

JOHN E. FETZER AGAIN HEADS EIGHTH DISTRICT

John E. Fetzer, WKZO, Kalamazoo, Michigan, Tuesday (Feb. 1) was re-elected Director of the Eighth NAB District by acclamation, the vote being made unanimous by the broadcasters of Michigan and Indiana, when Fetzer was presented as the sole nominee by the nominating committee at the Indianapolis meeting.

The one day meeting featured a report by Neville Miller on new legislation, ASCAP and Petrillo, followed by a discussion of post-war broadcast problems which included a review of the FMBI meeting in New York City the preceding week.

Willard D. Egolf covered NAB public relations activities and presented, item by item, the subjects covered in a proposed inspirational book on public relations for the broadcasting industry. The book has been in preparation by the public relations committee and a special sub-committee for several months. First hand comments and suggestions are wanted from the broadcasters.

Lew Avery reported favorable nation-wide reaction to the Retail Promotion Committee Plan, especially in the retail trade association field, and summarized the activities to date. Action of the Sales Managers' Executive Committee on the subjects of the continuing annual discount, new promotions similar to the recent Retail Promotion Committee Plan, post-war planning, resolutions against spot announcements advertising two unrelated products and granting staggered interchange of products in participating programs were discussed.

Carl Haverlin, BMI, discussed in detail the implications of ASCAP and Petrillo activities, past and future.

Major Les Lindow, Bureau of Public Relations, War Department, urged broadcasters to help counteract over-optimism regarding the war.

The meeting also heard A. H. Llewelyn and Lavinia Schwartz, representing OWI from Cleveland and Chicago respectively, and K. A. Jadassohn from the Treasury Department.

Added remarks were made by Frank Chizzini, NBC Thesaurus; Milton Blink, Standard Radio; Leonard Callahan, SESAC.

The meeting ended with the showing of three sound films: "On the Air!" Westinghouse, Inc., history of radio; followed by two General Electric features on FM and Television.

Total registration included: Robert L. Mackin, WHLS; Harmon L. Stevens, WHLS; A. Josephsen, RCA; John Carl Jeffrey, WKMO; R. R. Baker, WTRC; Manuel Rosenberg, *The Advertiser*; R. E. Bausman, WISH; Burt Squire, SESAC; Robert Pace, WDAN; Eldon Campbell, WOWO; Bert Julian, WIBC; O. J. Kelchner, WIBC; Wade Barnes, NBC Thesaurus; Steve Conley, WOWO-WGL; Felix D. Adams, Jr., WISH; George M. Jackson, WBOW; Dan E. Jayne, WELL; Bruce McConnell, WISH; Owen F. Uridge, WJR.

JOHN J. GILLIN RE-ELECTED TENTH DISTRICT DIRECTOR

John J. Gillin, Jr., Pres. WOW, Omaha, was re-elected Director of the Tenth NAB District in Omaha, Nebraska, by the unanimous vote of the broadcasters of Missouri, Iowa and Nebraska attending the two-day session in Omaha, February 4-5.

Military, OWI and Treasury Department officials, including Major General Clarence H. Danielson, Commandant of the Seventh Service Command, headlined a program which was devoted in large part to the role of broadcasting in the prosecution of the war.

C. E. Arney, Jr., Secretary-Treasurer and temporary Managing Director of NAB, covered the legislative situation, selective service, manpower, war and post-war problems, NAB committees and their work and other matters of current concern, calling upon Carl Haverlin, BMI, for remarks on ASCAP and Petrillo, also Frank Chizzini, NBC Thesaurus, Chicago, who reported on the recording industry.

NAB committee members and chairmen residing within the Tenth District were introduced by Director Gillin and discussed the NAB Code, programming, research, sales and public relations.

The sales managers held special sessions which are reported under separate heading later in this story.

Willard D. Egolf, NAB Assistant to the President, and Merle Jones, KMOX, Tenth District Public Relations Chairman, conducted a panel on public relations in which Hugh Feltis, "Chet" Thomas and Ed Breen acted as experts in analyzing the subjects contained in the proposed manual of public relations for the broadcasting industry.

On Saturday the broadcasters attended a special luncheon at the Chamber of Commerce to hear Idaho's Governor Bottolfsen, who later appeared in the broadcast, "Your America," network show originating through WOW to NBC under the sponsorship of the Union Pacific Railroad, where station men also formed a part of the large studio audience.

Saturday afternoon special showings of the Westinghouse sound film, "On the Air!" and the two General Electric films, on FM and Television, drew a large number of the registrants.

Resolutions adopted at the meeting are reproduced in full, herewith:

Resolutions Adopted at the NAB Tenth District Meeting in Omaha, Nebraska,

February 4-5, 1944

WHEREAS the House Ways and Means Committee approved the Cannon-Mills Bill February 4, 1943, providing for the payment of War Bond advertising,

(Continued on page 40)

Neville Miller, *President* C. E. Arney, Jr., *Secretary-Treasurer*

Robert T. Bartley, *Director of War Activities*; Lewis H. Avery, *Director of Broadcast Advertising*; Willard D. Egolf, *Assistant to the President*; Howard S. Frazier, *Director of Engineering*; Paul F. Peter, *Director of Research*; Arthur C. Stringer, *Director of Promotion*.

RESOLUTIONS ADOPTED AT THE NAB TENTH DISTRICT MEETING IN OMAHA, NEBRASKA, FEBRUARY 4-5, 1944.

(Continued from page 39)

BE IT RESOLVED, That the broadcasters of the Tenth District of NAB are opposed to said bill and suggest to the Legislative Committee of NAB that they consider advising the proper legislative committee in Congress of this action.

* * * *

BE IT RESOLVED, That the Tenth District of NAB wishes to express its sincere and deep appreciation to Neville Miller for the faithful and effective service he has rendered the entire broadcasting industry through the critical period in our development during the past five and one-half years.

At the same time, we wish to assure the new President, J. Harold Ryan, of our complete confidence in his ability to meet the challenges of the future and to pledge him our heartiest cooperation and support.

* * * *

WHEREAS the broadcasters of the Tenth District of NAB are vitally interested in the developments of the current recording problem,

BE IT RESOLVED, That they commend and support the viewpoint of RCA, Columbia and NBC Thesaurus in this controversy.

* * * *

WHEREAS the Omaha radio stations, WOW, KOIL, KFAB, KBON, KOWH, have again served as very gracious hosts to the broadcasters of the Tenth District of NAB.

BE IT RESOLVED, That we extend to them our sincere appreciation of their hospitality and especially commend Director Gillin for arranging such an interesting and constructive agenda.

* * * *

WHEREAS the pioneering spirit of the Union Pacific Railroad has again made itself evident in the use of radio as a major medium of advertising in scheduling its network program, "YOUR AMERICA," over forty-five NBC stations,

BE IT RESOLVED, That the broadcasters of the Tenth District of NAB hereby commend Mr. Jeffers and his organization for their keen judgment and foresight and pledge him the support of all stations in this District. We further wish to thank Mr. Jeffers for his personal invitation to attend the broadcast of "YOUR AMERICA."

* * * *

WHEREAS the broadcasters of the Tenth District of NAB, in common with all broadcasters in the nation, are vitally interested in the prosecution of the war and in cooperating with all branches of the armed services,

BE IT RESOLVED, That an expression of gratitude be extended to Major General Danielson, Commandant of the Seventh Service Command, for his appearance before, and inspiring remarks to, the annual meeting of the Tenth District at Omaha, Nebraska.

