

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, ALL 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 :: :: **CONFIDENTIAL—NOT FOR PUBLICATION.** :: ::

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No. 464

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

Extract from Heint Radio Business Letter #46
August 27, 1931

SALTZMAN FINDS PUBLIC PLEASED WITH BROADCASTING

Well-nigh universal satisfaction among listeners with radio programs and the American broadcasting system, advertising sponsorship as well as reception, was found by Maj. Gen. Charles McK. Saltzman, Chairman of the Federal Radio Commission, during his vacation in upper New York.

Upon his return to Washington, General Saltzman said that he had talked with numerous persons to get a cross-section of public sentiment and that there was practically a unanimous opinion that radio programs on the whole are good.

"Those with whom I talked included men and women in every walk of life", he said, "and they seemed overwhelmingly in favor of broadcasting as it now operates. I was surprised by the uniformity of opinion relating to programs."

The principal task remaining for the Radio Commission, the Chairman believes, is to improve further the technical operation of broadcasting stations.

Advertising sponsorship of programs is no longer the object of caustic complaints from the average listener, General Saltzman said, probably largely because of the steady improvement of entertainment and the general submerging or disguising of advertising.

Improvement in the manufacture of receiving sets was also cited by the Radio Commission head as one reason for the increase in popularity of broadcasting.

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LESS DEVIATION NOTED IN JULY

W. D. Terrell, Director of the Radio Division, Department of Commerce, this week made public the list of July broadcasting station measurements. Of the 294 stations measured, 94 at no time deviated more than 50 cycles above or below their assigned frequency, 70 deviated over 50 but under 100 cycles and 60 went over 100 but under 200, one or more times during that month. The remaining 70 went over the 200 mark.

As a whole, these figures indicate a steady improvement in broadcasting stations keeping on their assigned frequencies.

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NEW TUBE FOR AUTO RADIO

A new radio tube to overcome the limited power of present-day automobile radio sets is now in the experimental stage at the laboratories of the Arcturus Radio Tube Company, Newark, N. J., according to George Lewis, Vice-President and engineer.

After a thorough study, over a period of months, into the efficiency of automobile radio sets, Mr. Lewis states that "this new tube with the increased volume which it makes possible will overcome the usual noises encountered when driving with the windows open, not to mention body squeaks and the rumble of driving over rough roads.

"The new tube which is now being developed will enable an increased output and make possible ideal reception in automobile radio sets, with no inconvenience by extraneous noises."

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RADIO STATIONS VS. AD AGENCIES

Almost within the past six months and certainly within the year, radio has completely upset the entire structure of the advertising world, with particular reference to advertising agencies.

"Radio has become the great merchandising medium", reports Variety, the theatrical magazine. "Daily newspapers of Omaha, Minneapolis, Cleveland, St. Louis, Indianapolis or any of the key centers uniformly reveal a falling off in national advertising. Meanwhile both NBC and Columbia are booked solid, have almost no time left, and for the year 1931 will be close to 50% better than ever before in gross revenue.

"This is sufficiently disturbing to the ad agencies. But more than that there is the new and alarming tendency of both networks to brush the agencies aside and deal directly with advertisers.

"So pronounced has this practice become and so much does the advertising agency now need radio, that it's growing into a major crisis. That official notice by the Four A's will be an inevitable result is conceded. Protective measures, if not actual reprisals against radio, may not be further off than October or November, some believe.

"It simmers down to a simple question of arithmetic. Networks do not want to pay agency commissions if they can earn the extra 15% and more themselves.

"There is, too, the question of production departments. If NBC or Columbia handle an account direct, their own officials and departmental heads get the extra money which ordinarily would be deducted from the appropriation for the production and script experts of the advertising agencies.

"Radio, on the other hand, speaking for the networks, knows that their facilities are at a premium, that the ad agency needs them, cannot nurse grudges or become indignant. And radio is taking advantage of its power and monopoly.

"Traditionally the advertising agency is suave, never openly hostile to anybody. With this schooling to start with, they've managed to hold back their wrath at the multiplying instances of network encroachment. Inwardly the bruises are smarting.

