

RADIO TODAY

ROBOT
DIAL

COLORADIO

JUNE 1937
MEDICAL DIVISION

MIRACLE
TONE
CHAMBER

ELECTRIC
TUNING

TELETUNE

TILT-
TUNING

SELECTRONNE

FLASH
TUNING

PHANTOM
FILTER

DYNAPHONE

TONE
PROJECTOR

WAL-RADIO

TOUCH
TUNING

NETWORK
TUNING

SUPER-
TELEDIAL

NEW MODELS
FOR 1938!
previewed in this issue.

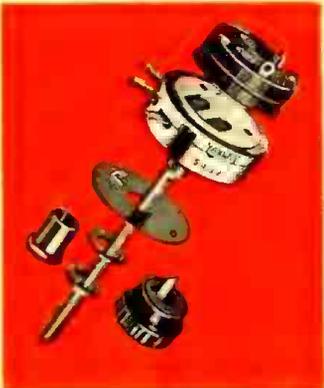
JUNE, 1937
IN TWO PARTS — PART ONE

YES...

MALLORY-YAXLEY
has done more...
but MALLORY-YAXLEY
does not charge more!



MALLORY
CONDENSERS
cost
no more!



YAXLEY
VOLUME
CONTROLS
cost
no more!



MALLORY
VIBRATORS
cost
no more!

MALLORY-YAXLEY Precision Radio REPLACEMENT PARTS COST NO MORE THAN ORDINARY PRODUCTS

Every once in a while there's an idea that because Mallory-Yaxley products have a reputation for higher quality that they must be higher in price. A service man feels that he ought to use them but he thinks that maybe he can't afford to use them.

Mallory-Yaxley are *big*, he reasons, they'd have to be big to put out a help like the Mallory-Yaxley Radio Service Encyclopedia. They'd have to be big to have given the industry its first real honest-to-goodness Vibrator, Volume Control, and Condenser Service and Replacement Manuals. And the very size of Mallory-Yaxley — the wide scope and the great help of Mallory-Yaxley activities gives him a bad case of "price fright".

He thinks the products of the little fellow may be cheaper... and of course he finds plenty of people who'll encourage this belief.

Then some day he checks prices and makes comparisons. He finds that Mallory-Yaxley products *do not* "cost too much" — he finds that Mallory-Yaxley Precision Radio Replacement Parts *do not cost any more than ordinary replacement parts*. He finds they create the kind of customer satisfaction that helps his reputation and his bank account. He puts his radio servicing on easier and a more profitable basis.

It may be that *you* believe that because Mallory-Yaxley have done more for the service man that they expect to *charge more from* the service man. We say that isn't true and don't want you to take our word for it — or any man's word for it. You can compare prices and see for yourself! And — the more Mallory-Yaxley installations you make, the more you'll realize that the complete satisfaction assured by these precision replacement parts makes them *actually cost less in the long run*.



THE RIGHT "DOPE" On Over 12,000 Different Radios

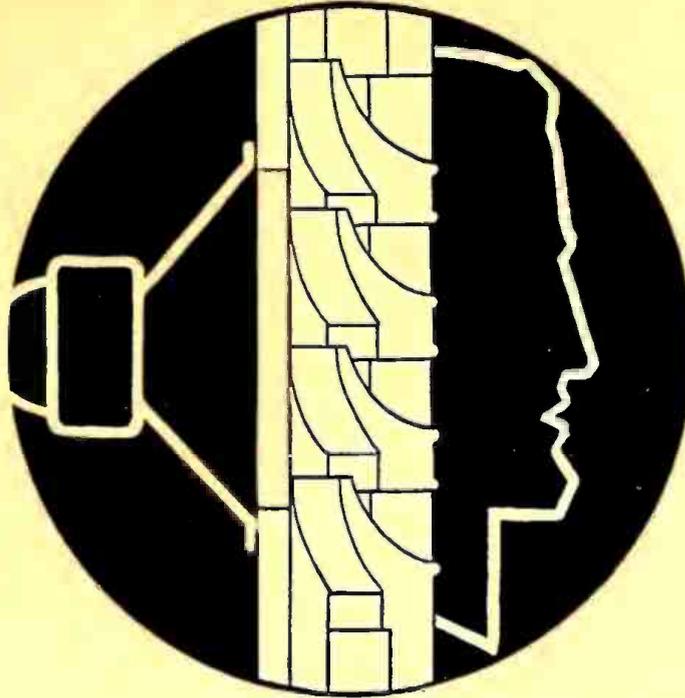
... Completely analyzed under *one cover* ... in the MALLORY-YAXLEY RADIO SERVICE ENCYCLOPEDIA. The book that gives the correct answers to all questions — always! Ask the Mallory-Yaxley distributor about *your copy now!*

Use
P. R. MALLORY & CO. Inc.
MALLORY
REPLACEMENT
CONDENSERS... VIBRATORS

P. R. MALLORY & CO., Inc.
INDIANAPOLIS INDIANA
CABLE ADDRESS — PELMALLO

Use
YAXLEY
REPLACEMENT
VOLUME CONTROLS

? ?



(MECHANICAL AND DESIGN PATENTS PENDING)

*The Most Revolutionary Development
Since the Dynamic Speaker!*

Emerson Radio

NEW . . . 1938 LINE

Sensational new features . . . Striking new models . . . New styling . . . COMPLETENESS of line . . . New national and local advertising and promotion methods . . . New and better ways of capitalizing the ever-increasing popularity of Small Radio—by the "World's Largest Maker of Small Radios."

**FIRST DISTRIBUTOR SHOWING—JUNE 14 and 15
HOTEL NEW YORKER
NEW YORK, N. Y.**

**FIRST DEALER SHOWING—JUNE 16, 17 and 18
HOTEL NEW YORKER**

Complete details of the Emerson proposition will be available to the trade at distributor showings in June and July.



*Hold Everything Until You've Seen
the New 1938 Emerson Line*

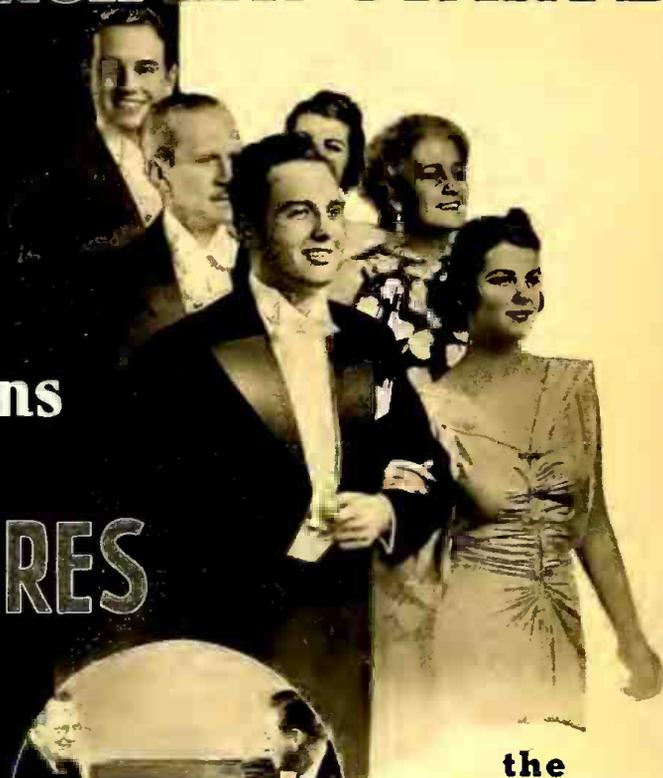


EMERSON RADIO AND PHONOGRAPH CORPORATION • 111 Eighth Avenue, NEW YORK, N. Y.
CABLE ADDRESS: EMPHONOCO, NEW YORK

World's Largest Maker of Small Radios

THE GRAND MARCH HAS STARTED

The **NEW** Stromberg-Carlsons with Exclusive **SELLING FEATURES**



Here is the line on which Stromberg-Carlson has lavished all its resources of engineering and designing skill—to produce the most notable radios which shall be offered on this year's market.

Here are radios with improvement after improvement designed to add even further to the quality of Stromberg-Carlson's famous natural tone. Radios with advancements in cabinet idea which we believe will mark a new period in radio style and beauty.

Here is a line of such broad price range that it covers buyers of every degree of purchasing power. A line where there are real features whose advantages a customer can see for himself—the most irresistible kind of selling. A line for a dealer to tie to and one with which he can make money through every month of the year.

Stromberg-Carlson radios range in price from \$55.00 to \$1050. Models with the exclusive Stromberg-Carlson Labyrinth from \$149.50. (All prices slightly higher in Southeastern States and West of the Mississippi.)

STROMBERG-CARLSON TELEPHONE MFG. CO.
ROCHESTER, N. Y.

THERE IS NOTHING FINER THAN A
Stromberg-Carlson



the **ACOUSTICAL LABYRINTH**

A feature that every prospect can see, hear and understand.



FLASH TUNING

"As quick as a wink"

An automatic station selector with advanced selling features new to Radio appealing to all.



CARPINCHOE LEATHER SPEAKER

.....like the Labyrinth its advantages are easily and convincingly explained and demonstrated.



No. 225-H



No. 228-H



No. 230-H



No. 240-H

TABLE MODELS IN THE HORIZONTAL STYLE POPULARIZED BY STROMBERG-CARLSON



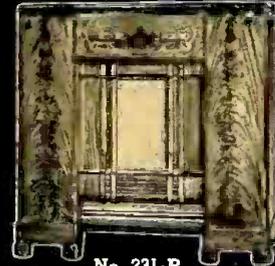
No. 228-L



No. 230-L



No. 229-P



No. 231-P



No. 240-L



No. 240-M



No. 240-S



No. 240-W

CONSOLES AND FURNITURE MODELS YEARS AHEAD IN BRILLIANCE OF DESIGN



No. 240-R

No. 255-L CONSOLE (at right). Five Range. Flash Tuning. Tri-Focal Tuning Indicator. High Fidelity. Acoustical Labyrinth. Selectorlite Dial. Carpinchoe Speaker. Walnut finish.



