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BUSINESS DONE DURING YEAR, \$512,000,000

Total radio sales for the year will exceed \$512,000,000. This is revealed by an analysis of the radio statistics for the third quarter of 1928, released by the Department of Commerce. These are compiled in cooperation with the Radio Division of the National Electrical Manufacturers Association.

Figures compiled for the third quarter represent returns from 6,766 radio dealers, or 21.4 per cent of the 31,573 queried, and show a total business of \$20,508,666.

More Replies

This is an increase of 3.6 per cent over replies received for the July 1 quarter. Assumptively, 100 per cent of the dealers did a total business of \$95,834,887 during the quarter.

An estimate of the relative value of each quarter has been prepared by the McGraw-Hill Publishing Company. It shows that the months of July, August and September equal 18.5 per cent of the total radio sales made each year.

Since the October 1st figures are the first to contain total sales, the quarterly business of \$95,834,887, on the basis of 18.5 per cent, results in total year's sales of \$512,621,010, establishing a new record.

Expect Large Final Quarter

Furthermore, the full force of the season's increasing sales is not adequately reflected in the Summer months of June, July and August and a greater momentum of increase in the last quarter is expected to swell the total somewhat above that indicated.

JOINT RADIO-MUSIC TRADE SHOW

Preliminary plans for the annual conventions and trade shows of the radio and music industries, both meeting in Chicago June 3rd next, have been agreed upon by heads of the respective industries, represented by the Radio Manufacturers Association, the Music Industries Chamber of Commerce, the National Association of Music Merchants, and allied music trade organization.

KFRC AND KHJ TIE IN

The Don Lee stations of California—KHJ, Los Angeles, and KFRC, San Francisco—are now hooked up by permanent telephone line. Alternately programs will be released from both studios and broadcast jointly.

Chains Fight Back; Want More Leeway

Debtor is Spotted By His Broadcast

Oakland, Calif.

Some years ago, in a foreign country, a young man borrowed some money.

Recently the same young man had occasion to speak over KGO, the Pacific Coast station of the General Electric Co.

A few days later he got a letter from a DX hound nearly a thousand miles from KGO, asking him for the money.

Imagine the embarrassment of the debtor when KGO handed him the letter and the gratitude of the creditor for renewing old acquaintances.

102,000 ROOMS HEAR LESSONS

Preliminary returns assembled from various parts of the country show that at least 102,000 schoolrooms have been equipped with radios for Walter Damrosch's concerts for children, according to J. L. Ray of the Radio Corporation of America, which sponsors the educational hour.

Reports received by the Radio Corporation of America from its local representatives state that Dallas, Texas, has its entire school system equipped with radios for the series, as has also Beaumont, Texas. Kansas City and St. Louis have also prepared themselves on an ambitious scale.

Country as well as city schools are demonstrating an eagerness to hear the series. In Fort Bend County, Texas, every rural school has a radio and the district has installed its own station.

New Orleans reports that thirty per cent of its schools are listening in.

A new development is the installation of centralized sets in schools,—that is, many schools are wiring the entire building for reception so that every classroom can listen in. The larger cities particularly are undertaking installation on this scale.

In many instances the cost of installing radios has been borne by individual parents or parent associations, who are moved by a personal desire to have their children benefit by the opportunity for musical education afforded by Mr. Damrosch's concerts.

Columbia List Jumps from 27 to 49 Stations, Largest Group in the World — N.B.C. Seeks Better Facilities in Iowa, Texas and Ohio — Board's Curb Order, Effective January 31st, Is Opposed — N. E. M. A. Condemns Unwar- ranted Restriction

Washington.

Demands for severe restriction of chains, so that a greater variety of programs may be tuned in, have brought counter-activity by chain systems and by the Radio Division, National Electrical Manufacturers' Association. The developments were:

1 The Committee on Broadcast Allocation of the N. E. M. A., composed of C. W. Horn, Julius Weinberger, Dr. Alfred N. Goldsmith, Ray H. Manson, Louis B. F. Raycroft and Edgar H. Felix, referred to the wide and increasing use of receivers in all territories as an infallible barometer of broadcasting popularity. The committee therefore condemned the unwarranted restriction of wire-syndicated or chain programs.