"Some months ago it seemed that the advertising agencies through highly specialized radio production experts would gradually boss the air. That may still happen. It's still logical except for that problem, the network, swollen with prosperity and conscious of having the facilities without the use of which advertising agencies cannot render the service their clients increasingly demand.

"To some extent the advertising agencies have themselves to blame. Most of them were slow to appreciate and slower to recommend radio to their clients. Radio has often complained in the past that the agencies were deflecting revenue into conventional newsprint channels in preference to the ether bands.

"Now that everything is changing and radio's advertising importance has given the networks tremendous prestige, some of the network officials may be deriving personal satisfaction in shutting out the gents who not so long ago were doing the same thing to them."

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SEARCH UNDER WAY FOR RADIO'S BEAUTY

The most beautiful radio artist in America is being sought to reign as radio queen at the Radio-Electrical World's Fair, Madison Square Garden, New York City, September 21-26th. She will be given the title of "Miss Radio, 1931."

The Radio Queen will be selected by a group of outstanding personalities in the field of the theatre, art and radio. The designated judges are Florenz Ziegfeld, the theatrical producer; McClelland Barclay, famous magazine cover and commercial artist; Powel Crosley, Jr., President of the Crosley Radio Corporation; Eugene R. Farny, President of the All-American Mohawk Corporation; and Doug Brinkley, theatrical columnist and radio reviewer of New York City.

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NON-ELECTRICAL SET DEVELOPMENT REVEALED

Development of improved radio receivers for the large rural areas that are without electricity is revealed in a statement released by E. A. Nicholas, General Sales Manager of the RCA Victor Company.

"The reason for this is plain", he says, "for of the estimated 29,000,000 homes in this country, some 20,500,000 are electrified. Radio manufacturers have naturally turned their attention to the large and profitable market represented by the greater percentage of the population. However, there are more than 8,500,000 homes that are beyond power line supply, and of this total, approximately 6,500,000 are farm homes.

"And radio means more to the rural home than to the city home. It means a vital business service, as well as an important source of entertainment to the farmer, for it brings him news of agricultural markets, timely weather bulletins and practical farming information, as well as diversion. Yet, paradoxically enough, the instruments for receiving these programs are woefully inadequate. Progress in this direction has been almost at a standstill since the days when radio graduated from the earphone to the loudspeaker stage. Consequently, these rural homes have either been forced to do without radio service, or use makeshift 'noise traps' hopelessly out of step with the rapid technical advances made in A. C. powered sets.

"But now leading engineers have turned their full attention to the requirements of the unelectrified field. Starting out with current conservation as the foundation, they have evolved self-powered receivers that incorporate all the convenience and operating features of the A. C. set with economy of operation, good sensitivity and selectivity and full tone quality and volume.

"The sum total of the achievement has been incorporated in self-powered receivers free from the various weaknesses and inconveniences of the old type, and fully the equal of the electric power radio sets available to the city and town dweller."

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RADIO LOGS TO BE DISTRIBUTED BY N. Y. CITY DEALERS

A half million free copies of radio logs of convenient vest pocket size will be distributed with the compliments of radio dealers in New York City, Westchester County, Long Island, Connecticut and New Jersey within the next two weeks. The logs, prepared by the Radio-Electrical World's Fair, to be held in Madison Square Garden, September 21-26th, inclusive, list all stations in New York, New Jersey and Connecticut as well as all clear channel stations

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: BUSINESS LETTER BRIEFS :
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A compact field amplifier housed in a little black box not much larger than the medicine case doctors used to carry, has been developed by NBC engineers. The mite monitoring device will greatly facilitate broadcasts originating in spots inaccessible to heavy motor cars.

The wooden box in which the amplifier is encased is five inches wide, eight inches deep and sixteen inches long. Its development is the result of years of experiment and refinements by the NBC corps. The use of a foreign built, three-stage tube, which actually is three tubes in one, conserves much space.

An echo of Mrs. Ruth Hanna McCormick's radio speeches during her unsuccessful campaign last November for the United States Senate was heard this week when suit for \$200 was filed against her by the German radio hour of Station WCFL, Chicago, according to the Associated Press. The suit charged that she contracted to use \$300 worth of time on the air, paid \$100, and neglected to pay the rest.