No. 250-L



No. 260-L

END TABLE AND COFFEE TABLE MODELS



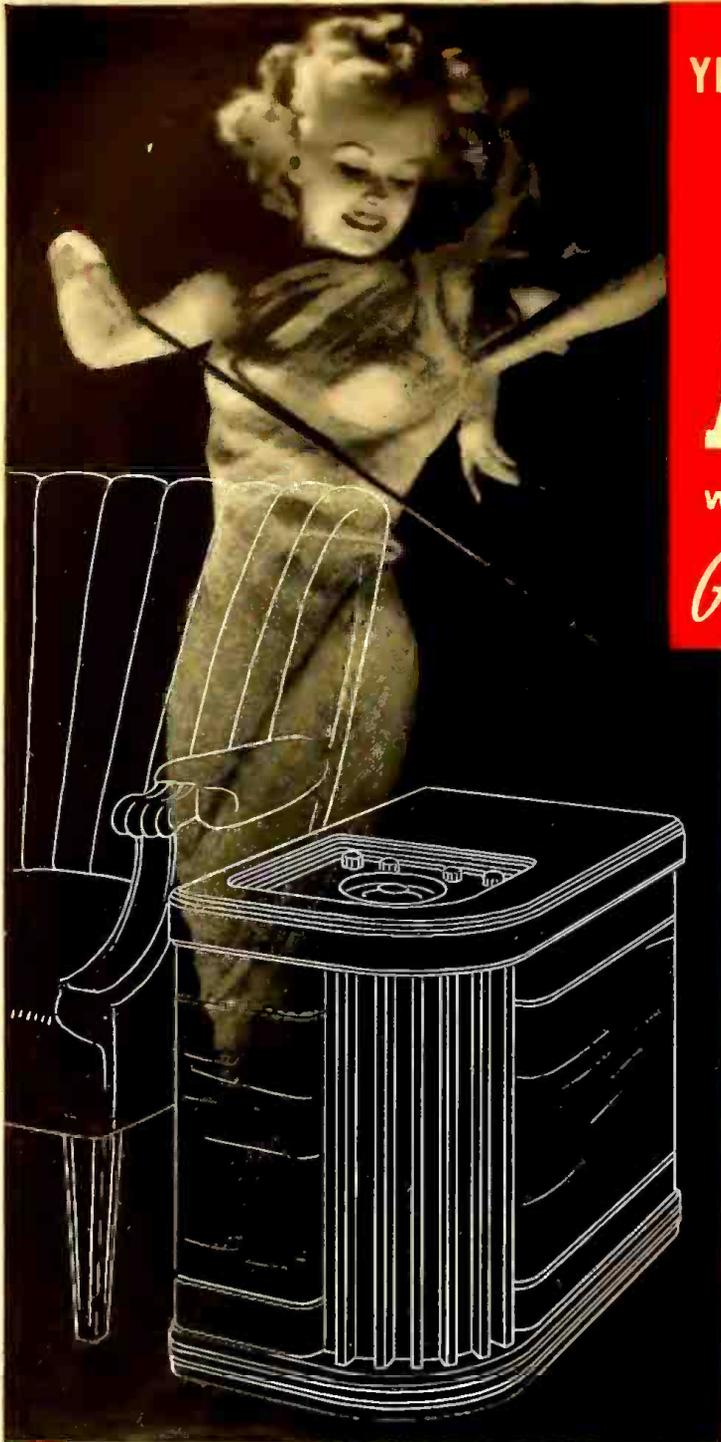
No. 231-R



No. 231-F



THERE IS NOTHING FINER THAN A
Stromberg-Carlson



YEARS OF RADIO PROGRESS NOW

Climaxed

BY THE NEW 1938

ARVINS

WITH THE
Phantom Filter Circuit

Beautiful styling—sparkling performance—and attractive prices—a complete line of 20 distinctive radios—consoles and table models—2 and 6-volt battery sets—and AC-DC portables. Everything to get sales action and make profits for you on the new Arvins this year.

● Arvin's Phantom Filter Circuit is today's big contribution toward perfected radio reception. It's an exclusive feature—an Arvin engineering development that puts more punch in the performance of the new 1938 models—and puts more punch in sales. You'll appreciate the value of the Phantom Filter Circuit—Arvin's dominant sales feature—and all the other modern improvements, when you see and hear the new models.

Arvin backs you up with plenty of selling support. A big program of nation-wide consumer advertising. Impressive merchandising displays for floor and show window plus other promotional material that gets attention and helps you cash in on the new Arvins with the Phantom Filter Circuit. See your jobber.

NOBLITT-SPARKS INDUSTRIES, Inc., Columbus, Indiana
Also makers of Arvin Phantom Filter Car Radios



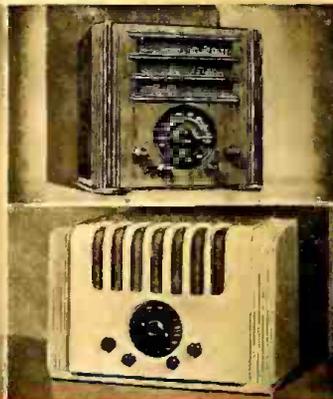
Arvin Phantom Bachelor
Model 628CS



Arvin Phantom Prince
Model 1237



Arvin Phantom Queen
Model 1247



Phantom Baby Model 518 (above)
Phantom Blonde 568A (below)

PHILCO TUBES



bring you
BIGGER SALES
MORE PROFITS
because

- 1.** There are more Philco sockets *than* any other.
- 2.** More people *know* Philco Tubes.
- 3.** More people actually *prefer* Philco Tubes.
- 4.** There is greater acceptance of the name **PHILCO**.
- 5.** Philco Tubes are the easiest tubes in the world to sell.

—Ask About **FREE DISPLAY**

Be sure to get one of the new Illuminated Flasher Philco Tube Displays. For your window or counter. It's yours—**FREE**. Ask your distributor.



How the C.C.C. Finance Plan
HELPS RADIO DEALERS SELL PROFITABLY

COMMERCIAL CREDIT COMPANY financing has proved its value to thousands of successful merchants as an aid in closing sales. Its name is so well-known to American families, there is no hesitance in accepting CCC financing . . . no doubt about the fairness of the terms.

But your financial interest in time payment sales doesn't end with the signed order and the down payment. There has to be a final reckoning before your full profit is assured.

Commercial Credit Company's twenty-five years experience in credit investigation and collection is a bulwark of strength for you. It weeds out the bad risks that mean trouble and loss from failure to complete payments. It assures you of the maximum of profit. Get the most out of the big year ahead of you with Commercial Credit Company service. Nation-wide operation through 179 offices in principal cities assures close cooperation, prompt remittance.

COMMERCIAL CREDIT COMPANY

COMMERCIAL BANKERS
 CONSOLIDATED CAPITAL



HEADQUARTERS: BALTIMORE
 AND SURPLUS \$60,000,000

FINANCING SERVICE FOR MANUFACTURERS, DISTRIBUTORS AND DEALERS THROUGH 179 OFFICES IN THE UNITED STATES AND CANADA



Now being featured in leading department store windows like this one.

This Window Courtesy of Marshall Field & Co., Chicago

Hot Sellers for 1937-1938!

The Radios of the Future . . . Not One or Two But **SIXTEEN** New ZENITH Arm Chair Models from \$29.95* Up!

Last year, a single Arm Chair Model that Zenith pioneered enjoyed such sensational turnover that production never caught up to dealers' orders—nor to public demand.

This year, *you* can cash in on the fastest growing trend in radio—the amazing demand for beautiful and useful sets that “put the world at your elbow—not on a table or against the wall.”

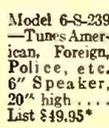
Zenith's huge new factory is—as *always*—geared to the latest—and the hottest! *Again* a year ahead, it gives you the



Model 15-U-246—Tunes American, Foreign, Police, Ultra-Short, etc. 12" Speaker, "Robot" Dial, Electric Automatic Tuning, 20" high . . . List \$185.00*



Model 9-S-244—Tunes American, Foreign, Police, etc. "Robot" Dial, Electric Automatic Tuning, etc. 22" high . . . List \$99.95*



Model 6-S-239—Tunes American, Foreign, Police, etc. 6" Speaker, 20" high . . . List \$49.95*



Model 5-R-236—Tunes American Broadcasts, 5" Speaker, 21" high . . . List \$29.95*



Zenith short wave receivers of three bands or more are sold with antenna which retails at \$5.00 EXTRA.

most beautiful Arm Chair Line imaginable.

There will be plenty of *models*—plenty of *each* model—plenty of *sales!*

Get your share! Ask your distributor about the Zenith Arm Chairs with year-ahead features in four cabinet finishes.

The 1938 Arm Chair Line includes AC Sets, AC-DC Sets, Two-Way 110 v.-6 v. Farm Sets, two Phonograph Combinations (AC and AC-DC) and a Radio Bar.

The prices are amazingly low—Order now! They're **HOT!**

ZENITH RADIO CORPORATION, CHICAGO

**List Prices—Slightly Higher in the West and South*



America's Most Copied Radio

AGAIN A Year Ahead!

Zenith Arm Chairs are being featured in national magazines. The above Saturday Evening Post page of June 19, starts the arm-chair advertising Parade.