TENTH DISTRICT SALES MANAGERS HEAR "WHAT RADIO BUYERS WANT TO KNOW"

More than twenty-five sales managers, including Dietrich Dirks of KTRI, Chairman of the Sales Managers Executive Committee, attended the Friday morning and Saturday breakfast sessions, presided over by Hale Bonduant of WHO, District Chairman of the Sales Managers Committee. Following a review of the "Suggested Topics for Sales Managers Meetings" by Lewis H. Avery, NAB Director of Broadcast Advertising, the group listened to a talk on "What Radio Buyers Want to Know," by J. W. Knodel, Vice President and Sales Manager of Free & Peters, Inc., national radio station representatives.

"Give advertising agencies and advertisers the facts—and all the facts—about the announcements or programs you are offering," Knodel urged in outlining the information available to the space buyer of newspaper advertising as contrasted with that available to the time buyer of broadcast advertising.

"Too often," Knodel declared, "the time buyer, who has asked for announcement or program availabilities, finds the names of adjacent programs a mere collection of meaningless titles." To overcome this difficulty, Knodel counseled sales managers to incorporate with availabilities a brief description of the programs with such salient facts as will help to establish the popularity of the programs with the listening audience.

Urging a standardization of basic coverage data for all radio stations, Knodel stated that advertising agencies and advertisers throughout the Midwest prefer coverage maps based on a combination of mail response and the one-half-millivolt-per-meter contour line. Emphasizing the need for such standardized data, he pointed to the uniformity of circulation data in the magazine and newspaper fields.

At the conclusion of the Friday morning meeting, the following resolutions were introduced and passed unanimously. The resolution urging the preparation of a public relations and sales promotion presentation was also referred to the general membership of the Tenth District at the Saturday morning meeting and, after a slight alteration, passed unanimously.

The following resolution is addressed to the National Retail Dry Goods Association:

The sales managers of the NAB member stations in the Tenth District, embracing the States of Iowa, Missouri, and Nebraska, assembled in meeting at Omaha, Nebraska, on February 4, 1944, expressed unanimously their deep appreciation for the wholehearted cooperation of the Sales Promotion Division of the National Retail Dry Goods Association in the preparation and presentation of the Retail Promotion Plan, "Air Force and the Retailer," and resolved unanimously to cooperate in every manner and way possible with the Sales Promotion Clinic to be held in Cincinnati, Ohio, on April 4, 5, and 6, 1944, and to cooperate in like manner with any Sales Promotion Clinics or Schools that may be presented in other cities after the Convention in Cincinnati.

The next resolution, passed by both the sales managers and the general membership, is addressed to the NAB Board of Directors:

The sales managers of the NAB member stations in the Tenth District, assembled in meeting at Omaha, Nebraska, on February 4, 1944, passed unanimously the following resolution, which is identical in purpose to that adopted unanimously by the Sales Managers Executive Committee at its meeting in New York on January 18 and 19, 1944:

"WHEREAS the Sales Managers of the Tenth District recognize the desirability of a public relations effort on the part of the radio industry, as evidenced by requests from stations throughout the country following the showing of 'Air Force and the Retailer,' and

"WHEREAS the subject is of larger scope than falls strictly within the function of the Sales Managers Executive Committee, now, therefore, be it

"RESOLVED that the Sales Managers of the Tenth District suggest to the Board of Directors of the NAB that a committee, consisting of members of both the Sales Managers Executive Committee and the Public Relations Committee, be appointed to investigate the possibility of making a suitable visual presentation that could be used by radio stations before schools, civic organizations, trade groups, and for general consumer showings."

The last resolution of the sales managers is self-explanatory in purpose:

Recognizing the serious dangers inherent in the continued use of "hitch-hike" and "cow-catcher" announcements, annoyance and confusion to the listener, and failure of such service to provide adequate advertising, the sales managers of the NAB member stations in the Tenth District, assembled in meeting at Omaha, Nebraska, on February 4, 1944, therefore,

RESOLVED that the use of so-called "hitch-hike" and "cow-catcher" announcements on network, national spot, and local programs should be discontinued as soon as possible and, to that end, respectfully petitions the NAB Board of Directors, the networks, radio station representatives, and NAB member stations to implement this resolution at the earliest possible moment.

Realizing that certain practices in connection with station-break announcements create an equally undesirable situation to that presented by the use of "hitch-hike" and "cow-catcher" announcements, the sales managers of the Tenth District, therefore,

RESOLVED that as a corollary to the elimination of "hitch-hike" and "cow-catcher" announcements, NAB member stations should adopt the following Columbia Affiliates Advisory Board plan or a similar policy for the scheduling and use of station-break announcements:

- (a) to limit station-break announcements to service and other announcements for products or services which do not compete with products advertised on the preceding or following network program,
- (b) to provide an adequate interval following the sign-off of the preceding network commercial program and also before the opening of the following network commercial program, and that such adequate interval be a minimum of between two and three seconds, and
- (c) to limit commercial station-break announcements between network commercial programs to one announcement of one product.*

* This does not, of course, preclude "program promotion" for following programs where the addition of such references does not overcrowd the station break as per item (b).

REGISTRATION TENTH NAB DISTRICT FEBRUARY 4-5, 1944

Paul R. Fry, KBON; Mrs. G. B. McDermott and G. B. McDermott, KBUR; K. S. Gordon, KDTH; W. P. Dietz, W. O. Edholm, Hugh Feltis, Had Hughes, Harold E. Roll, R. L. Stufflebam, and C. Earl Williams, KFAB-KFOR-KOIL; Mrs. Elsie M. Lawrence and Lois Crawford, KFGQ; Earl N. Peak, KFJB; Frank Stubbs, KFNF; Foster H. Brown, KFRU; L. L. Hilliard and Mrs. L. L. Hilliard, KGKY; F. C. Eighmey, Nancy Halson and Herbert R. Ohrt, KGLO; Wayne W. Cribb, WHMO; A. W. Ramsey, J. C. Rapp and R. J. Schroeder, KMA; Arthur Church and Karl Koerper, KMBC; John Harrison, Wich Heath, Bill Martin and Rex H. Lathen, KMMJ; Wendell B. Campbell and Merle S. Jones, KMOX; John Alexander and Joe di Natale, KODY; B. C. Corrigan, KOWH; Morgan Sexton, KROS; E. T. Flaherty and Elizabeth Sammons, KSCJ.

Edward W. Hamlin, KSD; Craig Lawrence, William L. Flanagan and Edmund Linehan, KSO-KRNT; Dietrich

Dirks, KTRI; Edward Breen, KVFD; Jack DuMond, KXEL; C. L. Thomas, KXOK; Ted Enns and Charles E. Logan, Iowa Broadcasting Company; Rod Holmgren and Jerry A. Deane, OWI; F. C. Gosler and A. Josephsen, RCA; Leonard D. Callahan, SESAC; A. E. Joseclyn, WCCO; John T. Schilling, WHB; Hale Bondurant, Harold Fair, Harold Fulton, J. O. Maland and Woody Woods, WHO; Art Thomas, WJAG; Bill Quarton, WMT; L. O. Fitzgibbons and Buryl Lottridge, WOC; John J. Gillin, Jr., Harry Burke, Lyle De Moss, M. M. Meyers, Soren Munkhof, Ray Olson and Bill Wiseman, WOW; Carl Haverlin, BMI; A. W. Kaney, NBC; Wade Barnes and Frank E. Chizzini, NBC Thesaurus Transcriptions.