W. C. Bussing, manager of Station WKBF, Indianapolis, for the past two years, has gone with the Atlass Brothers, operators of Station WBBM. He will be assigned to the Louisville office of the company.

Louis Hartman, Vice-President in Charge of Radio for Lord and Thomas & Logan, has resigned to conduct his own agency. He is said to have been responsible for arranging the Amos 'n' Andy-Pepsodent tieup.

The Grigsby-Grunow Company is said to be planning a 52-station hookup Sunday, September 13th, for the purpose of introducing the new Majestic line. CBS network was chosen.

Thul 9/2
R. Shaffer
Mr. Allen
Liberal

Five contracts, totalling close to \$1,000,000, were signed in the NBC-Chicago offices last week.

Ovaltine will sponsor the "Little Orphan Annie" series. Others tied up were Phillips Milk of Magnesia, Sherwin-Williams Paint, American Popcorn Company, and Dickinson Seed Company. Phillips bought three morning 15-minute periods from coast-to-coast for 26 weeks to feature Dr. Royal S. Copeland in health talks. Sherwin-Williams took 52 weeks of 15-minute daytime periods for a weekly dramatic serial. All start in September.

Both American Popcorn and Dickinson Seed, latter also a popcorn distributor, are putting on script shows for juvenile appeal the latter part of the current month. Each will run once a week for 26 weeks on a coast-to-coast hookup.

"The menace of radio to the advertising columns of newspapers was one of the chief topics discussed at the annual meeting of the Western Daily Advertising Managers' Association, held recently at Jasper Park Lodge, Alberta," according to Editor & Publisher.

In an address on the subject, President S. Griffis, advertising director of the Vancouver (B.C.) Sun, said that plans to combat the competition were being drawn up and would be divulged to members later. Means to maintain lineage during the depression were also discussed.

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PERSONNEL OF WORLD'S FAIR RADIO COMMITTEE

Membership of the Radio Industries Committee of the Chicago World's Fair, of which A. J. Carter, of the Carter Radio Company, Chicago, is President, is as follows:

Martin P. Flanagan, Secretary; George Clark, Radio Corporation of America, Museum Headquarters, Brooklyn, N. Y.; Don M. Compton, Grigsby-Grunow Co., Chicago, Ill.; H. C. Cox, Columbia Phonograph Co., New York; Powel Crosley, Jr., Crosley Radio Corporation, Cincinnati, Ohio; Eugene R. Farny, All-American Mohawk Corporation, Chicago, Ill.; H. H. Frost, Frost Minton Co., New York City; William S. Hedges, National Association of Broadcasters, Chicago, Ill.; Charles Himmel, Chicago, Ill.; Morris Metcalf, United American Bosch Corp., Springfield, Mass.; Martin P. Flanagan, Radio Manufacturers' Association, Chicago, Ill.; James M. Skinner, Philadelphia Storage Battery Co., Philadelphia, Pa.; John Tully, Radio Manufacturers' Association, Chicago, Ill. Robert Himmel, Hudson-Ross, Inc., Chicago, Ill.; Harold J. Wrape, Benwood-Linze, Co., St. Louis, Mo.; Michael Ert, Michael Ert, Inc., Milwaukee, Wis.; Peter Sampson, Sampson Electric Co., Chicago, Ill.

Also, H. G. Erstrom, National Federation of Radio Associations and Radio Wholesalers' Association; William Sparks, Sparks-Withington Co., Jackson, Mich.; Art Walsh, Thomas A. Edison Co., Orange, N. J.; Ray Manson, Stromberg-Carlson Telephone Manufacturing Co., Chicago, Ill.; and W. J. Zucker, Stewart Warner Corporation, Chicago, Ill.

A subcommittee comprises the following:

George Clark, Chairman, Historical Exhibit; George Lewis, Arcturus Tube Company; Carl Mitman, Smithsonian Institution; V. Ford Greaves, Engineer for the Federal Radio Commission; O. H. Caldwell, Chairman of the Broadcast Committee.

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MRS. WILLEBRANDT CLASHES WITH CHIEF EXAMINER

Mrs. Mabel Walker Willebrandt, former Assistant Attorney General, noted for her erstwhile fight in behalf of prohibition and her more recent defense of wine making in the home, attacks the Chief Examiner of the Federal Radio Commission, Ellis A. Yost, in a bill of exceptions filed in the case of Station WJKS, of Gary, Ind.

