/31, police service; WIA, Radiomarine Corp. of America, Detroit, Mich., modification of license for additional frequency of 6440 kc., coastal service; WOX, New York Telephone Co., Staten Island, N. Y., modification of C. P. for authority to operate station by remote control; KRD, Aeronautical Radio, Inc., Pasco, Wash., C. P. to install new transmitter on 3160, 3166, 3172, 3178, 5570, 5660 kc., 400 watts, aeronautical service; KGWV, Fox Film Corp., portable in Hollywood, Cal., renewal of license for 1552, 1554, 1556 kc., 250 watts, motion picture service; WPEC, City of Memphis, Police Dept., Memphis, Tenn., modification of C. P. for change in location locally; Mackay Radio & Telegraph Co., near Las Vegas, Nevada, new C. P. for 4410, 6815 kc., 500 watts, public point to point service; KUB, Alaska Packers' Association, permanently moored vessel, Kvichak River, Alaska, license covering C. P. for 274 kc., 50 watts, limited public service.

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DECISIONS OF THE FEDERAL RADIO COMMISSION

The following decisions of the Federal Radio Commission on pending miscellaneous applications, were made available July 8th, subject to ratification by the full Commission when it reconvenes in September:

Applications Granted

WPD, George Collins Warner, Jr., Tampa, Fla., modification of license to authorize remote control operation of the transmitter from the licensee's home, Tampa, Fla., in conformity with G. O. 113; WSC, Radiomarine Corp. of America, Tuckerton, N. J., modification of license to authorize transmission on the frequency 11185 kc., instead of one of the present licensed frequencies 13210 kc.; WSBN, American Telephone & Telegraph Co., "Leviathan", modification of license to authorize transmission on the frequency 13210 kc., instead of on one of the present licensed frequencies 13260 kc.; WDAE, Tampa Publishing Co., Tampa, Fla., C. P. to make changes in equipment; WGN, WLIB, The Tribune Co., Chicago, Ill., C. P. to construct an auxiliary transmitter at same location as regular transmitter (Villa Road, about 4 miles east of Elgin, Ill.), power of aux. 1 KW; KFSG, Echo Park Evangelistic, Los Angeles, Calif., C. P. to make changes in equipment; WKAR, Michigan State College, East Lansing, Mich., C. P. to make changes in equipment to conform to requirements of General Orders 111, 115, 116.

Also, KPJM, A. P. Miller, Prescott, Ariz., modification of C. P. to move transmitter and studio locally; WCAP, Radio Industries Broadcast Co., Asbury Park, N. J., license to cover C. P. 1280 kc., 500 w., shares with WOAX and WCAM; WSAZ, WSAZ, Inc., Huntington, W. Va., license to cover C. P. 580 kc., 250 w., shares with WOBU; WLIT, Lit Brothers, Philadelphia, Pa., license to cover C. P. 560 kc., 500 w., shares with WFI; WWSW, William S. Walker, Pittsburgh, Pa., license to cover C. P. 1500 kc., 100 w., unlimited time; WOS, Missouri State Marketing Bureau, Jefferson City, Mo., license to cover C. P. 630 kc., 500 w., shares with KFRU and WGBF; KFGQ, Boone Biblical College, Boone, Iowa, license to cover C. P. 1310 kc., 100 w., shares with KFJY and KWGR; KXA, American Radio Telephone Co., Seattle, Wash., license to cover C. P. 570 kc., 500 w., unlimited time.

Also, KSOO, Sioux Falls Broadcast Association, Inc., Sioux Falls, S. Dak., modification of license to increase operating power from 2 KW to 2½ KW; WSVS, Seneca Vocational High School, Buffalo, N. Y., permission to suspend operation of WSVS until September 15, 1931; WEW, St. Louis University, St. Louis, Mo., permission to suspend broadcasting all programs, except Government reports, during months of July and August; KHVBV, Crosley Radio Corp. (Chambers), NC-982-Y, granted, for period of 60 days, authority to install and test a 50-w telephone transmitter on board airplane NC-982-Y, belonging to Mr. Powel Crosley; WRBJ, Woodruff Furniture Co., Inc., Hattiesburg, Miss., voluntary assignment of license to W. E., F. E., and P. L. Barclift and J. H. Harbour, doing business as Hattiesburg Broadcasting Co.

Applications Granted Other Than Broadcasting

Aeronautical Radio, Inc.: at Fort Wayne, Ind., C. P. 3082, 3088, 5510 kc., 400 w., unlimited except day only 5510 kc.; at Charleston, S. C., C. P. 3070, 3076, 5690 (mobile), 4164, 6320 (fixed) 300 w., unlimited except day only 5690 and 6320 kc.; at Memphis, Tenn., C. P. 3238, 3244, 3452, 3460, 3468, 3484, 5600, 5630 kc., 400 w., unlimited except day only on 5600, 5630 kc., (mobile), 6260, 6275, day only (fixed); KGUT, Robertson, Mo., modification of C. P., change frequency from 3238, 3452, 3460, 3468, 3484, 5600, 5630, 2344, 4140 kc., to 3244, 3238, 3452, 3460, 3468, 3484, 4915 (mobile), 2326, 2344, 4140, 6260, 6275 (fixed), change in emission and change in time from unlimited, except day only on 5600, 5630 kc., to unlimited, except day only on 4915, 6260, 6275 kc.; WSDG, Chicago, Ill., modification of C. P., change frequencies from 2326, 2344, 4140, 6260, 6275, 3452, 3460, 3468, 3484, 5600 kc., to (mobile) 3239, 3244, 3452, 3460, 3468, 3484, 4915; (fixed) 2326, 2344, 4140, 6260, 6275 kc., and change time from unlimited except day only on 6260, 6275, 5630 kc., to unlimited except day only on 4915, 6260, 6275 kc.; WEEN, Linden, N. J., license covering C. P. 3070, 3076, 5690 kc., 350 w.

Also, WPD, George Collins Warner, Jr., Tampa, Fla., license for marine relay service, 500, 5525, 438, 8630 kc., 200 and 500 w., unlimited, every day of week, hours from 6 A.M. to 6 P.M.; Ford Motor Co., license for transmitter now installed in Airplane NC-3041, licensed experimentally under the call W8XA, 3106 kc., 50 w.; RCA Communications, Inc.: KQH, Kuhuku, T. H., license to cover C. P., 19020 kc., 80 KW, unlimited; WGX, San Juan, P. R., license to cover C. P. 6890 kc., 80 KW, unlimited; WGO, Radiomarine Corporation of America, Chicago, Ill., license covering C. P. 410, 425, 454 kc., 50 w., unlimited; KUL, Alaska Packers' Association, Pilot Point, Alaska, license to cover C. P. 500, 460, 246, 272 kc., 100 w., 6 hours daily for a period of 4 months during fishing season; KUD, Same Co., Becharof, Alaska, license to cover C. P. 246, 272, 500, 460 kc., 100 w., six hours daily for a period of 4 months during the fishing season; KHB, Same Co., Kvichak, Alaska, license to cover C. P. 246, 272, 460 and 500 kc., 50 w.

Also, KNJ, Northwestern Fisheries Co., Nushagak, Alaska, license to cover C. P. 272, 256, 500, 425 kc., 200 w., unlimited; Libby, McNeill & Libby: KMF, Egegik, Alaska, KNO, Nushagak, Alaska, KMG, Ekuak, Alaska, licenses to cover C. P. 3184 kc., 100 w., unlimited; KMT, Libbyville, Alaska, license to cover C. P. 3184, 250 w., unlimited; also license to cover C. P. 219, 256, 272, 500, 425 kc., 200 w., unlimited; KVV, Hoggiung, Alaska, and KML, Lockanok, Alaska, license to cover C. P. 3184 kc., 50 w., unlimited.

Granted Renewals Of Licenses

KDKA, Westinghouse Electric & Manufacturing Co., Pittsburgh Pa.; KEX, Western Broadcasting Co., Portland, Oreg.; KFBI, The Farmers & Bankers Life Insurance Co., Milford, Kans.; KFEQ, Scroggin & Co., St. Joseph, Mo.; KFI, Earle C. Anthony, Inc., Los Angeles, Calif.; KGDM, E. F. Peffer, Stockton, Calif.; KGO, National Broadcasting Co., Inc., San Francisco, Calif.; KJR, Northwest Broadcast System, Inc., Seattle, Wash.; KTHS, Hot Springs Chamber of Commerce, Hot Springs, National Park, Ark.; KMMJ, The M. M. Johnson Co., Clay Center, Nebr.; KNX, Western Broadcast Co., Hollywood, Calif.; KOA, National Broadcasting Co., Inc., Denver, Colo.; KPO, Hale Bros. Stores, Inc., and The Chronicle Publishing Co., San Francisco, Calif.; KRLD, KRLD Radio Corp., Dallas, Texas; KSL, Radio Service Corporation of Utah, Salt Lake City, Utah; KVOO, Southwestern Sales Corp., Tulsa, Okla.; KYW-KFKX, Westinghouse Electric & Manufacturing Co., Chicago, Ill.; WAAW, Omaha Grain Exchange, Omaha, Nebr.

Also, WABC-WBOQ, Atlantic Broadcasting Corp., New York, N.Y., WAPI, Alabama Polytechnic Institute University of Alabama and Alabama College, Birmingham, Ala.; WBAL, Consolidated Gas Electric Light & Power Co., Baltimore, Md.; WBT, Station WBT, Inc., Charlotte, N. C.; WBZ, Westinghouse Electric & Manufacturing Co., Boston, Mass., WBZA, Westinghouse Electric & Manufacturing Co., Boston, Mass.; WCAU, Universal Broadcasting Co., Philadelphia, Pa.; WCAZ, Superior Broadcasting Service, Inc., Carthage, Ill.; WCFL, Chicago Federation of Labor, Chicago, Ill.; WDZ, James L. Bush, Tuscola, Ill.;

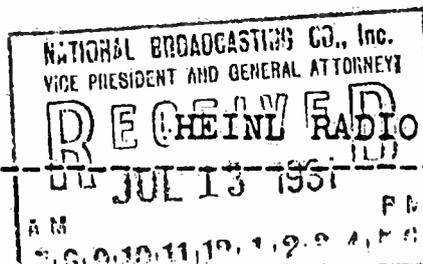
Also, WEAF, National Broadcasting Co., Inc., New York, N. Y., WEW, The St. Louis University, St. Louis, Mo.; WFAA, Dallas News and Dallas Journal, Dallas, Tex.; WGBS, General Broadcasting System, Inc., New York, N. Y.; WGN-WLIB, The Tribune Co., Chicago, Ill.; WGY, General Electric Co., Schenectady, N. Y.; WHB, WHB Broadcasting Co., Kansas City, Mo.; WHDH, Matheson Radio Co., Inc., Boston, Mass.; WHO, Central Broadcasting Co., Des Moines, Iowa.; WJR, WJR, The Goodwill Station, Inc., Detroit, Mich.; WJZ, National Broadcasting Co., Inc., New York, N. Y.; WMAQ, WMAQ, Inc., Chicago, Ill.; WMBI, The Moody Bible Institute Radio Station, Chicago, Ill.; WOAI, Southern Equipment Co., San Antonio, Texas; WOC, Central Broadcasting Co., Davenport, Iowa.

Also, WPCH, Eastern Broadcasters, Inc., New York, N. Y.; WPTF, Durham Life Insurance Co., Raleigh, N. C.; WRUF, University of Florida, Gainesville, Fla.; WRVA, Larus & Bro. Co., Inc., Richmond Va.; WSB, Atlanta Journal Co., Atlanta, Ga.; WSM, The National Life & Accident Insurance Co., Nashville, Tenn.; WTAM, National Broadcasting Co., Inc., Cleveland, Ohio; WTIC, The Travelers Broadcasting Service Corp., Hartford, Conn.; WENR-WBCN, National Broadcasting Co., Chicago, Ill., (temporary - subject to outcome of WTMJ); WLS, Agricultural Broadcasting Co., Chicago, Ill. (temporary - subject to outcome of WTMJ); WOWO, The Main Auto Supply Co., Fort Wayne, Ind.; WRAX, WRAX Broadcasting Co., Philadelphia, Pa.; WHAM, Stromberg-Carlson Telephone Mfg. Co., Rochester, N. Y.; WJAG, The Norfolk Daily News, Norfolk, Nebr.

Applications Designated For Hearing

John Wilbur Jones, Newburgh, N. Y., C. P. 1390 kc., 100 w., unlimited time, requests facilities of WCCH, WLCI and (or) WGBB; Weber Jewelry & Music Co., St. Cloud, Miss., C. P. 1500 kc., 50 w., to share time with KGFK; Berkshire Broadcasting Service, Pittsfield, Mass., C. P. 1310 kc., 100 w., unlimited time; KGBX, KGBX, Inc., St. Joseph, Mo., requests authority to increase operating power from 100 w., to 100 w. night and 250 w., local sunset, for increase in day power applicant requests the facilities of KFEG; WGI, Fred C. Zieg (Allen-Wayne Co.), Ft. Wayne, Ind., requests authority to increase operating power from 100 w., to 100 w. night and 250 w. local sunset, requests facilities of KTNT in terms of units.

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PATENTS, ~~PATENT-SUIT~~, TRADE-MARKS, AND DESIGNS

The following patents were granted during the week ending July 7, 1931:

- 1,812,867. Radio Loud Speaker. Charles Hugh Duffy, Miami, Fla. Filed April 25, 1930.
- 1,812,957. Electrically Operating Sound Recorder and Reproducer. Charles Huenlich, Bloomfield, N. J., assignor to Thomas A. Edison, Inc., West Orange, N. J. Filed November 3, 1928.
- 1,812,977. Oscillation Generator. Russell S. Ohl, New York, N. Y., assignor to American Telephone and Telegraph Co. Filed November 25, 1925.
- 1,812,998. Resonance Attachment for Sound Reproducing Devices. Arno E. Tauscher and Benno E. Schultze, Chicago, Ill. Filed March 20, 1930.
- 1,813,036. System of Neutralization. Harold F. Elliott, Palo Alto, Calif., assignor, by direct and mesne assignments, to Victor Talking Machine Company, Camden, N. J. Filed March 11, 1927.
- 1,813,051. Amplifier Circuits. Herman Hollerith, Jr., Riverton, and Almon N. Fenton, Audubon, N. J., assignors to Victor Talking Machine Company. Filed May 14, 1925.
- 1,813,054. Wireless Receiving System. Charles T. Jacobs, East Orange, N. J., assignor to Splitdorf Radio Corporation, Newark, N. J. Filed April 12, 1928.
- 1,813,067. Thermionic Amplifier System. Byron B. Minnium, Chicago, Ill., assignor, by mesne assignments, to Story & Clark Radio Corp., Chicago, Ill. Filed March 18, 1926.
- 1,813,137. Radio Frequency Coil. Alfred E. Baumann, Milwaukee, Wis. Filed November 25, 1925.
- 1,813,143. Aerial System. Edmond Bruce, Red Bank, N. J., assignor to Bell Telephone Laboratories, Inc., New York, N. Y. Filed November 25, 1927.
- 1,813,166. Talking Machine Recorder. Theodor Kahn, Berlin-Charlottenburg, Germany. Filed November 30, 1929, and in Germany November 27, 1928.
- 1,813,180. Radio Receiving Apparatus. Percival D. Lowell, Jamaica, N. Y., assignor to A. H. Grebe & Co., Inc., Richmond Hill, N. Y. Filed July 16, 1927.

- 1,813,194. Radio Apparatus. John N. Nordlund, Detroit, Mich. Filed May 4, 1925.
- 1,813,204. Radio Photography Transmitter. Virgil Adolf Schoenberg, Niles, Center, Chicago, Ill. Filed August 1, 1929.
- 1,813,208. Acoustic Device. Edwin H. Smythe, Evanston, Ill., assignor to Western Electric Company, Inc., New York, N. Y. Filed November 26, 1926.
- 1,813,216. Radiographic Timing Apparatus. Wilbur S. Werner, Covington, Ky., assignor to The Kelley-Koett Manufacturing Co., Covington, Ky. Filed July 12, 1927.
- 1,813,232. Receiving Circuit. Hiram D. Currier, Chicago, Ill., assignor to Kellogg Switchboard & Supply Company, Chicago, Ill. Filed April 30, 1925.
- 1,813,241. Thermionic Tube. Earl L. Koch, Chicago, Ill., assignor to Kellogg Switchboard and Supply Co., Chicago, Ill. Filed April 9, 1926.
- 1,813,334. Audion Circuit Battery Control. Franklyn J. Wolff, Trenton, N. J. Filed June 26, 1926.
- 1,813,461. Piezo Electric Crystal Apparatus. Alexander McLean Nicolson, New York, N. Y., assignor, by mesne assignments to Federal Telegraph Company. Filed December 20, 1926.
- 1,813,469. Frequency Multiplication System. Albert H. Taylor, Washington, D. C., assignor to Wired Radio, Inc., New York, N. Y. Filed December 22, 1928.
- 1,813,472. Automatic Phonograph. Ferdinand J. Tillman, St. Louis, Mo. Filed December 22, 1919.
- 1,813,483. Automatic Brake for Talking Machines. George Frederick Clark, West Drayton, England, assignor to Victor Talking Machine Co. Filed May 10, 1930, and in Great Britain June 24, 1929.
- 1,813,488. Oscillatory Circuits and Method of Compensating for Voltage Changes Impressed Thereon. Robert F. Field, Watertown, Mass., assignor to Atlantic Precision Instrument Company, Boston, Mass. Filed October 21, 1927.
- 1,813,541. Circuit Control System for Radio Apparatus. Charles C. Lauritsen, St. Louis, Mo., assignor, by direct and mesne assignments, to Colin B. Kennedy, Inc., St. Louis, Mo. Filed May 7, 1925.

- 1,813,563. Radio Signalling. Louis Cohen, Washington, D. C., Filed July 18, 1928.
- 1,813,588. Member or Structure Vibrated By Energy Impulses. Floricel A. Stapler, Philadelphia, Pa., assignor to Victor Talking Machine Company. Filed October 10, 1928.
- 1,813,593. Electrical Device. Frank Willett Walton, East Orange, N. J., assignor to Westinghouse Lamp Company. Filed January 6, 1927.
- 1,813,673. Stereoscopic Telemeter. Joseph Mihalyi, Rochester, N. Y. Filed March 12, 1928.
- 1,813,681. Method and Apparatus for Sound Reproduction. Otto Sandvik, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y. Filed March 21, 1930.
- 1,813,688. Transmitter Plate Potential Equalizing Circuit. Rudolf Urtel, Berlin, Germany, assignor to Telefunken Gesellschaft fur Drahtlose Telegraphie m.b.H., Berlin, Germany. Filed January 28, 1929, and in Germany March 26, 1928.
- 1,813,724. Radio Receiving Set. August A. Beste, Virginia, Minn. Filed May 6, 1927.
- 1,813,775. Means for Preventing Retroactive Effects in Audion Amplifier Circuits. George A. Somersalo, New York, N.Y. Filed January 27, 1927.
- 1,813,855. Electrostatical Vibration Structure. Ernst Klar, Berlin, Germany, assignor, by mesne assignments, to United Reproducers Patents Corporation. Filed May 21, 1927, and in Germany, May 21, 1926.

Patent Suit

- 1,173,079. E. F. Alexanderson, Selective tuning system; 1,195,632, W. C. White, Circuit connections of electron discharge apparatus; 1,251,377, A. W. Hull, Method of and means for obtaining constant direct current potentials; 1,297,188, I. Langmuir, System for amplifying variable currents; 1,728,879, Rice & Kellogg, Amplifying system, filed May 5, 1931, D. C., S. D., Calif. (Los Angeles), Doc. E T-116-J, Radio Corporation of America, et al. V. Platt Music Co.

Trade-Marks

- Ser. No. 313,328. The Carbon Products Co., Lancaster, Ohio. Filed April 14, 1931. Trade-Mark; "WINNER" for dry cells and batteries, etc. Dry "A", "B", "C" Batteries for Radio; Dry Cells for Radio, ignition and telephones, etc. Claims use since September 12, 1928.
- Ser. No. 314,660. Silver-Marshall, Inc., Chicago, Ill. Filed May 16, 1931. "BEARCAT" for Radio Receiving Sets, kits for radio receiving sets, electric pick-ups for phonographs, and accessories and parts, consisting of aerials, battery eliminators, binding posts, chokes, coils, coil sets, condensers, dials, grid leaks, jacks, loud speakers, panel boards, potentiometers, radio amplifying units, radio rectifying units, rheostats, shields, transformers, electron tubes, tube sockets, tuning units, choke coils and wire and cable for radio sets and apparatus. Claims use since April 30, 1930.

Trade-Mark Registration Granted

- 284,571. Radio Tube Testers. Kinney Bros. & Sipprell, Everett, Wash. Filed December 22, 1930, Published April 28, 1931.

Designs

- 84,592. Radio Cabinet or Similar Article. George J. Pike, Grand Rapids, Mich., assignor to General Motors Radio Corporation, Dayton, Ohio. Filed May 8, 1931. Term of patent $3\frac{1}{2}$ years.
- 84,594. Radio Cabinet or Similar Article. George J. Pike, Grand Rapids, Mich., assignor to General Motors Radio Corporation, Dayton, Ohio. Filed May 8, 1931. Term of patent $3\frac{1}{2}$ years.

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HEINL RADIO BUSINESS LETTER

INSURANCE BUILDING

WASHINGTON, D. C.

ISSUED TWICE A WEEK AND CONTAINING THE LATEST INFORMATION REGARDING THE RULINGS OF THE FEDERAL RADIO COMMISSION, RADIO LEGISLATION, DEPARTMENT OF COMMERCE REGULATIONS, CHANGES IN WAVELENGTH, CALL LETTERS AND POWER, PATENTS, EXPORTS, FEDERAL TRADE COMMISSION RULINGS AND OTHER MATTERS OF INTEREST TO BROADCASTERS AND MANUFACTURERS. :: :: CONFIDENTIAL—NOT FOR PUBLICATION. :: ::



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INDEX TO ISSUE OF JULY 13, 1931

Caldwell Attacks State Radio Quotas.....	2
New York & Chicago Do Quarter Of Radio and Electrical Business....	2
Capehart Radio-Phonograph Plays Entire Opera.....	3
Wile, Jr., Returns To Columbia.....	3
NBC To Put Studios On Skyscraper.....	4
Conditions In Polish Radio Market.....	4
Paley Defends U. S. Radio In England.....	7
KFI Celebrates NBC Hookup.....	7
Network Of Newspaper Stations Planned.....	8
CBS Television Station To Open July 21st.....	9
Correction.....	9
Chief Signal Officer Installed.....	10
Leopold Heads New Television Company.....	10
Schudt To Direct CBS Television.....	10
Business Letter Briefs.....	11
Applications Received By Federal Radio Commission.....	12

No. 451

SUBSCRIPTION PRICE, \$10. PER MONTH. NO CONTRACT REQUIRED.

CALDWELL ATTACKS STATE RADIO QUOTAS

Appealing from decisions of the Federal Radio Commission in the cases of WPTF, of Raleigh, N. C., and KECA, of Los Angeles, Louis G. Caldwell, radio attorney, attacked the regulations prescribing the manner in which broadcasting facilities shall be distributed among the States under the radio law.

The appeals, filed in the Court of Appeals of the District of Columbia, attacked the regulations both as to their validity and their constitutionality.

"A deplorable and unnecessary waste and non-use of a substantial portion of the limited total of broadcasting facilities" results from these orders (Nos. 92 and 102), Mr. Caldwell said.

Both WPTF and KECA were denied applications for increased power and changes in transmitters because of conflict with these quota regulations.

After charging that these decisions were "arbitrary and capricious", the radio counsel declared that the Radio Commission itself had in effect repealed the provisions of these orders in previous allocations.

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NEW YORK & CHICAGO DO QUARTER OF RADIO AND ELECTRICAL BUSINESS

Total sales of radio and electrical appliances in the United States in 1929 reached the tremendous figure of \$1,260,000,000. Of this total, the trading areas of New York and Chicago shared 25 per cent.

Electrical appliances sold during the period totalled \$750,000,000 for the entire nation, while \$178,000,000, more than 23 per cent of the total, was consumed in New York and Chicago. The same year, the two largest American cities did \$141,000,000 of radio business, more than 27 per cent of the national total of \$510,000,000. These figures were obtained in a survey conducted by the management of the Radio-Electrical World's Fair and the Chicago Radio-Electrical Show, which will be held in New York and Chicago, respectively, in September and October.

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CAPEHART RADIO-PHONOGRAPH PLAYS ENTIRE OPERA

A radio-phonograph instrument with a new record-changing mechanism which makes possible the automatic reproduction of complete operas and symphonies as well as complete albums of records in proper sequence and without regard to the size of the records was demonstrated by the Aeolian Company in New York Saturday.

The new instrument was developed after two years of work by the Capehart Corporation of Fort Wayne, Ind., and is to be known as the Capehart 400 series. It has several novel features, being the first of its kind that can play both sides of a record automatically. It handles three to twenty-four records of standard manufacture having either oscillating or spiral-type trip grooves and plays ten or twelve inch records or both intermixed in any desired sequence - both sides of each record in correct succession, one side only, continuous repetition or rejection of any record, as desired. The record changer is equipped with a special constant-speed electric motor, which operates both the turntable, and the record-shifting mechanism.

H. E. Capehart, president of the Capehart Corporation, said the instrument covers a wider musical range than any musical instrument of its type today, going down as low as sixteen cycles and up as high as 4600 cycles. It also has the most selective and powerful radio set to date, being of the thirteen-tube superheterodyne type, giving a ten-kilocycle separation, Mr. Capehart said.

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WILE, JR., RETURNS TO COLUMBIA

Doubtless having gotten a few ideas how to do things from observing Mussolini, Frederic William Wile, Jr., the son of the well known Washington correspondent and radio commentator, is returning from Italy to resume his position with the Columbia Broadcasting System in New York.