C. E. Arney, Jr., Lewis Avery and Willard Egolf, NAB; K. A. Jadassohn, War Finance Division; J. W. Knodel, Free and Peters, Inc.; George A. Kercher, Edward Petry & Co.; Howard Lane, CBS; Alex Sherwood, Standard Radio; Al Stine, Press Association; Lt. Comdr. Roger Q. White, U. S. Navy; and Lt. M. C. Miller, Public Relations.

ED YOCUM RE-ELECTED DIRECTOR OF FOURTEENTH DISTRICT

Ed Yocum, KGHL, Billings, Montana, was reelected Director of the Fourteenth District by unanimous ballot at a meeting in Denver on February 7-8. Resolutions were passed strongly condemning the Bankhead Bill and urging greater and more intelligent use of BMI material.

JETT'S NOMINATION FAVORABLY REPORTED

The Senate Committee on Interstate Commerce on Wednesday held an open hearing in connection with the appointment of J. K. Jett as a member of the FCC to succeed George Henry Payne for a period of seven years, beginning July 1. Only two votes in the Committee were cast against Mr. Jett.

The Committee ordered a favorable report to the Senate and probably by the time this copy of the REPORTS reaches its readers, Mr. Jett will have been confirmed as a member of the FCC.

NAVY DEPARTMENT COMPLIMENTS NAB

NAVY DEPARTMENT

WASHINGTON

Industrial Incentive Division

2118 Massachusetts Avenue, N. W.

February 2, 1944.

Mr. Neville Miller, President,
National Association of Broadcasters,
1760 N Street, N. W.
Washington, D. C.

DEAR MR. MILLER:

It is my pleasure to express to you and your associates, my personal thanks, and the appreciation of this Division, for the interest shown by your organization in the WARCAST service, a project initiated by the Incentive Division.

The assistance of Mr. Arney and Mr. Stringer deserves particular recognition. Through their help and the excellent facilities of your organization, we have been enabled to extend the WARCASTS to many additional radio stations and plants.

The fine spirit of cooperation demonstrated by your organization has been very helpful to the work of the Incentive Division. It is our hope that this pleasant relationship will be continued.

Sincerely yours,

S/ C. H. WOODWARD
C. H. WOODWARD,
Rear Admiral, USN,
Chief, Incentive Division.

914 STATIONS

Since the first of the year, the FCC has granted two new construction permits which appear under the February 1 count of stations in the following table:

	1943												1944											
	Feb. 1	Mar. 1	Apr. 1	May 1	June 1	July 1	Aug. 1	Sept. 1	Oct. 1	Nov. 1	Dec. 1	Jan. 1	Feb. 1	Mar. 1	Apr. 1	May 1	June 1	July 1	Aug. 1	Sept. 1	Oct. 1	Nov. 1	Dec. 1	Jan. 1
Operating	910	910	911	911	911	911	911	911	911	911	910	910	910	910	910	910	910	910	910	910	910	910	910	910
Construction	6	5	2	2	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	4
	916	915	913	913	912	912	913	913	913	913	912	912	912	912	912	912	912	912	912	912	912	912	912	914

KANSAS CITY GOES IN FOR KID SHOWS

Three thousand questionnaires have recently been released by the Children's Program Committee of the Radio Council of Greater Kansas City. The questionnaires list the names of 31 children and youth shows heard over local stations. Criteria for children's programs are noted, as follows:

"Radio programs for children should:

1. Be entertaining.
2. Be dramatic with reasonable suspense.
3. Be of high artistic quality and integrity.
4. Be expressed in correct English and diction (character parts excepted).
5. Appeal to the child's sense of humor.
6. Be within the scope of the child's imagination.
7. Stress human relations for cooperative living.
8. Stress intercultural understanding and appreciation."

FEDERAL COMMUNICATIONS COMMISSION DOCKET

HEARINGS

No hearings are scheduled before the Commission in broadcast cases during the week beginning Monday, February 14.

FEDERAL COMMUNICATIONS COMMISSION ACTION

APPLICATIONS GRANTED

WHAT—Philadelphia Record Co. (transferor), William A. Banks (transferee), Independence Broadcasting Co., Inc. (licensee), Philadelphia, Pa.—Granted consent to voluntary transfer of control of Independence Broadcasting Co., Inc., licensee of Station WHAT, from Philadelphia Record Company to William A. Banks, by transfer of 100 per cent of issued and outstanding capital stock for a consideration of \$22,500 (B2-TC-351).

Sacandaga Broadcasting Corp., Gloversville, N. Y.—Granted construction permit for new standard broadcast station at Gloversville, N. Y., to operate on **1340 kc.**, 250 KW power, unlimited time (B1-P-3404).

WRBL—The Columbus Broadcasting Co., Inc., Columbus, Ga.—Granted construction permit to install synchronous amplifier near Ft. Benning, Ga., to be operated on **1230 kc.**, 250 KW, unlimited time, synchronous with WRBL (B3-P-3562).

MISCELLANEOUS

WSAY—Brown Radio Service and Laboratory (Gordon F. Brown, Owner), Rochester, N. Y.—Granted modification of construction permit as modified, authorizing change in frequency, power, etc., for extension of completion date to 8-1-44 (B1-MP-1732).

WJZ—Blue Network Company, Inc., New York City.—Granted license (B1-L-1795) to cover construction permit which authorized move of auxiliary transmitter, installation of new transmitter and antenna, and change in power from 25 to 10 KW. Also granted authority to determine operating power by direct measurement of antenna power (B1-Z-1579).

WLOK—The Fort Industry Co., Lima, Ohio.—Granted authority to determine operating power by direct measurement (B2-Z-1577).

The Commission on February 8 granted an application for a permit for the construction of a new 250 watt local channel station at Gloversville, N. Y., and also granted an application for a permit for the construction of a synchronous amplifier near Ft. Benning, Ga., to be operated in conjunction with Station WRBL, Columbus, Ga. These grants were made under Commission policy as stated in its Public Notice of August 11, 1943, and prior statements of policy. However, the Commission made the grants subject to procedural requirements announced in its Public Notice of January 26, 1944, which provides, among other matters, for issuance of conditional grants pending submission of evidence in writing from the War Production Board that any authorization of that Board necessary to carry the construction to completion have been obtained or that none are required, and that applicant is in position to complete all construction necessary to the proposed operation within a reasonable time.

WDGY—Dr. George W. Young, Minneapolis, Minn.—Denied petition to correct record and to reinstate action of the Commission taken July 7, 1942; denied application for special service authorization to operate unlimited time with 500 KW after sunset at Albuquerque, N. Mex., during summer months and 250 KW after sunset at Albuquerque during winter months (Station now operates on **1130 kc.** with 5 KW day, 500 KW night, limited Albuquerque.) (B4-SSA-39).

The Commission approved a power of attorney for Birney Imes, Jr., with respect to the management and operation of Station WMTU, Tupelo, Miss., to be handled by Robert L. McRaney as his attorney-in-fact.