2 The Columbia Broadcasting System, which had twenty-seven stations in regular co-operation, announced the enlargement of the "member stations" to forty-nine, effective January 8th, making the chain the largest in the world.

3 Officials of the National Broadcasting Company, which operates two large chains with WEAf and WJZ, New York, as main transmitters, discussed with the Federal Radio Commission the improvement of its chain, particularly to remedy poor reception of chain programs in the State of Iowa, in Fort Worth, Tex., and in Cincinnati.

4 The N. B. C. took a definite stand on the "elective" method of a station's chain program selection by opposing it as "commercially impossible." The elective method, recently adopted by WCCO, Minneapolis-St. Paul, leaves a station free to select which chain it will co-operate with on any occasion instead of ty-

Chains Start Counter-Drive

ing up with only one chain permanently. Henry A. Bellows, former Federal Radio Commissioner, is manager of WCCO.

Where Opposition Began

The opposition to extensive chain broadcasting first became intense in the Middle West, because the same program was tuned in from different stations, including distant ones. Other parts of the country later voiced complaints. The fact of repetition was not disputed, but the advocates of chain programs cited the much better quality of artists and presentations that the chains offered, and also referred to the economic advantage, since chains help solve the difficult problem of steady revenue production. Leading broadcasters showed that nearly all stations operate at a loss, comparing income with expenses, maintenance and capitalization.

The Federal Radio Commission received great bundles of complaint letters from listeners who said that chain broadcasting was ruining the variety that provided tuning-in with its most fascinating appeal.

The 300-Mile Rule

The Commission did not agree as a unit on the "menace" of chain broadcasts, but did adopt a rule circumscribing chain broadcast activities. This was General Order 43, limiting the broadcasting of chain programs by stations on cleared channels to those more than 300 miles apart. This order was to be effective as of the date of the reallocation, November 11th last, but so many difficult problems arose under the reallocation itself and were made still more knotty by the 300-mile rule, that the effective date was postponed until January 31st, so the Commission and the stations could deal with this problem in the light of experiences under the reallocation. January 31st is the expiration date of the 90-day licenses all stations possess. As not all licenses will be renewed, at least immediately, the 300-mile rule may be affected.

Effect on Radio's Future

That the chain program has an important bearing on the future of radio is admitted on both sides. On some chain programs a single artist has been paid as much as \$3,000 for one performance, something unknown to individual station broadcasts. Hence the future excellence of programs is said to depend on the encouragement of chain operation.

The acute aspect of the problem arises in respect to cleared channels, of which there are forty, or eight in each of the five zones into which the United States is divided.

To cite an extreme and theoretical example, if all forty stations were on the air simultaneously some night with the same chain program, all the best and preferential channels, with their far-reaching transmitters, would almost monopolize the dial. Against such possibility is cited the growth of competition among chains. The N. B. C. has been the dominating chain agency, with its two networks, but now Columbia steps out in front, and Pacific Coast chains are growing with other chains under negotiation.

WGY'S TELEVISION SCHEDULE

WGY transmits television signals every Tuesday, Thursday and Friday, from 1:30 p. m. to 2:00 p. m. and every Sunday from 11:15 p. m. to 11:30 p. m., E. S. T., on 379.5 meters and on 21.96 meters. There is another period of television transmission on every Tuesday, 11:30 p. m. to 12:00 midnight, on 379.5 meters and on 31.4 meters. The transmission is developmental and the schedule may be changed or discontinued any time.

N.B.C. Reception

Poor In Spots

Washington.

Officials of the National Broadcasting Company, which operates two chains, with WJZ and WEAF as key stations, conferred with the Federal Radio Commission on problems concerning the company's chain broadcasting. Remedies for poor reception of chain programs in Fort Worth, Tex., Cincinnati and various points in Iowa were discussed. Good reception of chain programs in the specified places was impossible, the Board was told.