Chief Examiner Yost had recommended that the application of WJKS for increased broadcasting facilities be denied. Mrs. Willebrandt contends that the Radio Commission is obliged to grant the request under the Equalization Amendment to the Radio Act and the Commission's own regulations (General Orders 92 and 102) because it would effect a more equitable distribution of broadcasting facilities among the States.

"Examiner Yost's recommendation should be disregarded", the exceptions filed by Mrs. Willebrandt state. "His report is unsound in law, muddled in its application of the Commission's orders, and biased and unfair in its statement of facts from the record."

Station WJKS now is assigned to the frequency of 1360 kilocycles with 1,000 watts night and 1,250 watts daytime power, sharing time with Station WGES, at Chicago. It made application for full time on the 560 kilocycle channel, now used by Stations WIBO and WPCC, both in Chicago.

Both Indiana and Illinois are in the Fourth, or Middle-Western Zone, Mrs. Willebrandt brings out, with the former State 20 per cent under quota and the most delinquent State in radio facilities in the Middlewest. Conversely, Illinois is 49 per cent over quota, and leads not only the zone, but the Nation in radio facilities.

Mr. Yost presided at hearings involving the application of the Gary station last June. They lasted seven days, and consumed 824 pages of testimony. In his report (Examiner's Report

No. 235) he found that the public interest would not be served by giving to the Gary station the facilities now held by the two Chicago stations, and that interference would result to other stations from such a change.

"The whole summary of evidence, set forth by the Examiner on pages 2 and 9, inclusive, of his report, is inaccurate and so full of half truths as to be wholly unreliable for the use of the Commission", Mrs. Willebrandt contends * * * "The Examiner's report is based on confusion, misapplication and misinterpretation of the law of Congress, the Radio Act of 1927, and the Davis amendment thereto."

Going into the comparative quota status of the two States, Mrs. Willebrandt declares that Illinois is over quota by 11.15 units while Indiana is under quota 9 units, a unit being the equivalent of one station of 1,000 watts power operating full time.

"The Examiner", she states, "departed from clear reasoning and was plainly snatching at a false reason without foundation in the law or regulations of the Commission to justify his recommendations."

With respect to the Commission's regulations relating to equalization of facilities, Mrs. Willebrandt states:

"The Examiner has listed the very three things that do justify the granting of this application. The Radio Act and the Davis Amendment provide that:

"The people of all zones * * * are entitled to equality of radio broadcasting service.'

"To carry that mandate into effect, the Radio Commission promulgated Order No. 92, showing the 50 per cent over quota condition of the State of Illinois.

"To more easily enable a station in an under quota State, such as Indiana, to secure an equalization of radio facilities, and to guide the Examiner in making a proper order looking toward such equalization of radio facilities to an under quotaed State, General Order 102 was promulgated. General Order 102 has been fully complied with in the WJKS application and throughout the hearing, and even the Examiner found that.

"It is plain, therefore, that, so far as the law and the orders of the Commission are concerned, the application of WJKS should be granted. Only the most obvious and compelling reasons, causing the Examiner to find that WJKS is not operating in the public interest, could furnish sufficient justification for the denial of the application."

In conclusion, Mrs. Willebrandt asks the Commission to reverse Chief Examiner Yost, and to find that the public interest, convenience and necessity would be served by the granting of the WJKS application.

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RUMORED NBC WILL OPERATE WMAQ

Reports reaching the Capital are that a half interest has been acquired in Station WMAQ, Chicago, by the NBC. At the present time WMAQ is broadcasting Columbia programs.

If it is true that NBC has secured part time from WMAQ, this, combined with the part time on WENR which it now has, would give the NBC a full time outlet on the air in Chicago.

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BAIRD HOME TELEVISION SETS READY

Television broadcasting as well as television receiving sets at a moderate price will be made shortly for American homes, it was announced in New York by Sydney A. Mosely, of London, Director of the Baird Television Corporation of Great Britain and America, at the local offices of the company, 145 West 45th Street, New York City.