Zenith 1938 display material is outstanding. Here is a sample cut-out in 8 colors. Ask your distributor.

YOUR PHILCO DISTRIBUTOR IS GETTING AN EARFUL ABOUT AN EYEFUL!

EASTERN PHILCO DISTRIBUTORS are meeting at White Sulphur Springs . . . Western Philco Distributors are assembling at Del Monte.

Good news . . . BIG news is in the making! And as Philco distributors hear and see what Philco is planning for 1938 . . . they're getting such a thrill that they'll be hunting the fastest trains and swiftest planes to bring the glad tidings to you!

What is Philco showing them? It wouldn't be fair to break the news yet . . . but there's one thing we can say. Get set for the greatest of all Philco years!

PHILCO RADIO & TELEVISION CORPORATION

Staff—

DARRELL BARTEE
M. H. NEWTON
B. V. SPINETTA
VINTON K. ULRICH

LEE ROBINSON
Sales Manager

RADIO TODAY

ORESTES H. CALDWELL
Editor

M. CLEMENTS
Publisher

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Tel. PLaza 3-1340

Vol. III, No. 6

WAGE-EARNERS' PURCHASING POWER ABOVE '29

★ Employment in the nation's 25 major manufacturing industries is now higher than it was in 1929, according to the National Industrial Conference Board. Growth of employment has been particularly marked during the past year, the average number of wage-earners employed in March, 1937, being 17.3 per cent higher than the number at work in March, 1936.

Real weekly earnings, or the purchasing power of wages, of workers in the manufacturing industries are also considerably higher today than in 1929. Actual weekly earnings averaged \$27.49 in March and were 3.7 per cent lower than the 1929 average of \$28.55. Since the cost of living in March, however, was 12.2 per cent lower than in 1929, real weekly earnings were 9.6 per cent above the 1929 level.

Not only are millions of wage-earners thus provided with surplus earnings to purchase radio sets, but average hours of work have been reduced 14 per cent since 1929, affording the workers more hours for radio enjoyment.

PIANOS ARE PLUGGED IN

★ Those glimpsing the enormous possibilities of radio-tube musical instruments have already sailed into the piano business. Half a dozen piano companies will show commercial tube-amplifier pianos at next month's convention of Music Merchants, Hotel New Yorker, New York.

Excitement is partly due to the fact that the new instruments will appear in the half-pint spinet designs which are already the rage. According to Benjamin F. Miessner, Millburn, N. J., inventor, who has sponsored the electrical principle concerned here, the newcomers will give only

piano performance (omitting all organ and tone-color variation) and will out-play the grandest of the concert grands. Simple and altogether delectable, the electric outfit will cost about \$500 and will pass the performance of a \$3,000 instrument.

As the new radio piano debuts in the musical world, the sound industry notes with pleasure that each instrument will require power amplifiers and speakers (an amplifier of about 110 db gain, 2 megohm input, and 30 to 50 audio-electrical watts output).

RADIO EXCISE TAX UP 11%

★ Internal Revenue Bureau collections of the Federal 5% excise tax on radio and phonograph apparatus in March, 1937, were \$360,922.33, an increase of 7.4% over March, 1936. March excise taxes on mechanical refrigerators were \$1,075,209.14, compared with \$778,309.04 in March, 1936.

For the first quarter of 1937 (January, February and March), radio excise tax collections were \$1,509,353.85, an increase of 11% over the first quarter period of 1936.

SIDEWALKS OF NEW YORK—SAME RADIO, MANY PRICES

★ A study recently undertaken by the New York University School of Retailing shows marked variations in the price of a single radio set in New York City. A standard set was "shopped" in department stores, in specialty stores and also through five agencies that make available to final consumers wholesale or at least less-than-retail prices.

The following table shows the prices available on the identical article at approximately the same time, from the different sources:

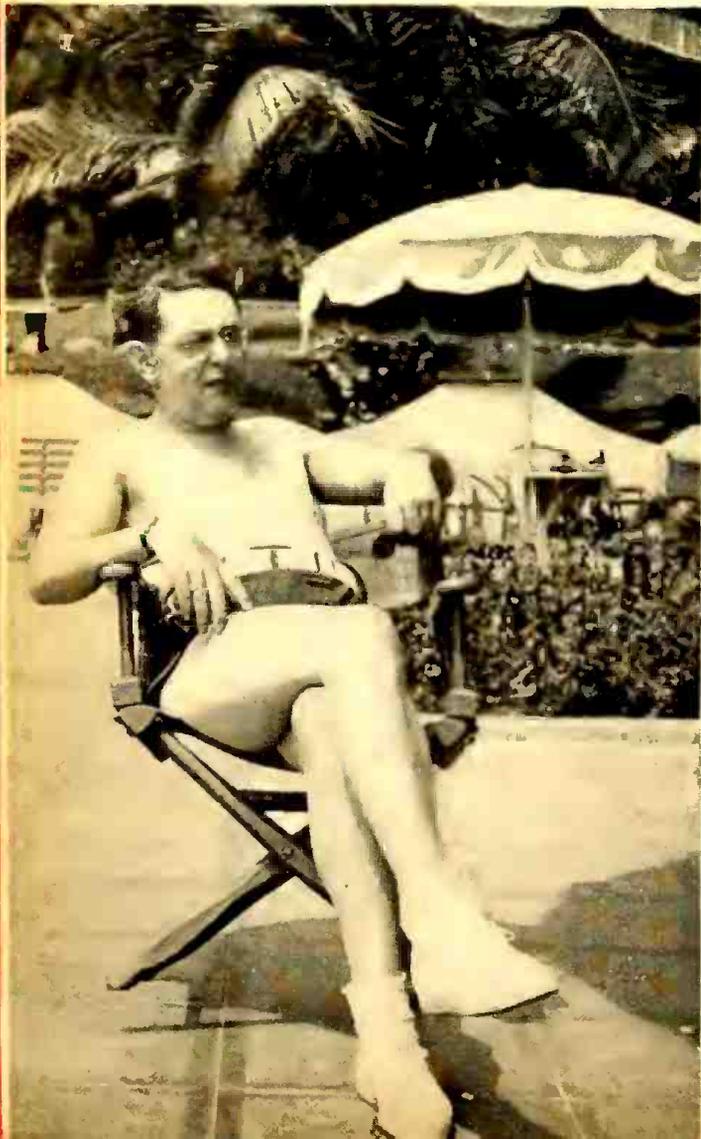
Range in cut-rate radio and household-appliance stores.	\$90 to \$98
Price to consumer through commission broker A.....	\$91.50
Price to employees of an insurance company	\$106.80
Price to consumer through commission broker B.....	\$109.80
Price to employees of a bank..	\$109.80
Price to employees of a university	\$109.80
Range in semi-promotional dept. stores	\$109 to \$115
Range in promotional dept. stores	\$142.50 to \$145
Range in conservative dept. stores	\$178

RADIO DATES AHEAD - CONVENTIONS

- June 8—10—Thirteenth Annual Convention, RMA, Hotel Stevens, Chicago.
- June 10—13—National Radio Parts Trade Show, Fifth Annual Convention, IRSM, Hotel Stevens, Chicago.
- June 10—12—Kadette showing, Hotel Blackstone, Chicago.
- June 14—19—Philco distributor convention, White Sulphur Springs, W. Va.
- June 14—15—Emerson distributor convention, New Yorker, New York City.
- June 20—22—Annual Service Convention and Trade Show, St. Paul, Minn.
- June 20—23—National Association of Broadcasters, Sherman, Chicago.
- June 21—22—Sentinel distributor convention, Medinah Club, Chicago.
- June 22—23—Annual Radio Trade Show, Boston.
- June 26—29—National Association of Music Merchants convention, New York City.
- July 5—17—Majestic radio showing, Furniture Mart, Chicago.
- July 7—8—Stewart-Warner distributor convention, Edgewater Beach, Chicago.

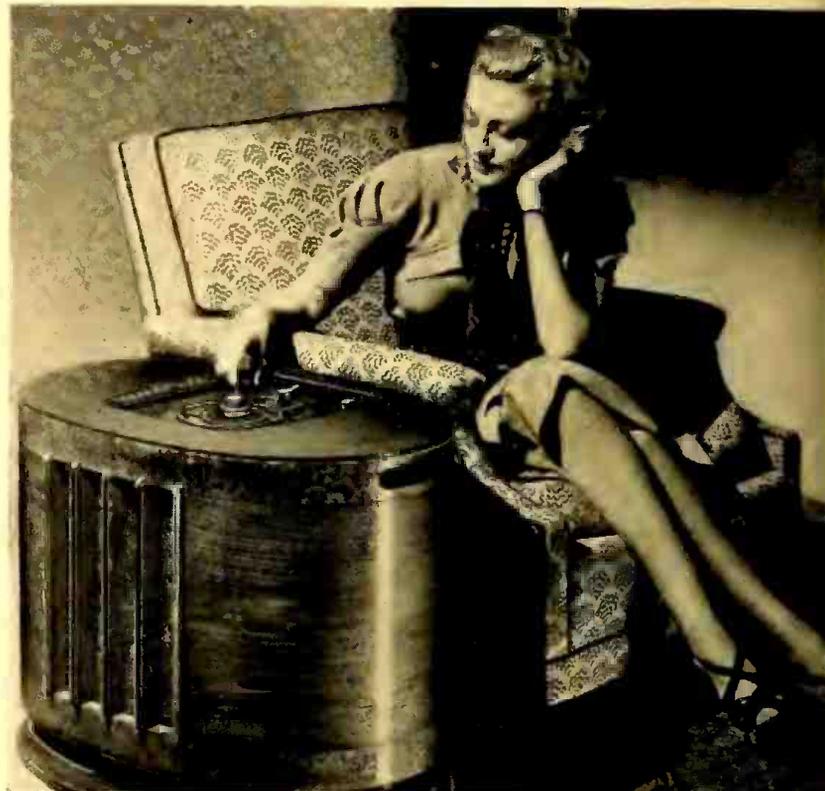


Top-bracket singer Grace Moore is filmed, recorded, applauded at the opera, but heard by most millions as a Columbia broadcast favorite.