The N. B. C. officials at the conference were Merlin Hall Aylesworth, president; George F. McClellan, vice president and general manager, and G. W. Payne, commercial engineer of the company.

Mr. Aylesworth also discussed the stand taken by former Radio Commissioner Henry A. Bellows, now manager of WCCO, Minneapolis-St. Paul, in refusing to take all of the National company's program. He told the commission that the situation was "commercially impossible."

LARGEST CHAIN TO BE COLUMBIA

The Columbia Broadcasting System will have the largest regular chain in the world, beginning January 8th. Forty-nine stations will operate regularly as a part of the system.

This announcement was made by the United Independent Broadcasters, through William S. Paley, president. This is the operating company.

The system now has twenty-seven stations and has perfected arrangements to add the other 21.

WOR and WABC, New York City, are key stations of the Columbia system.

The stations of the system, arranged in their respective groups as basic, Southern 1, 2 and 3, Far West and Supplementary, follow:

Basic: WABC, WOR, 2XE (short wave), WEAN, WNAC, WCAU, WFAN, WCAO, WFBL, WMAK, WKBW, WLBW, WJAS, WHK, WADC, WAIU, WSPD, WKRC, WGHP, WOWO, WGL, WMAQ, WBBM, KMOX, KMBC, KOIL, and WMAL.

Southern 1: WRVA, WTAR and WWNC.

Southern 2: WLAC, WDOO, WBRC and WREC.

Southern 3: KFJF, KFH, KRLD, KTSA and KTHS.

Far West: KLZ, KDYL, KYA, KMTR, KTR, KEX and KGA.

Supplementary: WCCO, WISN and WML.

Sweet and Brown

New WLW Announcers

Cincinnati.

Two announcers have been added to the staff of WLW.

They are Norman Sweet, former chief announcer of WHAS, Louisville, Ky., and Robert Brown, former chief announcer of WGR, Buffalo, N. Y.

WLW is now using 50,000 watts.

EXPERTS FIND ATTACKS ON CHAIN FALSE

The Radio Division, National Electrical Manufacturers' Association, 420 Lexington Avenue, New York City, released a report of its Committee on Broadcast Allocation, in which the following appears, under the heading "Network Regulations":

"Having as an infallible barometer of broadcasting popularity, the sale of receiving sets in all territories, we condemn any unwarranted restriction of wire syndicated or chain programs.

"We have observed the marked increase of listening audiences in every territory when wire syndicated program service is initiated and regret the agitation against it.

Charge of "Politics"

"This agitation is largely for political effect and it assuredly does not have the support of the vast majority of the articulate listening audience.

"We are convinced that wire syndicated programs are independently selected by local outlet stations without contractual compulsion and solely with the program desires of its locality and audience in mind, much as newspapers select material for publication from items supplied them by the various press associations.

Fears Bad Effect

"Any premature compulsory synchronization of stations carrying wire distributed programs, if it is to effect channel conservation, would prevent the economic use of such local outlet stations for any local service programs which now constitutes the great bulk of their programs."

Evacuation Explains

Fine Detection Mystery

One of the most frequent causes of distortion in broadcast reception—in fact, probably the most common cause these days—is an overloaded detector tube. In the desire to obtain greater volume, the radio enthusiast is likely to pile on as much plate voltage as possible on the detector, resulting in an overloaded tube and distortion.

The usual detector tube works best at 67½ volts maximum, although good volume is obtained at 45 volts. 22½ volts is generally too low with the usual —01-A or "hard" tube. Occasionally, a tube is found that works well at 22½ volts and appears to be an exceptional detector. This is due to the fact that the tube is not evacuated as thoroughly as the usual run of —01-A tubes, and is therefore a "soft" tube, or one best adopted for detection.

For maximum volume and sensitivity, together with good tone quality, the detector plate voltage may be adjusted over a wide range. This may be done by inserting a suitable variable resistance, such as the volume control clarostat, shunted by a ½mfd. condenser, in the plate lead to the detector.