"We propose to begin television broadcasting in a few weeks", Mr. Mosely announced, "in cooperation with Station WMCA, as soon as the Federal Radio Commission grants its official sanction." He added that the Commission had expressed itself as being in favor of the project and that actual operations would begin as soon as formal notification was received from Washington.

Arrangements also are being made, Mr. Mosely said, for the immediate manufacture in this country of television receiving sets, to market at about \$100, for installation in American homes. Many of the existing radio sets, he added, could be hooked up with a television device for receiving purposes.

The first television programs will consist of vaudeville and plays, and use will be made in their sight and sound transmission of the recent eighteen months of daily experimental broadcasts in London.

Mr. Mosely also announced the perfection in London, within the last few days of a portable transmitting set, no larger than a moving picture projector, which marks, he said, a very important development in the art of television, making it possible to "tele-broadcast" events, such as the landing of big airships, prize fights and football games, in the same simple manner as it is now to broadcast them.

The Baird company, Mr. Moseley added, is prepared to share these discoveries with American interests. During the past few days he has been in touch with big banking and broadcasting interests to make the necessary arrangements. Several offers have been made for the American licensing rights, and decision will be made within the next few days as to which of these will be accepted.

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APPLICATIONS RECEIVED BY THE FEDERAL RADIO COMMISSION

August 22 - WHAZ, Rensselaer Polytechnic Institute, Troy, N. Y., modification of C. P. to extend completion date to 12/10/31, C. P. granted 5/15/31; WFIW, WFIW, Inc., Hopkinsville, Ky., C. P. to install new equipment and increase operating power to 5 KW; J. G. Burbank and John A. Dalton, Laramie, Wyoming, C. P. amended to request 880 kc., $\frac{1}{2}$ time sharing with KPOF and KFKA, formerly requested 780 kc., unlimited time.

The following applications have been dismissed:

KWWG, The Brownsville Herald Publishing Co., Brownsville, Texas, dismissed at request of applicant; KHQ, Louis Wasmer, Inc., Spokane, Wash., dismissed at request of applicant; Kirby Lee Horton & Leo Colvin McConnel, Clovis, New Mexico, dismissed at request of applicant.

August 25 - WWJ, The Evening News Association, Detroit, Mich., C. P. amended to request change in equipment and to change power requested from 50 kw to 5 kw; WTAG, Worcester Telegram Publishing Co., Worcester, Mass., license to cover C. P. granted June 26, 1931 to install auxiliary transmitter at 20 Franklin St., Worcester, Mass.; WLAP, American Broadcasting Corp. of Kentucky, Louisville, Ky., C. P. to install new transmitter to be used on 1010 kc., 250 w., $\frac{3}{4}$ time, experimentally; WKBC, R. B. Broyles Furniture Co., Birmingham, Ala., license to cover C. P. to move transmitter locally and install new antenna, C. P. granted June 19, 1931; KSEI, Broadcasting Association, Pocatello, Idaho, voluntary assignment of license to Radio Service Corporation.

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DECISIONS OF THE FEDERAL RADIO COMMISSION

Inability to reach an equitable arrangement as to the sharing of time on the channel assigned them on a time-division basis caused the Federal Radio Commission on August 25th to issue temporary licenses to Stations WMCA and WNYC, of New York City, and to designate their renewal applications for future hearing.

Station WMCA, operated by the Knickerbocker Broadcasting Co., Inc., was cited for hearing into its operation and programs. Station WNYC is licensed to the City of New York Department of Plant and Structures. Decisions on other pending applications were announced by the Commission as follows:

Applications Granted

KFUL, The News Publishing Co., Galveston, Texas, C. P. to make changes in equipment; WGST, Georgia School of Tech., Atlanta, Ga., C. P. to make changes in equipment and to move transmitter locally in Atlanta; KEPW, Southwestern Hotel Co., Ft. Smith, Ark.,

license 1340 kc., 50 w., covering changes in equipment;
WTJS, The Sun Publishing Co., Inc., Jackson, Tenn., license covering removal from Union City to Jackson, Tenn., 1310 kc., 100 watts, 250 watts, local sunset; KFMX, Carleton College, Northfield, Minn., license covering changes in equipment, 1250 kc., 1 KW, shares with WLB, WCAL, WHRM; KVOR, Reynolds Radio Co., Inc., Colorado Springs, Colo., license covering changes in equipment, 1270 kc., 1 kw, unlimited time; WFBM, Indianapolis Power & Light Co., Indianapolis, Ind., license covering installation of new equipment, 1230 kc., 1 KW, shares with WSBT; WDBO, Orlando Broadcasting Co., Inc., Orlando, Fla., authority to measure antenna input to determine licensed power of station;