Philly peace and brotherly love, are signaled by Judge Smith, Penn Athletic prexy, and Philco's Boake Carter, J. M. Skinner and Sayre Ramsdell.

IN RADIO'S



Streamlines run in an oval on Motorola's contribution to leisurely listening.

Zenith's Commander E. F. McDonald who has urged the industry into "arm-chair-radio" styling, with R. E. McGrevey, Chicago branch manager.

Charles A. Verschoor, the Kadette king, gives his Argus camera a test with this picture trimmed with sunshine and palms.





A new ovalized dial plus a cabinet styled with shelves—a Zenith eye-catcher.

BIG PARADE



Glass-topped "coffee-table" radio designed for room-center use, an instrument of practical elegance by Stromberg Carlson.

Dorothy Page's songs are just as OK as the attractions shown here, think the NBC fans.



Not content with a feature overseas dial, RCA goes "electric tuning" with armchair remote control. RCA-Victor personalities here, left to right, Raymond Rosen, H. C. Bonfig, Bob Shannon, L. W. Teegarden, and David Sarnoff himself.





Radio announcer John Fraser and his bride got a "shop" salute from studio buddies. (Aside to Amperite: they're your microphones!)



Welcomed to radio sales floors is a home movie camera department, to seize traffic via the interest in outdoor films; here, it's Univex.



Radio knows Donna Crede as an actress in NBC's "Backstage Wife."



E. H. Vogel, radio-managing GE.



H. B. Sparks of Sparks-With.

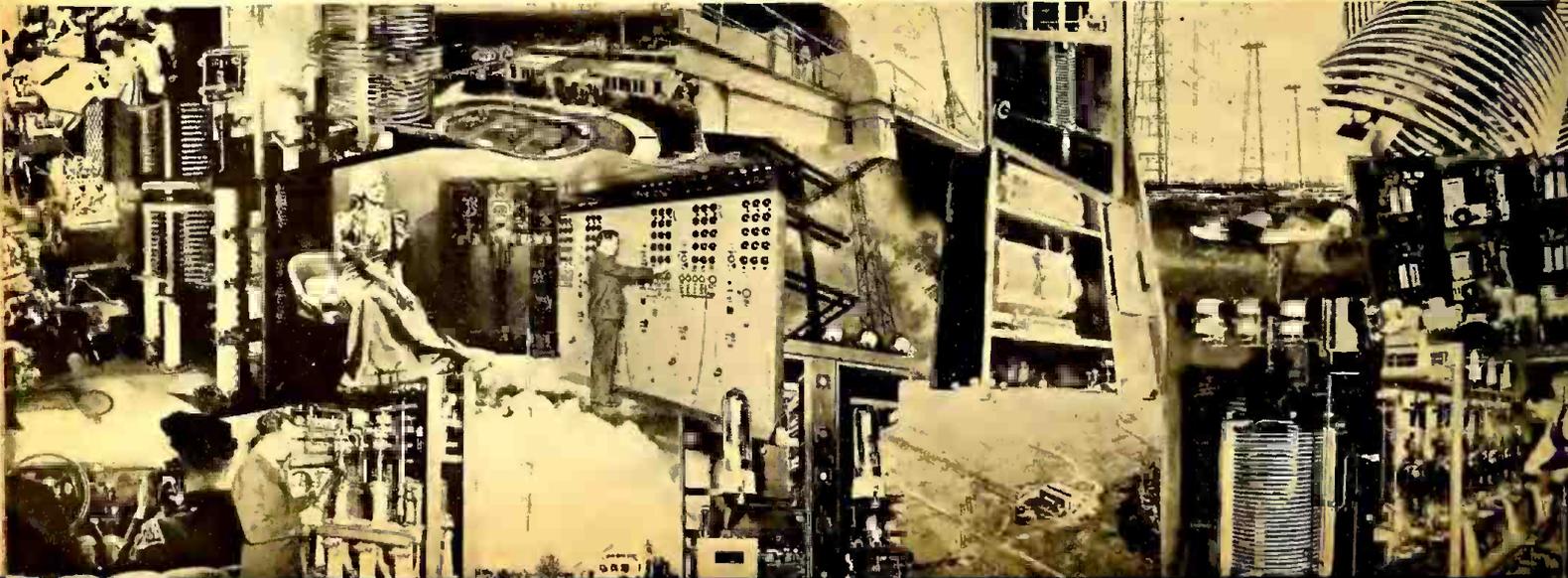


B. Abrams, Emerson's master-mind



J. M. Marks bears torch for Fada.

Below, a striking photo-outline of the radio industry, in a mural on Isolantite's office wall.





Respectfully and respectively presenting J. S. Knowlson and J. E. Otis, Board chairman and pres., Stewart-Warner.



Hot music comes in cool on this Crosley "box."

RADIO MEN, MAIDS AND MERCHANDISE



Laurette Fillbrandt, the pretty success of several dramatic features on NBC networks.



Farming at night requires a light for tractors; here's a Dun-Charger set to supply power from wind. C. L. Parris at controls.



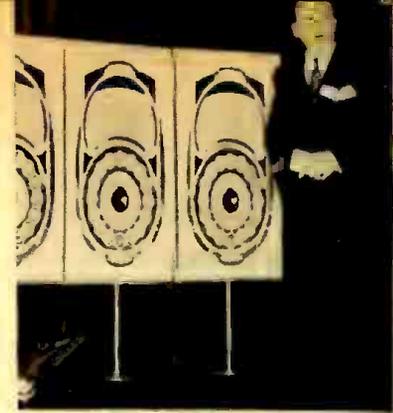
Six makers of mini-pianos now use tube-amplifiers to give \$3000-concert - grand quality. Here's inventor Miessner's own lab. model.



R. P. Almy and A. L. Milk of Sylvania tube sales organization.



W. Paul Jones, Fairbanks-Morse appliance manager, flanked by Jobber Tom Glasgow and Utility Manager Charles H. Morse



Parker H. Erickson, Fairbanks-Morse radio sales manager, and new dia



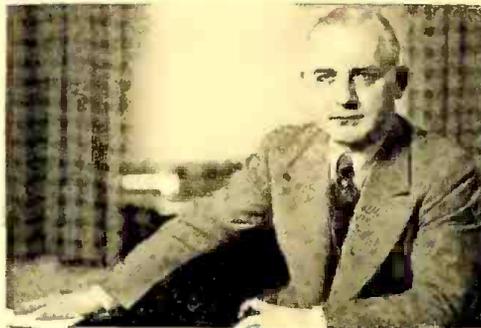
G. K. Throckmorton, executive vice-president RCAM, Camden, in center of group, with Ross Howard, H. C. Bonfig, Paul Richardson, E. R. Deacon, and W. Krause.



Gene Tracey, Zenith vice-president, with N. A. Terwilliger, sales prom. mgr. and John Brooks, aide to Comm. McDonald.



Jimmy Rasmussen, Zenith assistant sales manager, going into action.



Bob Lacey, new gm of Clarion.



B. Enoch, Ft. Wayne, with Zenith's E. Hermann.



Grunow headliners—"W.C." himself—Harry Alter, s.m.—C. A. Gerlach, g.m.—Jimmy Davin, sales prom. mgr.—"Tod" Keed, ass't sales manager.

Motorola jobbers are going to have a lot of trailers for demonstrating car and home radios—a scene outside paul Galvin's new Chicago factory.



THE NEW SETS FOR 1938



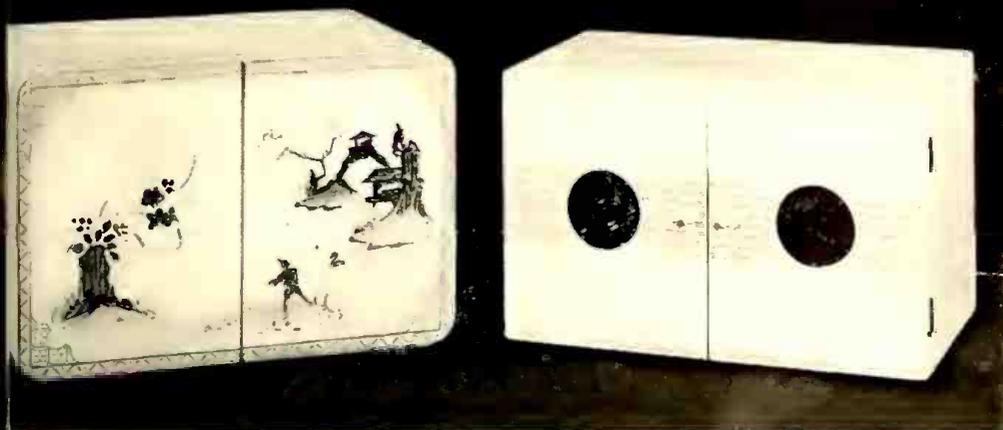
Admiral model 955-8K—automatic tuning with 8 tubes at \$89.95.



Arvin's Phantom Queen (1247)—12 tubes for \$140.