APPLICATIONS FILED AT FCC

630 Kilocycles

NEW—A. W. Talbot, Missoula, Mont.—Construction Permit for a new standard broadcast station to be operated on **630 kc.**, 1 KW daytime and unlimited hours of operation.

710 Kilocycles

KOB—Albuquerque Broadcasting Co., Albuquerque, N. Mex.—Modification of construction permit (B5-P-2783 as modified) which authorized changes in transmitting equipment and increase in power for change in frequency from **1180 kc.** to **770 kc.**

KOB—Albuquerque Broadcasting Co., Albuquerque, N. Mex.—License to cover construction permit (B5-P-2783 as modified by above application) for change in frequency, increase in power and changes in equipment.

KOB—Albuquerque Broadcasting Co., Albuquerque, N. Mex.—Authority to determine operating power by direct measurement of antenna power.

1090 Kilocycles

KTHS—Radio Broadcasting, Inc., Hot Springs National Park, Ark.—Extension of special service authorization to operate unlimited time, simultaneously with WBAL with power of 1 KW night, 10 KW day for the period ending 5-1-45.

1230 Kilocycles

WDSM—WDSM, Inc., Superior, Wisc.—Relinquishment of control of licensee corporation by Victoria B. Conroy and James J. Conroy through sale of 45 shares common stock by Victor B. Conroy to Roland C. Buck.

KMLB—Liner's Broadcasting Station, Inc., Monroe, La.—Relinquishment of control of licensee corporation through transfer of 493 shares common stock by J. C. Liner, Jr., to Mrs. Melba Liner Gaston.

1240 Kilocycles

KBIZ—J. D. Falvey, Ottumwa, Iowa.—Voluntary Assignment of license from J. D. Falvey to KBIZ, Inc.

1400 Kilocycles

WRDO—WRDO, Inc., Augusta, Maine.—License to cover Construction Permit (B1-P-3480) which authorized increase in power, installation of new transmitter and antenna and move of transmitter.

WRDO—WRDO, Inc., Augusta, Maine.—Authority to determine operating power by direct measurement of antenna power.

1410 Kilocycles

NEW—A. W. Talbot, Billings, Mont.—Construction Permit for a new standard broadcast station to be operated on 1410 kc., power of 1 KW night, 5 KW daytime, unlimited hours of operation.

1420 Kilocycles

WPRP—Julio M. Conesa, Ponce, Puerto Rico.—Voluntary Assignment of License from Julio M. Conesa to Voice of Porto Rico, Inc.

1490 Kilocycles

KOVC—KOV, Inc., Valley City, N. Dak.—Voluntary transfer of control of licensee corporation from Milton Holiday, Herman Stern and E. J. Pegg to Robert E. Ingstad (112 shares common stock).

FM APPLICATIONS

NEW—The WGAR Broadcasting Co., Cleveland, Ohio.—Construction permit for a new high frequency (FM) broadcast station to be operated on 45,500 kc., with coverage of 8,500 square miles.

NEW—Southland Industries, Inc., San Antonio, Texas.—Construction Permit for a new high frequency (FM) broadcast station to be operated on 44,500 kc., with coverage of 16,500 square miles.

NEW—Capitol Broadcasting Corp., Indianapolis, Ind.—Construction Permit for a new high frequency (FM) broadcast station to be operated on 48,700 kc., with coverage of 14,120 square miles.

TELEVISION APPLICATION

NEW—Philco Radio and Television Corp., area of New York, N. Y.—Construction Permit for a new experimental television relay broadcast station to be used with W3XE and WPTZ to be operated on 204000-216000 kc., with power of 15 KW and A5 Emission.

MISCELLANEOUS APPLICATION

WBLQ—Piedmont Publishing Co., area of Winston-Salem, N. Car.—Construction permit to install a new transmitter.

FEDERAL TRADE COMMISSION DOCKET

COMPLAINTS

The Federal Trade Commission has alleged unfair competition against the following firms. The respondents will be given an opportunity to show cause why cease and desist orders should not be issued against them.

Colgate-Palmolive-Peet Co., Jersey City, N. J., is charged in a complaint with disseminating advertisements which misrepresent

the composition, properties and effectiveness of certain soaps, dentifrices and shaving creams it manufactures and sells in interstate commerce. (5126)

Gold Seal Mfg. Company—Misrepresentation of the effectiveness and dependability of so-called anti-freeze solutions designated "Gold Seal" and "Zero Flo" is alleged in a complaint issued against Banner Manufacturing Co., Inc., trading as Gold Seal Manufacturing Co. and as National Laboratories Co., 37 Preston Court, Brooklyn. The respondents recommend the product as being safe for use in cooling systems of automobiles and other combustion engines (5123)

Leventhal & Hurwitz—A complaint alleging violation of the Wool Products Labeling Act has been issued against Edward Leventhal and Jacob Hurwitz, who are manufacturers of wool products and trade as Leventhal & Hurwitz, 500-7th Ave., New York, and against Harry Haber, trading as Haber & Co., Washington, D. C., where he operates women's wearing apparel stores at 1205 G St., N. W., 3046 14th St., N. W., and 3038 14th St., N. W. The store at the last mentioned address is known as "Bradley's." (5125)

North Eastern Radio Company, 799 Broadway, and also as Midwest Radio Service Company, 80 East 11th St., New York, is charged in a complaint with misrepresentation and unfair and deceptive acts and practices in commerce. (5127)

Pioneer Specialty Company and also as Candyland Company, 38 Crosby Ave., Brooklyn, selling and distributing candy to dealers, is charged in a complaint with the use of unfair and deceptive acts and practices in commerce through the practice of using over-size containers or cartons. (5128)

CEASE AND DESIST ORDER

The Commission issued the following cease and desist order last week:

Harry Fischer & Company—An order has been issued directing Harry Fischer and Joseph Fischer, trading as Harry Fischer & Co., 315 North 12th St., Philadelphia, manufacturers of men's clothing, to cease and desist from violation of the Wool Products Labeling Act. (5073)

STIPULATIONS

During the past week the Commission has announced the following stipulations:

Aristocrat Clock Co., 245-5th Ave., New York, stipulated that they will discontinue representing that they manufacture the clocks they sell, unless they actually own and operate, or directly and absolutely control, the factory wherein are made all of the products sold by them under such representation. (3804)

Barri Fabrics Corp., 1441 Broadway, New York, engaged in the sale of textile fabrics, entered into a stipulation to cease and desist from:

(1) Use of the term "butcher linen" to designate a fabric not composed of linen and of the word "linen" to imply that such fabric is linen;

(2) Advertising, labeling, invoicing or selling any fiber, yarn, fabric, garment or other article not containing linen, but which has been manufactured or processed in a manner to simulate linen, or which purports to contain linen in whole or in part, or which is represented as having a linen finish, unless complete and non-deceptive disclosure be made of the fiber content of the product and of the fact that it does not contain any linen;

(3) Advertising, labeling, invoicing or selling products composed in whole or in part of rayon without clearly disclosing such fact by the use of the word "rayon"; and when a product is composed in part of rayon and in part of other fibers or

material, from failing to disclose in immediate connection with the word "rayon," and in equally conspicuous type, each constituent fiber of the product. (3808)