Also, WDWF-WISI, Dutee Wilcox Flint and Lincoln Studios, Inc., Providence, R. I., voluntary assignment of C. P. and licensed to Cherry & Webb Broadcasting Co.; WGBS, General Broadcasting System, Inc., New York City, C. P. to make changes in equipment and extend completion date to Nov. 15; WPTF, Durham Life Insurance Co., Raleigh, N. C., authority to operate beginning 3 A.M., E.S.T., Sept. 12, 1931; WSBI, Radiomarine Corporation of America, S.S. "Greater Detroit", authority to extend special authority granted August 2nd to test an automatic alarm device for distress purposes, authority extended from September 1st to October 1st; WNAM, Aeronautical Radio, Inc., Lewisburg, Pa., C. P. to change location from Lewisburg, Pa., airport to Bellefonte, Pa.

Application Denied

WCOC, Mississippi Broadcasting Co., Meridian, Miss., denied authority to operate with 1,000 watts on night of August 25th for purpose of broadcasting election returns.

Renewal of Licenses

The Commission granted the following applications for renewal of broadcasting station licenses:

KXAV, American Radio Tel. Co., Seattle, Wash.; KTM, Pickwick Broadcasting Corp., Los Angeles, Calif., KSD, The Pulitzer Pub. Co., St. Louis, Mo.

In the following case the Commission on consideration of the fact that a hearing has been held upon the application filed by Station WJKS, Gary, Ind., for the facilities of Station WPCC, and that said matter is pending before the Commission, directed that a temporary license be issued the following station beginning at 3 A.M., E.S.T., Sept. 1, and ending according to Special Minute No. 360, adopted April 16, the license to contain the clause in lieu of temporary license heretofore authorized: WPCC, North Shore Church, Chicago, Ill.

In the following case the Commission reconsidered its action of Aug. 7 wherein it was order that a temporary renewal license be issued to Station WKAQ, San Juan, P. R. As it now has been ascertained that station has complied with the provisions of General Order 105, a regular renewal license will be issued for the term beginning 3 A.M., E.S.T., Sept. 1, 1931, and ending according to Special Minute No. 360, adopted April 16, 1931, in lieu of temporary license heretofore authorized.

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PATENTS, TRADE-MARKS AND DESIGNS

The following patents were granted during the week ending August 25, 1931:

- 1,820,018. Electrical Measuring System. Louis A. Gebhard, Washington D. C., assignor to Wired Radio, Inc., New York, N. Y. Filed December 22, 1928.
- 1,820,059. Radio Apparatus. Vincent J. Fabian, Washington, D. C. Filed February 19, 1926.
- 1,820,114. Vacuum Tube Rectifier. Knox Charlton Black, Boonton, N. J., assignor, by mesne assignments, to Radio Corporation of America, New York, N. Y. Filed April 21, 1930.
- 1,820,137. Maximum Range Radio Loud Speaker. Wylie Jay Hanna, Bayside, N. Y. Filed November 9, 1928.
- 1,820,154. Phonograph Driving Mechanism. Wilbur J. Peets, Elizabeth, N. J., assignor to Diehl Manufacturing Co., Elizabeth, N. J. Filed August 15, 1929.
- 1,820,223. High-Frequency Machine Transmitter. Walter Hahnemann, Berlin-Marienfelde, Germany, assignor to C. Lorenz Aktiengesellschaft, Berlin-Tempelhof, Germany. Filed October 27, 1927, and in Germany October 28, 1926.
- 1,820,335. Intensity Control. Otto von Bronk and Hans Rukop, Berlin, Germany, assignors to Gesellschaft fur Drahtlose Telegraphie m.b.H., Berlin, Germany. Filed August 6, 1927, and in Germany August 9, 1926.
- 1,820,357. Vision-Tone Device. Linn Olaf B. Lindstrom, San Francisco, Calif., and Albert Darwin Ruedemann, Cleveland, Ohio. Filed February 15, 1929.
- 1,820,396. Electrode Structure. Frederick S. McCullough, Edgewood, Pa., assignor to Stupakoff Laboratories, Inc., Pittsburgh, Pa. Filed January 5, 1926.
- 1,820,553. Device for Cutting Off Vacuum Vessels from the Exhaust Tubes of Vacuum Pumps. Rudolf Gottfried Berthold, Berlin-Siemensstadt, and Paul Fritsch, Berlin-Tegelort, Germany, assignors to Siemens-Schuckertwerke Aktiengesellschaft, Berlin-Siemensstadt, Germany. Filed October 7, 1929, and in Germany September 16, 1927.
- 1,820,561. Speaker. George A. Gillen, New York, N. Y., assignor to Gillen, Kimmey, Baker Syndicate, New York, N. Y. Filed November 9, 1929.