Young Mr. Wile graduated with honors from Princeton in 1930 and secured a position with Columbia. However, about this time there came to him the opportunity of serving as private secretary to John W. Garrett, Ambassador to Italy. Seeing in this a chance to secure valuable experience and acquiring a first hand knowledge of the European situation, which doubtless would serve him well in the broadcasting business, Mr. Wile decided to accept the Italian post for a year prior to settling down with Columbia.

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NBC TO PUT STUDIOS ON SKYSCRAPER

Former Governor Alfred E. Smith, President of Empire State, Inc., and Merlin H. Aylesworth, President of the National Broadcasting Company, have announced that television studios and laboratories will be established on top of the Empire State Building by the National Broadcasting Company.

In making the announcement Mr. Aylesworth predicted that television will have reached the stage where it will be available for general public use in about one year. He stated that application has been made by the National Broadcasting Company to the Federal Radio Commission for experimental licenses for special equipment to be installed on the eighty-fifth floor of the Empire State Building, the world's tallest structure.

The NBC television studios and laboratories will occupy the east half of the eighty-fifth floor, approximately one thousand feet above the street and it is believed by NBC engineers that operation of apparatus at this height above the city will be helpful in surmounting the difficulties which have beset television transmission in the past. A television antenna will be placed at the top of the Empire State mooring mast, one thousand two hundred and fifty feet above street level.

Mr. Aylesworth stated that the reason for the acquisition of the highest laboratory in the world by the National Broadcasting Company was for the purpose of bringing television out of the laboratory and inaugurating experimental transmission. He predicted that after about a year of intensive experimental work under actual working conditions the art of television will have progressed to the point where the public will be invited to participate.

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CONDITIONS IN POLISH RADIO MARKET

Following is a review of the Polish radio market prepared for the Department of Commerce by Consul Stewart E. McMillin, of Warsaw:

"The total number of radio subscribers now registered in Poland is approximately 230,000 as compared with 202,561 in 1930. However, the volume of radio sales has dropped somewhat. The diminished purchasing power of the population, especially of the agriculturalists as a result of economic conditions, and the relatively high prices prevalent for radio equipment are the principal factors affecting the market at present.

"The new 120-kilowatt broadcasting station near Warsaw and the gradually expanding home-radio industry are factors which are affecting the character of the local market. This new station has made reception possible over practically the whole of Poland, while the industry is catering to the demand for crystal and simple tube sets, thus eliminating the demand for larger and costlier sets which would have to be imported.

"Despite the decrease in the volume of sales of radio apparatus, imports increased about 14 per cent and radio tubes showed a gain of 20 per cent during 1930. Imports from Germany accounted for approximately 50 per cent of Poland's total foreign purchases and sets and parts coming from Germany were 11 per cent higher in 1930 than in 1929. The crisis which the German manufacturers are experiencing and the large stocks which the factories have on hand are said to be the reasons for the serious attempts to enter the Polish market on a larger scale than heretofore. The Polish manufacturers can not compete with German products, since mass production of German factories and their relatively heavy sales permit them to improve and modernize their products continually.

"The value of imports of radio apparatus for 1930 amounted to \$927,752 as compared with \$798,988 for the previous year. Of this amount Germany and the Netherlands were the principal sources of supply, imports from these countries amounting to \$447,808 and \$335,280, respectively. These figures do not include radio tubes, storage and dry batteries, transformers, and measuring instruments, which are classified under various headings in the Polish foreign trade statistics. Poland's imports of radio tubes had a value of \$353,482 in 1930, compared with \$271,123 in 1929, \$348,651 in 1928, and \$276,741 in 1927. About 40 per cent of the 1930 tube imports originated in the Netherlands.

"Efforts were made in 1930 by several Polish radio manufacturers to export sets, headphones, and dry batteries to Czechoslovakia, Rumania, Jugoslavia, and even Brazil. Inability to compete with German and other foreign products already firmly entrenched in these markets made it impossible to make satisfactory connections in these countries.

"The output value of the Polish radio industry for 1929 amounted to approximately \$1,500,000, according to calculations based on official figures. It is thought that the 1930 production value was not much over that for 1929.

"The Polish industry specializes in the manufacture of such small parts as condensers, headphones, bakelite pressed parts, resistances and crystal detectors, although complete electrically operated sets and speakers are manufactured by two of the largest firms. The Phillips company of the Netherlands is incorporated as a Polish concern maintaining an assembly plant in Warsaw, but most of its products are being imported from the Netherlands.

"Tube receiving sets are manufactured largely by two large plants in the suburbs of Warsaw, each employing about 500 workmen. One of these factories producing 6,962 sets annually in addition to a few transmitters for the Polish Government and army, and the other turns out 3,480 tube sets yearly. Actual capacity of these two factories is rated at 20,000 sets a year.

"Crystal receiving sets are manufactured by seven factories and establishments, having a total annual output of about 35,000 sets valued at approximately \$20,000.

"The manufacture of radio transmitting and receiving tubes was first begun in Poland by the Polish Marconi company. Since these tubes could not compete in price and quality with those imported, however, their manufacture was discontinued. The local Phillips company, however, is assembling annually about 154,000 tubes, this amounting to 30 per cent of tube imports.

"Loud-speakers are manufactured by two companies, the total annual production being estimated at 3,275 units, valued at \$20,497. Five factories make headphones, their total annual production being 8,500 units, valued at \$9,438. The Polish product is fairly satisfactory as regards sensitivity and finish and is regarded as the equal of the German and other European products of the same class.

"Storage batteries for both radio receiving sets and automobiles are produced by three plants near Warsaw, their total output amounting to over 80,000 batteries, valued at \$209,663.

"The dry-battery industry is one of the best organized and developed of the radio industries in Poland. Fully 90 per cent of the materials used in the manufacture of these batteries is of domestic origin, only certain of the special chemicals must be imported from abroad, principally from Germany.

"The manufacture of miscellaneous parts used in the radio industry amounts to about \$129,000 a year. Considerable progress has been made in the manufacture of some of this equipment.

"The prevailing credit terms granted by foreign manufacturers to the Polish wholesale and importing trade are three to six weeks on open account or three to four months' credit covered by promissory notes. Installment buying is being practiced on a large scale in the retail trade. Only the smaller and cheaper accessories and apparatus are purchased for cash."

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PALEY DEFENDS U. S. RADIO IN ENGLAND

Speaking over the radio in England recently, William S. Paley, President of the Columbia Broadcasting System, expressed the belief that England and the United States each had the sort of radio best adapted to its needs.

"America is traditionally antagonistic to monopoly, and especially to government monopoly, so we decided on government regulation rather than government control and on orderly competition rather than monopoly", said Mr. Paley. "Perhaps you would be interested to know why broadcasting is on a commercial basis in America.

"It is difficult, yet quite possible, for a wise British Broadcasting Corporation to feel and follow the pulse of the public's taste, to strike a fair balance between praise and blame - as they have done with such remarkable success - and to formulate a policy that does justice to the country as a whole", he added.

"The pulse can be felt by one central authority here; but in America success or failure is made evident only as the result of competition. It is the only real measuring stick we can employ. We take as our guide the free vote of the people, expressed by the simple device of 'turning the button.' If our listeners don't like a given program, they quickly turn that most influential of all knobs to another wave length and in a twinkling they are listening to a rival program which may serve them better."

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KFI CELEBRATES NBC HOOKUP

KFI, Los Angeles station associated with the National Broadcasting Company celebrated the installation of a new 50 kilowatt transmitter last Sunday night (July 12) with a special program broadcast from New York and Chicago over an NBC-WJZ network from 12:30 to 1 A.M., E.D.T. M. H. Aylesworth, president of NBC, spoke from New York.

KFI was founded by Earle C. Anthony in April, 1922, and first went on the air on the sixteenth of that month. It still remains under his ownership and management, but became affiliated with the National Broadcasting Company on April 5, 1927. The station is located in the Packard Building in Los Angeles.

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NETWORK OF NEWSPAPER STATIONS PLANNED

Contemplated purchase of two radio stations and the possibility of ultimate development of a nation-wide hookup of newspaper owned non-advertising stations is revealed by the California Newspaper Publishers' Association, according to Editor & Publisher.

Possibility of the acquisition of the stations was revealed by President H. R. Judah following a meeting in San Francisco of the association's executive board. It also was learned that John B. Long, General Manager of the organization, will go to Des Moines, Ia., to propose a nationwide news broadcasting service to managers of State Press Associations gathered there in September.

Definite action on the California project is expected at the November meeting in Los Angeles in conjunction with the American Newspaper Publishers' Association Convention. The project has been under consideration of a committee of three members of the Executive Committee for some time.

"Our thought is to operate the station without advertising purely in the public service", Mr. Long stated. The two stations under consideration are located in Los Angeles and San Francisco. In case the stations are acquired, publishers of the C.N.P.A. will eliminate the publication of radio schedules and give free space only to their own non-advertising programs.

The nearest approach to advertising over the stations would be statements with news bulletins that details may be had in the listeners' home-town paper. The papers will not be named.

The stations would be maintained by the newspapers in the Association. Details of the proposal were learned from E. H. Wilder, Manager of the Association's San Francisco office.

"With 219 newspapers in this country owning broadcasting stations", Mr. Wilder said, "there seems to be an ultimate future for a national organization of newspapers presenting broadcasts daily and in every way independent of advertising."

The theory as presented by Mr. Wilder is that if the public demands spot broadcasts of news events, there is no agency better fitted to provide this than the newspapers, trained for generations in the gathering of news. The Association's committee is of the opinion that news broadcasts would be materially benefited if given by trained reporters.

The stations would be supplementary to the newspapers even as the bus lines are supplementary to the railroads, he holds.

"We believe that radio is desirable for entertainment and that the radio fan turns his radio dial for entertainment and not for broadcasts. We believe that in the broadcasting of spot news events, the reporter can give a much better word story than the broadcasting men as now employed. Many of the details unnoticed by others would be noted almost unconsciously by the trained reporter.

"Newspapers today devote some space to radio because people are interested in the entertainment and not because of the radio advertising. Our programs, as proposed, would eliminate all but the entertainment from the broadcasting."

Explaining the supplementary service to be afforded by the use of radio, Mr. Wilder said that much of the material collected by the reporter at the scene of the spot news broadcast is of that type which would be blue-penciled by the editor. Nevertheless, this copy is of interest to radio fans.

"Our plan is not to replace newspaper stories with broadcasting, but to make broadcasting a supporting factor of the newspapers."

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CBS TELEVISION STATION TO OPEN JULY 21ST

The Columbia Broadcasting System's experimental television station in New York will be opened officially on Tuesday, July 21st, from 10:15 to 11 P. M., EDST. At that time a sight and sound program will be broadcast over WABC, W2XAB, W2XE and the coast-to-coast Columbia network.

Although details have not been completed, the program inaugurating seven-hour daily television will be one of the most elaborate of the year, according to a CBS announcement. Celebrities from the stage, screen and national life have been invited to participate.

During its tests over a period of two weeks lookers-in as far away as Boston, Hartford, Schenectady and Camden have reported reception of programs sent out by the Columbia station.

Licensed under the call letters W2XAB, the experimental television stations will operate in a frequency channel from 2750 to 2850 kilocycles with 500 watt power, utilizing 60-line scanning at 20 frames per second. The installation represents ultra modern television transmitting apparatus.

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C O R R E C T I O N

In announcing the publication of the new book, "Radio in Advertising" by Orrin Dunlap, Jr., Radio Editor of the New York Times, the address of Harper & Brothers, publishers, was inadvertently omitted. It is 49 East 33rd Street, New York City.

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CHIEF SIGNAL OFFICER INSTALLED

Col. Irving J. Carr, appointed with rank of Major General to succeed Maj. Gen. G. S. Gibbs, as Chief Signal Officer of the Army, took oath of office last week.

This was administered by Maj. Gen. Blanton Winship. Maj. Gen. Carr has as yet made no announcement with regard to what, if any, development is contemplated with regard to radio in the Army.

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LEOPOLD HEADS NEW TELEVISION COMPANY

The Continental Television Corporation has been formed with a Delaware charter to manufacture and assemble television equipment in Newark. It has acquired control of the Radio Technic Laboratory. Joseph Leopold, formerly President of the Consolidated Instrument Company of America, is president.

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SCHUDT TO DIRECT CBS TELEVISION

Bill Schudt, Jr., creator of the Columbia radio feature, "Going to Press" has been appointed Acting Director of Television Programs.

He will be in charge of the elaborate experimental television programs now being tested by the Columbia System in the Metropolitan area and which soon will be broadcast regularly by W2XAB.

Schudt, with magazine and newspaper experience, has pioneered in television reception. He has been associated with Station WABC for four years and when the Columbia network acquired the outlet, he became affiliated with the Publicity Department.

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: BUSINESS LETTER BRIEFS :

L. J. Fitzgerald, Chicago manager of NBC Artists Service announces the appointment of Gerard Barry as head of the Dance Band Division of the Artists Service in Chicago.

An agreement was made in Vienna last week between Cesar Searchinger for the Columbia Broadcasting Company and the Vienna "Ravag", or Radio Company, for the exchange broadcasting of musical programs between Austria and America.

A telephone conversation recorder, a device by which both sides of conversations on the wire or radio is recorded on a magnetic steel wire in such manner that the voices can be reproduced at any later time, will soon be made available to the public by the International Telephone & Telegraph Corp., through subsidiary companies.

Rights to the device were obtained when I. T. & T. recently affiliated with the Echophon-Maschinen A. G. of Germany, which developed it. One of the features of the wire is that the message can be obliterated so that the wire can be used again.

Rudy Vallee, at a wedding reception at NBC headquarters in New York announced that, when the new Radio City is completed, he hoped to give up "crooning" and leading an orchestra to become an "executive" of the "type" of S. L. (Roxy) Rothafel.

By agreement reached by the six members of the Allied Vermont Dailies, radio programs have been dropped from the pages of the Burlington Free Press, Rutland Herald, Barre Times, and St. Johnsbury Caledonian, and will soon disappear from Bennington Banner and the Brattleboro Reformer. The latter are carrying announcements of non-advertising features of important events and speeches. The Rutland Herald announces in a box that it will print full programs of radio stations at the regular advertising rates.

If what David Sarnoff said to the Queen of Siam proved as interesting as the question he asked Mrs. Marconi in the famous trans-Atlantic tete-a-tete, conversation surely did not lag at the luncheon which Mr. Sarnoff gave to the King and Queen of Siam in New York recently.

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APPLICATIONS RECEIVED BY FEDERAL RADIO COMMISSION

July 10 - WSAR, Doughty & Welch Electric Co., Inc., Fall River, Mass., modification of C. P. to request changes in equipment and to extend commencement date from 4/25/31 to 7/25/31 and completion date from 7/25/31 to 9/24/31; R. J. Wood, Lake Placid, N. Y., C. P. to erect new station to use 1220 kc., 500 watts and to share daytime with WCAD; Vernon Taylor Anderson, Big Spring, Texas, C. P. resubmitted, amended as to equipment requested; KFJM, University of North Dakota, Grand Forks, North Dakota, C. P. amended to request change in equipment.

July 11 - WSYB, Philip Weiss, tr. ad Philip Weiss Music Co., Rutland, Vt., C. P. to move transmitter and studio from 33 Center St., Rutland, Vt., to 80 West St., Rutland, Vt.; WJZ, National Broadcasting Co., Inc., New York, N. Y., modification of C. P. for authority to make changes in equipment and to extend completion date from 7/15/31 to 8/8/31.

Applications, Other Than Broadcasting

July 9 - KGPM, Police Dept., San Jose, Calif., modification of C. P. for extension of Construction period from June 9, 1931 to Dec. 9, 1931, police service; WAA, Radiomarine Corp. of America, Detour, Mich., modification of license for additional frequency of 6440 kc., coastal service; WOX, New York Telephone Co., Staten Island, N. Y., modification of license construction permit for authority to operate station by remote control; KRD, Aeronautical Radio, Inc., Pasco, Wash., C. P. to install new transmitter on 3160, 3166, 3172, 3178, 5570, 5660 kc., 400 w., aeronautical service; KGWV, Fox Film Corporation, portable in Hollywood, Calif., renewal of license for 1552, 1554, 1556 kc., 250 w., motion picture service; WPEC, Police Dept., Memphis Tenn., modification of C. P. for change in location locally; Mackay Radio & Telegraph Co., Las Vegas, Nev., new C. P. for 4410, 6815 kc., 500 w., public point-to-point service; KUB, Alaska Packers' Association, Kvichak River, Alaska, license covering construction permit for 274 kc., 50 w., limited public service.

July 11 - WKDU, City of Cincinnati, Cincinnati, Ohio, renewal of license for 1712 kc., 500 watts, police service; Radiomarine Corporation of America: WIM, Marion, Mass., renewal of license for 500, 406 kc., 5 KW, coastal service; WSA, Radiomarine Corp. of America, New London, Conn., renewal of coastal license for 500, 408, 476 kc., 1.5 KW; WBL, Buffalo, N. Y., renewal of coastal license for 143, 410 5525, 161, 425, 454, 4775, 8570 kc., 100 and 750 watts; WCY, West Dover, Ohio, renewal of coastal license for 4775, 8570, 5525, 161, 425, 454, 143, 410, 6440 kc., 200 w., 750 w., and 1 KW; The Crosley Radio Corporation, NC-982-Y, new license for aircraft on 3106 kc., 50 watts.

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HEINL RADIO BUSINESS LETTER

INSURANCE BUILDING

WASHINGTON, D. C.

ISSUED TWICE A WEEK AND CONTAINING THE LATEST INFORMATION REGARDING THE RULINGS OF THE FEDERAL RADIO COMMISSION, RADIO LEGISLATION, DEPARTMENT OF COMMERCE REGULATIONS, CHANGES IN WAVELENGTH, CALL LETTERS AND POWER, PATENTS, EXPORTS, FEDERAL TRADE COMMISSION RULINGS AND OTHER MATTERS OF INTEREST TO BROADCASTERS AND MANUFACTURERS. :: :: CONFIDENTIAL—NOT FOR PUBLICATION. :: ::

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INDEX TO ISSUE OF JULY 16, 1931.

WTMJ Appeals From RCA Decision.....	2
Composers' Not Increasing Radio Tax.....	4
Baird Television People Achieve Better Shading.....	5
Ford Stations Get Temporary Permits.....	6
Interference Suppressors For Automobile Radio.....	6
Fuller Sues Over WFBE Transfer.....	7
Birmingham Papers Make Radio Survey.....	7
Device Tells Long-Winded Speakers When To Quit.....	8
Justice Department Pleased With Radio Decision.....	9
Business Letter Briefs.....	10
Philco Signs Philo Farnsworth.....	11
Reports By Examiners On Applications.....	11
Applications Received By Federal Radio Commission.....	12
Decisions Of The Federal Radio Commission.....	13

No. 452

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WTMJ APPEALS FROM RCA DECISION.

On the final day for the 20 days allowed for appeals from decisions of the Federal Radio Commission, the Milwaukee Journal, operator of WTMJ, on Tuesday appealed from verdict in the case of the Radio Corporation of America and its subsidiaries to the District of Columbia Court of Appeals.

The appeal, which throws the RCA licenses in litigation, is directed particularly at the failure of the Commission to revoke the licenses of WENR and WLS, of Chicago, whose channel is sought by WTMJ. WENR is operated by the National Broadcasting Company and WLS has an operating agreement with the network.

Station WTMJ, the petition brings out, was one of four intervenors in the litigation before the Commission prior to the ruling renewing the RCA licenses. At the Commission, it was explained that while the appeal is directed only against the single channel of 870 kilocycles for which the Milwaukee station is an applicant, with the maximum power of 50,000 watts, the entire issue of possible cancellation of the whole group of 1,409 licenses automatically is raised.

The case is against a Commission decision, and the four RCA subsidiaries therefore must enter the litigation by the filing of intervening statements. The Commission, following customary procedure, will file within 30 days, its answer to the appeal, together with a statement of facts and grounds for decision.

Since the court is in recess until Fall, no action can be expected until that time. Because the Milwaukee Journal is not seeking a restraining order of any nature, the licenses of RCA stations will be continued on regular basis during the pendency of the litigation, but licenses for new projects probably will be issued conditionally, and not on a permanent basis.

In the appeal, Attorneys Elisha Hanson and Ralph S. Fowler recite the history of the WTMJ litigation with respect to the application for the 870 kilocycle channel, together with the steps leading up to the Commission's action on June 24th renewing the RCA licenses under Section 13. Station WTMJ now operates on the regional channel of 620 kilocycles with 1,000 watts night and 2,500 watts daylight, and seeks the maximum 50,000 watt power together with the cleared channel occupied by WENR and WLS.

The reasons for appeal cited by WTMJ, are as follows, in full text:

Insofar as said decision and (or) order of the Federal Radio Commission applies to the license of the National Broadcasting Company for Radio Broadcasting Station WENR appellant respectfully shows unto the court as follows:

I. The Federal Radio Commission erred in deciding that the judgment of the United States District Court for the District of Delaware in the case of Lord, Receiver v. Radio Corporation of America, 35 F (2d) 962 is not such a judgment as is described in Section 13 of the Radio Act of 1927, as amended.

II. Said Commission erred in failing to decide that said judgment was and now is a final adjudication that the Radio Corporation of America has been guilty of unlawfully monopolizing or attempting to monopolize radio communication directly or indirectly, through the control of the manufacture or sale of radio apparatus and (or) that said Radio Corporation of America has been finally adjudged to have been using unfair methods of competition, and that said judgment is such a judgment as is described in Section 13 of the Radio Act of 1927, as amended.

III. Said Commission erred in deciding that Section 13 of the Radio Act of 1927, as amended, deals only with monopolies in radio communication, and that Section 15 of said Act deals only with monopolies of radio apparatus.

IV. Said Commission erred in failing to decide that it was the intent of Congress to include within the Radio Act of 1927, as amended, a positive antimonopoly provision and that both Section 13 and Section 15 of said Act apply to violations of the Sherman, Clayton and Federal Trade Anti-trust Acts.

V. Said Commission erred in deciding that radio receiving sets are not essential elements of radio communication and that a monopoly of the commerce in vacuum tubes, the vital parts of the mechanism of such radio receiving sets, does not in fact constitute a monopoly of radio communication within the meaning of Section 13 of the Radio Act of 1927, as amended.

VI. Said Commission erred in failing to decide that radio receiving sets are essential elements of radio communication and that a monopoly of the commerce in vacuum tubes, the vital parts of the mechanism of such radio receiving sets, does in fact constitute a monopoly of radio communication within the meaning of Section 13 of the Radio Act of 1927, as amended.

VII. Said Commission erred in deciding that applications for renewals of licenses should not be denied the Radio Corporation of America and its subsidiaries.

VIII. Said Commission erred in failing to decide that Section 13 of the Radio Act of 1927, as amended, precludes said Commission from renewing the licenses now issued to said Radio Corporation of America and its subsidiaries when the same automatically expire by the terms thereof.

IX. Said Commission erred in deciding that an application for the renewal of license for Radio Broadcasting Station WENR should not be denied the National Broadcasting Company, one of the subsidiaries of the Radio Corporation of America.

X. Said Commission erred in failing to decide that Section 13 of the Radio Act of 1927, as amended, precludes said Commission from renewing the licenses now issued to the National Broadcasting Company for Radio Broadcasting Station WENR when the same automatically expires by the terms thereof.

XI. The decision of said Commission is erroneous, contrary to law and in violation of the duty imposed upon said Commission by the provisions of the law which created it.

Wherefore, the premises considered, appellant prays that judgment be entered reversing and revoking said decision and (or) order of the Federal Radio Commission insofar as it authorizes the operation by the National Broadcasting Company of Radio Broadcasting Station WENR after the expiration of its present license, and restraining said Commission from authorizing, either by further renewal of license or otherwise, any further operation of said Station WENR by the National Broadcasting Company.

And for such further orders or decrees which the premises may require or to the court seem just and proper.

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COMPOSERS' NOT INCREASING RADIO TAX

The following is from Variety:

"Unusual part about the present squawk of the publishers that they are not receiving enough money from radio is that five years ago, when the American Society first began to tax radio, the publishers fought against it. It was the songwriters who won out in the batter to collect from radio. At that time the publishers complained radio was their best plug, that they were paying to have their songs played over the air and that they should not jeopardize the medium by imposing a tax.

"Now the publishers are complaining that they are not receiving one-fifth of what they should from radio. For the past few months they have been constantly spreading propaganda for a higher radio tax. At one time there was even talk of taxing each radio station a certain percentage of its yearly revenue for the right to use copyright music.

"However, the Society says that the taxing idea is only publishers' talk and that the Society has not even considered it. It declares it is raising the rate for radio stations as the power or rate of each station is increased."

In the same issue of the paper, in a dispatch from Los Angeles, there is this reference to the music tax:

"If France, with its limited population and creative talents, can yield to its French Society of Composers an annual revenue of \$3,500,000, then this country's \$2,500,000 annual yield from performing rights is ridiculous, says the American Society. It is hoped this can be increased to \$10,000,000 per annum, and if so, will keep the native music publishers and songwriters going."

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BAIRD TELEVISION PEOPLE ACHIEVE BETTER SHADING

A new technique in television pickup is being inaugurated in the studios of the Shortwave and Television Corporation, of Boston, as a result of experiments with two different types of photo-electric cells, a technique which gives much better shading of televised pictures than previously achieved. The following is, in part, a statement made by the company:

"This new technique calls for the simultaneous use of two different types of photo-electric cells which are controlled in a mixing panel which becomes the television director's palette for his portraiture. Potassium cells have been used for pickup work in television for several years. More recently the caesium cell has been introduced into the television studio. The caesium cell has been replacing the older potassium cell because it is about five times as sensitive as the potassium cell.