RCA with all-wave and 8 tubes—model 86E—\$89.95
Wilcox-Gay's wall model with 5 tubes for \$24.95

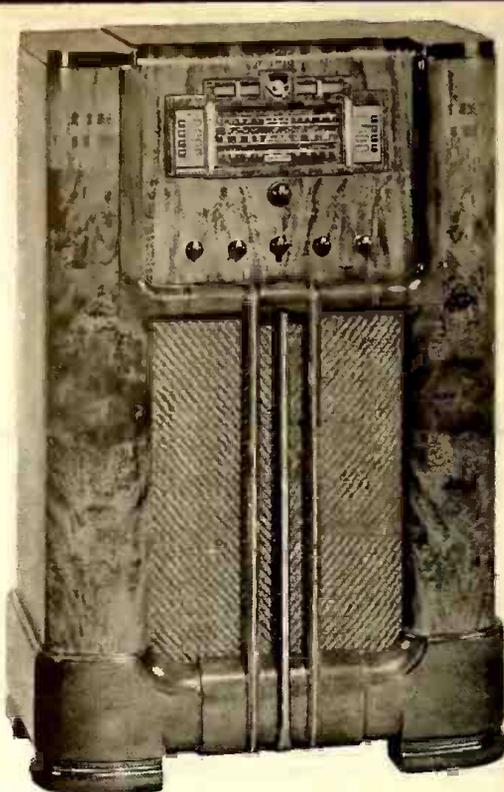


Espey models—left in hand painted Chinese lacquer—right in ivory leather.
Stromberg's 231R—7 tubes—\$135. Zenith 5-R-236—5 tubes—\$29.95





Motorola model 10Y—10 tubes, talking dial, high-lite control—\$99.95.



RCA-Victor electric tuning model 811K. 11 tubes and sonic-arc magic voice—\$150.



Fairbanks-Morse model 9AC-4 with 9 tubes and automatic tuning. Wide arc tune diffuser—\$105.

CONSOLES 1937-38

Stromberg - Carlson 249 - R has 11 tubes and tri-focal tuning—\$197.50.

★ Simplified tuning for easier set sales—such is the trend of the 1938 receivers. With General Electric it's *Touch Tuning* employing push buttons and a motor drive. Sparton's instantaneous station selection is featured as *Selectronne*.

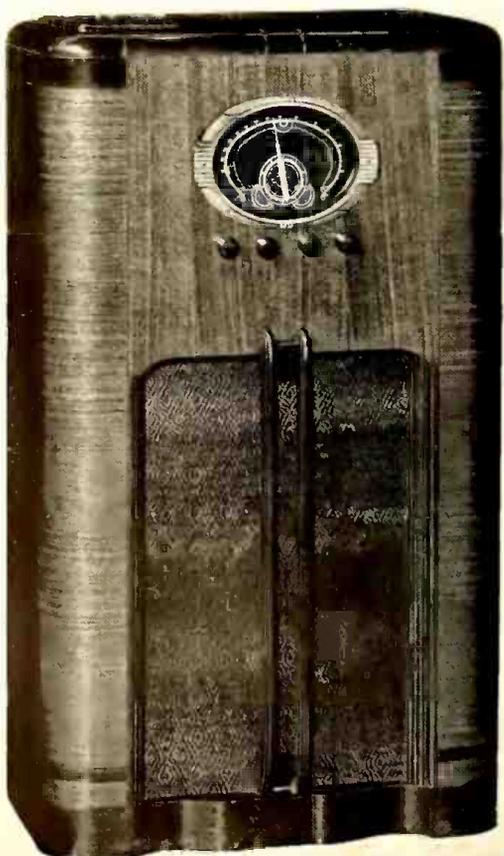
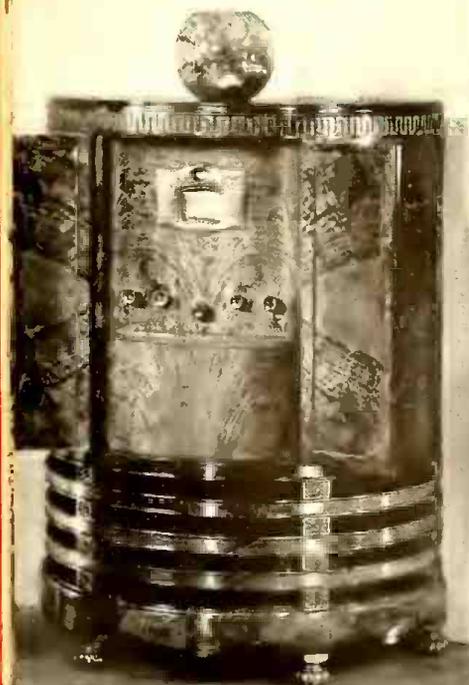
Other systems are RCA-Victor's *Electric Tuning* with push buttons, the Zenith *Robot Dial* with electric tuning which provides a motor drive for rapid tuning from one part of the dial to another;

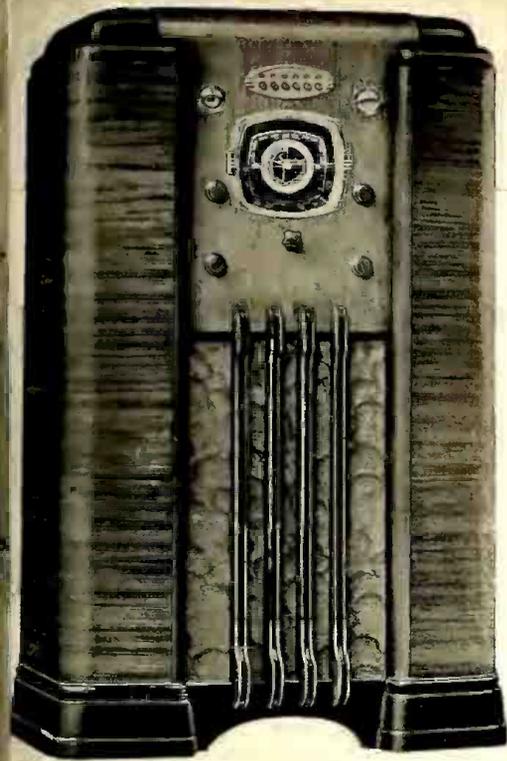
Stromberg-Carlson's *Flash Tuning* which selects up to 7 stations. *Network Tuning* is the name of Motorola's system. The Stewart-Warner system will select any station of fifteen.

Telephone dial tuning has been adopted by numerous manufacturers, including Fairbanks-Morse, Wells-Gardner, Clarion, Troy, Arvin, Admiral, Wilcox-Gay. This year Grunow features *Super-Teledial* in its line.

Belmont model 840 — all - wave with 8 tubes and cathode-ray tuning.

Remler's Coronation model 89—11 tubes and horizontal tuning dial—\$139.90.

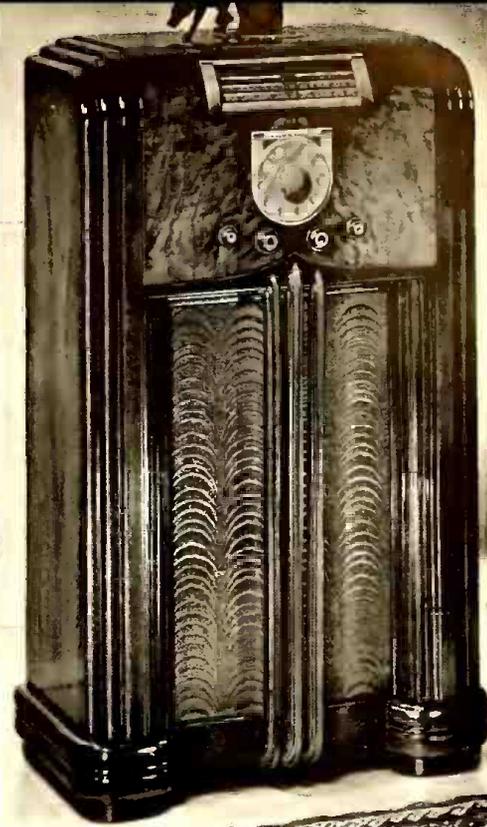




Sparton model 1068 with Selectronne instantaneous tuning for 6 stations.



Zenith 9-S-264 console—9 tubes with electric tuning and robot dial—\$124.95.



Admiral tilt-tuner—11 tubes, AFC, automatic tuning. Model 935-11S—\$119.50.

sets using the motor type push-button tuning giving the listener real arm chair control.

Furniture type sets are being introduced—Stromberg has desk type, coffee table and end table sets, while Arvin has a bookcase radio and chair model set. Zenith has arm chair, bookcase and bar designs. Other manufacturers with chair models are RCA, Kadette, Admiral, Fairbanks-Morse, Motorola, Sparton, Mission Bell, Grunow, General Electric.

Complete specifications of the new sets are given in Part II and following pages. From these it will be seen that automatic frequency control is gaining popularity—being used in many of the larger

sets. Octal type glass tubes are in the majority. Acoustical compensation of one type or another is employed more generally than ever before, thus insuring the best possible tone.

Cabinet styling is going streamline to a considerable extent while much emphasis is being placed upon the graining of the veneers, as inspection of the accompanying pictures illustrates.

Key to the identity of new radio-set features appearing on the front cover, is given on page 120.