Decco Barber Supply Co., Roxbury, Mass., engaged in the sale of Kulver's East Indian Hair Dressing, stipulated that he will cease and desist from representing that the preparation is a hair grower, produces long hair, or in any way facilitates the growth of hair, and from designating such domestic preparation as "East Indian Hair Dressing," or otherwise representing that it is a product of, or contains ingredients imported from, East India or any other foreign country. (3798)

Federal Waterproofing Co., Inc., 2245 Valley Ave., Indianapolis, entered into a stipulation to cease and desist from representing that the cement curing compound it sells under the name "Preservakure" will not stain, mottle or discolor surfaces to which it is applied, or that the ingredients thereof are chemically inert or non-saponifiable. (3803)

Food Display Machine Corp., operating as Razoroll Co., 620 N. Michigan Ave., Chicago, stipulated that it will cease and desist from certain misrepresentations in connection with the sale of a safety razor blade sharpener designated "Razoroll." (3807)

James Studio, 5253 N. E. Sandy Blvd., Portland, Oreg., has stipulated that he will cease and desist from use of the words "Gold Tone Oil Painted Photo" as descriptive of photographs which are not in fact gold tone photographs produced by the "gold toner" process, which involves the use of gold chloride; and from use of the words "Gold Tone" in any manner so as to imply that such photographs are produced by said "gold toner" process. (3805)

Johnson, Smith & Co., 6615 E. Jefferson Ave., Detroit, engaged in the sale of novelty merchandise including a printing press advertised to sell at \$2.98, stipulated that they will discontinue:

(1) Representing that they fill orders for their printing press with a press of the type depicted and described in their advertisements, unless the orders actually are filled with the types of press represented;

(2) Using the words "a real printing press" or "does real job work" to imply that the press is capable of doing any type of commercial or job work or that it is other than a toy printing press; and

(3) Using the words "will turn out many hundreds of copies per hour" as descriptive of the printing capacity of the press, or any other statement that attributes to the press a printing capacity in excess of what it can normally accomplish. (3809)

John C. Mason & Co., 2250 South Spaulding Ave., Chicago, has stipulated that, in connection with the sale and distribution of men's clothing, it will cease and desist from the use of a "Money Back Guarantee" or other agreement containing any representation to the effect that it will refund to customers the amounts paid by them for merchandise, unless it actually does refund the full amounts paid, whether paid to the corporation's sales agents, for "collect on delivery" shipments, or in any other manner; and from the use of any guarantee unless strict and complete performance is made with all of its terms and conditions. (3799)

Maxine Dress Co., 302 S. Market St., Chicago, engaged in the manufacture of rayon dresses, has entered into a stipulation to cease and desist from advertising, offering for sale or selling fabrics or garments composed in whole or in part of rayon without clearly disclosing such fact by use of the word "rayon"; and when such products are composed in part of rayon and in part of other fabrics or materials, from failing to disclose in immediate conjunction with the word "rayon," and in equally conspicuous type, each constituent fiber of the product. (3806)

Parker Bouldin Company—A stipulation to cease and desist from certain representations in connection with the sale of Priscilla Parker Cosmetics has been entered into by Raymond W. Appleton, trading as Parker Bouldin Co., 500 Robert St., St. Paul, Minn. The respondent agrees to cease and desist. (3801)

E. L. Patch Co., Boston, engaged in the sale of drug products called "Kondremul with Non-Bitter Extract of Cascara" and "Kondremul with Phenolphthalein," have entered into a stipulation to cease and desist from disseminating any advertisement which fails to reveal that the products should not be used when abdominal pain, nausea, or other symptoms of appendicitis are present; provided, however, that such advertisements need only contain the statement, "CAUTION: Use only as directed," if and when the directions for use on the labels or in the labeling contain a warning to the same effect. (O3188)

Western Auto Supply Co., which has its principal place of business in Kansas City, Mo., and operates a chain of retail stores throughout United States, has stipulated that it will discontinue certain misrepresentations in connection with the sale of house paint. (3802)

FTC DISMISSES CASE

The Federal Trade Commission has dismissed without prejudice the case growing out of the complaint it issued against Fred Benioff Co. and Fred Benioff, both trading as Fred Benioff Furs, Benioff's Furs, and Benioff's, 133 Geary St., San Francisco.

The respondents were charged with misrepresentation in connection with the sale of fur garments.

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"DESIGN TECHNIQUE VERSUS SERVICE REQUIREMENTS"

Analysis of Pre-War and Post-War Problems as
Related to Radio and Television
Receiving Instruments

by

Irwin W. Stanton

RCA Service Company, Inc.

MUCH has been said and written before about service as applied to radio broadcast receiving instruments but little has been done to eliminate the many evils associated with former methods.

There have been various interpretations of the word "service" and it is axiomatic that it has been subjected to much abuse. We might ask: "What do we mean by 'service' and where does it start and end?" One, and probably the best definition of the word "service" is:

"Sufficient and Effective for a Purpose"

This, then, does not limit service to that rendered by dealer, distributor, or manufacturer, to consumer for correction of a defect with the product, but allows the word "service" to encompass the product itself and all that it represents. This paper, therefore, will not be confined to service rendered in the field, but rather, will discuss service from the time the product is conceived until it has been delivered to the consumer and has, in itself, rendered satisfactory service. However, emphasis will be placed upon that portion of service rendered by dealer, distributor, or manufacturer in the field, and how, by proper design of the product, the necessity for this service can be held to a minimum.

A considerable amount of confusion as existed in the radio industry as to what constitutes "warranty repair service," "warranty service," and "field service." No doubt the reason for this confusion has been the lack of a universal understanding or definition of these terms. To help clarify this situation a few words on our interpretation of their meaning may be in order.

"Warranty repair service" consists of the actual repairs made on a product that has become defective under normal use and operation during a given period of time, and this service includes all of the steps necessary to return the product to a normal operating condition.

"Warranty service" consists of all service rendered on a product and to the owner of the product, during a given period of time, to insure that the owner is enjoying optimum performance in its use and to assure him that the product is as represented.

"Field service" consists of all service rendered in the field, or at a location removed from the factory, and includes all service rendered on the product and to its owner both during and after the warranty period.

It should be noted that, primarily, "warranty repair service" is work performed on the instrument to correct any manufacturing defect, while "warranty service" includes "warranty repair service" and other services rendered to the owner.

Although it is not always realized, there are definite sales functions involved in "warranty service." Many dealers appreciate that the sale of a radio or television instrument is not concluded when the customer's signature is obtained on the contract and delivery of the instrument made. There exists after delivery a normal period, during which time contact between customer and dealer should be maintained. During this period, the dealer should carefully instruct the customer in proper operation of the instrument, explain any abnormal operating conditions peculiar to the locality and recommend and/or make any special installation necessary for optimum performance. It is this portion of "warranty service" which is as much of sales as that of obtaining the signature on the contract, and if not properly handled, may mean the difference between the loss of the sale or complete customer satisfaction and goodwill.

If it were possible to manufacture a radio or television instrument that in itself would not cause any trouble, there would still be a need for "field service" to cope with local operating conditions and the "human element" involved in the operation of the instrument. The "human element" is also present in the manufacture of a product and no matter how well or perfectly the product or its components are designed a certain amount of trouble may be expected.