"Hollis Baird, chief engineer of the Shortwave and Television Corporation, studied these two cells and their results and decided that while the caesium cell was very sensitive, pictures reproduced from its pick-up seemed to lack some of the qualities of the earlier potassium cell pictures.

"A study of these two different types of cells then showed what the difficulty was. Colors are located in a scale or spectrum even as are broadcasting stations.

"Caesium, used alone, seems to give rather a flat picture. Thus it became apparent to Mr. Baird that if the qualities of the potassium cell could be added to those of the caesium cell, a finer type of picture would result. The potassium would make up for the weakness of caesium to red colors and the caesium fill in the lack of response to blue, characteristic of the potassium cell. Due to the much greater sensitivity of the caesium cell, this mixing had to be such that the potassium would have an equal value with the caesium.

"This has been accomplished in the studio of the Shortwave and Television Corporation's station, W1XAV, by using a group of several potassium cells for each caesium cell used. The impulses of these cells are then fed into a mixing panel and thence into the amplifier."

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FORD STATIONS GET TEMPORARY PERMITS

Three aeronautical radio stations of the Ford Motor Company, which have been off the air since June 25th, were granted temporary licenses by the Federal Radio Commission this week pending a decision next Fall on whether the stations are serving the public interest.

The extensions were until October 1st because most of the members of the Commission are on vacation. Two of the stations are in Dearborn, Mich., and the third is at Lansing, Ill. They are employed in radio beacon and aeronautical service, primarily in experimental work on radio aids to air navigation.

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INTERFERENCE SUPPRESSORS FOR AUTOMOBILE RADIO

The serious interference caused by spark coil, plugs and distributors, constituting the major problem in the operation of the usual automobile radio set, is now eliminated, according to the International Resistance Company, of Philadelphia, Pa. The engineers of that organization have spent six months in intensive research and engineering development on the automobile radio interference problem, resulting in resistance units which offer a practical, simple and inexpensive solution.

"The main point in suppressing radio interference set up by ignition equipment is to attack the trouble at the source", a press release by that company sets forth. "The new resistance units are designed to be applied at the potential sources of trouble. One unit connects to its respective spark plug, being inserted in circuit with the lead from the distributor. Another unit is inserted in the distributor cap so as to come between the distributor contact and the spark plug lead. A third unit is in the form of a ceramic tube fitted with wood-screw terminals, so that it may be conveniently inserted in the main spark coil lead and in each spark plug lead, which are cut for the purpose.

"All units contain the new Type K metallized filament for the resistance element, fully protected by a heavy ceramic tubing, as well as cast metal ends with proper fittings for the connections required."

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FULLER SUES OVER WFBE TRANSFER

Suit to set aside the transfer of WFBE to the Cincinnati "Post" was filed this week in Common Pleas Court at Cincinnati, by Earl Fuller, orchestra leader. Fuller alleges he was deprived of his rights as a partner when the station was sold or leased to the Scripps-Howard paper. He asks that a receiver be appointed and claims to own an undivided one-half interest in the etherizer.

Defendants in the action are George M., William C., and Louis Schott, P. W. Miller and the Post Publishing Co. George Schott is now a principal owner and general manager of Coney Island, a big local amusement park.

The "Post" began operating WFBE a week ago but refrained from announcing the tie-up in its columns. Sheet also remained silent on the Fuller suit, but the story was carried by two other papers.

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BIRMINGHAM PAPERS MAKE RADIO SURVEY

The Birmingham News and Age-Herald have just completed a survey of 1,089 radio owners, approximately 6 per cent of the families in Birmingham owning radio sets, in an effort to ascertain just what radio advertising was doing in the territory. Some results of the investigation, as reported by Editor & Publisher, follow:

1. Slightly fewer than half of the sets were turned on when the investigators made their visits, between noon and midnight.
2. There were 496 adults and 167 children listening to the 535 sets which were turned on.
3. Three-fourths of the men and women listening knew the station they had tuned in, but fewer than one-fourth knew the sponsor of the program then going on.
4. About a fourth of the listeners had bought goods as a result of radio advertising.
5. A considerable majority of the listeners had used their radios in the morning of the day when seen; a majority did not like radio advertising; and a majority had not looked at the radio program in the newspaper that day.

The questioning was done by students of journalism and commerce at Howard College, who were not told that the information was for newspaper use.

The survey was divided into 12 questions. Of the 668 women answering, 313 had their radios on at the time of calls and 355 did not, with the most popular hours being 7 to 8 with 44 stations on and from 8 to 9 with 49. Of the 421 men answering this questionnaire, 222 had their radios on at the time of the calls and 199 did not. The same hours seemed to be the most popular for men as for women.

To the question: "Has listener or his family purchased any product as a result of radio advertising?" 277 replied that they had; 801 had not bought anything as a result of radio advertising; 11 did not answer the question.

The last part of this question asked what had been bought as a result of radio advertising. The most popular answer was furniture, with 22 reports. This can be explained by the fact that WKBC is owned and operated by a local furniture store and at intervals from early morning until late at night, this station mentions the furniture store. Several 15 minutes and half hours during the morning, afternoon and night are sponsored by this store.

The second most popular item was toothpaste with 15 and a certain brand toothpaste was third with 14.

Question 9 brought replies that 441 had looked at the radio column in their newspaper that day, and 629 had not. There was no answer from 19.

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DEVICE TELLS LONG-WINDED SPEAKERS WHEN TO QUIT

A new device has been installed in Station WRC, at Washington, to head off long-winded speakers, whose prominence and dignity preclude their being headed off by the ordinary deaf and dumb language of the studio. The new idea is two triangular prisms with a brass sign on each face. The signs run in sequence - Five Minutes, Three Minutes, Two Minutes, One Minute, and PLEASE STOP!

The announcer places these before the speaker. As the time limits draw near, he turns them over, keeping the correct sign before the talker.

According to Don Craig, the radio scribe, Senator Bingham of Connecticut, speaking at the Press Club reception of Post and Gatty was the offender who convinced the Capital announcers that some new kind of a device would have to be put into operation in order to gag Senators and others who insisted upon talking overtime.

Senator Bingham was scheduled for a four-minute speech. He rose at the 13-minute mark and began his talk. After 10 minutes he was still going strong - and the other notables were squirming in their chairs.

Announcer Herluf Provensen on NBC was having convulsions and apoplexy by turns off-stage. Something had to be done. But what?

He signaled Lee Poe Hart, Chairman of the Entertainment Committee of the program. Hart came into the wings. Frantically, Provensen pointed to his watch.

"How much time have we?" Hart managed to emit.

"Time? Time!" Provensen re-echoed. "Five minutes!"

Hart ran around to the other side of the platform. Still Bingham talked. By this time even the engineers were resorting to deaf and dumb language and semaphore.

Finally Hart walked out on the stage as nonchalantly as possible and sat down beside President Leggett of the Press Club. Half a minute later Leggett rose. He caught Bingham's eye pleadingly.

As a last resort he began to walk toward the speaker, and after a 16-minute oration, the president of the National Aeronautical Association stopped.

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JUSTICE DEPARTMENT PLEASSED WITH RADIO DECISION

Defeat of the American Bond & Mortgage Company's efforts to operate its powerful radio station near Chicago, was described yesterday (Wednesday) by the Department of Justice as an important legal victory for the Government.

The Federal Radio Commission refused to renew the broadcasting license of the company, which thereupon announced its purpose to continue operation of the station, despite refusal of a license. Attorney General Mitchell got a restraining order and the injunction was upheld in the Chicago Court of Appeals.

"The opinion just handed down", the Department said in a statement, "upholds the contention of the Attorney General that persons using the air for broadcasting purposes under permit or license of the Federal Radio Commission, acquired no vested property rights."

Fighting the Government effort to keep the station off the air the company argued that it had made large expenditures in erecting the station and the Radio Commission had acted arbitrarily in denying it a license to continue operating, and had given no compensation for the loss of its property.

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: BUSINESS LETTER BRIEFS :
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The total number of letters at NBC for May of this year was 255,100. Last month ran up to 292,897.

In 1927, NBC's total intake of fan mail was around 540,200. That figure has been mounting steadily since. Last year it was 2,178,574. And in the first six months only of this year, the mark is 2,196,684!

Station WIBA, owned and operated by the Badger Broadcasting Co., Madison, Wisconsin, is to be added to the Northwest group of stations associated with the National Broadcasting Company on Saturday, July 13th, in a program broadcast from both New York and Chicago over an NBC-WJZ network from 12:00 M. to 1:00 A.M., E.D.T.

Philip LaFollette, Governor of Wisconsin, and United States Senators John J. Blaine and Robert M. LaFollette, Jr., with M. H. Aylesworth, President of NBC, will speak during the ceremonies from the NBC studios in Chicago. Responses are to be made by W. T. Evjue, Editor of the Capital Times of Madison, president of the recently formed corporation, and Col. A. M. Brayton, publisher of the Wisconsin State Journal, vice-president of WIBA.

The Childs Company has leased for a restaurant about 6,332 sq. ft. of store space in the new fifty-story RCA Building in New York at 570 Lexington Ave., between 50th and 51st Streets.

King Prajadhipok and Queen Rambaibarni visited the RCA-Victor Company plant at Camden, N. J., last Monday as guests of Eugene E. Shumaker, president of the company, and other officials. The visit was part of the King's inspection tour of American industrial plants.

The King and Queen were recently entertained at luncheon in New York by David Sarnoff, Chairman of the RCA.

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PHILCO SIGNS PHILO FARNSWORTH

Philo T. Farnsworth, 24-year-old San Francisco engineer who has developed a system of television transmission without the aid of moving parts, is to carry on future development work in the East.

Announcement was made in Philadelphia that the Philco Radio Corporation and Farnsworth had reached an agreement to that effect.

"Under an agreement made between Philco and Philo T. Farnsworth", a statement said, "further development work on the Farnsworth television system will be carried on in the Philco laboratories.

"Company officials are confident that the Farnsworth system will be the one finally adopted because of elimination of all rotating disks or other moving parts, and equally important because of the narrow broadcasting band necessary for transmission, which will multiply many times the number of broadcasting stations which can operate simultaneously without interference.

"The company wishes to point out, however, that much development work still is to be done before television is ready for the market."

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REPORTS BY EXAMINERS ON APPLICATIONS

Denial of the application of Station WLEY, operated by Carl S. Wheeler, for authority to remove from Lexington, Mass., to Springfield, Mass., was recommended to the Federal Radio Commission this week by Examiner R. H. Hyde.

Denial of two applications of the Ozark Radio Corporation of Cartersville, Jo., one seeking a new local broadcasting station, and the other seeking modification of license covering experimental operations, was recommended by Examiner Elmer W. Pratt.

Denial of the application of John H. Dolan, of Boston, Mass., for a new broadcasting station to operate with 100 watts power, one-half time, on the 1370 kilocycle channel, was recommended in a report filed by Examiner Hyde.

Examiner Ralph L. Walker recommended denial of the application of John E. Hass, of York, Pa., for a new 100 watt station to operate unlimited time on the 1500 kilocycle channel.

Examiner Pratt recommended that Station WKBO, of Jersey City and WNJ of Newark either be given a place in some other part of the radio spectrum or be eliminated from the air. The report was made in the case of Station WHOM of Jersey City, which asked for full time on 1450 kilocycles. This station now shares time with WKBO, WNJ and WBMS, of Hackensack, N. J.

The Examiner recommended that three-fourths time on 1450 kilocycles be allowed to WHOM and one-fourth time on the same frequency to WBMS. No provision was made in the report for the other two stations.

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APPLICATIONS RECEIVED BY FEDERAL RADIO COMMISSION

July 14 - Edward H. Bragg, Leslie F. Bragg, John C. Agnew and Albert H. Marshall, d/b as Plattsburgh Broadcasting Co., Plattsburgh, N. Y., C. P. amended to request to share time with WBCF instead of $\frac{1}{2}$ daytime, to change name to Plattsburgh Broadcasting Corp., and to make changes in equipment; WEHC, Emory and Henry College, Emory, Va., license to cover C. P. granted 4/3/31 for change of frequency, hours of operation, equipment, and increase in power; Wade H. Dellinger, Charlotte, N.C., C. P. resubmitted, amended to change transmitter location locally, to change frequency from 920 kc., to 880 kc., power from 500 watts to 250 watts, and hours of operation from unlimited to daytime, facilities to be withdrawn from Station KOCW; Harvey T. Johnson, Johnson City, Tenn., C. P. to erect new station to use 1400 kc., 100 watts, daytime; Ben J. Sallows, Alliance, Nebr., C. P. to erect new station to use 1230 kc., 500 watts, unlimited time.

July 15 - WLIT, direct measurement of antenna input (Lit Brothers, Philadelphia, Pa.; WEAI, Cornell University, Ithaca, N. Y., install automatic frequency control; WCOA, City of Pensacola, Pensacola, Florida, modification of C. P. amended to request authority to install new transmitter; KFDM, Magnolia Petroleum Company, Beaumont, Texas, direct measurement of antenna input; WOW, Woodmen of the World Life Insurance Association, Omaha, Nebr., direct measurement of antenna input.

Applications Other Than Broadcasting

The Humphrey Co., Cleveland, Ohio, new C. P. for 6040, 12080 kc., 500 watts, special experimental service; WRL, Duluth, Minn., and WBL, Buffalo, N. Y., Radiomarine Corporation of America, modification of coastal licenses for additional frequency of 6440 kc.; KDR, Alaska Packers' Association, Kvichak River, Terr. Alaska, license covering C. P. for 274 kc., 50 watts, limited public service; WMH, Radiomarine Corporation of America, Baltimore, Md., renewal of coastal license for 143, 500, 111, 481 kc., 200 and 750 watts.

July 15 - KZE, Radiomarine Corp. of America, Aberdeen, Wash., renewal of marine relay license for 500, 406, 442, 462 kc., 200 watts; American Telephone & Telegraph Co.: WLO, Lawrenceville, N. J., renewal of limited public license for 10550, 16270, 21420, kc., 20 KW; WNL, Rocky Point, N. Y., renewal of limited public license for 58.5, 61.5 kc., 190 KW; WNC, Lawrenceville, N. J., renewal of limited public license for 9750, 14470, 19220 kc., 20 KW; WPDR, City of Rochester, N. Y., Rochester, N. Y., renewal of police license for 1712 kc., 200 watts.

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DECISIONS OF THE FEDERAL RADIO COMMISSION

The Commission granted the following applications on July 14th:

W9XD, The Journal Co., Milwaukee, Wis., modification of C. P. to change location locally; National Air Transport, Inc., NC-424-H, license as follows: 3106, 3172, 3166, 3178 kc., unlimited, 5660 kc. day only, 50 watts or 15 watts, 3106 kc., for communication with any ground station; other frequencies with Red Chain stations, subject to G. O. 99 as amended; KTW, The First Presbyterian Church of Seattle, Wash., Seattle, Wash., C. P. to make changes in equipment to conform to requirements of G. O. 111 and 115; WBEO, The Lake Superior Broadcasting Co., Marquette, Mich., modified license as follows: antenna current 2.4 amperes, antenna resistance 18 ohms, antenna type, inverted "L", height, 40 ft., flat top 145 ft., counterpoise, single wire, length 130 ft.

Also, KHQ, Louis Wasmer, Inc., Spokane, Wash., modified license as follows, antenna current, 7.9 amperes for 1 KW and 11.2 for 2 KW, antenna resistance 16 ohms, antenna type "T", height 136 ft., flat top, 200 ft., direct ground, towers grounded; WBRE, Louis G. Baltimore, Wilkes-Barre, Pa., license to cover C. P. 1310 kc., 100 watts, unlimited; WJJD, Supreme Lodge of the World, Loyal Order of Moose, Mooseheart, Ill., license to cover C. P. 1130 kc., 20 kw, limited time; WOMT, Francis M. Kadow, Manitowoc, Wis., license to cover C. P. 1210 kc., 100 watts, unlimited; WIL, Mo. Broadcasting Corp., St. Louis, Mo., license to cover C. P. 1200 kc., 100 watts night, 250 watts, LS.

Also, KXL, KXL Broadcasters, Portland, Ore., license to cover C. P. 1420 kc., 100 watts; WKBW, WKBW, Inc., Buffalo, N. Y., consent to voluntary assignment of license to Buffalo Broadcasting Corp.; KFUL, Will H. Ford, Galveston, Texas, consent to voluntary assignment of license to The News Publishing Co., Inc.; KOH, Jay Peters, Inc., modification of license, change in name only to The Bee, Inc.; WHAS, The Courier-Journal Co., and the Louisville Times Co., Louisville, Ky., C. P. (emergency) to make changes in equipment to conform to G.O.s 111, 115 and 116; Robert E. Autrey, Navasota, Texas, extension of C. P. to Sept. 1, 1931.

The Commission granted the following renewal applications:

KSOO, Sioux Falls Broadcast Association, Inc.,; WAIU, American Insurance Union, Columbus, Ohio; WBAP, Carter Publications, Inc., Fort Worth, Texas; WHAS, The Courier-Journal Co., and the Louisville Times Co., Louisville, Ky.; WJJD, Supreme Lodge of the World, Mooseheart, Ill.; WKAR, Michigan State College, East Lansing, Mich.; WLW, The Crosley Radio Corp., Cincinnati, Ohio; WDGY, Dr. George W. Young, Minneapolis, Minn.

With regard to the following applications for renewal of broadcasting station licenses:

KWKH, Hello World Broadcasting Corp., Shreveport, La.
WMAK, Buffalo Broadcasting Corp., Buffalo, N. Y.,

the Commission directed that temporary licenses be issued for the term beginning 3 A.M., E.S.T., August 1, 1931, and period ending according to Special Minute #360 adopted April 16, 1931, each of said licenses to contain the following clause: "This license is issued on a temporary basis and subject to such action as the Commission may take after hearing on the licensee's pending application for renewal of license. No authority herein contained shall be construed as a finding by the Federal Radio Commission that the operation of this station is or will be in the public interest beyond the term hereof."

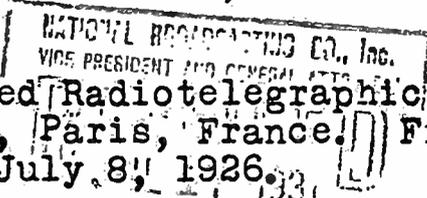
With regard to the following application for renewal of broadcasting station license:

WWVA, West Virginia Broadcasting Corp., Wheeling, W. Va.
KFAB, KFAB Broadcasting Co., Lincoln, Nebraska
WBBM-WJBT, WBBM Broadcasting Corp., Chicago, Ill.

the Commission, on consideration of the fact that hearings have been held upon the applications filed by (Stations WFBM, Indianapolis, Ind. and WOWO, Ft. Wayne, Ind., in the case of WWVA), (WBBM-WJBT, Chicago, Ill., in the case of KFAB), (Station KFAB, Lincoln, Nebraska, in the case of WBBM-WJBT), for the facilities of the above-named applicants, and that said matters are pending action before the Commission, directed that a temporary license be issued beginning 3 A. M., E.S.T., August 1, 1931, and period ending according to Special Minute No. 360, adopted April 16, 1931, license to contain the following clauses: "This license is issued on a temporary basis and subject to such action as the Commission may take after hearing on the applications filed by (Station WFBM Indianapolis, Ind., and Station WOWO, Ft. Wayne, Ind., for the frequency 1160 kc., in the case of WWVA), (Station WBBM-WJBT, Chicago, Ill., for the frequency 770 kc., in the case of KFAB), (Station KFAB, Lincoln, Nebr., for the frequency 770 kc, in the case of WBBM-WJBT). No authority herein contained shall be construed as a finding by the Federal Radio Commission that the operation of this station is, or will be in the public interest beyond the term hereof."

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PATENTS, PATENT SUIT, TRADE-MARKS AND DESIGN



- 1,813,908. High Speed Radiotelegraphic Receiving Apparatus. Joseph Bethenod, Paris, France. Filed July 1, 1927, and in France, July 8, 1926.
- 1,813,922. Detection of Frequency Modulated Signals. Clarence W. Hansell, Port Jefferson, Long Island, N. Y., assignor to Radio Corporation of America. Filed January 30, 1929.
- 1,813,923. Radio Receiving System. Raymond A. Heising, Millburn, N. J., assignor to Bell Telephone Laboratories, Inc., New York, N. Y. Filed February 6, 1929.
- 1,813,961. Signaling System. John C. Schelleng, Millburn, N. J., assignor to Western Electric Company, Inc., New York, N. Y. Filed August 28, 1925.
- 1,813,972. Phonograph. Adolph A. Thomas, New York, N. Y. Filed June 11, 1926.
- 1,813,973. Device for Evacuating Vacuum Tubes. Guy Theodore Thurneyssen, Paris, France. Filed April 5, 1926, and in France, August 11, 1925.
- 1,814,022. Sound Amplifying Device. Elmer F. Cassel, Washington, D. C. Filed March 7, 1925.
- 1,814,047. Portable Talking Machine. Heinrich I. Kuchenmeister, Berlin, Germany. Filed May 15, 1929, and in Germany April 7, 1928.
- 1,814,051. Method of and Apparatus for Controlling Alternating Current. David G. McCaa, Philadelphia, Pa. Filed December 8, 1925, and renewed November 6, 1930.
- 1,814,119. Loud Speaking Apparatus. Clifford C. Bradbury, Glencoi, Ill. Filed September 3, 1929.
- 1,814,137. Television. Judah B. Felshin, New York, N. Y., assignor of one-third to Morris Kirschstein and one-third to Louis Oskow, Brooklyn, N. Y. Filed April 8, 1929.
- 1,814,158. Signaling System. William H. T. Holden, Brooklyn, N. Y., assignor to American Telephone and Telegraph Company. Filed April 22, 1926.
- 1,814,181. Television Apparatus. Louis Oskow, Brooklyn, N. Y., assignor of one-half to Morris Kirschstein, New York, N.Y. Filed November 8, 1928.
- 1,814,235. Fluid Flow Indicator. Arthur M. Trogner, East Orange, N.J., assignor to Wired Radio, Inc., New York, N. Y. Filed December 10, 1928.

- 1,814,238. Wave Filter. Hendrik W. Bode, New York, N. Y., assignor to Bell Telephone Laboratories, Inc., New York, N. Y. Filed April 12, 1930.
- 1,814,247. Amplification System. Edward W. Fearing, East Orange, N. J. Filed June 1, 1927.
- 1,814,263. Electrical Control System. John Louis Reynolds, Long Island City, N. Y., assignor, by mesne assignments, to Electrical Research Products, Inc. Filed April 1, 1927.
- 1,814,269. Portable Talking Motion Picture Projector. Roy V. Terry, Montclair, N. J., assignor to Bell Telephone Laboratories, Inc., New York. Filed August 8, 1928.
- 1,814,270. Glow Discharge Device. Charles Travis, Philadelphia, Pa., assignor to Atwater Kent Manufacturing Co., Philadelphia, Pa. Filed January 17, 1928.
- 1,814,316. Tube Construction. Walter Louis Krahl, Montclair, N. J., assignor to Arcturus Radio Tube Company, Newark, N. J. Filed October 31, 1927.
- 1,814,327. Thermionic Device. Alexander McLean Nicolson, New York, N. Y., assignor by mesne assignments to Federal Telegraph Company. Filed March 11, 1927.
- 1,814,346. Radio Remote Control Device. David Alan Stevenson, Edinburgh, Scotland. Filed March 23, 1927, and in Great Britain April 9, 1926.
- 1,814,357. Acoustic Device for Sound Pick Up. Irving Wolff, New York, N. Y., and Harry F. Olson, Bronx, N. Y., assignors to Radio Corporation of America. Filed June 27, 1929.
- 1,814,376. Electron Tube Apparatus. Louis A. Gebhard and Corrie F. Rudolph, Washington, D. C., assignors, by mesne assignments, to Federal Telegraph Company. Filed May 3, 1927.
- 1,814,382. Television Receiving Apparatus. Victor G. Gustafson, Joliet, Ill. Filed December 3, 1928.
- 1,814,399. Indicator. Alexander Meissner and Otto von Bronk, Berlin, Germany, assignors to Gesellschaft fur Drahtlose Telegraphie m.b.H. Hallesches, Berlin, Germany. Filed August 19, 1927, and in Germany August 21, 1926.
- 1,814,403. Radio Dial. Fred Muller, New York, N. Y., assignor to Radio Corporation of America, New York, N. Y. Filed January 22, 1930.
- 1,814,444. Geophysical Method and Apparatus. Harvey C. Hayes, Washington, D. C. Filed May 15, 1928.