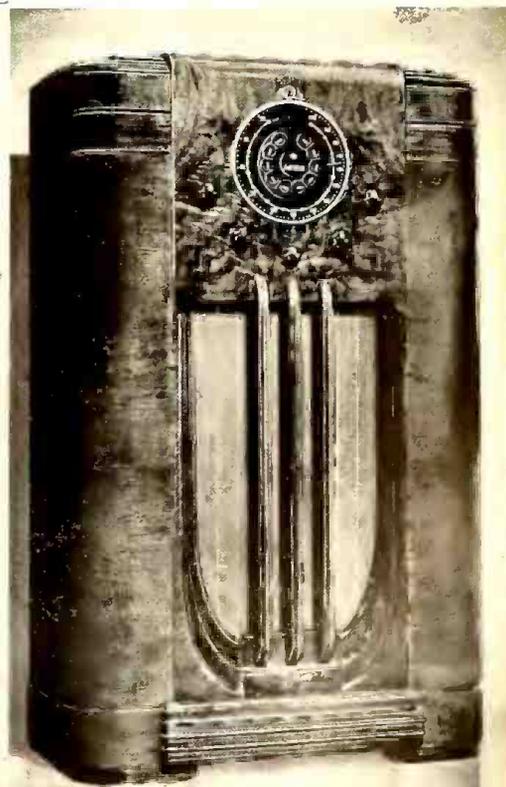
Other aids to easy tuning are found in the new dials. The overseas type of dial (rectangular) has been adopted by RCA and has leading short-wave stations listed. Other dials with one-scale-at-a-time arrangements prevent confusion when tuning—on some models it is accomplished by lighting and others do it by actually changing the scale with the wave switch.

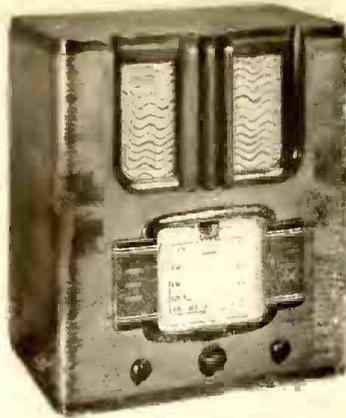
Remote controls are available for the

Grunow 1183 with Super-teledial automatic tuning—11 tubes, all wave—\$149.95.

Lehman Port-o-matic phonograph combination with all-wave radio.

Arvin Phantom Prince model 1237—12 tubes, presto station changer—\$99.50.





Arvin 6-volt battery model 617-B
—6 tubes, 3 bands—for \$59.95.

RCA 10-tube model 810T with
sunburst dial—\$89.95.

Zenith 9-S-32 with electric
tuning and robot dial—\$89.95.

Admiral's 990-6Y can be placed
vertical or horizontal—\$24.95.



Fairbanks-Morse model 5AT1, 5 tubes—\$19.99.

Wilcox-Gay's A33 with automatic tuning—\$34.95

General Electric F63 with louvre dial—6 tubes

★ In the table model field, there is a distinct trend toward the horizontal "continental" type of set, as opposed to the vertical models which predominated in American radio in previous years. The relative number of horizontal versus vertical table sets reproduced on these pages, is an index of this transition in design.

In many of the 1938 lines, one or more

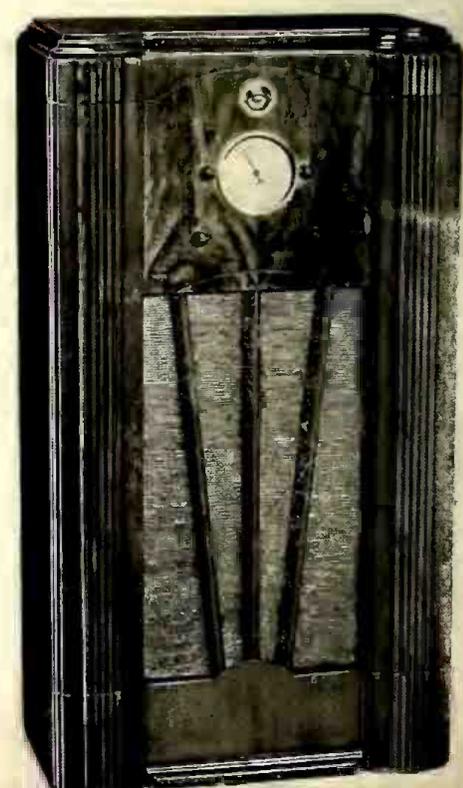
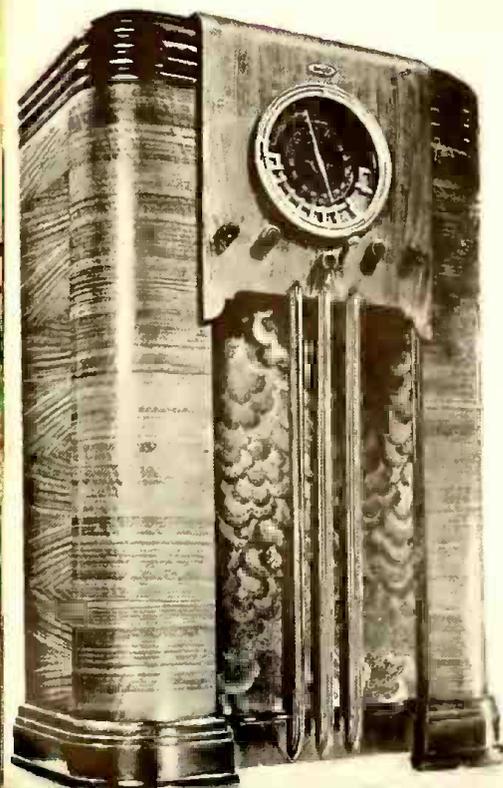
special "center-of-floor" models along the lines of the "arm-chair radios," have been introduced, in an effort to "get the radio set away from the wall" and make it useful and accepted as a central article of furniture. Coffee-table sets, cocktail-bar radios, cellarette radios, and desk-radios are notable among the 1938 departures from the classical wall con-

sole. Aim behind all these center-of-floor models is to out-date the consoles of former years and make them as passé as the straight-front radiators on the cars of yesteryear! In this way it is hoped to make the radio audience more style-conscious of the sets to which it listens a number of hours a day, but which it must look at many more hours a day!

Knight receiver featured by Allied Radio Co.

General-Electric's F-107 with touch tuning.

Climax's Esquire Jr.—7 tubes AC-DC—\$49.95





Remler 45 with 7 tubes, all-wave—\$54.90.



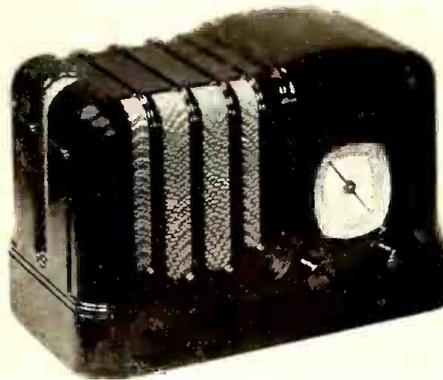
Clarion model 691 with dial tuning—\$49.95.



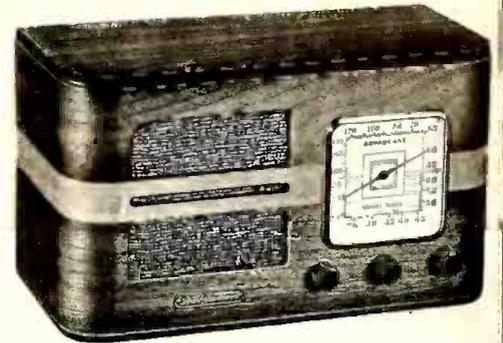
Arvin's 6-tube 618 with shortwave—\$34.95.



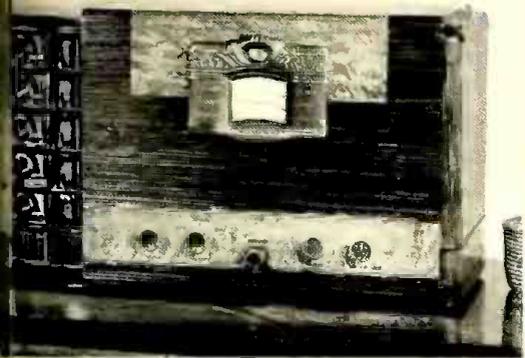
Motorola 5T2—5 tubes, dual speakers for \$59.95.



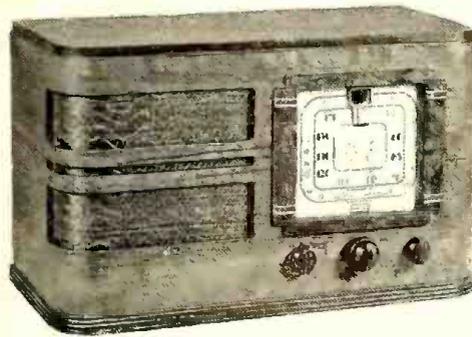
Belmont's 6-tube AC-DC set—model 602.



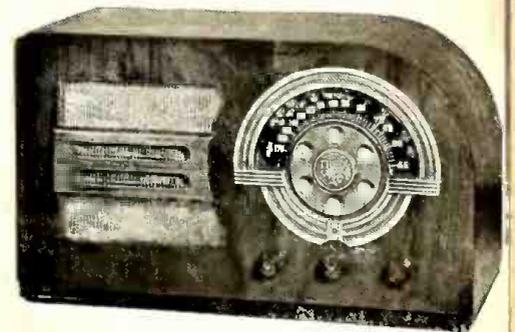
Freed-Eisemann FE-28, a 6-tube set at \$29.95.



Stromberg-Carlson's 240-H with 11 tubes—\$117.



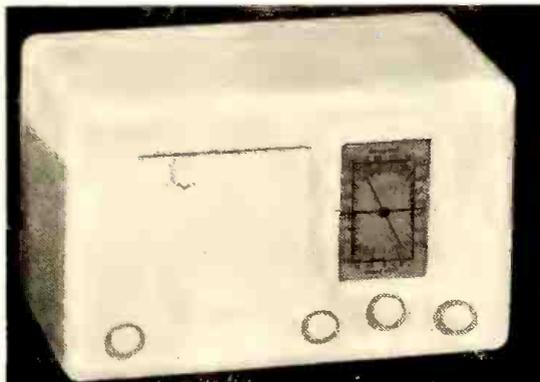
RCA 87-T—all-wave, 7 tubes offered at \$49.95.