The causes contributing to the necessity for rendering service in the field are many, some of which can be controlled by proper design of the product, and others which are beyond the capabilities of the product itself to overcome. By analyzing these causes, a better understanding of the functions and obligations of dealer, distributor, and manufacturer, in relation to what portion of service should become a definite and normal part of their operation can be had, and means may be found whereby the product can be designed to minimize these causes.

Trouble and dissatisfaction with a radio or television instrument in the field usually can be traced to one or more causes such as:

1. Failure of a component.
2. Poor performance due to concealed damage, caused by excessive vibration or rough handling in transit.
3. Poor workmanship or "human element" involved in the manufacture of the instrument.
4. Humid weather conditions.
5. Abnormal local operating conditions.
6. Low or excessive utility power supply voltage.
7. Poor performance due to improper installation.
8. Improper operation of instrument by customer.
9. Inadequate service facilities.
10. Poor performance due to improper design.

When trouble arises due to any of these conditions, the dealer or distributor can take prompt and effective steps to remedy the situation if he maintains a well equipped and capable service department. If the instrument is of good quality and properly designed, field trouble will be held to a minimum and "field service" resolves itself to the normal dealer functions of making any minor repairs or adjustments, installing the instrument so that it will perform as well as may be expected under the local operating conditions, and instructing the customer in its proper operation.

It is the purpose of this paper, first, to cover design technique which builds into the product those qualities which insure that the instrument will render satisfactory service, and, in itself, will reduce or keep to a minimum the need for "field service"; and, secondly, to analyze pre-war field service methods and to suggest possible improvements for rendering service to the consumer on both radio and television instruments, post-war.

An attempt will be made to point out those things in the design of a radio instrument which need more than usual consideration to keep to a minimum the need for "field service." No attempt will be made to give specific figures as regards sensitivity, selectivity, image ratios, fidelity, etc., because economically there are definite limits as to how far one may go in incorporating into the product, characteristics that will permit satisfactory performance under all extremes of operating conditions. In short, the product must be designed to meet the needs and desires of the majority of consumers, and these consumers should not be penalized by the incorporation of those features that substantially affect the selling price and satisfy only a few. *Within these limits, the engineer has in his hands the key to complete customer satisfaction*, and proper balance of those characteristics in the product, which contribute toward this desirable condition, we shall call "design technique." "Design technique," then, is the ability to achieve much with little. It is not always the complex portions of an instrument that cause the most trouble but rather, in many cases, the simple things that have been overlooked.

Actual component failure during warranty, may be expected to account for the trouble on approximately 5% of all instruments sold. Since there are approximately fifty to eighty major parts and assemblies in the larger radio set, it is obvious, that actual field component failure must be held well under one-tenth of one percent if total instrument failure due to defective components is to be kept under 5%. Fortunately there are relatively few operations involved in the manufacture of most parts, and standardization is carried out to a greater extent, which results in considerably less trouble from the "human element." However, if the parts do not have sufficient safety factor, if they are not carefully inspected during manufacture, if adequate life tests are not made to determine their reliability, or if proper humidity, temperature, and vibration tests are not made, troubles of an epidemic nature may be expected from instruments in the field.

Poor performance of radio and television instruments caused by concealed damage due to excessive vibration and rough handling in transit, although not under complete control by the engineer, can be kept to a minimum by careful consideration being given to stability of adjustments under vibration, weight of components and how well they are secured to the chassis, and the mounting of assemblies in the cabinet. Screws for adjustment of circuits should

have some means of locking either by spring pressure or lock-nut, to insure that the adjustment of the instrument will not be affected. Where possible, two screws or other positive means should be used to secure automatic phonograph levers in their proper position. For strength, ease of working with, and to speed production by the elimination of breakage during assembly, wire used for chassis wiring should not be smaller than 25 to 35 mils. Large and relatively heavy capacitors, in addition to other similar components, should be secured to the chassis with mounting strips rather than placing dependence upon connecting leads for this purpose.

There are approximately five hundred major and minor operations in the manufacturing process of the average radio-phonograph instrument. Unless careful and rigid inspection is established at various points along the line of assembly, trouble due to the "human element" may be expected to contribute a substantial portion of instrument failure and may run into serious proportions, particularly in trouble experienced with automatic phonograph mechanisms. Simplification of the product, thereby reducing the number of operations in its manufacture, will contribute greatly to elimination of mistakes on the assembly line. Likewise standardization and only minor change in the product when necessary, will also reduce trouble from the "human element." Simplification and standardization, naturally, can be carried out only insofar as it does not affect sales and the needs and desires of the consumer. If any change in the product is made, whether it be major or minor, supervision should be increased beyond normal until the assembly line operators become thoroughly familiar with the change, and the percentage of rejects is down to acceptable limits.

Poor performance due to abnormal local operating conditions presents one of the most difficult problems to cope with, not only in the field but also in the design of the instrument itself. Although some control can be maintained by the engineer in design of the product, in general it can be more effectively dealt with in the field. To keep to a minimum complaints due to this condition, the engineer should give careful consideration to sensitivity, selectivity, image response, signal to noise ratio, and shielding of circuits likely to be receptive to interference.

Excessive variation of utility power supply voltage, although normally not contributing much toward field trouble, can become quite a factor if sufficient safety factor is not incorporated in instrument components. Push button tuning adjustment ranges should be wide enough to cover all practical combinations of station set-ups. Phonograph "wow" or "waver" should be less than one percent and preferably under one half of one percent. Cabinet, loudspeaker, and phonograph tone arm resonance should be such that it will not fall in the range of frequencies generated by the vibration of the phonograph motor and gear train, in order to avoid objectionable rumble. Transformer or coil impregnating compounds and wire insulation should not contain materials that will attract rodents and bugs. Automatic phonograph tripping mechanisms should be designed for positive action on eccentric, spiral, and constant diameter types of record tripping tracks.

We have covered those things that can contribute much toward elimination of trouble with the product in the field. Several other points should be mentioned, which, although not a direct cause of trouble, do have a psychological effect and may determine whether or not a consumer becomes super-critical. Volume control taper should be such that over the major portion of control, the sound intensity is varied in proportion to movement of the control; volume levels where some distortion may exist, should be crowded into the upper limits of the volume control; tuning ratio should be sufficient for ease of tuning distant and short-wave stations but low enough so that complete dial coverage can be quickly made; all controls should be designed for smooth action and simplified operation; AVC action should be fast enough to reduce the effects of shortwave fading and slow enough not to effect appreciably the receiver fidelity; a pleasing tonal balance should be maintained between high and low frequency response; tone control should be provided for those who dislike high frequency response; tone compensation should be incorporated in the volume control circuit for pleasing tone at low volume

levels; and undistorted power output should be sufficient for demonstration purposes.

In addition to the considerations given to characteristics in a product which contribute directly to customer satisfaction and goodwill, there are those characteristics which have an indirect bearing on this ideal condition and which in the past have many times been overlooked. The degree to which prompt and efficient "field service" can be rendered by a dealer, depends to some extent upon the ease with which he can cope with defects in the product. If an instrument is extremely complicated and difficult to work with, additional time and effort is necessary to correct the defect. This not only affects the cost of rendering service on the product during the warranty period, but is also reflected in higher repair costs to the consumer after the warranty period. Because minor trouble cannot be quickly corrected, sales may be directly and seriously affected by a negative reaction to the product by dealer sales and technical personnel. It is therefore necessary that "design technique" be carefully applied to those things that will simplify service procedure.