- 1,814,470. Microphone Radio Cut-Out Switch. James R. Fouch, Los Angeles, Calif. Filed January 12, 1931.
- 1,814,533. Radio Connection. Harry Ungar, St. Louis, Mo., assignor, by mesne assignments, to Dubilier Condenser Corporation, New York, N. Y. Filed April 5, 1923.
- 1,814,583. Method of Making Electrical Resistances. Raymond C. Benner, Niagara Falls, and Everett S. Capron, Buffalo, N. Y., assignors to The Carborundum Company, Niagara Falls, N. Y. Filed April 5, 1927.
- 1,814,603. Art of the Transmission of Sound Waves. Chester Alfred Lanton, Kansas City, Mo. Continuation of application Serial No. 666,489, filed October 4, 1923. This application filed August 4, 1927.
- 1,814,624. Acoustic Device. Abraham J. Fleck, Bradley Beach, N.J. Filed December 15, 1928.
- 1,814,681. Vacuum Device. Albert W. Franklin, New York, N. Y. Filed June 11, 1927.
- 1,814,711. Electron Discharge Device and Method of Fabricating the Same. Kenneth H. Kingdon, Schenectady, N. Y., assignor to General Electric Company. Filed March 6, 1926.
- 1,814,759. Cathode Structure. Frederick S. McCullough, Edgewood, Pa. Filed February 10, 1926.
- 1,814,770. Grid Making Machine. Carl R. Schenk, Jersey City, and Sylvester W. Crowley, Hudson Heights, N. J., assignors to DeForest Radio Company, Jersey City, N. J. Filed August 3, 1926.
- 1,814,774. Radio Receiving Apparatus. Sarkes Tarzian, Philadelphia, Pa., assignor to Atwater Kent Manufacturing Co., Philadelphia, Pa. Filed December 31, 1926.
- 1,814,798. Apparatus for Producing Sound. Emile C. Guedon, Schenectady, N. Y., assignor to General Electric Company. Filed March 14, 1929.
- 1,814,801. Device for Transforming Electrical variations into Sound Variations. Friedrich W. Hehlgers, Berlin-Hermsdorf, Germany, assignor to General Electric Company. Filed April 1, 1930, and in Germany April 23, 1929.
- 1,814,805. Cathode Ray Device. William J. Hitchcock, Scotia, N.Y., assignor to General Electric Company. Filed November 26, 1929.
- 1,814,813. Radio Signaling System. Ernst F. W. Alexanderson, Schenectady, N. Y., assignor to General Electric Company. Filed November 30, 1925.

- 1,814,817. Protective Means for Sound Reproducers. Kirby B. Austin, Scotia, N. Y., assignor to General Electric Co. Filed September 26, 1928.
- 1,814,832. Fading Control System for Radio Reception. Robert B. Dome, Schenectady, N. Y., assignor to General Electric Company. Filed May 18, 1929.
- 1,814,849. Amplifying System. Arthur Primrose Young, Kenilworth, England, and Joseph Hutt, deceased, Kenilworth, England, by Cecilia Elizabeth Hutt, executrix, Kenilworth, England, assignors to General Electric Co. Filed August 7, 1928, and in Great Britain October 15, 1927.
- 1,814,850. Vapor Electric Apparatus. David C. Prince, Schenectady, N. Y., assignor to General Electric Company. Filed October 12, 1926.
- 1,814,861. Sound Recording and Reproducing Apparatus. Joseph F. Sees, Schenectady, N. Y., assignor to General Electric Company. Filed January 4, 1930.
- 1,814,898. Measuring System. Ralph W. Deardorff, Kensington, Calif., assignor to American Telephone and Telegraph Co. Filed March 13, 1925.
- 1,814,956. Radio Signaling System. Russell S. Ohl, New York, N. Y., assignor to American Telephone and Telegraph Co. Filed August 26, 1925.
- 1,814,987. Picture Transmitting System. Allan Weaver, Brooklyn, N.Y., and David Ernest Branson, Bloomfield, N. J., assignors to American Telephone and Telegraph Co. Original application filed December 19, 1923, divided and this application filed February 25, 1925.
- 1,815,010. Recording and Reproducing Sound. Archibald Fulton Pollock, and David Alexander Pollock, Jedburgh, Scotland, assignors of one-third to Edwin King Scheftel, Paris, France. Filed November 1, 1929, and in Great Britain November 9, 1928.
- 1,815,023. Amplifier Coupling. Harold P. Donle, Meriden, Conn., assignor, by mesne assignments, to Radio Inventions, Inc. Filed February 19, 1927.

Patent Suit

1,231,764, F. Lowenstein, Telephone relay; 1,403,475, H. D. Arnold, Vacuum tube amplifier, D. C., S. D. Calif. (Los Angeles), Doc. E K-50-M, P. Artigue v. Famous Players Lasky Corp.; dismissed without prejudice Sept. 12, 1930.

Adjudicated Patents

- (D.C. Ill.) Edelman Patent No. 1,680,370, for radio power-supply unit, claims 1 to 3 held valid and infringed, Banning v. Hartman Furniture & Carpet Co., 49 F (2d) 331.
- (D.C. Ill.) Edelman Patent, No. 1,682,492, for radio battery eliminator, claims 3 and 4 held valid and infringed. Id.
- (D.C. Ill.) Edelman patent, No. 1,682,778, for radio chassis, held valid, Id.

Trade-Marks

- Ser. No. 303,613. Guy E. Riegel, Spokane, Wash. Filed July 18, 1930. TRADE-Mark: "REGAL" written in script formation across a circle. For Radio Receiving Apparatus. Claims use since June 1, 1930.
- Ser. No. 307,112. Otto Pressler Thuringer Vacuumrohrenfabrik, Leipzig, Germany. Filed Oct. 23, 1930. For electron tubes, photoelectric cells, discharge tubes, rectifier tubes, and assembled current rectifying units. Claims use since August 15, 1927.
- Ser. No. 314,647. Insuline Corp. of America, New York, N. Y. Filed May 16, 1931. Trade-Mark: Letters "I C A" written in white formation on a black circle background, and the whole enclosed within another circle. For Line-noise eliminators for radio sets, electrical tone-control devices for radio receiving sets and electrically amplified phonographs, automatic voltage controllers, and voltage regulators for radio receiving sets, electric outlets, radio receiving sets and parts thereof consisting of panels, insulators, dials, sockets, condensers, rheostats, potentiometers, vario-couplers, binding posts, ear phones, insulated wire, tubing and variometers. Claims use since September, 1927.
- Ser. No. 308,436. Thomas A. Edison, Inc., West Orange, N. J. Filed November 29, 1930. Trade-Mark: "Telediphone" for phonographic apparatus designed to produce grooved sound records and to reproduce sound from such records. Claims use since August 8, 1930.

Trade-Mark Registrations Granted

- 284,916. Radio Receiving Sets and Parts Thereof. Zenith Radio Corporation, Chicago, Ill., Filed February 20, 1931. Published April 14, 1931.
- 284,917. Radio Receiving Sets and Parts Thereof. Zenith Radio Corporation, Chicago, Ill. Filed February 20, 1931. Published April 14, 1931.
- 284,918. Radio Receiving Sets and Parts Thereof. Zenith Radio Corporation, Chicago, Ill. Filed February 20, 1931. Published April 14, 1931.
- 284,923. Radio Receiving Sets and Parts. Samuel Roth, doing business as Acratest Products Co., New York, N. Y. Filed February 5, 1931. Published April 21, 1931.
- 284,973. Radio Receiving Sets and Parts Thereof. Zenith Radio Corporation, Chicago, Ill. Filed February 20, 1931. Published April 14, 1931.
- 284,976. Radio Receiving Sets. Westinghouse Electric & Manufacturing Co., East Pittsburgh, Pa. Filed February 26, 1931. Published April 14, 1931.
- 285,150. Resonators for Loud-Speakers Applicable to Phonographs or the Like. The Kiel Furniture Co., Milwaukee, Wis. Filed July 28, 1930. Published April 7, 1931.
- 285,151. Radio Receiving Sets. The Clago Radio Corporation, Chicago, Ill. Filed September 6, 1930. Published April 14, 1931.

Trade-Mark Registration Not Subject To Opposition

- 285,177. Shapleigh Hardware Co., St. Louis, Mo. Filed March 4, 1931. "SHAPLEIGH'S" for Radio Receiving and Transmitting Sets and parts thereof, storage batteries, flash lights and flash-light batteries, and electrical dry cells. Claims use since 1921.

Design

- 84,621. Radio Cabinet. Frank C. Burton, Chicago, Ill., assignor to Grigsby-Grunow Company, Chicago, Ill. Filed April 12, 1930. Term of patent 7 years.

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HEINL RADIO BUSINESS LETTER

WCS

INSURANCE BUILDING

WASHINGTON, D. C.

ISSUED TWICE A WEEK AND CONTAINING THE LATEST INFORMATION REGARDING THE RULINGS OF THE FEDERAL RADIO COMMISSION, RADIO LEGISLATION, DEPARTMENT OF COMMERCE REGULATIONS, CHANGES IN WAVELENGTH, CALL LETTERS AND POWER, PATENTS, EXPORTS, FEDERAL TRADE COMMISSION RULINGS AND OTHER MATTERS OF INTEREST TO BROADCASTERS AND MANUFACTURERS. :: :: CONFIDENTIAL—NOT FOR PUBLICATION. :: ::



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INDEX TO ISSUE OF JULY 20, 1931.

Zone Radio Quotas Nearer Equalization.....	1, 1a, 1b
Labor Television Station Favored.....	2
CBS Lauds Short Wave Transmitter.....	2
DeForest Cuts Transmitting Tube Prices.....	3
WABC New 50 KW Station About Ready.....	3
Gene McDonald Weds.....	4
How Radio Advertising Has Grown.....	4
Virginia Still Open Market.....	5
Dance Music Decreasing On NBC.....	5
Coast Guard Awards Two Contracts.....	5
Columbia's Transmission To Network Bettered.....	6
Business Letter Briefs.....	7
Radio Aids In Reducing Illiteracy.....	8
Station Recucation Seen In Fall.....	9
Agencies Refuse CBS News Pictures.....	11
Columbia Gets McCormack.....	11

No. 453

ZONE RADIO QUOTAS NEARER EQUALIZATION

Equalization of radio facilities among the Five Zones - the goal of radio legislation and the Federal Radio Commission since the latter was created - was more nearly approached during the past four months, according to tabulations just made available. Only one zone moved further away from its quota, while another remained stationary. The three others were brought nearer to their quotas.

The single zone showing a change in quota status contrary to the effort being made toward equalization is the Third, or Southern Zone, which at the time of the last compilation, on March 3, 1931, was 15 per cent overquota. The new compilation, as of June 30, 1931, shows this zone to be 16 per cent overquota by virtue of an increase in facilities.

The First, or Eastern Radio Zone, which was 6 per cent underquota four months ago, was reduced to 5 per cent underquota. The Second Radio Zone, comprising the East-Central tier of States, was reduced in underquota status from 11 per cent in March to 10 per cent.

A 2 per cent reduction in the overquota status of the Fourth, or Middlewestern Zone, was recorded. This zone, the most overquota in the country, was reduced from 27 per cent to 25 per cent in the four month period. The Fifth, or Western Zone, remained practically constant, being 16 per cent overquota.

The tabulation showed that of the 48 States, 25 were underquota in facilities, while the remaining 23 had more than their proportionate share of facilities. This compared with the situation last March when 23 States were overquota and 25 underquota.

To make effective the provisions of the Davis Equalization Amendment, the Commission last year adopted a unit system, under which each of the zones is entitled to 80 units with 400 units set as the maximum for the country.

A unit is the equivalent of a 1,000 watt regional station operating full time on a regional channel, with other classes of stations rated in units or fractions thereof accordingly. A station operating on a cleared channel with 5,000 watts power or more, full time, is credited as five units.

While the maximum number of units established for the country is 400, the tabulation disclosed that 433.36 units actually are assigned. The objective of the Commission's system eventually is to reduce the number of units to 400 with 80 assigned to each radio zone.

In so doing it plans to equalize the distribution of facilities among the States within each zone as nearly as possible, based on the respective populations of the States, upon which their facility allowances are reckoned.

The new tabulation shows that the First Zone is assigned 75.76 units, or, in other words, is lacking the equivalent of a little better than four stations of 1,000 watts power each, operating full time. The Second Zone is assigned 72.31 units, being approximately eight 1,000 watt stations beneath its quota.

The other three zones are substantially overquota. The Third Zone has 92.54 units, or 12.54 more than the amount to which it is entitled; the Fourth Zone 99.72, an excess of nearly 20 units, or four exclusive cleared channel stations operating with the maximum power or less, and the Fifth Zone 93.03, or slightly more than 13 units overquota.

Illinois is the most over-quota State in the country in point of units. By its population it is entitled to 22.50 units but has 33.84, making it 11.34 units overquota. Texas is 6.55 units beyond its quota of 16.22; Washington, 5.64 units over; Tennessee, 5.54 units over; Florida, 4.26 units; Iowa, 4.15; and New York 4.10.

Pennsylvania is the most delinquent State in facilities. Whereas it is entitled to 27.64 units, it has but 20.24, lacking 7.40 units, or the equivalent of about seven and one-half 1,000 watt stations. Porto Rico is minus 3.92 units, South Carolina minus 3.12, Michigan minus 2.48, and Indiana minus 2.05.

Under Commission regulations, facilities may not be accorded to States now having more than their quota of facilities, while States delinquent in facilities, upon proper showing, automatically may wrest from over-quota areas facilities assigned them. Rigid rules, however, govern such shifts, subject to full hearing before the Commission.

The additional quota figures follow: Total due, A; assigned, B; net amount over or under quota, units, C; per cent D:

<u>Zone 1</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
New York	35.10	39.20	+4.10	+12
Massachusetts	11.85	9.98	-1.87	-16
New Jersey	11.21	11.53	+ .32	+ 3
Maryland	4.56	4.10	- .46	-10
Connecticut	4.46	3.55	- .91	-20
Porto Rico	4.32	.40	-3.92	-91
Maine	2.22	2.20	- .02	- 1
Rhode Island	1.91	1.40	- .51	-27
Dist. of Columbia	1.33	1.30	- .03	- 2
New Hampshire	1.31	.80	- .51	-39
Vermont	1.00	.60	- .40	-40
Delaware	.67	.70	+ .03	+ 4
Virgin Islands	.06	----	- .06	-100
Total	80.00	75.76	-4.24	- 5

<u>Zone 2</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
Pennsylvania	27.64	20.24	-7.40	-27
Ohio	19.05	18.65	- .40	- 2
Michigan	13.88	11.40	-2.48	-18
Kentucky	7.54	7.62	+ .08	+ 1
Virginia	6.94	9.50	+2.56	+37
West Virginia	4.95	4.90	- .05	- 1
Total	80.00	72.31	-7.69	-10

<u>Zone 3</u>				
Texas	16.22	22.77	+6.55	+40
North Carolina	8.83	7.82	-1.01	-11
Georgia	8.09	7.95	- .14	- 2
Alabama	7.39	6.22	-1.17	-16
Tennessee	7.29	12.83	+5.54	+76
Oklahoma	6.67	9.00	+2.33	+35
Louisiana	5.83	8.50	+2.67	+46
Mississippi	5.60	3.00	-2.60	-46
Arkansas	5.17	4.40	- .77	-15
South Carolina	4.82	1.70	-3.12	-65
Florida	4.09	8.35	+4.26	+104
Total	80.00	92.54	+12.54	+16

<u>Zone 4</u>				
Illinois	22.50	33.84	+11.34	+50
Missouri	10.72	12.05	+1.33	+12
Indiana	9.53	7.48	-2.05	-21
Wisconsin	8.66	7.95	- .71	- 8
Minnesota	7.59	9.01	+1.42	+19
Iowa	7.30	11.45	+4.15	+57
Kansas	5.56	4.71	- .85	-15
Nebraska	4.08	7.23	+3.15	+77
South Dakota	2.04	3.01	+ .97	+48
North Dakota	2.02	2.99	+ .97	+48
Total	80.00	99.72	+19.72	+25

<u>Zone 5</u>				
California	36.85	36.43	- .42	- 1
Washington	10.16	15.80	+5.64	+56
Colorado	6.74	9.42	+2.68	+40
Oregon	6.19	9.15	+2.96	+48
Montana	3.48	3.00	- .48	-14
Utah	3.27	6.60	+3.33	+102
Idaho	2.89	2.60	- .29	-10
Arizona	2.83	2.60	- .23	- 8
New Mexico	2.77	4.03	+1.26	+45
Hawaii	2.39	1.40	- .99	-41
Wyoming	1.46	.20	-1.26	-86
Nevada	.59	.80	+ .21	+36
Alaska	.38	1.00	+ .62	+163
Total	80.00	93.03	+13.03	+ 16

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LABOR TELEVISION STATION FAVORED

Favorable action on the application of the Chicago Federation of Labor, operation Station WCFL, at Chicago, for a new experimental television station in that city, was recommended to the Federal Radio Commission last week by Examiner Elmer W. Pratt.

A contract, contingent upon the granting of the application, has been entered into between the applicant and the Sanabria Television Corporation for the use of its television apparatus, Mr. Pratt stated. He said there were two existing television stations in Chicago, using a method of scanning developed in 1929 "which does not conform to modern engineering recommendations."

The assignment requested is that of 2750 to 2850 kilocycles, in the continental short wave band, with 500 watts power and unlimited time. The recommendation will be acted on by the Commission when it reconvenes next Fall.

Denial of the application of Station WBCM, at Bay City, Mich., for a shift in frequency from 1410 to 940 kilocycles, with its present power of 500 watts and unlimited time operation, was recommended to the Commission by Examiner R. H. Hyde. While WBCM undoubtedly is limited seriously by interference on the 1410 kilocycle channel, Mr. Hyde said that the removal required to 940 kilocycles would impair the service of three other stations assigned to that frequency and of one station assigned to an adjacent frequency.

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CBS LAUDS SHORT WAVE TRANSMITTER

Final establishment of short wave transmitters as the solution to the problem of broadcasting events which take place in isolated locations was indicated in figures just released by the Columbia Broadcasting System. These show that almost ninety per cent of all major sport events on the Columbia schedule during the first six months of 1931 were covered by short wave transmission from the point of origination.

Portable transmitters developed by Columbia engineers were shown to be invaluable in several instances. A ninety-pound instrument, for instance, powered at seven watts was so constructed that it could be carried about while in operation by one man.

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DEFOREST CUTS TRANSMITTING TUBE PRICES

New net list prices have just been announced by the DeForest Radio Company, of Passaic, N. J., covering DeForest transmitting audions. Increased production and a greatly enlarged market in this highly specialized field have made possible some striking downward price revisions, according to DeForest officials.

The DeForest transmitting audion line covers every type from the 15-watt 510 type oscillator to the 10,000 watt water-cooled 507 type oscillator, including screen-grid tubes, mercury-vapor rectifiers, and ultra short-wave oscillators. A copy of the new price list may be had from the DeForest offices.

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WABC NEW 50 KW STATION ABOUT READY

Station WABC's new 50,000 kilowatt transmitter, which puts it in a class with the most powerful broadcasters in the country, will go on the air early next month.

It is located six miles from Paterson, N. J. The installation, designed by the Bell Telephone Laboratories, is said to represent "one of the most noteworthy advances in radio transmitters in the past five years."

A single mast is used. It is higher than the Washington Monument. It is called a half-wave antenna system in that its height is just half of the wave length. The sky wave is practically eliminated. The energy is concentrated in the wave that travels along the ground, so greater power strikes the antennae of listeners. The engineers estimate that the new WABC ground wave will have 42 per cent more energy than the ordinary ground wave of a 50,000 kilowatt station that projects part of its power into the clouds. This system is said to assure a constant and dependable signal strength within a radius of at least 100 miles.

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GENE McDONALD WEDS

Commander Eugene F. McDonald, Jr., President of the Zenith Radio Corporation of Chicago, one of its most eligible bachelors and an explorer of note, has finally joined the benedicks. His marriage to Miss Elba Riddle, an Oklahoma girl, at Seminole, Okla., July 16th, has just been announced, and after airplaning to Chicago from Oklahoma, their honeymoon is being spent on Mr. McDonald's yacht, the "Mizpah", cruising in the Georgian Bay country.

Oklahoman
The bride, whose father is an official of a local bank, is a direct descendant of Zachary Taylor, twelfth President of the United States.

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HOW RADIO ADVERTISING HAS GROWN

The money spent by commercial concerns on radio advertising with the two major networks, from January 1, 1928, to April, 1931 increased 430 per cent, according to computations by Denney's Agency.

Last year a total of \$26,819,156 was spent with the National Broadcasting Company and the Columbia Broadcasting System, while during the first four months of this year the advertising bill of the two chains was \$11,539,094.

During the two previous years, 1928 and 1929, the total expenditures were \$10,252,447 and \$14,729,571, respectively.

Monthly expenditures on each of the networks last year and through April of this year follow:

	<u>1930</u>	
	<u>NBC</u>	<u>CBS</u>
January	\$1,418,979	\$571,518
February	1,347,847	524,728
March	1,652,629	642,561
April	1,574,523	624,285
May	1,731,409	568,834
June	1,509,224	524,113
July	1,692,680	381,795
August	1,612,284	347,498
September	1,648,581	474,124
October	1,972,414	701,622
November	1,890,532	686,189
December	2,037,785	684,002
	<u>1931</u>	
January	2,026,860	610,270
February	1,924,778	674,744
March	2,164,434	976,550
April	2,193,263	968,195

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VIRGINIA STILL OPEN MARKET

Virginia takes a rank near the bottom of the list of radio-minded States in the tabulations by the Census Bureau of families equipped with radio receivers.

Out of a total of 530,092 families, only 96,569, or 18.2 per cent, were so equipped when the census was taken in 1930. The estimate of the radio industry prior to the tabulation was 114,000.

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DANCE MUSIC DECREASING ON NBC

Radio broadcasting schedules now devote less time to dance music than a year ago, according to statistics for June, 1931, just made public by the National Broadcasting Company. Only 55 per cent of the daily schedule was given over to dance music this year, as compared to 66.1 per cent in June, 1930.

Musical programs of all types took 63.5 per cent of all broadcast time, according to the same report. Of this apportionment 24.4 per cent was classical and 20.6 per cent semi-classical. The Winter schedule carries more dramatic presentations than musical, but the reverse is true during the rest of the year. This does not include chatter and novelty programs.

Educational features took up 12.9 per cent of the time on the air and special broadcasts events, including sports, were sent to listeners 3.4 per cent of the time. These figures are for the two NBC New York outlets, WEAJ and WJZ.

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COAST GUARD AWARDS TWO CONTRACTS

The RCA Victor Corporation has been awarded a contract by the U. S. Coast Guard for a new intermediate frequency receiver, type CGR-31. This receiver will be the exact size of the CGR-30, a single control, frequency band 95-550 kilocycles, selectivity at 500 kcs., 7.5 kilocycles wide at a signal ratio of ten times, sensitivity 10 microvolts and will produce 6 milliwatts output which is the equivalent of approximately 11 volts across a pair of WE phones.

The following Coast Guard units will receive this equipment: Traffic stations, cutters, destroyers, communication centers, section bases, and certain patrol boats. CGR-5 and other obsolete intermediate frequency receivers will be withdrawn from service.

The General Electric Company has been awarded the contract for the manufacture of a small portable transmitter - receiver. This equipment consists of a five watt mo-pa transmitter, frequency range 2465-4050 kcs. and a receiver covering the frequencies 2465-2705 and 3500-4050 kc. It will be used for flood and hurricane relief work. Experiments will also be conducted on speed boats, life boats, and various other small craft.

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COLUMBIA'S TRANSMISSION TO NETWORK LETTERED

Recently completed changes in network arrangements have bettered stability and quality of transmission to virtually all of the stations affiliated with the Columbia Broadcasting System, according to a statement from that company which reads, in part, as follows:

"The improvement resulted from provision by the American Telephone and Telegraph Company of facilities capable of transmitting a wider frequency range than was hitherto possible. Under former conditions the circuit permitted a frequency range of between 100 and 5,000 cycles to pass the various repeater locations on the line. Today frequencies from 30 to 8,000 cycles can pass with true reproduction and without distortion.

"The new circuit, called the B-22 cable, has been placed in service on Columbia's 'round robin' which runs from New York to Chicago via Albany, Syracuse, Rochester, Buffalo, Cleveland and Toledo and from Chicago back to New York via Terre Haute, Indianapolis, Dayton, Columbus, Wheeling, Pittsburgh and Harrisburg. Stations located in those cities are not the only ones to receive the benefit of the improved service inasmuch as the introduction of the cable has the effect of reducing the transmission equivalent to all other stations by more than 1,000 miles. In effect this means bringing the stations that much nearer to the originating point of the program and eliminates the overloading of the bass frequencies caused by characteristics of the repeaters formerly used on longer hauls.

"Chicago, for example, now receives programs from New York with the same quality of faithfulness of reproduction as heard by the listeners of WABC, New York. The new circuit between New York and Chicago permits the lower frequencies to pass at the same level as the higher frequencies, without the so-called impulse delay or echo effect. Pleasing overtones are now available and line hum and lightning hits are for the most part a thing of the past. The B-22 cable is to be extended in time to cover Columbia's entire network.

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: BUSINESS LETTER BRIEFS :

The following comment was made by Robert D. Heintz in the Washington Post:

"William S. Paley, President of Columbia Broadcasting System, qualified himself for membership in the Diplomatic Corps, when, speaking over the radio in that country, he expressed the belief that England and the United States each had the sort of radio system best adapted to its needs. Not only was this the factful thing for Mr. Paley, as a visitor, to say, but it was the truth.

"England's system of taxing individual receiving sets wouldn't any more go in this country than the English would stand for our system of advertising sponsorship.

"Another qualification Mr. Paley has for the Diplomatic Corps is the fact that he speaks so seldom. He is the best listener in the radio industry. Although Mr. Paley heads one of the major broadcasting systems of the United States, and more than anyone else has been responsible for its success, the times he has been heard over the radio could be counted on the fingers of one hand."

Investigations are being conducted by the Bureau of Protection of the Pennsylvania State Department of Forests and Waters regarding the adaptability of radio sets for use in fire observation towers instead of telephones.

The sets for this purpose are of low frequency and the claim of the manufacturers, the Department stated, is that they can be effectively used for both transmitting and receiving. Should they prove satisfactory, it was pointed out, it will mean a great saving in telephone line construction and increased efficiency in reporting forest fires.

Commemorating the twenty-fifth anniversary of the invention of the DeForest audion or practical vacuum tube, the DeForest Radio Company, of Passaic, N. J., has just issued an attractive souvenir booklet. A copy may be had for the asking.

Playing radios too loudly in homes has been declared by the Director of New York City's Noise Abatement Commission to be a "health menace", in a statement protesting against unsubdued radio playing, just issued by the office of the Health Commissioner.

The Director, Edward Fisher Brown, whose duty is to abate the noises of the metropolis, declares that many New Yorkers have complained of radios played too loudly and such playing, he says, is against the law.