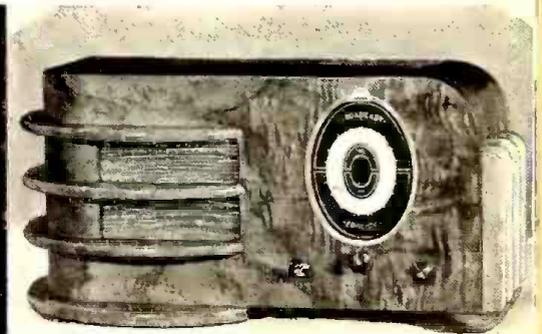
Troy model 100 with telephone-dial for \$32.50



Wells-Gardner 108A1-704—8 tubes, tel. dial.



Espy model 771AW—white case, 7 tubes—\$45.

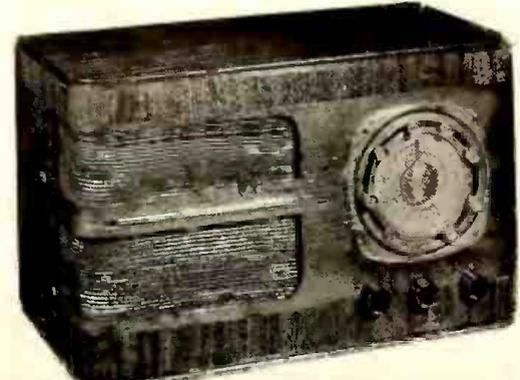


Climax's Emerald—6 tubes and AC-DC at \$36.

Clarion model 770 with 2-band tuning—\$19.99.

Grunow 588 at \$36.95—teledial tuning, 5 tubes.

Admiral 975-6W—shortwave, 6 tubes for \$34.95.





TODD



BUHLMAN



LUCIANI



HERBERT



LESTER



LESTE

SUMMER TIPS IN RADIO SELLING

Dealers contribute tested promotion ideas for coming weeks

June 21-30

- 21—Remind all fans of the big broadcast tomorrow of the Braddock-Louis ring battle in Chicago.
- 22—Braddock-Louis Fight.
- 23—Invite prospects to leave their summer addresses on a bulletin sheet in your store.
- 24—Use in your ads some snapshots of your salesmen leaving for vacation with a portable set prominently included in the luggage.
- 25—Cash in on the fact that June is a month of marriages. Plug radio as an ideal wedding gift.
- 26—Pick the most catchy sales phrases found in new sales promotional material issued by the manufacturers—group them as “flashes that will interest the modern family.”
- 27—Sunday.
- 28—Cooperate with sporting goods houses to pick up new names of those interested in baseball broadcasts.
- 29—Criss-cross your window with new antenna pole rods.
- 30—Place extra rugs and chairs in one corner of your store for a special display of arm-chair models.

July 1-20

- 1—Issue a bridge score card with your store ad on it.
- 2—Use red, white and blue sets in

your windows for a Fourth of July effect.

- 3—Publicize the details of special broadcasts to be staged by networks tomorrow.
- 4—Sunday (Independence Day).
- 5—Re-check service records and go after owners of old sets with lists of features available in new receivers; show them the difference in demonstrations by appointment.
- 6—Revamp your letterhead to include colored reproductions of sets finished in various shades.
- 7—Start a campaign on radios in bedrooms, using these sales points: compactness, decorative design, ease in dialing, volume control, silent radio, automatic timing.
- 8—Display two placards with these heads: “How You Tuned a Radio Six Years Ago” and “How You Can Tune Today.”
- 9—Cash in on the harvest period in farm sections; plug new farm sets in terms of new prices for farm products.
- 10—Install a moving spotlight so that it falls alternately on a series of well-polished consoles.
- 11—Sunday.
- 12—Outline the advantages of “personal radio for summer.”
- 13—Connect with a local stage show; exchange PA service for an announcement about your store.

14—Divide your women prospects into groups according to age; sell them on listening habits in respect to dance bands, kitchen features, hobbies, etc.

15—Arrange to sell home movie equipment, using the outdoor angle for this season.

16—Have your serviceman set up a large oscilloscope so that customers may see the sound waves coming in with a program.

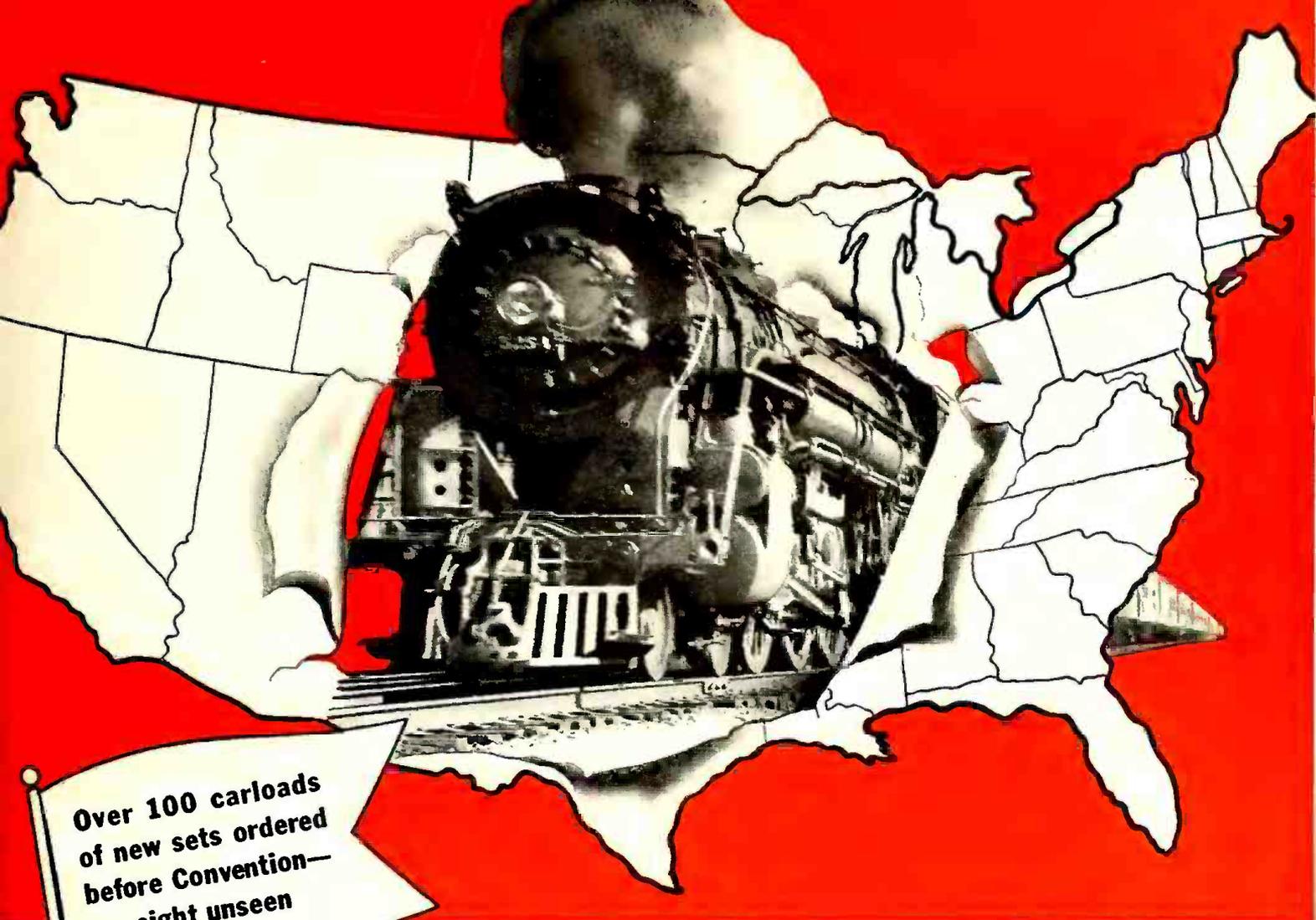
17—Contact summer schools. Ask them about PA business for every event they schedule.

18—Sunday.

19—Separate prospects who live in old apartment buildings, send them specially prepared suggestions for better reception.

20—Commission local music teachers to report to you on prospects for phonograph-radio combinations.

★ Dealers whose pictures appear on this page as contributors to this month's sales calendar: Adeline Luciani, Roma Music Co., New York City; F. Buhlman, Bronx Boro Radio Service, Bronx, N. Y.; Ralph Todd, Logansport, Ind.; W. K. Cassidy, Oakdale Appliance Co., Oakdale, Pa.; Lawrence Herbert, Herbert & Newby, Wichita, Kan., and Raymond Lester, Lewis & Conger, New York City.



Over 100 carloads
of new sets ordered
before Convention—
sight unseen

**200 Freight Cars Needed
to Carry *RCA Victor* 1938
Sets Now on Way to Dealers
From Coast to Coast**

Orders taken at
Convention break
all RCA Victor!
sales records!



RCA

ELECTRIC



RCA Victor Model 811K—11-tube Electric Tuning model offers truly outstanding performance. Straight-Line Dial for simplified tuning; has Sonic-Arc Magic Voice, Magic Brain, Magic Eye, RCA Metal Tubes. This magnificent instrument (*f.o.b. Camden, N.J.*) \$150



Every time a prospect pushes a button you push the cash register



**Thousands of RCA Victor Radios Ready
EVERYBODY'S GOING**

Victor

TUNING



Is Only One Feature

**Sonic-Arc Magic Voice — Overseas Dial —
Armchair Control and Beauty-Tone cabinets
are other great sales-making advances**

NOW, for the first time, you can offer your customers *truly automatic tuning!* RCA Victor Electric Tuning is the first that's completely automatic. All your customers do to get a station is *push a button—there's your station.*

This sensational RCA Victor de-

**...and that means that with
this new feature YOU
start pushing the buttons
that mean PROFIT**

velopment is going to mean more sales for you—greater profits! Feature it. Every demonstration is a sale.