What are some of these things that all manufacturers have been guilty of at one time or another and which have caused the dealer no small amount of trouble? To name a few: necessity of removing chassis to change a tube or pilot lamp; loudspeaker not removable without first removing baffle board or other component; difficulty in aligning circuits because dial pointer and scale were not a part of chassis; volume control and other chassis components difficult to replace because of obstructions and crowded conditions; necessity to remove automatic phonograph mechanisms to make minor adjustments; loose chassis shock mounting springs and devices easily lost and difficult to re-install.

Because of the demand for pleasing cabinet styles and unavoidable space limitations, it is not always possible to eliminate all undesirable mechanical objections. However, the application of proper "design technique" to these problems can contribute much to product acceptance and maintenance.

As previously stated, no matter how perfect a radio or television instrument may be in design and no matter how much care is taken in its manufacture, there will always be a need for "field service" during, as well as after, the warranty period. It has often been said that there is nothing more effective in building goodwill than good service. This is particularly true during the warranty period, and if "warranty service" is properly and efficiently rendered, customer satisfaction and goodwill will be assured. Pre-war methods of rendering "warranty service" to the consumer were effective to a degree but in many ways were not adequate. It is generally agreed that improvement in method can and should be made in the post-war period, and that, along with the new greatly improved post-war radio and television instruments, streamlined and more effective service should be available to the consumer. By evaluating pre-war service methods, the solution to a sound and workable post-war plan should be indicated.

Unfortunately, the return on an investment in warranty or no-charge service, to the consumer by the dealer, is intangible because there is no yard stick by which it can be accurately measured. However, many individuals who have given this subject careful thought, realize that no company can continue to be successful without customer satisfaction and goodwill, and the ability and willingness to render prompt and efficient service, not only during but also after the warranty period, is a necessity if this goal is to be attained.

It is obligatory for the manufacturer to correct, either directly or otherwise, any defect in his product. This "warranty repair service" normally cannot be rendered promptly and efficiently by returning the instrument to the factory for repairs. It has therefore been the general practice in the radio industry to extend relatively large discounts to trade so that this wide margin of profit would cover any normal expense incurred for rectifying defects in the product. By this method any dealer who had made a reasonable investment in establishing a service department, could promptly and efficiently render service to his customer. However, if a dealer could keep his service expense to a minimum, an apparent increase in his profit could be realized. These two forces, the desire to render good service to his customer and the desire to increase

profits, were continually working against each other and therefore did not create a healthy condition.

If the product were relatively free of trouble, the evils associated with pre-war "warranty service" methods were not always apparent because consumer needs and problems could, in many cases, be satisfactorily handled. However, because of abnormal local operating conditions, conditions in the field which could not be completely controlled by the engineer in the design of the product and because of the "human element" involved in the manufacture of the product, occasional need for more attention and consideration to consumer problems absorbed a greater percentage of dealer profits and thereby forcibly brought to the fore the weaknesses in the system.

What, then, can be done in the post-war period to overcome these objections to, and evils associated with, pre-war radio and television service methods? This question is not easily answered because any complete solution of the problem may involve heavy costs which make the plan economically unsound. If a plan could be formulated that would not seriously affect price schedules and at the same time, effectively alleviate the burden of the dealer in rendering "warranty service," then the answer to this problem would be found.

It should be noted, it was stated that the plan should alleviate the burden of rendering "warranty service" and not completely relieve the dealer of that portion of service which may be looked upon as sales functions. As previously mentioned, it is during the warranty period that satisfactory conclusion of the sale is or is not achieved. To most dealers the loss of customer goodwill is as much an injury as actual return of the instrument and loss of the sale. It is during the warranty period that normal contact between customer and dealer should be maintained and any "warranty service" plan which attempts to encompass these normal dealer sales functions may not meet with complete acceptance and necessarily must seriously affect price schedules. It is then indicated that any post-war plan must be based upon the manufacturer's responsibility of correcting any defects with the product, which involves only those functions associated with "warranty repair service."

One method which may be considered, would be the establishment of factory owned and operated service stations to render all "warranty repair service" on the product. Economically a plan of this sort has many limitations. Stations could only be located in heavily populated areas and therefore could not render prompt and efficient service to dealers or their customers located at distant points. Since the establishment of a station incurs the associated heavy costs of overhead, some means would have to be found to cover this cost to avoid its reflection in price schedules on the product. Any attempt to render service after the warranty period on a charge basis would be met with disfavor by radio service dealers. Since the establishment of a factory owned station is more or less a duplication of existing and more strategically located dealer facilities, it is indicated that some plan utilizing these existing facilities would be more feasible and acceptable.

A plan whereby the manufacturer would render all "warranty repair service" by maintaining a force of field service engineers to perform this work, has some merit in that these engineers could utilize dealers' and distributors' places of business to repair instruments, eliminating the need for a factory owned station. In performing this "warranty repair service" work, dealers' technicians could be instructed in proper and efficient service technique, thereby qualifying them to render good service after the warranty period. Economically this plan has some disadvantages in that much time is consumed in traveling and the work load would not be uniformly distributed throughout the year. Although a field force large enough to render all "warranty repair service" could be maintained, prompt service could not be rendered because the work load would not be constant and would be distributed among many dealers.

Any plan which attempts to set up additional facilities and personnel, to render no-charge "warranty service" to the exclusion of after-warranty chargeable service, becomes economically unwieldy. It is therefore indicated that a

complete revision of pre-war "warranty repair service" methods is not necessary but rather it is advisable to maintain those desirable and proven qualities and to provide some means whereby the faults would be eliminated. A plan which more nearly approaches these requirements is one in which the manufacturer would pay for all "warranty repair service" satisfactorily completed by the dealer. To render satisfactory "warranty repair service" a dealer must have adequate service facilities. Since his entire repair service operation would be paid for, by the manufacturer during the warranty period and by the customer after the warranty period, a satisfactory return could be realized, on his investment in service facilities. Standard flat rate payments could be set-up for various repairs to the instrument. Payment could be made by the manufacturer for each operation performed or could be paid under one of two operations, either major or minor. In either method the dealer would be assured of a fair profit on all "warranty repair service."

In conclusion, we wish to stress the point that the success of any service plan will be dependent upon whether the interests of dealer and distributor as well as those of the consumer have been carefully considered. Also the plan must not appreciably affect price schedules and therefore must be based upon a minimum of demand for "warranty service," which in turn can be controlled to a great extent by the engineer, in application of proper "design technique."

"RADIO IN SERVICE OF HOME AND NATION"

by

Arthur Stringer

National Association of Broadcasters

Since the beginning of production of factory made receivers in 1922, you men and your predecessors together have had a hand in creating over 100 million radio sets for the use of the American families not to mention the sets which have been exported throughout the world.

60 million are still operative—9 million of the 60 million are auto sets, 5 million are located in institutions, places of business, etc., while 46 million sets will be found in the homes of 32,500,000 U. S. families.

During the 22 years you have been making sets the public has taken them off your hands in exchange for more than six billion dollars and has paid in addition large sums for parts and service.