Frank A. Arnold, Director of Development of the National Broadcasting Company, opened a new series Sunday night with an address on "Contribution of Radio to the Spiritual and Ethical Growth of the Nation." The series is to be known as "Noted Speakers - Sunday Evenings."

According to a United Press dispatch, a new tube for receiving sets operating from direct current has just been introduced in Berlin, after years of research. It is expected that the discovery will outdate hundreds of thousands of sets now in operation, since its installation in an old receiver would be too costly.

The new tube is designed to permit the taking of full 220 volts direct current into the set without the use of a rheostat, which hitherto has been necessary to reduce the current to the necessary 3.5 volts per tube. With alternating current, this reduction is done through a transformer.

When King George opened the new King George Hospital last Saturday at Ilford, a new microphone was especially prepared for his exclusive use. It has silver fittings with the royal cypher in gold. It rests on a chromium-plated pedestal carrying a silver panel, embellished with the royal arms in gold, on which will be engraved the dates when the instrument is used.

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RADIO AIDS IN REDUCING ILLITERACY

The widespread development of radio broadcasting is credited with a large share of the responsibility for the marked reduction in illiteracy in the United States, reflected in figures just compiled by the Census Bureau, by William John Cooper, United States Commissioner of Education.

Statistics disclosed that only 4.3 per cent of the population of 10 years of age and over was illiterate last year as against 6 per cent in 1920. The actual decrease in illiteracy over the period was 13 per cent since the population increased 16.1 per cent.

"Experiments conducted by educators have shown that unquestionably radio has been an influential factor in reducing the number of illiterates both directly and indirectly", Dr. Cooper said.

The decrease in illiteracy during the past ten years, he said, has been concurrent with the progress of radio.

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STATION REDUCTION SEEN IN FALL

A general thinning out of inferior broadcasting stations, some of which have been on the air for several years, is foreseen this Fall and Winter as a result of the recent Federal Court opinion that broadcasters have no vested property in the ether.

While the Federal Radio Commission has granted very few applications for new facilities, within the past year or so, due to the congestion on the broadcast band, it has been rather hesitant to abolish established stations, admittedly inferior, unless some major charge had been lodged against them.

The opinion of the Circuit Court of Appeals of the Seventh Circuit in Chicago sustained the judgment of the Federal District Court and the Radio Commission in removing the former WMBB-WOK, of Chicago, from the air in 1928 because of congestion. The American Bond and Mortgage Company, which operated the station, challenged the constitutionality of the Commission's action on the ground that it had a vested right in the frequency allocated to it.

The Court held that broadcasting stations do not have a vested right in the channels assigned them by the Radio Commission but that the right is "permissive".

This decision "lends a greater sense of security" to the actions of the Commission, Col. Thad H. Brown, General Counsel, commented, and it will strengthen the regulatory body's hands to such an extent that a number of stations which have outlived their usefulness will be removed.

The Commission, when it reconvenes in September, will be confronted almost immediately with the question of deleting at least four stations, and in embarking upon a policy pursuant to this new legal interpretation of the law.

A typical example of the sort of station that the Radio Commission is desirous of abolishing is seen in the recommendation of Examiner Ralph L. Walker that a license renewal be refused Station WMBA, operated by LeRoy Joseph Beebe, at Newport, R. I.

The station was granted a license by the Department of Commerce prior to the creation of the Radio Commission after the Attorney General had held that it was mandatory upon the Secretary of Commerce to grant licenses to all applicants.

"The evidence established that Station WMBA, came into existence during the so-called breakdown of the radio law", the report states. "The equipment has not been maintained in keeping with the advancement of the radio art. Applicant has not made full use of the assignment licensed to him, either as to the hours of operation or power used by him.

"Although the American system of operation of broadcasting stations by private interests under license from a Federal body, a reasonable return upon a licensee's investment may be anticipated, nevertheless, the standard of public interest, convenience, and necessity is paramount, and the licensee must recognize the interest of the public above his own interests."

Examiner Elmer W. Pratt, in recommendations to the Commission urged the elimination of two stations in New Jersey, and one in St. Louis as a means of better serving the public.

Mr. Pratt recommends that Stations WMJ, at Newark, and WKBO, at Jersey City, be removed from the air, and that their time be given to Station WHOM, at Jersey City, holding that the latter station is better qualified to serve the public. These three stations, along with WBMS, at Hackensack, N. J., divide time four ways on the 1450 kilocycle channel, each with 250 watts power. The latter station, under the recommendation, would retain its one-fourth time.

In the St. Louis case, Mr. Pratt recommended that Station WIL, of that city, be given the time of KEWF, which now shares the 1200 kilocycle channel with it. The latter station, operated by the St. Louis Truth Center, Inc., is being used "primarily for the dissemination of the views of certain religious teachers", he said.

"This, in the Examiner's opinion, results in the devotion of public facilities to private use and, in view of the limited facilities available for broadcasting purposes, is contrary to sound application of the standard of public interest, convenience or necessity", he said.

Declaring that WIL is a commercial station devoted to rendering a public service to the St. Louis area, Mr. Pratt concluded that time-sharing arrangements "are a handicap to stations involved financially, and from an operating standpoint. A consolidation of assignments in a successful, well-managed and modern station seeking to improve its service, such as WIL, through the elimination of stations which are not devoted to rendering a public service, such as KEWF, will best serve the public interest, convenience and necessity, he asserted.

The application of the WRAX Broadcasting Company, operator of WRAX, of Philadelphia, for permission to increase its power from 250 to 500 watts was reported unfavorably by Chief Examiner Ellis A. Yost.

KYW-WKFX, of Chicago, opposed the application on the ground that additional interference would result during the daytime.

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AGENCIES REFUSE CBS NEWS PICTURES

Several requests of the Columbia Broadcasting System for news pictures, to be transmitted upon the opening of its new television station W2XAB, in New York City Tuesday night, have been refused by news agencies, according to Editor & Publisher. Mayor Walker will officially open the station at 10:15 P.M., E.D.T.

Says Editor & Publisher:

"Acme P. & A. recently received a request to furnish news pictures to Columbia to be televised, but turned the proposition down. Walter Howie, manager of International News Photos, said his agency had had a similar experience and had given the same answer. The Associated Press Picture Service has not received the request as yet, but would turn it down in case it is received, Editor & Publisher was told. Times Wide World, in case it is asked for pictures would submit the question to those 'higher up' to establish a policy in the situation.

"Columbia did not want to buy the pictures, but was willing to send a credit line over the ether along with the pictures.

"Jesse Butcher, Publicity Director for Columbia, said that after Columbia had found news pictures could be televised, they had made requests to picture agencies, but when they found the agencies inimical to the idea, the plan was dropped.

"We do not want to tread on anyone's toes in these programs', he said, 'and as soon as we found there were serious objections, we decided we would not attempt to televise news pictures for the present.' In the case some particular newspaper offered a picture to the Columbia System to be broadcast, the station would be glad of the opportunity to present it, he added.

"The newspapers', he said, 'are scared to death of television,

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COLUMBIA GETS McCORMACK

John McCormack, the tenor, has signed a contract through his personal manager, Dennis F. McSweeney, to come under the direction of the Columbia Concerts Corporation, subsidiary of the Columbia Broadcasting System, it was announced yesterday (Sunday) by Arthur Judson, president of the corporation.

Mr. McCormack is at present in Hollywood, Cal., where he is spending the Summer. The contract was negotiated in New York, sent to McCormack for approval by air mail, discussed over the telephone and returned by air mail with the tenor's signature. It covers his activities until 1935 for both concert and radio.

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APPLICATIONS RECEIVED BY FEDERAL RADIO COMMISSION

WCS

July 17 - WSAZ, WSZA, Inc., Huntington, W. Va., to determine license power by direct measurement of antenna input; WRR, City of Dallas, Texas, Dallas, Texas, to determine license power by direct measurement of antenna input.

July 18 - W. G. Jasper, Texarkana, Ark., C. P. to erect new station to use 1420 kc., 50 watts, and to share time with Station KTAP (KABC); Austin C. Neely, Zelma Franks, and Bert Saunders, d/b as Neely & Franks Radio Company, Charleston, Miss., C. P. resubmitted, amended to request 1500 kc., instead of 1220 kc.; WCAJ, Nebraska Wesleyan University, Lincoln, Nebr., C. P. amended to request 500 watts instead of 1 kilowatt; KROW, Educational Broadcasting Corp., Oakland, Calif., C. P. amended as to equipment requested.

Applications Other Than Broadcasting

July 17 - W2XA, American Telephone & Telegraph Co., Rocky Point, N. Y., renewal of special experimental license for 45 to 75 kc., except 46, 48, 51, 54, 56, 58, 64, 66, 72, 75 kc., 190 KW, special experimental service; Atlantic Broadcasting Corp.: W2XDA, portable, initial location, New York City, renewal of special experimental license for 1544 kc., 50 watts; Also, at New York City, 2 C. P.s for new station for experimental service, above 23,000 kc., 50 watts and 1 KW, respectively; National Battery Broadcasting Co., Portable, initial location, Minneapolis, Minn., special license for 2368 kc., 7.5 watts, from July 24 to July 28th inclusive; Radiomarine Corporation of America: WBL, Buffalo, N. Y., renewal of marine relay license for 143, 410, 5525, 161, 425, 454, 4775, 5525, 8570 kc., 100 watts and 750 watts; KPS, Laxy Bay, Alaska and KWR, Port Moller, Alaska, renewal of coastal licenses for 500, 425 kc., 200 watts; also same stations, renewal of limited public licenses for 222, 252, 268 kc., 200 watts.

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DECISIONS OF THE FEDERAL RADIO COMMISSION

The following applications were granted July 17, 1931:

WRDO, Albert S. Woodman, Augusta, Maine, modification of C. P. to extend commencement and completion dates from June 9, 1930, to July 15, 1931, and from Aug. 1, 1931, to Nov. 15, 1931, respectively; WQBC, Delta Broadcasting Co., Inc., Vicksburg, Miss., license to cover C. P. 1360 kc., 500 watts, daytime; KWG, Portable Wireless Telegraph Co., Inc., license to cover C. P. 1200 kc., 100 watts, unlimited; WRDO, Albert S. Woodman, Augusta, Maine, consent to

voluntary assignment of C. P. to WRDO, Inc.; WBAA, Purdue University, West Lafayette, Ind., authority to use direct measurement of antenna input.

WSDE, Birmingham, Ala.,

Also, Aeronautical Radio, Inc.:/license to cover C. P., 3484 kc., unlimited 5630 kc., day only, 400 watts, A1, A2 and A3 emission, to communicate with Brown Chain stations, subject to provisions of G. O. 99 as amended; WEEN, near Linden, N. J., license to cover C. P., 4164 kc., unlimited, 6320 kc day only, 350 watts power, a1 emission, to communicate with Green Chain stations, subject to provisions of G.O. 99 as amended; KGQZ, San Diego, Calif., KQX, Bakersfield, Calif., and KFM, Sacramento, Calif., licenses to cover C.P.s, 3160, 3166, 3172, 3178 kc., unlimited, 5570, 5660 kc., day only, 50 watts, 400, and 400 watts respectively, A3 emission, to communication with aircraft flying Red Chain, subject to provisions of G. O. 99 as amended; KNWB, Fargo, N. D., KNWA, St. Paul, Minn., and KNWC, Pembina, N. D., licenses to cover C.P.s, 3004 kc., unlimited, 5375 kc., day only, 400 watts power, A1, A2 and A3 emission, to communicate with aircraft flying Brown Chain, subject to provisions of G. O. 99 as amended, and G. O. 112; KNWB, KNWC, and KNWA, licenses to cover C. P. 2680 kc., unlimited 400 watts power, A1 emission, to communication with Brown Chain stations, subject to G. O. 99 as amended and G. O. 112.

Also, Aeronautical Radio, Inc.: WSDF, Louisville, Ky., modification of C. P. as follows: (1) frequencies: (a) (Mobile), 3238, 3244, 3452, 3460, 3468, 3484 kc., unlimited, 5600, 5630 kc., day only, (b) Point-to-point 2326, 2344, 4140 kc., unlimited, 6260, 6275 kc., day only (2) all the terms of existing C. P. to remain unchanged; KFM, Sacramento, Calif., authority to remove 9A Western Electric transmitter from Station KFM, Sacramento, Calif., for a period not to exceed 15 days and to operate 8-A Western Electric transmitter at this station during this 15 day period, subject to terms of existing license in all other respects; New - Duluth, Minn., C. P. 3004, 5375, 2680 kc., 400 watts; at Kansas City area, also, permission to use Blue Chain day frequencies until 10:00 P.M., in Kansas City area, due to severe atmospheric disturbances.

Also, Eastern Air Transport, Inc.: NC-728-K, NC-726-K, NC-727-K, NC-626-V, licenses, 3070, 3076 kc., unlimited, 5690 kc. day only, 15 watts power, A1, A2 and A3 emission, to communicate with green chain stations, subject to provisions of G.O. 99 as amended; W2XDQ, Knickerbocker Broadcasting Co., Inc., Hoboken, N. J., license to cover C. P., 570 kc., 60 watts; KHG, Alaska Packers' Association, Clarks Point, Alaska, license to cover C. P. in conformity with G.O. 79, coastal, calling 500 kc., working 460 kc., point-to-point 272 kc., with WZE, Kananak, 246 kc. with other stations, 50 watts power; A1 and A2 emission, equipment: RCA-Type ET 3627-B, Serial No. 13580, license to expire October 15, 1931; KFB, Hood Bay Canning Co., Hood Bay, Alaska, renewal of license, in conformity with G.O. 79, frequencies: coastal, calling 500 kc., working 460 kc., point-to-point, 246 kc., with WXA, Juneau, 212 with other stations, 50 watts power; A1 emission, equipment composite, master oscillator VT-CW, license to expire October 15, 1931.

Also, Radiomarine Corporation of America: KJK, King Cove, Ala., KFX, Zachar Bay, Alaska, KXW, Ikatan, Alaska, renewals of licenses in conformity with G.O., 79, frequencies, calling, 500 kc., working 425 kc., 200 watts, power, A1 and A2 emission, equipment: RCA ET 3627-B, serial No. 8132, license to expire Oct. 15, 1931; Same stations, renewals of licenses in conformity with G. O. 79, frequencies and points of communication: 268 kc., point-to-point with WZA, Kodiak, 252 kc., point-to-point with WZF, Squaw Harbor, 222 kc., point-to-point with other stations, 200 watts power, A1 and A2 emission, equipment: RCA ET-3627-B, Serial No. 8132, license to expire Oct. 15, 1931.

Also, KGWV, Fox Film Corp., portable, renewal of license in exact conformity with license which is sought to be renewed; frequencies: 1552, 1554 and 1556 kc., 250 watts power, A1 and A2 emission on 1552 and 1556 kc., A3 on 1554 kc., subject to restriction that transmitter is not to be used without the express authority of the Federal Radio Commission; Universal Air Lines, Inc.: KHQBY, c/o American Airways, Inc., Plane NC-804-E, and KHQAZ, Plane NC-652-E, modification of license, 3106, 3238, 3244, 3452, 3460, 3468, 3484 unlimited, 4915, 5600, 5630 kc., day only, 50 watts power, A3 emission, 3106 kc., for communication with any ground station, all other frequencies with Brown Chain stations, except 4915 kc. with Brown Chain stations between Chicago and St. Louis, subject to provisions of G.O. 117 and 99 as amended.

Also, WNB, American Tel. & Tel. Co., Lawrenceville, N. J., modification of C. P., 6755, 10675 kc., all other terms of permit to remain the same, action on application with respect to frequency 5875 kc., to be suspended pending settlement of litigation now in Court of Appeals of the District of Columbia; WSF, Mackay Radio & Tel. Co., Inc., New York, N. Y., modification of C. P. as follows: location of transmitter 67 Broad St., New York City, all other terms of permit to remain the same; WPEC, City of Memphis, Police Department, Memphis, Tenn., modification of C. p. as follows: change location locally, all other terms of existing C. P. to remain unchanged; KMT, Libby, McNeill & Libby, Libbyville, Alaska, modification of C. P. as follows: 200 watts power, all other terms of permit to remain the same.

Also, American Radio News Corp.: WAI, Atlanta, Ga., modification of C. P. as follows: date of commencement of construction 9/2/31, date of completion of construction 12/31/31; KGRU, Denver, Colorado, modification of C. P. as follows: date of commencement of construction 9/5/31, date of completion of construction 1/3/32; KIP, S. San Francisco, Calif., modification of C. P. as follows: date of commencement of construction 8/1/31, date of completion of construction 11/30/31 - Equipment for all: DeForest V.T.-CW-ICW, 103, 104 and 105 respectively, all other terms of permit to remain the same; KGPM, City of San Jose, San Jose, Calif., modification of C. P. for extension of C. P. from 6/9/31 to 12/9/31 .

The Commission also granted the following renewal licenses:

WABZ, Samuel D. Reeks, New Orleans, La., 1200 kc., 100 watts;
KGIX, J. M. Heaton, Las Vegas, Nevada, 1420 kc., 100 watts, unlimited;
WGST, Georgia School of Technology, Atlanta, Ga., 890 kc., 250 watts
night, 500 watts LS, unlimited time; KGCU, Mandan Radio Association,
Mandan, N. D., 1200 kc., 100 watts, unlimited; KGFG, Oklahoma
Broadcasting Co., Inc., Oklahoma City, Okla., 1370 kc., 100 watts;
WCFL, Chicago Federation of Labor, Chicago, Ill., authority to
operate the first two hours after sunset at Seattle, Wash., subject
to revocation in case such operation results in interference with
Station KJR, Seattle, Wash., for period ending February 1, 1932.

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HEINL RADIO BUSINESS LETTER

INSURANCE BUILDING

WASHINGTON, D. C.

ISSUED TWICE A WEEK AND CONTAINING THE LATEST INFORMATION REGARDING THE RULINGS OF THE FEDERAL RADIO COMMISSION, RADIO LEGISLATION, DEPARTMENT OF COMMERCE REGULATIONS, CHANGES IN WAVELENGTH, CALL LETTERS AND POWER, PATENTS, EXPORTS, FEDERAL TRADE COMMISSION RULINGS AND OTHER MATTERS OF INTEREST TO BROADCASTERS AND MANUFACTURERS. :: :: CONFIDENTIAL—NOT FOR PUBLICATION. :: ::

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INDEX TO ISSUE OF JULY 23, 1931.

Columbia Begins Television Tests.....	1
Examiners Would Deny New Stations.....	1a
WHA and WLBL Appeal On Merger.....	2
CBS Presents Medal To Lindbergh.....	2
RMA Directors To Meet July 30th.....	3
Counts On Minnesota, N. C., and Michigan Radios.....	3
Philco Celebrates Silver Anniversary.....	4
N. Y. Publishers To Omit Names.....	5
New Pacific Coast Chain.....	5
Pacific Coast Station Manager Seeks Position.....	6
Station WGAR Returns To Air.....	6
Radio Census Falling Short.....	7
Applications Received By Federal Radio Commission.....	7
Decisions Of The Federal Radio Commission.....	8

No. 454

COLUMBIA BEGINS TELEVISION TESTS

By the time this is read, Columbia's new television station W2XAB, in the Columbia Building, at 485 Madison Avenue, New York City, will be in regular operation six hours a day, and having established itself insofar as the city is concerned, an attempt will have been made (Wednesday) night to flash a picture to the United States liner "Leviathan", in the vicinity of New York at that time.

The presence of Mayor Walker at the dedication was enough to insure the success of the event locally, but in addition to that, the pictures were better than might be expected at an opening night when things usually go wrong, and despite the fact that the capacity of the studios was overtaxed by visitors, everything went off smoothly.

This was due, no doubt, to painstaking preparations made by Edward Klauber, Vice-President of Columbia, acting in behalf of Mr. Paley, President of Columbia, who is in Europe. Mr. Klauber refused to be flustered even when Mayor Walker, proverbially late, arrived a quarter of an hour ahead of time. The Mayor became so interested in what he saw that he almost swamped the Columbian executive with questions about the broadcast.

To accommodate the large number of guests, five or six receiving sets were set up in one end of one of the regular broadcasting studios. A loud speaker was installed in the studio for the sound which was broadcast from coast-to-coast, though, of course, the picture could not be.

Just before the broadcast, Julius Seebach, Program Director, explained how all might see and hear the demonstration with the result that everyone present had a good look at the pictures, which, as seen through the magnifying glasses, were about one foot square.

The television transmitter of R.C.A. design was of 500 watts power, and operated on a channel of 2750 to 2850 kilocycles, with a serial of the doublet type. The installation utilized sixty-line-twenty frame per second scanning standards and a bank of eight sensitive photo electric cells.

Edwin K. Cohan, Technical Director of Columbia said that the television station was being carried on purely as an experiment to determine the scope and limitations of the new medium, that television today is perhaps comparable to the motion picture of 1905, and that he believed in the future there would be television networks similar to our sound networks of today and functioning in much the same manner.

"To accomplish this", Mr. Cohan added, "considerable progress will have to be made with regard to the width of the transmission band, also a suitable method of scanning whose illumination limitations are no greater than those of the present moving picture."

Dr. Walter Schaffer, Chief Engineer of the Reichs-Rundfunk-Gesellschaft of Germany, who the same day had been a guest at a luncheon given to him by Columbia, also spoke at the dedication of the television station.

The guests included a number of out-of-town radio editors and the press arrangements were well taken care of by Jesse Butcher in charge of Columbia publicity.

A point raised in connection with the broadcast was the number of television receivers now in use in New York City. One authority placed it as low as 500, while another placed it as high as 10,000. A figure quoted for Chicago was 3,000.

According to a statement issued by Columbia, the Short Wave and Television Company of Boston telegraphed that the images broadcast at the Columbia dedication had been received by an audience in Boston.

"The Boston auditorium audience was unanimous in declaring the broadcast the clearest and best yet witnessed", the statement concluded. "The images received in Boston were magnified and shot up on a 10 foot screen."

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EXAMINERS WOULD DENY NEW STATIONS

Because of the congestion on the broadcast band, Examiner R. H. Hyde has recommended to the Federal Radio Commission the denial of two new stations in Ohio. Requests were made by William J. Hays, of Portsmouth, and Howard B. Hoel and Charles M. Dean, of Norwood.

While the State of Ohio is slightly under its quota of broadcasting facilities, the Examiner's reports pointed out that both Portsmouth and Norwood are adequately served by existing stations and that the granting of more construction permits would cause heterodyne interference.

Similar argument was advanced in recommending the denial of the application of WDRC, Inc., of Hartford, Conn., for an increase of power from 500 to 1,000 watts. Connecticut is likewise slightly under its quota.

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WHA AND WLBL APPEAL ON MERGER

The two Wisconsin broadcasting stations which were denied a permit to consolidate recently by the Federal Radio Commission appealed this week to the District of Columbia Supreme Court. Both stations, WHA, of Madison, and WLBL, of Stevens Point, are operated by State agencies.

Station WHA, which is operated by the University of Wisconsin on 940 kilocycles with 750 watts, daytime only, and WLBL, operated by the Department of Agriculture and Markets on 900 kilocycles with 2,000 watts, daytime, sought permission to merge into a 5,000 watt station near Stevens Point for daylight operation.

The appeal, filed by Attorney General John W. Reynolds, held that the Commission had erred in finding that the two stations did not make full use of their facilities and that the granting of the request would be a violation of the Davis Equalization Amendment.

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CBS PRESENTS MEDAL TO LINDBERGH

Col. Charles A. Lindbergh has just been awarded the Columbia Broadcasting System medal for distinguished contribution to the art of radio. He is the first American to be so honored. The presentation was made by Jesse S. Butcher, Columbia executive, at the office of Col. Henry Breckinridge, attorney for the "Lone Eagle."

The award to Col. Lindbergh is based upon two achievements. First, his pioneering work in linking together two new industries - aviation and radio. Second, by virtue of his speech on August 8 of last year, in which he spoke from a Columbia studio over a combined network of the Columbia and National systems on a hookup that is still a record for any private citizen. It has been exceeded only by the hookup on the broadcast by Pope Pius last Spring.

The medal, suggested by William S. Paley, President of the Columbia System, was designed by Gaetano Cecere, noted New York sculptor and winner of the Prix de Rome.

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RMA DIRECTORS TO MEET JULY 30

J. Clarke Coit, of Chicago, newly-elected President of the Radio Manufacturers' Association, has called a meeting of the RMA Board of Directors on Thursday, July 30th, at Niagara Falls, Canada. It is probable that radio patent pooling will be a leading topic of discussion.

The meeting is the regular mid-Summer session of the newly elected governing board of the RMA and the annual visit of the RMA leaders to Canadian soil. The meeting will be held at the Clifton House at Niagara Falls.

In addition to the patent problem, President Coit and the RMA Board will organize the Association's activities for the coming year. Some new services for RMA members are planned, with extension of other services already initiated. The Board of Directors also will receive reports on the recent annual trade show and convention at Chicago, the fifth successful RMA trade show conducted by the Association, and discuss production and sales prospects for the coming year.

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COUNTS ON MINNESOTA, N. C., AND MICHIGAN RADIOS

Minnesota and North Carolina take places near the top and the bottom, respectively of the list of States in which radio receivers have been tabulated by the Census Bureau.

Out of 608,398 families in Minnesota, 287,880, or 47.3 per cent had sets in 1930. This was almost 50,000 more than the Department of Commerce and the radio industry estimated.

Only 72,329, or 11.2 per cent of 645,245 families in North Carolina, however, possessed receivers when the count was taken. The radio industry made an estimate of 92,000.

Every other family in Michigan possessed a radio receiver when the Federal census was taken in 1930, according to figures just released by the Census Bureau. Out of a total population of 1,183,157 families, there were 599,196, or 50.6 per cent, with radio sets.