- 1,820,571. Radio Antenna System. Geoffrey Gotlieb Kruesi, Palo Alto, Calif., assignor to Federal Telegraph Company, San Francisco, Calif. Filed March 27, 1928.
- 1,820,585. Loud Speaker. Ray E. Tolerton, Fort Wayne, Ind., assignor to The Magnavox Company, Chicago, Illinois. Filed February 20, 1931.
- 1,820,643. Aerial Device. Argimiro Arias, Brooklyn, N. Y. Filed November 3, 1930.
- 1,820,647. Method of and Means for Indicating Direction. Arthur Whitten Brown, Langland, Swansea, Wales. Filed August 14, 1930, and in Great Britain August 13, 1939.
- 1,820,809. Electrical System. Edward W. Kellogg, Schenectady, N.Y., assignor to General Electric Company. Filed March 25, 1927.
- 1,820,832. Neutralizing Device for Vacuum Tubes. Andrew D. Ring, Schenectady, N. Y., assignor to General Electric Co. Filed June 5, 1929.
- 1,820,833. Testing Instrument for Transmitters. Andrew D. Ring, Washington, D. C., assignor to General Electric Co. Filed August 22, 1929.
- 1,820,836. Electron Discharge Device. Salvatore Scognamillo and Paul Arndt, New York, N. Y. Filed June 25, 1928. Renewed July 3, 1931.
- 1,820,898. Transmission System. Salvatore A. Barone, Freeport, N. Y., assignor, by mesne assignments, to Federal Telegraph Company. Filed February 7, 1929.

Trade-Marks

- Ser. No. 316,889. Jensen Radio Manufacturing Company, Chicago, Ill. Filed July 13, 1931. Trade-Mark: "P M SPEAKER" The word "Speaker" is disclaimed apart from the mark shown in the drawing. For Radio Loud Speakers. Claims use since May 19, 1931.
- Ser. No. 316,890. Jensen Radio Manufacturing Company, Chicago, Ill. Filed July 13, 1931. "TYM-FLEX" for Radio Loud Speakers. Claims use since April 6, 1930.

Designs

- 84,922. Radio Cabinet. Frank C. Burton, Chicago, Ill., assignor to Grigsby-Grunow Company, Chicago, Ill. Filed April 12, 1930. Term of patent 7 years.
- 84,932. Radio Cabinet. James Gubitosi, Nutley, N. J., Filed April 2, 1931. Term of patent 7 years.
- 84,945. Combined Desk and Radio Cabinet. Horace Lehr, Easton, Pa. Filed August 23, 1930. Term of patent $3\frac{1}{2}$ years.
- 84,969. Radio Cabinet or the Like. Everett Worthington, Chicago, Illinois, assignor to The Stromberg-Carlson Telephone Manufacturing Company, Rochester, N. Y. Filed June 17, 1931. Term of patent $3\frac{1}{2}$ years.
- 84,970. Radio Cabinet or the Like. Everett Worthington, Chicago, Ill., assignor to The Stromberg-Carlson Telephone Manufacturing Company, Rochester, N. Y. Filed June 17, 1931. Term of patent $3\frac{1}{2}$ years.

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