Why is it, do you suppose that the public has demonstrated its eagerness to consume the output of your factories year after year? Was it because of a period cabinet, modernistic design or superb engineering? Basically it was for none of these reasons. It was because the public wanted to listen, because the public wanted to enjoy the entertainment, recreation and educational facilities provided by broadcast stations.

What is the evidence for this conclusion? Perhaps the most important evidence is the time set owners spend listening. Today, each of the 32,500,000 radio families listens on the average more than 4 hours and 22 minutes per day. (The figure of 4 hours, 22 minutes is a minimum figure. It was established in Jan. 1, 1938, by the Joint Committee on Radio Research which reported for the country as a whole, by releasing results of its own survey of rural population, and an urban survey conducted by Daniel Starch, Inc. Surveys since show increases in listening.) Next after sleeping and working, these millions of men, women and children spend more time listening to radio programs than in any other activity.

If more evidence is desired consider the investigation made by one of our great national magazines. Listeners were asked what their decision would be if they had to choose between giving up radio or the movies. 70 per cent said they would give up the movies.

Industry Axiom No. 1, then, is: "Programs are the predominating factor influencing radio set purchase." Sarnoff voiced that Axiom more colorfully in referring to the American System of Broadcasting when he stated that

"The richest man cannot buy for himself what the poorest gets free by radio."

If you appreciate the fundamental truth of this Axiom, which has stood the test of time, from the very beginning, then a common ground is revealed on which engineers and broadcasters may meet as co-workers to consider ways and means of contributing to the even greater satisfaction of our nation of listeners—our mutual customer.

To get a proper perspective of the magnitude of the job ahead, let's take a look at radio history, past, present and future—as it conveniently divides itself into 3 phases. *First phase* extends from World War I to the freeze order of April 1942. *Phase II*, from that date until civilian production is resumed; *Phase III* lies ahead—somewhere in the future, exact date unknown. But factory whistles, special broadcasts and headlines will herald its arrival. We'll all know when that great day arrives!

The "build your own set" era of Phase I was followed by sets with exposed parts, mounted on boards, at \$150 per board, speaker extra. Plug-in radio replaced the battery-trickle charger combination. Then heard 'round the world was the "boom-boom" of "Majestic, Mighty Monarch of the Air." Though Grigsby-Grunow has long since departed, the influence of that company still persists, for it was the first to capitalize on the public's liking for lows. When high fidelity was brought out, you will recall that this same public would have little of it.

During the long, hectic years of Phase I, there was a decrease in the number of manufacturing companies but an increase in the number of persons engaged in the manufacturing process. In broadcasting, the number of stations increased and personnel increased. In only one segment of the industry were there fewer full-time employees; that was in servicing.

The persisting over-supply of servicemen, whose financial condition was constantly menaced by hordes of "screw-driver" mechanics, so sapped the vitality of this group that it has remained the weakest link in the entire radio business. Dissatisfaction with the quality of radio service offered in many communities, made it necessary for broadcasters in increasing numbers to take the lead in attempting to improve conditions. These are the highlights of Phase II of radio set history.

In Phase III, when additional services are expected to be made available to the public, I have the hope that the most qualified group will assume the obligation of providing expert maintenance facilities and personnel to maintain the products of radio factories. Unless manufacturers do this, or unless it is done by other persons, the American radio public is going to be faced with an unprecedented era of "Set-butcherery" at the hands of an army of tinkers. Unless there is planning and guidance, not only will the public be victimized, but the perpetrators of the set-butcherery, largely ignorant of what they will be doing, will suffer the financial loss of their investment in test equipment. But what is more important, these returned veterans will become disheartened and discouraged as the result of their business failure. If job competition should be severe at the time of failure, there will be many more voices to ask, "Is this what we were fighting for?"

Literally tens of thousands of our fighting forces as well as tens of thousands of our civilians have been exposed to radio during World War II. Radio operators, whose technical radio knowledge about equal the gas engine knowledge of the average motorist, can be nothing but tinkers without adequate training. An equally large number of Signal Corps members have been trained to maintain a particular piece of equipment. They can spot trouble in a set with 70 tubes and a complicated circuit; but they too would butcher a good household receiver unless they received fundamental training for such work.

Radar maintenance men will come nearest to possessing the desired prerequisites of competent servicemen. They first mastered the fundamentals of radio before beginning specialization. The training and ability of men of this caliber should insure their success in service work after a small amount of study and experience. It is to be expected, however, that general industry will be ready to bid for their services so that the entire number will be unavailable to radio.

The advent of television should have a highly construc-

tive effect on servicing as a specialty because no one without adequate training will be able to handle television service satisfactorily.

In sound radio the ear will tolerate considerable departure from maximum fidelity. Unlike the ear, the eye will not tolerate a poor or slightly defective image. A television set will have to be installed as a precision instrument and thereafter maintained as a precision instrument. This calls for a higher standard of personnel than is now available, and, also, service equipment of high standard. There must be proper test equipment for servicing television and manufacturers must produce well planned service units. Unless this is done and adequately trained servicemen are brought into the picture, the sale of television receivers will fail to keep pace with the reasonable annual growth anticipated.

Television programs of high entertainment value can carry the load only as long as speedy and adequate service is maintained. Should sloppy installation and inadequate servicing become prevalent, television will collapse in spite of all the promotion that industry can give, in spite of all the money industry may spend.

For the reason that radio servicing in the United States was generally unsatisfactory before the war, and that it cannot be expected to improve without a generous use of the hypodermic, I am going to ask that you gentlemen, as partners and co-workers, as receiver manufacturers and broadcasters, give this matter your considered attention. The best place, the most logical place to start an improvement is at the beginning. So when you design a set, won't you give more thought to the matter of its serviceability. This will contribute to service betterment because it will make the service job easier.

In voicing this suggestion it is recognized that somewhere along the line the set designer comes to a cross roads where manufacturing cost comes into direct competition with ease of servicing . . . yet I admit to a conviction that a manufacturer's continued success must ultimately rest on two propositions:

- 1) Sturdy construction assuring a minimum of servicing, and

- 2) Ease of repair when apparatus does break down.

All of us can recall automobile trade names that have disappeared primarily because of poor service.

There are but two kinds of parts in a receiver: a) those which you know are going to wear out, whose failure cannot be prevented; and b) those which theoretically should last as long as the set itself—but all too frequently don't. The tube socket is an example of the latter and the fixed condenser of the former.

Probably many of you have worked with this classification in mind for many years, but field evidence leads to the suspicion that its application has been restricted. Otherwise exasperated servicemen would not exclaim to the manufacturer's representative, "Don't your engineers think your sets ever have to be repaired?" To which the engineers retort, "Why don't you get some decent servicemen?"

I also have a feeling that factories have been not altogether accurate in their appraisal of acceptable minimum prices which the public is willing to pay for a reliable receiver. There is a break point in list price below which a receiver does become a "squeak-box." It would be helpful if engineers were to become aggressive proponents of higher standards within their respective organizations—for the production of good radios, readily serviceable, not squeak-boxes. After the war listeners will want, as replacements, real musical instruments—the products of responsible manufacturers.

Quality competition instead of price competition, is needed in post-war to take fullest advantage of our Axiom—that

PROGRAMS ARE THE PREDOMINATING FACTOR INFLUENCING RADIO SET PURCHASE,

and a corollary

that a manufacturer's continued success rests upon good construction, relative freedom from servicing, and ease of repair when apparatus does break down.