The radio industry and the Department of Commerce came close to the correct figure when they estimated last year that Michigan had 627,000 radio receivers.

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PHILCO CELEBRATES SILVER ANNIVERSARY

The following press statement has been issued by Philco:

"Twenty-five years ago today, eighteen men went to work making batteries in a ramshackle plant in Philadelphia. Today officers of Philco, now the largest manufacturers of radio receivers in the world and one of Philadelphia's outstanding industrial enterprises, were inundated under a flood of congratulations from every section of the country celebrating the company's silver anniversary.

"Distributors and dealers in every city in the United States joined to do honor to the men who have contributed to the company's success. With several thousand individuals on its payroll, the company is also the source of supply for some fifteen thousand other businesses - the dealers who handle the Philco line - and today they paused to mark the birthday of the parent organization.

"When James M. Skinner, President of Philco, returns from London where he is investigating the export market, he will find a mountain of telegrams on his desk. Other officers of the company, proud of the company's past record, were jubilant at the condition of the company and its outlook for the future. Shipments are a substantial percentage above quota, and the company's quota for the year is the largest in its history - one million radios out of an estimated total of 2,500,000 for the entire industry.

"While the employees who staffed the company's first one-storied sheet-iron plant numbered eighteen, at the peak of the season last year, there were over 6,000 factory employees and 800 more in office, laboratory and sales staffs at work in the company's ten Philadelphia plants. During the last year, Philco bought an additional five-story factory building to take care of growing departments, and recently put into operation a newly-completed six-story factory said to be the last work in industrial efficiency.

"Manufacturing the first battery was a nerve-shattering task, Edward M. Davis, Chairman of the Board of Philco and one of the original founders, recalled.

"The first time the shaky old engine of the plant was tried with a load, it shook the building so that the roof sagged, bending the driving shaft out of alignment. All that night Davis and other officers of the company ran around Philadelphia seeking a box for the shafting.

"'And troubles never come singly', he reminisced recently. 'Shortly after, the bridge wall of the boiler setting fell. Then the engine started moving around the room - its foundations were not solid. The engineer pointed out the added labor and delay of chasing the engine around the room twelve hours a night. It was suggested that he stay in one place and wait for it to come to him. But he decided it was better to ride an engine than chase one, so he quite and got a job driving a locomotive.'

"On March 24, 1920, a near calamity nearly put the company out of business. Fire, quick, hot and destructive, wiped out No. 9 building of the plant and badly damaged adjacent structures. Orders for thousands of batteries were on file; the greater part of the company's rubber stock was destroyed, and production was paralyzed. Things looked black.

"Two days later batteries were being produced under big circus tents pitched on a vacant lot, and twenty-five days later the first floor of a new building on the site of the destroyed one was being fitted out and ground was broken for another factory on newly purchased land.

"Its initial product ignition battery, the company manufactured its first radio in 1928. In 1929 it was second in the industry and last year won the title of the world's largest radio manufacturer. It also manufactures the Philco-Transitone automobile radio, battery-operated receivers, wet and dry batteries, tubes for all its receivers, and tables and book-cases designed to hold its small-size receivers.

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N. Y. PUBLISHERS TO OMIT NAMES

The publishers of newspapers in New York City have reached an agreement whereby they will exclude all trade names from radio programs. It was agreed to do this several years ago but the New York Telegram, owned by the Scripps-Howard papers continued to print the names. It is understood that the Scripps-Howard people are among those who have signed the agreement to cut out trade names altogether.

Hereafter, simply the name of the artist will be mentioned, as the New York newspaper plan is carried out, or a musical group will be referred to simply as "band" or "orchestra" but in no case will the name of the sponsor or advertiser be mentioned.

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NEW PACIFIC COAST CHAIN

Formation of the North American Broadcasting System, uniting a series of radio stations in 11 Western States, was announced in Los Angeles this week by Guy C. Earl, Jr., former newspaper executive, president of the new organization.

Stations for the new network, Earl said, have been obtained in California, Arizona, Oregon, Washington, Nevada, Idaho, Utah, New Mexico, Colorado, Wyoming and Montana. The key station will be KNX, Hollywood.

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PACIFIC COAST STATION MANAGER SEEKS POSITION

The following letter has been received from Lewis Lacey, of San Francisco, who resigned recently as manager of KYA, San Feancisco, and who is now seeking a new position.

"It has been my pleasure to receive your letter over a period of nearly a year while I was at KYA as General Manager. On several occasions I have noted your attempt at placing properly qualified men in new connections and I should like to submit mine, with the same idea in view.

"In a period from June, 1930, to July, 1931, I brought the station from almost total obscurity to a generally conceded fourth place of all stations in the San Francisco Bay area and have made it northern California's greatest independent radio station. During this time the gross increase of the station was raised almost 103%. Local advertising executives and operators of other radio stations will bear me out in saying that the job has been well done and KYA's present position is well merited.

"My experience in broadcasting consists of almost five years, during which time I have proceeded from commercial representative to announcer, then program director, studio manager, and from production manager to general manager. Other than this one year here, my experience has been entirely with stations affiliated with National Broadcasting Company. For the further information of anyone particularly interested, I am 36 years of age, with an experience of wide travel and good education. I am most interested in the Pacific Coast or in the southwest as a possible location."

Mr. Lacey's address is 1635 Gough Street, San Francisco, California.

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STATIONS WGAR RETURNS TO AIR

Station WGAR, Cleveland, associated with the National Broadcasting Company, returned to the air with a new 1000-watt transmitter last Monday night, after having been silent for ten days. WGAR temporarily discontinued broadcasting after abandoning its old transmitter atop the Statler Hotel, and resumed with the new equipment at Cuyhoga Heights, six and one-half miles from the heart of the city. The transmitter was relocated to eliminate local interference with other stations.

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RADIO CENSUS FALLING SHORT

With tabulations by the Census Bureau of two-thirds of the States completed, indications are that the total number of radio receiving sets in the United States, as of April 1, 1930, will fall far short of the estimates of the radio industry and the Department of Commerce.

The average of families with radio sets so far has been about one-third. Tabulations of 34 States and the District of Columbia reveal a total of only 4,168,510 sets among 12,941,653 families.

While the count of the remaining third States is expected to boost the total considerably because the most populous States have not yet been tabulated, it is doubtful whether the final count will be over 10,000,000.

Estimates of the radio industry and the Department of Commerce ranged from approximately 13,000,000 to 15,500,000 in the Summer and Fall of 1930. Whatever the total of the Census Bureau count, however, the actual number of sets in operation in the country now will be greater because of the considerable sale of midget sets last year and during the first half of this year.

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APPLICATIONS RECEIVED BY FEDERAL RADIO COMMISSION

July 20 - WSPA, Virgil V. Evans, trading as The Voice of South Carolina, Spartanburg, S. C., license to cover C. P. granted 4/3/31 to move transmitter and studio; WFDV, Dolies Goings, Rome, Ga. voluntary assignment of license to Rome Broadcasting Corp.; WCSC, Fred Jordan and Lewis Burk, Charleston, S. C., voluntary assignment of license to Lewis Burk.

July 21 - Stuary Francis Meyer, Oakwood Heights, New York, C. P. to erect new station to use 910 kc., 100 watts, certain specified hours; WORC-WEPS, Alfred Frank Kleindienst, Worcester, Mass., C. P. to install new transmitter; WWVA, West Virginia Broadcasting Corp., Wheeling, W. Va., modification of license to change frequency from 1160 kc., to 1180 kc., and to share time with Station KEX instead of with Station WOWO; WGAR, WGAR Broadcasting Co., Inc., Cleveland, Ohio, license to cover C. P. granted 6/26/31 to consolidate stations WFJC and WCSO into a new station to operate on 1450 kc., 500 watts, unlimited time; C. F. Wynn, Seymour, Texas, C. P. to erect new station to use 1140 kc., 50 watts, certain specified hours; WOWO, The Main Auto Supply Co., Fort Wayne, Ind., modification of license to change hours of operation from sharing with Station WWVA to sharing with Station KOB; KFQW, KFQW, Inc., Seattle, Wash., C. P. to install new transmitter.

Applications, Other Than Broadcasting

July 21 - WNY, Radiomarine Corp. of America, Brooklyn, N. Y., renewal of license for 143, 500, 135, 170, 442 kc., 1 KW, marine relay; KFA, Radiomarine Corp. of America, Annette Island, Alaska, renewal of license for 256, 274 kc., 200 watts, limited public, also renewal of license for 500, 425 kc., 200 watts, coastal; WAA, Radiomarine Corp. of America, Detrou, Michigan., renewal of license for 143, 410, 5 525, 161, 167, 425, 4775, 8570, 454 kc., 200 w., 750 w., marine relay; KSI, Aeronautical Radio, Inc., Alhambra, Calif., C. P. to reconstruct station for 3070, 3076, 5540 kc., aeronautical, 400 w.; C. P. to reconstruct station for 2722, 2734, 4108, 6350, 8015 kc., 500 w., point-to-point aeronautical; Western Air Express, Plane NC-422-E, new license for aircraft, 2368 kc., 50 w., special; WLB, Pere Marquette Radio Corp., Ludington, Mich., renewal of license for 375, 410, 425, 454 kc., 200 watts, coastal; WLOXAX, The Wilson Transit Co., Steamer W. C. Atwater, renewal of license for 484 kc., 2 watts, special experimental.

July 22, 1931 - Radiomarine Corp. of America: KDL, portable in vicinity of San Francisco Bay, renewal of license for 375 kc., 10 watts, radio compass calibration; WNY, Brooklyn, N. Y., renewal of coastal license for 143, 500, 135, 170, 442 kc., 1 KW; United Artists Studio Corp., Ltd., portable in Hollywood, Calif., new C. P. for 1554 kc., 15 watts, motion picture service; W2XBW, Globe Wireless, Ltd., Garden City, Long Island, N. Y., renewal of special experimental license for 7430, 7437.5, 7445, 9410, 10930, 14860, 14875, 14890, 18820, 22660 kc., 500 w.; WCK, City of Detroit, Police Dept., Belle Isle, Detroit, Mich., renewal of police license for 2410 kc., 400 watts; WPDX, City of Detroit, Police Dept., Coolidge Highway, Detroit, Mich., renewal of police license for 2410 kc., 50 watts; WLD, Pere Marquette Radio Corp., Ludington, Michigan, renewal of point-to-point license for 169 kc., 200 watts.

Also, WBR, Commonwealth of Penna., State Police, renewal of police license for 257 kc., 300 watts; Boeing Airplane Co., C-875-E, NC-10351, NC-10352, new licenses for 3106, 3160, 3166, 3172, 3178, 5570, 5660 kc., 50 watts, aircraft service; State of Iowa, State Bureau of Investigation, Des Moines, Iowa, new C. P. for 2458 kc., 400 watts, police service; Indianapolis Broadcasting, Inc., near Speedway City, Ind., new C. P. for 2368 kc., 7½ watts, special pickup service; WLAQ, Inc., Addison Township, Ill., new C. P. for 5900 kc., or 6040 kc., 500 watts, relay broadcasting.

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DECISIONS OF THE FEDERAL RADIO COMMISSION

The following applications were granted on July 21st:

RCA Victor Co., Inc., Camden, N. J., license to cover C. P. 43000 to 46000 kc., 48500 to 50,300 kc., 60,000 to 80,000 kc., 2 KW., hours of operation: unlimited, subject to time division between similiarly licensed stations and operation to be in accordance with rules and regulations covering this class of service;

Police Dept., Baltimore, Md., license to cover C. P., 2410 kc., 50 watts, A3 emission, 9 A.M. to 6 P.M., 90 days, subject to rules and regulations covering experiment stations; KSC, Chilkat Oil Co., Katella, Alaska, license to cover C. P., coastal calling 500 kc., working 425 kc., point-to-point 178 kc., with WTU, Cordova, 200 w., A2 emission, equipment rebuilt Navy type, self-rectified transmitter employing 4 vacuum tubes, frequency maintenance tolerance 0.1 of 1 per cent, maximum width of communication band, 2 kc., on coastal frequencies, 1 kc., on point-to-point frequency; KUB, Alaska Packers' Association, Kvichak River, Alaska, license to cover C. P., 274 kc., 50 w., A1 emission, points of communication: KHB, Kvichak, Equipment, RCA ET-3653-A, Serial No. 2056, License to expire October 15, 1931.

Also, Sebastian Stuart Fish Co.: KSR, Tyes, Alaska, license to cover C. P., coastal calling 500 and 2,428 kc., working, 425 and 2,428 kc., point-to-point, 274 kc., with WXH, Ketchikan, 262 kc., with WTQ, Petersburg, 222 kc., with other stations, 50 w. on 2428 kc., 200 w., and on other frequencies, authorized herein; A3 emission on 2428 kc., A1 on other frequencies authorized herein; equipment; 1 transmitter 50 w., composite high frequency phone crystal-controlled master oscillator, power amplifier, 1 transmitter 200 w., composite medium low frequency master oscillator, power amplifier, license to expire October 15, 1931.

Also, KGWW, Electrical Research Products, Inc., Los Angeles, Calif., license to cover C. P. 1554 kc., 50 w., A3 emission, transmitter to be used only with express authority of Federal Radio Commission, requests for such authority must be made at least two days in advance of date such use is contemplated and must include a statement as to period of use desired; points between which communication is desired and other statement as to the availability of other means of communication; Westinghouse Electric & Manufacturing Co., Chicopee Falls, Mass., renewal of license 990 kc., 50 w.

Also, WIBA, Badger Broadcasting Co., Madison, Wis., permission to use transmitter formerly operated under call letters WISJ for period of one week to determine which of the two transmitters WIBA or WISJ, will deliver better service in the area desired to serve; KCRC, Enid Radiophone Co., Enid, Okla., authority to move transmitter and studio locally and install new equipment; WOR, Bamberger Broadcasting Service, Newark, N. J., permission to use temporary broadcast pickup service between dirigible "Los Angeles" and Station WOR from 3 P. M. to 4 P.M., July 21, 1931, subject to approval of naval authorities in charge, 2368 kc., 50 w., power, A3 emission.

Designated For Hearing

The Voice of the Blue Grass, Owensboro, Ky., application for C. P. 940kc., 1 KW; Dr. F. P. Corniglia, Monroe, La., application for C. P., 1310 kc., 100 w.; Intermountain Broadcasters, Pocatello, Idaho, application for C. P., 900 kc., 250 w., unlimited; John E. V. Jasper, Sherman, Tex., application for C. P., 1500 kc., 50 w.; W. G. Jasper, Paris, Tex., application for C. P., 1370 kc., 50 w.; W. G. Jasper, Texarkana, Tex., application for C. P., 1420 kc., 50 w.

In the following cases, the Commission directed the Secretary in accordance with General Order No. 114, Section 2, to request each station to file an application for renewal of license through the Office of the Supervisor of Radio in charge of the district in which the station is located on or before August 1, 1931:

WCAL, St. Olaf College, Northfield, Minn.; WTAQ, Gillette Rubber Co., Eau Clair, Wis.; KFMX, Carleton College, Northfield, Minn.; KFUP, Fitzsimmons General Hospital, U. S. A., Denver, Colo.; KGBZ, Dr. George R. Miller, York, Neb.; KGDE, Charles L. Jaren, Fergus Falls, Minn.; KGIW, Leonard E. Wilson, Trinidad, Colo.; KGMP, Homer F. Bryant, trading as Bryant Radio & Electric Co., Elk City, Okla., KMA, May Seed and Nursery Co., Shenandoah, Iowa; KSCJ, Perkins Brothers Co. (The Sioux City Journal), Sioux City, Iowa.

In the following cases, the Commission reconsidered and granted the applications for renewal licenses:

KPCB, Queen City Broadcasting Co., Seattle, Wash.; KQV, KQV Broadcasting Co., Pittsburgh, Pa.

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PATENTS, PATENT SUIT, TRADE-MARKS, DESIGN

The following patents were granted during the week ending July 21, 1931;

- 1,815,045. Radio Signaling System. Clarence A. Boddie and Richard C. Curtis, Wilksburg, Pa., assignors to Westinghouse Electric and Manufacturing Co. Filed July 30, 1928.
- 1,815,055. Signaling System. William Leslie Edison, Wilmington, Del., assignor to The W. L. Edison Manufacturing Corp., Wilmington, Del. Filed December 18, 1929.
- 1,815,064. Operating Mechanism for a Record-Receiving Member. Joseph W. Legg, Wilksburg, Pa., assignor to Westinghouse Electric & Manufacturing Co. Filed May 31, 1927.
- 1,815,073. Uranium Photo-Electric Tube. Harvey C. Rentschler, East Orange, and Donald E. Henry, Bloomfield, N. J., assignors to Westinghouse Lamp Co. Filed June 12, 1929.
- 1,815,131. Means for Heating Filaments. Henry Joseph Round, London, England, assignor to Radio Corporation of America. Filed October 14, 1921.
- 1,815,203. Image Producing System. Herbert E. Ives, Montclair, N. J., assignor to Bell Telephone Laboratories, Inc., New York, N. Y. Filed July 30, 1929.
- 1,815,229. Electron Tube. Rudolf G. Berthold, Berlin-Siemensstadt, and Robert Strigel, Berlin-Charlottenburg, Germany, assignors to Siemens-Schuchertwerke, Aktiengesellschaft, Berlin-Siemensstadt, Germany. Filed December 16, 1927, and in Germany December 17, 1926.
- 1,815,246. Radio Direction Finder. Carl R. Englund, Freehold, N. J., assignor to Bell Telephone Laboratories, Inc., New York, N. Y. Filed June 29, 1929.
- 1,815,369. Rectifier. Harold P. Donle, Meriden, Conn., assignor to Radio Inventions, Inc., New York, N. Y. Filed June 29, 1925.
- 1,815,370. Rectifier. Harold P. Donle, Meriden, Conn., assignor to Radio Inventions, Inc., New York, N. Y. Original application filed June 29, 1925. Divided and this application filed September 17, 1927.
- 1,815,375. Device for Testing Vacuum Tubes. David E. Johnson and Paul F. Jackson, Dayton, Ohio. Filed November 21, 1929.
- JHJ*

- 1,815,390. Rectifier. Frank A. Young, Meriden, Conn., assignor, by mesne assignments, to Radio Inventions, Inc., New York, N. Y. Filed April 7, 1926.
- 1,815,481. Sound Recording and Reproducing Apparatus. Freeman H. Owens, New York, N. Y., assignor to Owens Development Company, New York, N. Y. Filed July 31, 1929.
- 1,815,483. Electrical Relay. Samuel Ruben, New York, N. Y., assignor to Ruben Patents Co., New York, N. Y. Filed December 6, 1927.
- 1,815,498. Electric Converter. George B. Crouse, Woodcliff, N. J., assignor, by mesne assignments, to National Carbon Company, Inc., New York, N. Y. Filed January 6, 1927.
- 1,815,559. Vibration Eliminator for Phonograph Turntables. Clarence G. Garrigus, Briston, Conn., assignor to William H. Birstol Talking Picture Corporation, Waterbury, Conn. Filed April 10, 1929.
- 1,815,692. Sound Recording Mechanism. Ferdinand von Madaler, Hampton Bays, N. Y., assignor, by mesne assignments, to Visionola Mfg. Corporation, New York, N. Y. Filed March 1, 1926.
- 1,815,693. Synchronized Motion Picture and Sound Reproducing Machine. Arthur De Madaler, Rochester, N. Y., assignor, by mesne assignments to Visionola Mfg. Corp., New York, N. Y. Filed November 5, 1927.
- 1,815,694. Synchronously Operated Motion Picture and Sound Reproduction Apparatus. Arthur De Madaler, Hampton Bays, N. Y., assignor, by mesne assignments, to Visionola Mfg. Corp., New York, N. Y. Original application filed November 5, 1927. Divided and this application filed December 6, 1928. Renewed June 27, 1930.
- 1,815,762. Electric Discharge Device. Ernest E. Charlton, Schenectady, N. Y., assignor to General Electric Co. Filed July 17, 1924.
- 1,815,777. Gramophone. George Basil King, Edgbaston, Birmingham, England. Filed April 8, 1929, and in Great Britain April 17, 1928.
- 1,815,830. Container For Storing Gramophone Records. Harry John Carlisle, Kenya Colony, East Africa. Filed July 20, 1929, and in Great Britain July 27, 1928.
- 1,815,833. Subdivided Service System of Radio Broadcast Distribution. Edward E. Clement, Washington, D. C., assignor to Edward F. Colladay, Washington, D. C.

Patent Suit

1,342,885, E. H. Armstrong, Method of receiving high frequency oscillations, D. C., N.D., Ohio, E. Div., Doc. 3237, Radio Corporation of America et al v. The G. W. Walker Co. Dismissed without prejudice May 19, 1931.

Trade-Marks

Ser. No. 309,926. Elektrotechnische Fabrik Schmidt & Co., Berlin, Germany. Filed Jan. 14, 1931. "Daimon" for flash-lamps and lanterns, etc., Dry-cell batteries, Radio batteries, etc. Claims use on dry-cell batteries and radio batteries since about July, 1924, and for fuses since about December, 1924.

Ser. No. 314,153. Benjamin A. Cover, Jr., doing business as Tilton Manufacturing Co., New York, N. Y. Filed May 4, 1931. "EX-STAT" for Radio Items and parts - namely, ignition filter systems of automobile radios, spark plug suppressors, distributor suppressors, resistors, resistor kits, condensers, and condenser kits. Claims use since June 13, 1931.

Ser. no. 314,255. Standard Stores, Inc., Boston, Mass. Filed May 6, 1931. "ZELTON" for Radio Electric Tubes, radio chassis, radio receiving sets, and radio speakers. Claims use since April 1, 1931.

Ser. No. 314,594. Wholesale Radio Service Co., Inc., New York, N.Y. Filed May 14, 1931. "Trutest" for Radio receiving sets and parts thereof, transformers, condensers, loud speakers, and rheostats. Claims use since April 2, 1931.

Ser. No. 308,373. N. V. Kuchenmeister's Internationale Ultraphoon-Maatschappij, Berlin, Germany. Filed November 28, 1930. "Ultrola" for phonographs and phonograph records, phonographic sound recording devices and records for reproduction by player pianos. Claims use since, 1926.

Trade-Mark Registrations Granted

285,225. Radio Receiving Sets and Parts Thereof. Delco Radio Corporation, Dayton, Ohio. Filed February 19, 1931. Published May 5, 1931.

285,249. Radio and Wireless Television Instruments, Loud-Speakers, Radio Tubes, etc., John A. Alexander, New York, N. Y. Filed October 28, 1930. Published May 5, 1931.

Design

84,703. Combined Radio Cabinet and Clock. Robert J. Koeppe, Chicago, Ill., assignor to The Cheney Company, Chicago, Ill. Filed March 23, 1931. Term of patent $3\frac{1}{2}$ years.

HEINL RADIO BUSINESS LETTER

INSURANCE BUILDING

WASHINGTON, D. C.

ISSUED TWICE A WEEK AND CONTAINING THE LATEST INFORMATION REGARDING THE RULINGS OF THE FEDERAL RADIO COMMISSION, RADIO LEGISLATION, DEPARTMENT OF COMMERCE REGULATIONS, CHANGES IN WAVELENGTH, CALL LETTERS AND POWER, PATENTS, EXPORTS, FEDERAL TRADE COMMISSION RULINGS AND OTHER MATTERS OF INTEREST TO BROADCASTERS AND MANUFACTURERS. :: :: CONFIDENTIAL—NOT FOR PUBLICATION. / :: ::

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INDEX TO ISSUE OF JULY 27, 1931.

NBC Television Station Authorized.....	2
Excavation Begins For Radio City.....	2
Norman Baker Seeks Injunction In KTNT Case.....	3
Philco Confirms Farnsworth Television Tie-Up.....	3
"Wobbling" Found On Decline.....	4
Exports Gain 57% Over 1930.....	4
Progress In Aircraft Direction Finder.....	4
Correction.....	5
Press Group Plans To Fight Radio.....	7
Seeks Broadcasters Aid In Toning Down Speakers.....	7
Caldwell Warns Against Television Hysteria.....	8
Lafount Urges More Power For West.....	9
CeCo Makes Large Tube Shipment.....	9
"Leviathan" Receives Television Image.....	9
Applications Received By Federal Radio Commission.....	10
Decisions Of the Federal Radio Commission.....	11

No. 455

NBC TELEVISION STATION AUTHORIZED

The National Broadcasting Company has just been authorized by the Federal Radio Commission to erect a television and a sound broadcasting station on the eighty-fourth floor of the Empire State Building, of New York, tallest structure in the world.

The stations will operate on ultra high frequencies, above 23,000 kilocycles, in an effort to ascertain whether or not they can be adapted to visual broadcasting. The stations will cost \$75,000, with \$10,000 additional for studios.

Ninety days will be required to complete the construction, according to the applications. A 2,500 watt transmitter and the frequencies of 41000, 51400, 60000 to 400000 and 401000 kilocycles will be used for the sound track, while the bands from 43000 to 46000, 48500 to 50300 and 60000 to 80000 kilocycles are assigned to the television transmitter, which will have 5,000 watts power.

A television antenna will be placed on top of the Empire State Building mooring mast, 1,250 feet above the street level. NBC engineers believe that many of the present obstacles to visual broadcasting will be removed through the operation of the station from this height.

The Columbia Broadcasting System has already opened a television station in New York. It is W2XAB and is synchronized with W2XE, Columbia's short wave rebroadcasting station.

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EXCAVATION BEGINS FOR RADIO CITY

Eight steam shovels, 100 trucks, and about 300 men were scheduled to begin work today on excavations for Radio City, the largest building project in history, according to the New York Times. Early activity will be centered in the section to be known as Metropolitan Square.

The excavation work is expected to be completed this Fall. When the construction of the buildings is under way, at least 5,000 men will be employed on the project.

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NORMAN BAKER SEEKS INJUNCTION IN KTNT CASE

Norman Baker, owner of Station KTNT, of Muscatine, Iowa, is seeking a preliminary injunction against the individual members of the Federal Radio Commission to nullify the action of the Commission in removing KTNT from the air last month. The suit was filed last week in the District of Columbia Supreme Court.

Challenging the constitutionality of the Radio Act of 1927, on which the Commission based its action, the petition claims that the removal of the station from the air violates the Fifth Amendment to the Constitution, destroying its property without due process of law. The approximate value of the 5,000 watt station was placed at \$130,000 in the petition.

Station KTNT already has an appeal pending in the Court of Appeals of the District of Columbia from the Commission's decision of June 5th refusing it renewal of its license on the ground that the station was used by Mr. Baker as a "private mouthpiece" rather than in the public interest. The station obtained a stay order from the Court permitting it to operate during the pendency of the litigation, but on motion of the Commission, several days later, this order was vacated by the Court, and the station again was ordered to cease operating.

Justice Oscar Lurhing, of the Supreme Court, upon filing of the suit, issued a rule ordering the five Federal Radio Commissioners, all named as defendants, to show cause on August 3, why they should not be restrained and enjoined as prayed in the bill. The bill was filed by Mathews & Trimble, attorneys for KTNT.

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PHILCO CONFIRMS FARNSWORTH TELEVISION TIE-UP

The following is confirmation by James M. Skinner, President of Philco, regarding their arrangement with Farnsworth, the television inventor:

"Under an agreement made between Philco and Farnsworth, further development work on the Farnsworth Television System will be carried on in the Philco laboratories at Philadelphia. Philco is confident that the Farnsworth Television System will be the system finally adopted because of the elimination of all rotating disks or other moving parts, and equally important, because of the narrow broadcasting band necessary for transmission through the air which will multiply by many times the number of broadcasting stations which can operate simultaneously without interference.

"Philco wishes to point out, however, that much development work is still to be done before television is ready for the market, and that it would be premature even to guess at the date when receivers can be offered to the public.

"Also that television if, and when, it comes will not obsolete present radio sets because television will require an additional and separate receiver of its own."

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"WOBBLING" FOUND ON DECLINE

W. D. Terrell, Director of Radio, Department of Commerce, has just announced that although the order requiring broadcasting stations to maintain their frequencies within 50 cycles of their assigned frequencies was only issued a month ago, and is not effective until about a year hence, there has been an increase of 19 stations in this category for the month of June over the number reported for May. At the present time, stations are allowed to deviate not more than 500 cycles.

During June, 4,793 measurements made of 330 broadcasting stations showed that 97 at no time deviated as much as 50 cycles, 71 deviated over 50 cycles one or more times but did not go above or below 100 cycles from their frequencies, and 69 went over 100 but not as much as 200. The other measured deviated over 200 cycles.

These measurements were made at the monitoring stations of the Radio Division located throughout the United States.

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EXPORTS GAIN 57% OVER 1930

Exports of radio receiving sets from the United States for the first five months of this year show an increase of approximately 57 per cent over the similar period in 1930, according to announcement by the Department of Commerce.

The value of exports through May of this year was \$5,191,483 as compared to \$3,312,100 in 1930. Receiving sets exported during May totalled \$1,171,000 as against \$726,000 in May, 1930.

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PROGRESS IN AIRCRAFT DIRECTION FINDER

The following appeared in the Air Commerce Bulletin of the Aeronautics Branch of the Department of Commerce:

"Further simplification was effected in the design of the aircraft direction finder under development by the Aeronautics Research Division. It was found possible to so arrange the input switching unit that but one loop antenna is required in place of the crossed-loop antenna system previously employed. Besides the reduction in the number of loop antennas employed, there is additional simplification in the condenser arrangement used in the input unit. Sense of deviation from the indicated course is still given the pilot by means of a zero-center pointer type course indicator. The use of the direction finder for taking cross bearings is at the same time made considerably easier through the elimination of the right-angle courses which were present with the crossed-loop antenna system.

C O R R E C T I O N

The following letter has been received from Robert E. Segal, Promotion Manager of the Cincinnati Post:

"Will you be kind enough to notice the marked tear sheet enclosed and publish in your interesting business letter a correction in the article concerning the action of Earl Fuller against the former operators of WFBE and against The Cincinnati Post?"

"On page 7 of your issue of July 16, you state:

"'The "Post" began operating WFBE a week ago but refrained from announcing the tie-up in its columns. Sheet also remained silent on the Fuller suit, but the story was carried by two other papers.'

"You are in error when you say The Post 'remained silent on the Fuller suit.' We gave more prominence to this story than did either the other afternoon papers or the morning paper. Moreover, we featured in our headline the fact that The Post was sued.

"Your article also identifies Mr. George Schott as 'a principal owner and general manager of Coney Island.' The George Schott identified with WRBE is George M. Schott, secretary of the Cincinnati Galvanizing Company. The George Schott who is president and general manager of Coney Island, Inc., is George F. Schott."

The article referred to by Mr. Segal appeared in the Cincinnati Post, July 10th. It was headed: "POST NAMED IN WFBE SUIT BY MUSICIAN - FULLER ATTACKS "SALE OR LEASE" OF RADIO STATION - RECEIVERSHIP IS ASKED - ORCHESTRA LEADER CLAIMS ONE-HALF INTEREST" and read as follows:

"Charging transfer of interest in radio station WFBE, in the Parkview Hotel, was made secretly and without his knowledge, and attacking the sale or lease of the station to The Cincinnati Post, Earl Fuller, orchestra leader, filed suit Friday in Common Pleas Court asking receivership and an accounting.

"George M. Schott, 2609 Clifton Ave.; Peter W. Miller, 2825 Clifton Ave.; William C. Schott, Cleves-Warsaw-Pike; Louis Schott, 2615 Clifton Ave.; WFBE, Inc., 108-112 Garfield Pl., and The Post Publishing Co., are named joint defendants in the suit.

"Fuller brought action through his attorneys, Harmon, Colston, Goldsmith & Hoadley.

"The suit specifically asks for appointment of a receiver to hold, operate, manage and control the station; an accounting from the Schotts and Miller, and dissolution of his partnership with them; determination by the court of his interests and judgment therefor; voiding of the sale, transfer or lease of the station to The Post; that The Post be required to turn over the station to him,

or be held to account for interests, and that all defendants be required to answer certain interrogations filed with his petition.

"Fuller also seeks court costs.

"Questions asked by Fuller are:

"1. Whether or not the amount of capital specified in the station's articles of incorporation has been paid, and, if so, when and in what amount.

"2. Whether any stock has been issued, and to whom?

"3.. Whether any directors have been elected, and, if so, who?

"4. Whether the broadcasting station was sold or leased to The Post.

"5. Terms and considerations in the deal.

"Fuller also asks that The Post be required to answer specifically his question of the amount paid by The Post to other defendants or WFBE, Inc., and to whom the money was paid.

"He sets forth that under an agreement with the defendants, other than WRBE, Inc., and The Post, he re-equipped and modernized the obsolete equipment in the station, paying for it out of his own funds, or obligating himself for it.

"Due to his sole efforts, reputation, and knowledge of metropolitan Cincinnati, he avers, he was enabled to obtain lucrative advertising contracts for the station, increasing its value from almost nothing to in excess of \$250,000.

"By reason of his agreement, he says, he became a partner in the station, owning and holding an undivided one-half interest.

"During none of the negotiations with The Post, he claims, was he present or invited, and the amount received by the other defendants from The Post never has been accounted for.

"His repeated demands for an accounting have been refused, he declared.

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PRESS GROUP PLANS TO FIGHT RADIO

Following is part of an article appearing in the current issue of Editor and Publisher:

"At a meeting of the Executive Committee of the Pennsylvania Newspaper Publishers' Association at the Irem Temple Country Club, near Wilkes-Barre, Pa., July 18, the manager, William N. Hardy, was authorized to employ counsel in co-operating with the A.N.P.A. and other newspaper agencies in combating competition of the radio for newspapers in the fields served by low-power broadcasting stations.

"The general subject of radio competition was considered at length by the Executive Committee at the request of several members, notably the Williamsport Sun-Gazette, and the Oil City Derrick, where local low-power stations are in operation.

"George E. Graff of the Williamsport Sun-Gazette reported that he had engaged Elisha Hanson of Washington, D. C., attorney for the A.N.P.A. to protect his interests before the Federal Radio Commission.

"Mr. Hanson was retained by the P.N.P.A. this week to represent the Association in the Graff proceedings if it became apparent that by so doing he could serve the newspaper industry. Mr. Hanson was also asked to protest for the P.N.P.A. at the hearing to be granted C. R. Cummins of Williamsport, whose petition for 260 low-power broadcasting stations, 41 of them in Pennsylvania, has been placed before the Commission.

"A report of the manager showed that the presidents of the International Typographical Union and the Pressmen's Union have pledged their support to the newspapers in their fight against radio, along legislative and any other lines desired."

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SEEKS BROADCASTERS AID IN TONING DOWN SPEAKERS

The following letter was addressed recently to the Editor of the New York Sun and printed in that paper:

"Well may William H. Higbie ask, Why Keep a Radio? At various times I have asked the broadcasting stations to assist in alleviating the loud loud speaker nuisance. WOR cooperated. Politely at 10:45 each evening that station suggests that loud loud speakers be turned down. The Aylesworth people, with their haughty public utility attitude, pass the buck to the Noise Abatement Commission! If Geraldine Farrar could have listened to her voice as it bellowed from two loud loud speakers hereabouts, shaking the very houses as it ricocheted down the street, Miss Farrar would weep and the Packard sponsors do some thinking. Program sponsors are being kidded; radio broadcasting is committing suicide.

Phillip Vyle, F.B.G.S."

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CALDWELL WARNS AGAINST TELEVISION HYSTERIA

"In New York and other cities, television is now being made into a stock-selling racket preying on the savings of the ignorant trusting public to an extent that has already attracted the attention of the District Attorney's office", declared Orestes H. Caldwell, former Federal Radio Commissioner, speaking before the faculty and post-graduate classes of the Fairhope Summer School, at Rosemary Hall, Greenwich, Conn., Saturday afternoon, July 25th.

"New television corporations are being organized daily in Delaware and other States, in a frantic rush to get in on the present bonanza of television stock selling. Regiments of stock salesmen are being hired to call on sucker lists and sell securities under the pretense of letting the investor share in legendary profits of 'this new billion-dollar industry.'

"Even reputable Wall Street firms are making open inquiries among radio men, seeking television companies to promote. Meanwhile the Department of Justice, the New York District Attorney's office and the Post Office Department are watching some of the high-pressure stock-selling methods now under way, with a purpose of action. Already the use of the mails by several television 'tipster sheets' has been stopped.

"Before any layman takes hard-earned dollars and invests them in television securities, he should inform himself to some extent about the status of the television art and the likelihood of improvements, and should also insist on witnessing a television demonstration to observe the crudities of present television for himself", Mr. Caldwell declared.

"The basic principle of all present television machines was invented back in 1887 by a Russian named Nipkow, and except to apply recent details, the basic principle remains the same. This point-by-point method involves the sending of enormously high frequencies over radio or wire circuits, and even with half-million cycles per second, the picture will be something like that of a poor newspaper halftone, and far less satisfying than a home movie.

"Present systems are all surprisingly identical in method and results produced, and all seem limited to the showing of coarse outlines of a single face, or at best two faces. One's 'interest' in watching such television images of limited detail quickly subsides after a minute or so, and those who have witnessed demonstrations of all the principal systems do not feel that the flickering television image is yet more than a scientific curiosity, and is still far from being a medium of entertainment or amusement.

"Television has been up against a stone wall of limitations as far as future developments of present methods is concerned. And despite the herculean efforts expended upon it, little advance has been made in five years. Television of motion-picture quality still awaits a new inventor with a brand-new idea for transmitting images, replacing the present complex point-by-point method", Mr. Caldwell concludes.

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LAFOUNT URGES MORE POWER FOR WEST

While still in the midst of his Western inspection tour, Radio Commissioner Harold A. Lafount has expressed the opinion that broadcasting stations in the West need more power because of the often large areas they are required to serve.

"Stations in this vast territory must cover a very large area to reach anything like the number of listeners that eastern stations of equal power reach", he said. "A large audience is essential to the sale of time at a price that will pay profit, and profits must be realized if high standards are to be maintained."

The Western Radio Commissioner reiterated his contention that cleared channel stations should be permitted to use the maximum power of 50,000 watts. He also noted that numerous technical improvements in broadcasting are apparent throughout the West.

Mr. Lafount addressed the National Association of Broadcasters at San Francisco last week.

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LEVIATHAN RECEIVES TELEVISION IMAGE

For the first time in the history of television, a program was received by a ship at sea last Thursday. The Leviathan received the picture and voice of an announcer from Station W1XAV, Boston, and some pictures from Washington.

The experiment was conducted by the Short Wave and Television Corporation.

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CECO MAKES LARGE TUBE SHIPMENT

The following has been received from the CeCo Company:

"More than 50,000 CeCo tubes were shipped from the factory of the CeCo Manufacturing Company in Providence, R. I., on a recent day in July. It was the biggest daily CeCo shipment since the Autumn of 1929 and one of the biggest shipments in CeCo history.

"S. J. (Jack) Helsper, CeCo Sales Director, states that many more similar shipments will follow between now and the end of the year."

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APPLICATIONS RECEIVED BY FEDERAL RADIO COMMISSION

July 24 - The Sun-Gazette Co., Williamsport, Pa., C. P., amended to request 1370 kc., instead of 1420 kc., and to share time with WRAK instead of unlimited time; KSO, Iowa Broadcasting Co., Clarinda, Iowa, C. P. to install new transmitter; KFMX, Carleton College, Northfield, Minn., license to cover C. P. granted Feb. 17, 1930, to make changes in equipment; WCMA, General Broadcasting Corp., Culver, Ind., C. P. to move studio and transmitter from Culver Military Academy, Culver, Ind., to 643 Lake Shore Drive, Culver, Ind.; KPPC, Pasadena Presbyterian Church, Pasadena, Calif., license to cover C. P. granted June 26, 1931, to install new transmitter and use antenna of former station KPSN.

July 25 - Dr. S. A. Lutgen, Wayne, Nebr., C. P. resubmitted amended as to equipment; WPAD, Paducah Broadcasting Co., Paducah, Ky., C. P. to make changes in equipment and increase power from 100 w. to 100 w., 250 w., L. S.

Applications, Other Than Broadcasting

July 24 - Radiomarine Corporation of America: WOE, Palm Beach, Fla., renewal of coastal license; WCY, West Dover, Ohio, WRL, Duluth, Minn., renewal of Marine Relay licenses; KEA, Adam Wm. Lipke, Seldovia, Alaska, license covering C. P. for 500, 425, 178 kc., 100 w., coastal and point-to-point service; WRDI, The Franklin County Board of County Commissioner, Columbus, Ohio, renewal of police license for 2416 kc., 200 w.; KHE, Everett Packing Co., Herendeen Bay, Alaska, license covering C. P. for 252, 178 kc., 50 w., limited public service; Police Department, Homewood, Ill., new C. P. for 2410 kc., 50 w.; WPDL, City of Lansing, Mich., renewal for 2400 kc., 50 w., police service; Pan American Airways, Bangor, Maine, Calais, Maine, new C. P.s for 2662, 4164, 6305, 8015, 3070, 5690 kc., 10 w., aero and point-to-point aeronautical service.

July 25 - Aeronautical Radio; WAEF, Newark, N. J., renewal of license for 2722, 2734, 4108, 6365, 8015 kc., 400 w., point-to-point aeronautical; WQDQ, near New Orleans, La., license to cover C. P. for 2326, 2344, 4140, 6260, 6275 kc., 400 w., point-to-point aeronautical; WEEQ, Orlando, Fla., (requested), C. P. for 3070, 3076, 5690, 4164, 6320 kc., 350 w., aeronautical and point-to-point aeronautical; WFEB, Wayne County Airport, Wayne County, Mich., license covering C. P. for 278 kc., 10 w., aeronautical; WAEB, Aeronautical Radio, Columbia, Ohio, C. P. for change in location, 3082, 3088, 5510 kc., 400 w., aeronautical; W9XAY, National Battery Broadcasting Co., portable, special license for 2368 kc., 7.5 w.; WBA, Pennsylvania State Police, Harrisburg, Pa., WMB, W. Reading, Pa., WDX, Wyoming, Pa., renewals for 275 kc., 300 w., police; WMP, Commonwealth of Mass., Holden, Mass., C. P. to change location, 1662 kc., 5 kw (day) 10 kw (nights) police; WRDR, Township of Grosse Pointe, Grosse Pointe, Mich., renewal of 2410 kc., 50 w., police.

Also, RCA Communications: W2XAM, New Brunswick, N. J., renewal for 1604, 2398, 3256, 4795, 6425, 8650, 12850, 17300 kc., 10 kw., experimental; W2XBI, Rocky Point, N. Y., renewal for 51,400, 60000 to 400000, and above 401000 kc., 10 kw., experimental; W2XBC, RCA Communications, Rocky Point, N. Y., renewal for 17300, 25700, 34600, 51400, kc., 10 kw., experimental; W2XAS, Rocky Point, N. Y., renewal for 1604, 2398, 3256, 4795, 6425, 8650, 12850, 17300 kc., 80 kw; W2XBG, Radiomarine Corp. of America, Garden City, N. J., renewal of license for 1604, 2398, 3256, 4795, 6425, 8650 kc., 200 w., experimental.

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DECISIONS OF THE FEDERAL RADIO COMMISSION

The following decisions were granted July 24th:

KFI, Earle C. Anthony, Inc., Los Angeles, Calif., request granted to include 5 kw., auxiliary transmitter which was omitted in renewal of license granted July 7, 1931; WFBL, Onondaga Radio Broadcasting Corp., Syracuse, N. Y., authority to measure antenna input; KFDM, Magnolia Petroleum Co., Beaumont, Texas, authority to measure antenna input; WOW, Woodmen of the World Life Insurance Association, Omaha, Nebr., authority to measure antenna input; WMT, Waterloo Broadcasting Co., Waterloo, Iowa, authority to measure antenna input.

Also, NBC (see page 2); Submarine Signal Co., Boston, Mass., C. P., frequencies 1604, 2398, 3256 and 4795, 15 w. power, A1 and A2 emission, subject to rules and regulations governing general experimental stations; WKDH, Alaska Salvage and Towing Co., on board vessel "Akutan", temporary authority to operate in conformity with existing license for a period not to exceed 60 days, frequencies: radio compass 375 kc., calling 500 kc., working 425 kc., 500 w. power, class B emission; WPDL, Police Dept., Lansing, Mich., authority to operate police radio transmitter in conformity with G. O. 113; KWO, Transpacific Communications Co., near Sacramento, Calif., modification of C. P., frequencies 7565, 7610, 10840, 15355, 15415, 21060 kc., 20 kw., power directed toward the Hawaiian Islands, all other terms of C. P. to remain the same;

Also, Pan American Airways, Inc., Bangor, Me., C. P. (a) 3070 kc., unlimited, 5690 kc., day only; (b) 2662, 4164 kc., unlimited; 6305, 8015 kc., day only. (a) frequencies for aeronautical ground to plane communication, frequencies (b) for aeronautical point-to-point service, 100 w., A1 and A2 emission, for communication with ground station and planes along route between Boston, Bangor, Calais, St. Johns and Halifax for a period of 90 days, subject to provisions of G. O. 99 as amended; Western Air Express, NC-422-E, license, 2368 kc., 50 w., A3 emission, for July 25, 1931, only. For rebroadcast through KSL, Salt Lake City, and other broadcast stations.

The Commission directed the Secretary in accordance with G. O. 114, Section 2, to request the following stations to file applications for renewal of license through the Office of the Supervisor of Radio in charge of the district in which the station is located on or before August 10, 1931:

KUOA, University of Arkansas, Fayetteville, Ark.; KLRA, Arkansas Broadcasting Co., Little Rock, Ark.; KOB, New Mexico College of Agriculture and Mechanic Arts, State College, New Mexico; WKBN, Warren P. Williamson, Jr., Youngstown, Ohio; WEAO, Ohio State University, Columbus, Ohio;

The Commission granted the following renewal applications for licenses:

KJBS, Julius Brunton & Sons Co., San Francisco, Calif.; KMOX, The Voice of St. Louis, Inc., St. Louis, Mo.; WCBD, Wilbur Glenn Voliva, Zion, Ill.; WCCO, Northwestern Broadcasting, Inc., Minneapolis, Minn.; WMAZ, Macon Junior Chamber of Commerce, Macon, Ga.; WOR, Bamberger Broadcasting Service, Inc., Newark, N. J.; WOI, Iowa State College of Agriculture and Mechanic Arts, Ames, Iowa;

The Commission reconsidered and granted the following applications for renewal of license:

KGDA, Mitchell Broadcasting Corp., Mitchell, South Dakota; KGHI, Berean Bible Class, First Baptist Church, Little Rock, Ark.;

The Commission reconsidered and designated the following application for hearing and directed that a temporary license be issued beginning 3 A.M., E.S.T., Aug. 1, 1931, and period ending according to Special Minute No. 360, adopted April 16, 1931:

KFEQ, Scroggin and Co. Bank, St. Joseph, Mo.

The Commission granted temporary renewal license to the following station beginning 3 A.M., E.S.T., Aug. 1, 1931, and ending 3 A.M., E.S.T., Sept. 15, 1931:

WOV, International Broadcasting Corp., New York, N. Y.; KVI, Puget Sound Broadcasting Co., Inc., Tacoma, Wash., on consideration of the fact that station is licensed for limited time but has failed to file copies of regular operating schedule signed and approved by the licensee of unlimited time station in accordance with G.O. 105, Commission designated application for renewal of license for hearing and directed that temporary license be issued beginning 3 A.M., E.S.T., August 1, 1931, and period ending according to Special Minute No. 360, adopted April 16, 1931, license to contain the following clause: "This license is issued on a temporary basis and subject to such action as the Commission may take after hearing on the licensee's pending application for renewal of license. No authority herein contained shall be construed as a finding by the Federal Radio Commission that the operation of this station is, or will be, in the public interest beyond the term hereof."

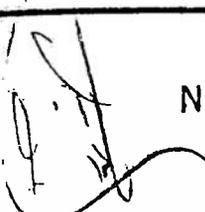
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HEINL RADIO BUSINESS LETTER

INSURANCE BUILDING

WASHINGTON, D. C.

ISSUED TWICE A WEEK AND CONTAINING THE LATEST INFORMATION REGARDING THE RULINGS OF THE FEDERAL RADIO COMMISSION, RADIO LEGISLATION, DEPARTMENT OF COMMERCE REGULATIONS, CHANGES IN WAVELENGTH, CALL LETTERS AND POWER, PATENTS, EXPORTS, FEDERAL TRADE COMMISSION RULINGS AND OTHER MATTERS OF INTEREST TO BROADCASTERS AND MANUFACTURERS. :: :: CONFIDENTIAL—NOT FOR PUBLICATION. :: ::

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711 Fifth Avenue, New York, N. Y.

~~Mr. Mulholland~~
~~Miss Johnson~~

INDEX TO ISSUE OF JULY 30, 1931.

Chicago Stations Appeal High Power Issue.....	2
Television Patents To Be Exhibited.....	3
A Correction.....	3
WLBW Synchronization Plan Is Recommended.....	4
KSTP Official Automobile Victim.....	4
Low-Water Mark With Us This August Says Caldwell.....	5
Rhode Island Well Equipped With Radios.....	5
Lowell and Dunmore Patents Upheld.....	6
Columbia Adds 85th Station.....	6
N. Y. Applies for Wired Music Concession.....	7
Drive To Ditch Old Sets Is Rumored.....	7
Business Letter Briefs.....	8
RCA and Others Sued By Dubilier Condenser.....	10
Permit For Improved Television Station Asked.....	10
Radio Commission Answers KTNT Suit.....	11
Court Grants RCA Order.....	11
Applications Received By Federal Radio Commission.....	12

No. 456

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CHICAGO STATIONS APPEAL HIGH POWER ISSUE

The high power issue, which has been hanging fire before the Federal Radio Commission for almost a year, was thrown into litigation this week when three Chicago stations, which had been assigned temporary licenses, appealed to the District of Columbia Court of Appeals.

The appellants, WGN, WENR, and WLS, all challenged the authority of the Radio Commission to issue temporary licenses to them, without prior hearing or notice. Temporary permits were granted to the stations on July 7th because of pending applications by other stations for facilities now used by the appellants.

WGN, operated by the Chicago Tribune, is assigned to the 720 kilocycle channel with 25,000 watts. It was one of the eight stations recommended in the second report of Chief Examiner Ellis A. Yost for the maximum 50,000 watts power. Because WCFL, the Chicago Federation of Labor station, has applied for the same facilities, the Commission gave WGN only a temporary license.

WENR, which is operated by the National Broadcasting Company, and WLS, which has an operating arrangement with NBC, share time on the 870 kilocycle channel with 50,000 watts power. Station WTMJ, operated by the Milwaukee Journal, is an applicant for the same frequency and the maximum power.

The Milwaukee station has already appealed from the action of the Commission in absolving the Radio Corporation of America of violating the anti-monopoly provision of the Radio Act. The reason for this appeal was that WENR and WLS were not ordered off the air.

The appeals of WENR and WLS were identical. The decision appealed from set forth that the licenses were issued on a temporary basis beginning August 1st.

The decision, Louis Titus, counsel, held, constituted a refusal of the applications filed by the two stations for the renewal of their existing licenses. He said the action was contrary to a prior decision of the Commission renewing the licenses on regular basis, and that it was made without notice to the stations and without hearing. He argued that the decisions were unconstitutional and void in that they are "not authorized by the commerce clause or any other provision of the Constitution of the United States" and violate the requirements of the Fifth Amendment.

Similar argument was advanced by Louis G. Caldwell in behalf of Station WGN. The appeal brought out that WGN has operated continuously for about seven years, and that its equipment is valued at \$250,000 after depreciation. In addition he said the investment in the station is in excess of \$1,500,000, "representing losses incurred in its operation and in building up the good will of a large listening audience." The equipment and the investment would be rendered worthless if the station's license to operate the station is now renewed, he said.

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TELEVISION PATENTS TO BE EXHIBITED

Television and radio will make tremendous strides in mechanical improvement during the next five years, according to Harry G. Green, sponsor of the Second International Patent Exposition to be held in Chicago's Merchandise Mart, Sept. 14-27th.

"The world's inventive genius is by no means exhausted in the field of radio and television, and from the number of new inventions which are to be exhibited for the first time at the Patent Exposition, it would appear that the next five years will witness the most spectacular developments yet achieved in this field", Mr. Green asserted.

"More than 1600 individual patents, none of them as yet on the market, are already listed for exhibit and a majority of them are almost certain to be seized upon by radio manufacturers, virtually all of whom will be represented at the Exposition for the purpose of keeping abreast of new developments in the industry.

"Some of the inventions are designed to improve the technique of broadcasting, but a majority of them are concerned with making reception more perfect. One of the exhibits will be an actual vest-pocket radio which makes it possible for a man to enjoy his favorite broadcast while walking to and from lunch.

"The television and radio exhibits will constitute only one department of the Patent Exposition. A total of more than 32,000 new inventions will be shown."

Maj. Gen. George O. Squier, former Chief of the Army Signal Forces, is Honorary Chairman of the Exposition.

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A CORRECTION

The Business Letter last week incorrectly stated that Frank A. Arnold, Director of Development of the National Broadcasting Company, would participate in a broadcast series which began July 19th. His address, "Contribution of Radio to the Spiritual and Ethical Growth of the Nation" was given as the first of a forum series at a Hempstead (L. I.) Church, but it was not put on the air.

Other speakers in the series will be Mrs. Maud Ballington Booth, Dr. Daniel A. Poling and Edwin Markham.

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WLBW SYNCHRONIZATION PLAN IS RECOMMENDED

A favorable report on the application of Station WLBW, of Oil City, Pa., for permission to construct another transmitter at Erie, Pa., for synchronization purposes was made to the Federal Radio Commission this week by Examiner Elmer W. Pratt.

The stations would operate on the same frequency of 1260 kilocycles with 1,000 watts power during the day and 500 watts at night although 52 miles apart. WLBW is operated by the Radio-Wire Program Corporation of America, owned half and half by the Pennsylvania Telephone Corporation, and the Quaker State Oil Refining Company.

Declaring that Erie and vicinity are now without adequate broadcasting facilities, the Examiner said the proposed plan is technically feasible and desirable.

At the same time, Mr. Pratt recommended denial of the application of WEDH, of Erie, Pa., for permission to shift its frequency from 1420 to 940 kilocycles and increase its power from 100 to 500 watts at night and 1,000 watts during the day. Interference would result, he said, with stations operating on the same frequency.

Establishment of a new broadcasting station at Honolulu, Hawaii, to supplant the two existing stations was recommended by Chief Examiner Ellis A. Yost. The applicant is the Radio Distributing Company, and the assignment requested is 1420 kilocycles with 100 watts power and unlimited time.

A condition was made, however, that the broadcasting facilities now assigned to WFQW, Seattle, Wash., are available. The Washington station is now operating under a stay order.

Examiner R. H. Hyde recommended that the application of WCLO, of Janesville, Wis., for an increase in daytime power from 100 to 500 watts, be denied.

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KSTP OFFICIAL AUTOMOBILE VICTIM

Frank M. Brown, secretary of the National Battery Broadcasting Co., operators of KSTP, at St. Paul, died in a hospital at St. Croix Falls, Wis., last week as a result of injuries suffered when his automobile overturned. Mr. Brown was 42 years old.

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LOW-WATER MARK WITH US THIS AUGUST SAYS CALDWELL

A new low price level for radio sets is now irretrievably established in the public's mind, - a price level below \$40, according to O. H. Caldwell, former Radio Commissioner.

"For a time following the Chicago Show, the trade listened credulously to stories that this price would continue only temporarily, was possible only because of stocks of unused parts, and was offered only because as a 'fill-in' in lines designed to uphold the quality and prosperity of radio", Mr. Caldwell goes on to say.

"But with the appearance of announcements, by the millions, featuring the new \$37 set, any illusion must now be dropped and the trade may as well accept the situation that the \$37 radio is here to stay as a 'low-water mark' in the buying public's mind!

"Present methods used by dealers in selling radios will not earn a profit when applied to \$37 units. The dealer loses money on every sale he makes below the \$40 level. If the trade is to go on, making its major volume in \$37 sales, new methods will have to be adopted, store overhead cut, and sales speeded up to build back dollar volume. Lists of past customers must be combed, for sales of 'second sets' and 'third sets, - as upstairs sets, kitchen radios, camp radios, etc.

"On the other hand, the dealer still has the chance to 'trade up' many of his prospects, and by demonstrating the better sets, to raise the average unit of sale. 'Tone value', and the thrill of distance reception are the two strongest arguments the trade has for swinging sales back in the direction of higher-priced units.

"Low-water mark is with us in August, 1931, in more sense than one! But it need be accepted only as a level to build above, - whether in set price, tone quality, or sales volume!

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RHODE ISLAND WILL EQUIPPED WITH RADIOS

Rhode Island takes its place among the States whose families are most fully equipped with radio receiving sets, according to the tabulation of the Census Bureau. Out of 165,811 families in 1930, 94,594, or 57.1 per cent, possessed sets.

Nevertheless, the figure fell well below the estimate of the industry and the Department of Commerce, which predicted there were 111,000 receivers in the State.

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LOWELL AND DUNMORE PATENTS UPHELD

The invention covered by the Lowell and Dunmore "plug in" radio receiving set patent used on all alternating current operated sets was held this week by the Board of Appeals of the Patent Office to be entitled to priority over competitive claims of four other individuals.

The Board sustained the findings, in 1929, of the Examiner of Interferences of the Patent Office, who held the Lowell and Dunmore invention was prior to the other inventions. The two engineers, at the time the patent was issued in 1923, were employed at the United States Bureau of Standards, and devised the patent during their studies in connection with aeronautical radio.

In 1929, the Federal District Court at Wilmington, Del., held that the Lowell and Dunmore patent was valid and infringed by the Radio Corporation of America. An appeal from that decision, however, now is pending before the Circuit Court of Appeals at Philadelphia.

The Department of Justice in 1929 instituted a suit against the inventors, claiming that the patent was properly the property of the United States, on the ground that it was devised and developed while the engineers were employees of the Bureau of Standards, with the aid of Government materials and during Government time. The inventors, however, again were sustained in their contention that the patent was properly their property.

In the patent interference case before the Board of Appeals, the four other participants were Prof. Michael I. Pupin, of the Westinghouse Electric and Manufacturing Co., Albert S. Blatterman, of the Murad Radio Laboratory, Asbury Park, N. J., Robert L. Duncan, of Wired Radio, Inc., of New Jersey, and Marius Latour, of Paris.

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COLUMBIA ADDS 85TH STATION

Addition to its network of stations in Colorado Springs, Colo., and Hopkinsville, Ky., brings to 85 the total number of outlets affiliated with the Columbia Broadcasting System.

The newcomer from the Silver State is KVOR, formerly known as KFUM, which operates on 1270 kilocycles with 1,000 watts power, on unlimited time. It is under the same ownership as KLZ, Denver. KVOR and KLZ will interchange local programs, and in addition will have a full service of Columbia sustaining features.

Station WFIW, in Hopkinsville, is another 1,000 watt unit, operating on 940 kilocycles.

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N. Y. APPLIES FOR WIRED MUSIC CONCESSION

Wired Music, a New York organization, has applied to the New York Public Service Commission for a ruling as to whether the New York Telephone Company shall be required to lease lines for transmitting audio frequency currents which can be converted into music in the home, according to S. Kerner, secretary of the concern, which has temporary offices at 351 West 42nd Street. A hearing has been set for tomorrow (Friday) at 10:30 A. M.

Mr. Kerner said apparatus had been designed and was waiting acceptance by his company, pending the ruling of the Public Service Commission, which he expects to receive early next week. A central studio has been planned, from which vocal and musical programs are to be sent over the wire lines to homes. Explaining that his system and apparatus were entirely new and unlike other devices, Mr. Kerner said:

"Although our proposition, which has been refused by the telephone company - hence the hearing - is entirely new, the idea is old. The telephone company declared we were pioneers in this particular field and declared our proposition has great possibilities, but, with regard to the furnishing of lines, kept putting us off, hence our appeal to the Public Service Commission."

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DRIVE TO DITCH OLD SETS IS RUMORED

The National Federation of Radio Associations has abandoned its idea of getting radio manufacturers to contribute \$1,000,000 for a national advertising campaign and is now working on a cheaper plan, according to Variety.

A National Radio Week, which will bring all retailers into the campaign, is being considered. The aim of the drive will be to induce all owners of obsolete radio sets to discard them in favor of new heterodyne outfits. It is estimated that half of the receiving sets now in operation are out of date.

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: BUSINESS LETTER BRIEFS :
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Shipments of Philco radios during the months of June and July were nearly three hundred per cent greater than shipments made during the same period in 1930, it was announced this week by officials of Philco, who are observing this week the twenty-fifth anniversary of the company's founding. Shipments during the Spring also were reported to be 250 per cent greater than in the Spring of 1930, which was Philco's banner year in point of sales.

Outlook for the radio business this Fall has never been better, James M. Skinner, President of the company, declared in a statement to his distributing organization throughout the country. Mr. Skinner is at present in London surveying the export market there.

The Crosley Radio Corporation reports as follows: Three months ended June 30: Net loss, after taxes, depreciation and other charges, \$144,957, compared with a net loss of \$300,700 in the second quarter last year.

A radio-television institute, which will specialize in the training of television technicians, will be inaugurated in September at the West Side Y.M.C.A., 5 West 63rd Street in New York. Instruction at first will be given only during the evening hours.

Radio saves thousands of dollars to shipping men annually, according to Charles J. Pannill, Vice-President and General Manager of the Radiomarine Corporation of America. Cargoes at sea are diverted to meet changing market conditions. Docking costs, sometimes running to hundreds of dollars for a shift from one pier to another, are avoided. Flashing of the arrival time in advance permits perfecting of delivery arrangements on cargo as well as accommodating passengers' relatives or friends. Large sums are saved in salvage fees through the use of radio to inform officials when ships come to grief. Danger to passengers and cargo has been greatly lessened.

Advices from abroad received by Richard H. Waldo, President of the McClure Newspaper Syndicate of New York, are that the French have about completed the development of a television set which they believe is ahead of anything yet devised and which when revealed will make the entire world sit up and take notice.

In an editorial on the probable thinning out of broadcasting stations that will result from the decision of the Circuit Court of Appeals, of Chicago, denying that broadcasters have vested rights in the air, the Washington Post said:

"The best interests of the public can be served by licensing a limited number of good stations even though many interests desirous of broadcasting may be denied the privilege.... Wave lengths ought to be used in the interest of radio audiences and not to accommodate individual broadcasters."

Fire swept the transmission rooms and studios of Radio Station WFIW, at Hopkinsville, Ky., Tuesday morning, paralyzing the station and causing a loss estimated at over \$50,000. Plug Anderson, director-announcer, expressed the belief the station had been robbed and burned.

Plans for several of the Rockefeller Radio City buildings in New York are expected to be ready by the end of the week for presentation to constructors for bids. It was learned that no further consideration will be given for inclusion in the development of an oval building on Fifth Avenue, such as was shown on the first architectural models, and which provoked widespread discussion.

In plans for the first buildings, filed last April, the oval was omitted, but it was reported that further discussion of the type of structure was contemplated. It appears likely now that the twin structures which will replace it will be about twelve stories in height, connected by an arcade.

The Radio Division of the Department of Commerce has in course of preparation for printing the June 30, 1931, editions of the annual lists of Commercial and Government Radio Stations of the United States, and Amateur Radio Stations of the United States. They will be available for distribution by the Superintendent of Documents, Government Printing Office, Washington, D. C., a few months' hence.

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RCA AND OTHERS SUED BY DUBILIER CONDENSER

Patent suits were filed in the Federal District Court at Wilmington, Del., Wednesday by the Dubilier Condenser Corporation against the Radio Corporation of America, the National Union Radio Co., and the Perryman Electrical Co., Inc., according to the Associated Press.

The three concerns are charged with infringement of a patent for improvement to electron tube apparatus. The apparatus is used to increase the efficiency of radio tubes which are used in sets operated by house current.

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PERMIT FOR IMPROVED TELEVISION STATION ASKED

Authorization to construct a new experimental television station at Portland, Me., for the purpose of testing new apparatus devised by the RCA-Victor Company was asked this week of the Federal Radio Commission through C. C. Kolster, Radio Supervisor, at Boston. The application was filed by the Congress Square Hotel Company, which operates WCSH at Portland.

The station would be established at a cost of approximately \$200,000 and would conduct experiments in the ultra-high frequencies, the request, filed by William L. Foss, Chief Engineer of the applicant, stated. It would further provide a service in northern New England that does not now exist.

The application brings out that images of vastly improved definition and quality are possible with the new RCA apparatus, which never has been publicly exhibited. Whereas the recognized standard transmission today constitutes pictures of 60 lines, with 20 frames per second, the application states that the apparatus to be used would be capable of pictures of 60, 120 and 240 lines, with 18, 22, 28 and 30 exposures per second.

The application is said to be the first of a series of three to be filed by the Rines interests for New England. This company, in addition to its ownership of Station WCSH, has construction permits for two additional broadcasting stations, one at Manchester, N. H., and the other at Augusta, Me., for which a removal application to Lewiston, Me., now is pending.

The application requests power from 500 to 5,000 watts for the experiments. The frequencies requested are 43000 to 46000 kilocycles, 48500 to 50300 kilocycles and 60000 to 80000 kilocycles. The station would be operated about four hours daily.

The proposed station itself will cost \$60,000, with \$20,000 additional for a studio. Other items, including experimental apparatus and replacements, will cost \$120,000.

If the construction permit is granted, construction will be commenced within 60 days, and the station will be completed and ready for operation within 120 days thereafter. The Commission now is in recess, and will not convene until September. Under regular procedure, the application will be designated for hearing, probably in the Fall.

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RADIO COMMISSION ANSWERS KTNT SUIT

The Federal Radio Commission on Wednesday asked the District Supreme Court to dismiss the suit filed by Norman Baker, owner of KTNT, of Muscatine, Iowa, seeking to nullify the action of the regulatory body in ordering the station off the air.

Through Ben S. Fisher, Acting General Counsel, and Duke M. Patrick, Assistant General Counsel, the Commission denied allegations that its action was unconstitutional and that it had been "improperly influenced" in its decision by testimony of the Muscatine Journal of the Iowa Medical Society.

The Commission further contended that KTNT had waived its right to seek injunctive relief in a court of equity when it filed an appeal in the District Court of Appeals.

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COURT GRANTS RCA ORDER

Certain of the bills of particulars requested by the Radio Corporation of America, the defendant in suits brought by eleven independent radio tube manufacturers for damages, have been granted by Judge John P. Nields in the Federal court. The suits allege violation of the Clayton anti-trust law. According to the decision, the plaintiffs will be required to furnish particulars as to the number of orders for tubes cancelled or returned by certain jobbers, dealers and distributors. Definite particulars also will be required as to these distributors and the location of the plants of the plaintiffs, according to the Associated Press today.

The court refused to require the plaintiffs to set forth the names of the jobbers and distributors or possible new customers or customers that the plaintiff corporations might have had. The court also denied the request for particulars on the various items of the total damages called for. Information as to the names of jobbers and dealers to whom tubes were sold was also refused.

The claims of the various plaintiffs are as follows, augmented by legal fees and other items: Mellotrone Tube Corp., \$1,000,000; Vesta Batteries Corp., \$750,000; de Forest Radio Co., \$4,000,000; Howard W. Ivins, treasurer for the Van Horne Co., \$4,000,000; Shickerling Products Co., \$4,000,000; Gold Seal Electrical Co., Inc.; \$4,000,000; Sunlight Lamp Co., \$550,000; William J. Bennert and Stephen Dunn, trading as Universal Electric Lamp Co., \$350,000; Diamond Vacuum Products Co., \$350,000; Continental Corp., \$350,000; Northern Manufacturing Co., \$4,000,000.

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APPLICATIONS RECEIVED BY FEDERAL RADIO COMMISSION

July 28 - WSMB, Saenger Theatres, Inc., & Maison Blanche Co., New Orleans, La., direct measurement of antenna input; Frank Megargee, trading as Schuykill Broadcasting Co., Hazleton, Pa., C. P. to erect a new station to use 590 kc., 500 watts, limited hours of operation; Parkersburg Board of Commerce, Parkersburg, W. Va., C. P. resubmitted amended as to equipment; Virgin V. Evans, trading as Greenville Broadcasting Co., Greenville, S. C., C. P. to erect a new station to use 1310 kc., 100 watts, unlimited day-time operation, share with WROL at night; KUT, Rice Hotel, Austin, Texas, voluntary assignment of license to KUT Broadcasting Co.; WLBC, Donald A. Burton, Muncie, Ind., modification of license to increase hours of operation from sharing with WJAK to unlimited.

Applications, Other Than Broadcasting

July 28 - RCA Communications, Inc.: W2XBJ, Rocky Point, N. Y., renewal of special experimental license for 6740, 8930, 9490, 13900, 14815, 17880, 17900, 18980 kc., 80 KW; WDA, Rocky Point, N. Y., modification of limited public license for change in frequency to 6732.5 kc., and change in point of communication to communicate with Amsterdam; WKW, Rocky Point, N. Y., modification of limited public license for change in frequency to 19020 kc.; KPK, Radiomarine Corporation of America, Portland, Ore., license covering C. P. for 500, 476 kc., 50 watts, marine relay and coastal service; KHCAL, Chas. A. Lindbergh, NR-211, renewal of aircraft license for 333, 500, 3130, 5615, 8450, 13240 kc., 12 watts; KGPH, County of Oklahoma, Oklahoma City, Okla., license covering C. P. for 2452 kc., 125 watts, police service; WNW, Tidewater Wireless Telegraph Co., Philadelphia, Pa., modification of C. P. for extension of completion date to 10/23/31;

Also, Aeronautical Radio, Inc.: WNAL, near Brookville, Pa., WNAK, near Litchfield, Ohio, WNAM, Lewisburg, Pa., renewal of licenses for 3160, 3166, 3172, 3178, 5570 5660 kc., 400 watts, aeronautical service; KGSP, Denver, Colo., KGSR, Pueblo, Colo., renewal of licenses for 3070, 3076, 5540 kc., 400 watts, aeronautical service; KGTR, Robertson, Mo., WAEB, Columbus, Ohio, KGTD, Springfield, Mo., KGTD, Wichita, Kans., KGSP, Denver, Colo., WAEC, Pittsburgh, Pa., renewal of licenses 2722, 2734, 4108, 6365, 8015 kc., 400, 500 watts, point-to-point aeronautical;

Also, KUP, Examiner Printing Co., San Francisco, Cal., renewal 5585, 6530, 8230, 11170, 16460 kc., 500 w., mobile press; WPDK, City of Milwaukee, Milwaukee, Wis., renewal for 2452 kc., 500 w., police; WPDG, City of Youngstown, Youngstown, Ohio, renewal for 2458 kc., 100 watts, police; KGPB, City of Minneapolis, Minneapolis, Minn., renewal for 2416 kc., 250 watts, police; WPDP, City of Philadelphia, Philadelphia, Pa., renewal for 2440 kc., 500 watts, police.

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PATENTS, PATENT SUIT, TRADE-MARKS AND DESIGN

The following patents were granted during the week ending July 28, 1931:

- 1,815,931. Vacuum Tube. Samuel Ruben, New York, N. Y., assignor to Ruben Tube Company, Englewood, N. J. Filed February 8, 1930.
- 1,815,944. Loud Speaker. Percy W. Gumaer, West Englewood, N. J., assignor to Hopkins Corporation, Jersey City, N. J. Filed September 19, 1925.
- 1,815,945. Loud Speaker. Marcus C. Hopkins, Washington, D. C., assignor to Hopkins Corporation, Jersey City, N. J., Filed December 22, 1925.
- 1,815,987. Conical Diaphragm For Loud Speakers. Charles W. Peterson, Cincinnati, Ohio. Filed February 13, 1929.
- 1,816,106. Means For Driving Television Or Other Apparatus At A Predetermined Speed. John Logie Baird, London, England, assignor to Television Limited, London, W. C. 2, England. Filed May 14, 1928, and in Great Britain June 7, 1927.
- 1,816,227. Radio Receiving Apparatus. Byron B. Minnium, Chicago, Ill., assignor, by mesne assignments, to Story & Clark Radio Corp., Chicago, Ill. Filed November 25, 1927.
- 1,816,360. Electrical Sound Reproducing Process. Aloysius J. Cawley, New York, N. Y., assignor to Radio Corporation of America, New York, N. Y. Filed January 8, 1921.
- 1,816,397. Sound Recording and Reproducing Apparatus. Freeman H. Owens, New York, N. Y., assignor to Owens Development Corporation, New York, N. Y. Filed September 9, 1929.
- 1,816,461. Short Wave Reception. Hollis S. Baird, Boston, Mass., assignor to Shortwave & Television Corp., Boston, Mass. Filed April 30, 1929;
- 1,816,462. Signal Amplifying System and Method. Hollis S. Baird, Boston, Mass., assignor to Shortwave & Television Corp., Boston, Mass. Filed April 30, 1929.
- 1,816,496. Remote Supervisory Control System. Adolf Ritter, Vienna, and Otto Plechl, Pfaffstatten, Austria. Filed August 17, 1929, and in Germany July 26, 1928.

- 1,816,526. Time Controlled Coin Device For Radio Circuits. Louis M. Hall, Fort Thomas, Ky., assignor to The Monarch Tool & Manufacturing Co., Cincinnati, Ohio. Filed September 26, 1929.
- 1,816,546. Horn Or Amplifier. Sverre Rasmussen, New York, N. Y. Filed April 5, 1930.
- 1,816,577. Automatic Switching Device For Electric Phonographs. Alfred N. Goldsmith, New York, N. Y., assignor to Radio Corporation of America. Filed August 26, 1925.
- 1,816,579. Radio Communication System. John Hays Hammond, Jr., Gloucester, Mass. Filed February 12, 1929.
- 1,816,601. Electron Discharge Device. George A. McNeill, New York, N. Y., assignor to Bell Telephone Laboratories, Inc., New York, N. Y. Filed March 26, 1926.
- 1,816,614. Wave Antenna. Richard Howland Ranger, Brooklyn, N. Y., assignor to Radio Corporation of America. Filed February 9, 1923.
- 1,816,619. Gaseous Conduction Device. Charles G. Smith, Medford, Mass., assignor to Raytheon, Inc., Cambridge, Mass. Filed December 21, 1925.
- 1,816,682. Electron Discharge Device. Irving Langmuir, Schenectady, N. Y., assignor to General Electric Company. Filed March 10, 1926.
- 1,816,718. Shielded Radio Receiving Apparatus and the Like. William L. Bond, Schenectady, N. Y., assignor to General Electric Co. Filed February 19, 1930.
- 1,816,722. Sound Amplifying Horn. Gabriel Gonzalez de Andia Yrarrazaval, Barcelona, Spain. Filed December 9, 1925, and in Great Britain January 20, 1925.
- 1,816,782. Sound Reproducing Device. Heinrich Kuchenmeister, Berlin, Germany. Filed November 17, 1926, and in Germany December 1, 1925.

Reissue

- 18, 140. Wireless Receiving Circuit. Maurice M. Phillips, Pittsburgh, Pa. Original No. 1,674,448, dated June 19, 1928, filed March 20, 1926. Application for reissue filed April 22, 1930.

Patent Suit

- 1,698,668, Ballantine & Hull, Demodulator and method of demodulation; 1,760,871, S. Ballantine, Method of and means for preventing radiation and extra reradiation in radio receivers; 1,760,872, L. M. Hull, apparatus for amplifying electric oscillations, D.C. S.D. N.Y., Doc. E 56/256, Radio Frequency Laboratories, Inc., v. Danega, Inc. Dismissed without prejudice May 15, 1931.

Adverse Decision In Interference

Patent 1,770,771, C. R. Garrett, Radio apparatus, decided July 8, 1931, claims 2 and 4.

Trade-Marks

Ser. No. 314,855. Motor Melody Corporation, Chicago, Ill. Filed May 21, 1931, Trade-Mark: "MOTOR MELODY" for Radio Receiving Sets. Claims use since January 1, 1931.

Ser. No. 315,144, Hygrade Lamp Company, Boston, Mass. Filed May 28, 1931. "Hygrade" No claim is made to the word "Hygrade" apart from the mark shown in the drawing. For Electron Radio Tubes Claims use since March 15, 1929.

Ser. No. 315,652. United American Bosch Corporation, Springfield, Mass. Filed June 10, 1931. "OLYMPIC" for Radio Receiving Sets. Claims use since May 28, 1931.

Trade-Mark Registration Renewed

84,199. Talking Machines and Parts Thereof. Registered November 14, 1911. Victor Talking Maching Co., Renewed November 14, 1931 to RCA Victor Company, Inc., Camden, N. J.

Design

84,733. Radio Cabinet. Edward L. Combs, Philadelphia, Pa., assignor to Philadelphia Storage Battery Co., Philadelphia, Pa. Filed April 17, 1930. Term of patent 7 years.

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