In spite of the sales power of RCA Victor Electric Tuning, the new 1938 line has many other features—55 in all—each designed to give your customers better performance and make sales easier for you. Get full details from your distributor—stock this magnificent new radio line and prepare for a Victory Year with RCA Victor!

*RCA presents the "Magic Key" every Sunday
2 to 3 P. M., E. D. T., on NBC Blue Network*



NEW **ARMCHAIR CONTROL**
Tune from your chair—easily, accurately—by pushing a button!



NEW **OVERSEAS DIAL**
Foreign and short wave stations are 50 times easier to tune!



NEW **SONIC-ARC MAGIC VOICE**
Makes the famous Magic Voice more tone-full than ever!

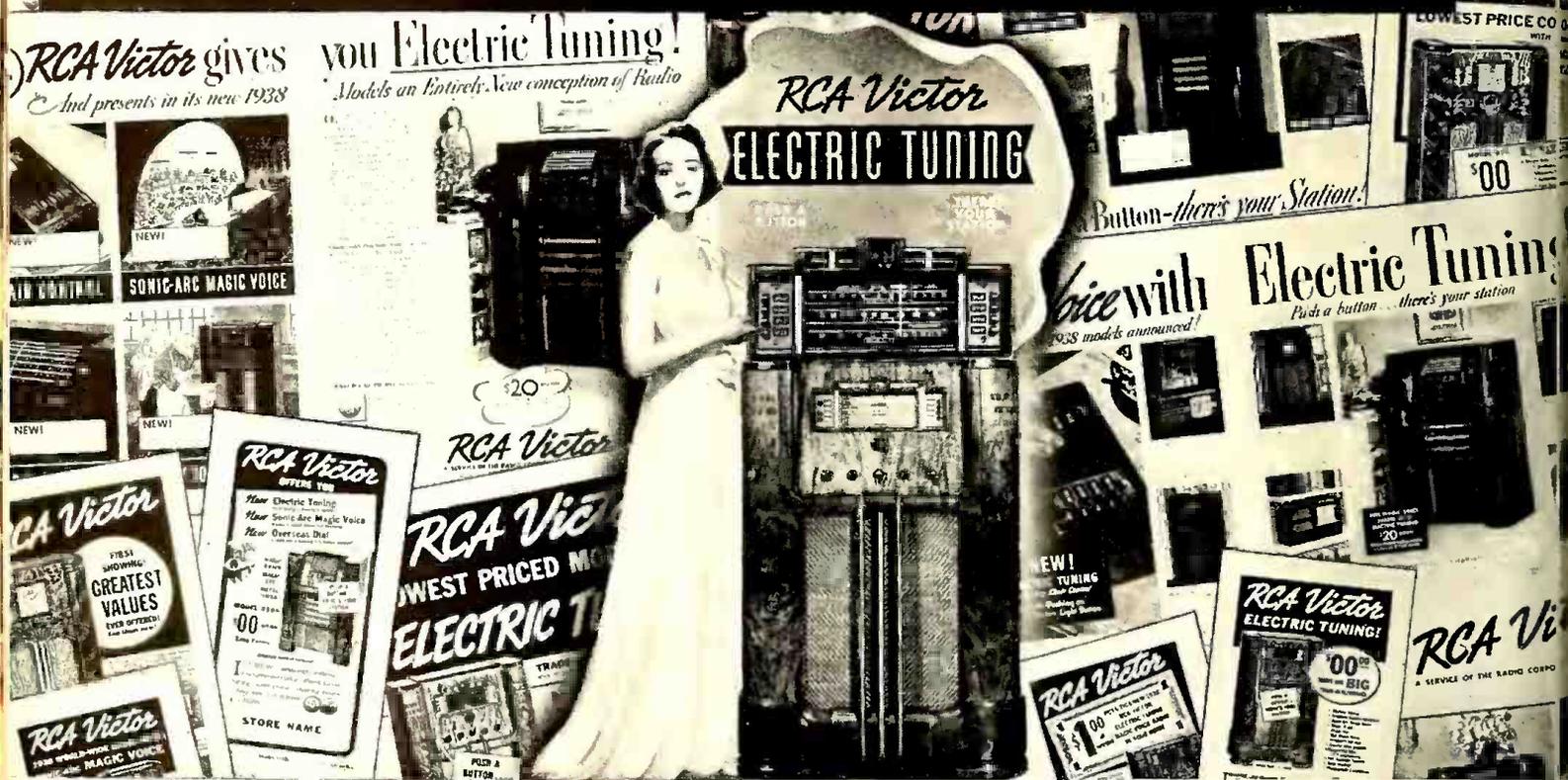


NEW **BEAUTY-TONE CABINETS**
Only RCA Victor offers you the Beauty-Tone cabinets!

**Now for Immediate Delivery!
RCA ALL THE WAY**

The New 1938 *RCA Victors* are a great line — and they're backed by

THE SWEETEST ADVERTISING STORY EVER TOLD



Electric Tuning...

"Push a Button—there's your station"... that slogan is already starting to click. So are the other great features. Every week there's an advertising set-up such as you never saw. Look at this! Spreads and single pages in the Saturday Evening Post and Collier's. Every two weeks in the Post *in color*—every three weeks in Collier's *in color*—there'll be real salesmanship in print.

Big national newspaper advertising that's powerful and hard hitting. Cooperative

advertising that is bigger, better, more compelling than ever before. The Magic Key Program—a full hour every Sunday.

AND beautiful, elaborate, effective display material—backgrounds, window cutouts, wall hangers, *everything*—WELL DONE.

ALSO presentation counter book of the whole line, catalogues, leaflets—a complete outfit of sales helps.



RCA Victor

RCA Manufacturing Co., Inc., Camden, N. J. • A Service of Radio Corporation of America

EVERYBODY'S GOING RCA ALL THE WAY

FADA *Marches On*

KEEP YOUR EYES ON FADA THIS YEAR!



**Fada Will Shortly Announce the Finest Radio Line In Its History
Everything New Except Its Reputation for Performance**

Watch for Showing Date in Your Territory

FADA RADIO and ELECTRIC COMPANY
LONG ISLAND CITY, NEW YORK

A good
line

WILCOX-GAY

for YOU!

Last year many important distributors and thousands of dealers enjoyed a most profitable season with Wilcox-Gay—This year these and more will have an even better year—with an even finer line of Wilcox-Gay receivers.

for **EXAMPLE**

This model with genuine automatic tuning... **\$34.95**



Five tube, two band superheterodyne, three gang condenser, automatic tuning giving instant choice of ten preselected stations, straight line dial. Dimensions: 17" x 9½" x 8".



The Wal-Radio

This new radio is placed on the wall as simply as hanging a picture.

Its sleek, modern form merges inconspicuously and pleasingly into any surroundings.

The dealers who sell this new item first will reap the big benefits. Don't delay—Order now.

\$24.95

WILCOX-GAY OFFERS YOU:

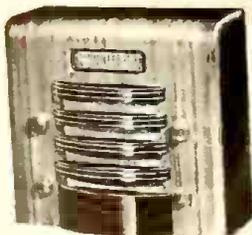
- 1—Merchandise good enough that distributors and dealers can safely recommend it.
- 2—Sales features, prices and discounts better than average.
- 3—Sane sales policies providing suitable cooperation with dealer and distributor.
- 4—A record of eighteen years of quality manufacturing and sound business management.

WILCOX-GAY CORPORATION
CHARLOTTE, MICHIGAN

Write for complete information and the name of your nearest distributor.

1938

COMPLETE LINE . . .



12 Models including **CONSOLE AND ARMCHAIR** ready July 1st featuring Automatic Tuning and Straight Line Dials Also Battery Receivers

You'll make
more money
with
C. I. T.

C. I. T. BUSINESS BUILDER

The localized
national
finance
service

JUNE

Prepared by C. I. T. Corporation, unit of Commercial Investment Trust Corporation, capital and surplus over \$100,000,000

1937

Let Buyers Know That You Offer C. I. T. Budget Plan —Dealers Everywhere Find It Strong Selling Point

Featuring of Display Cards is Paying Dividends to Retailers—Why Don't You Cash In on C. I. T.'s Consumer Popularity?

THE red C. I. T. display card with the white lettering is a familiar sight in thousands of store windows. The simple statement on the card: "The C. I. T. Budget Plan Protects the Time Buyer" is being read by millions of people in all parts of the country. Why dealers are giving this display material prominence is easy to explain. The name of C. I. T. is a drawing card to prospective buyers.

The C. I. T. poster is available with an easel back for counter use, with adhesive front for inside of window, and in miniature size as a window or product sticker or for various uses. Door handle cards of similar design—as shown below—can be actually attached to the appliance. These are all ready to go to work, and can be secured from your local C. I. T. office if a sufficient supply has not already been received. To innumerable retailers they represent an easy

method to boost sales *because the name of C. I. T. has proved to have "sales appeal."*

Why C. I. T. is Popular with the Consumer

C. I. T. was established long before instalment buying had obtained general acceptance. For nearly 30 years C. I. T. has shared in this form of social progress. Today, wisely administered instalment purchasing is recognized widely by economists and bankers as sound and beneficial.

Cooperation with Dealer

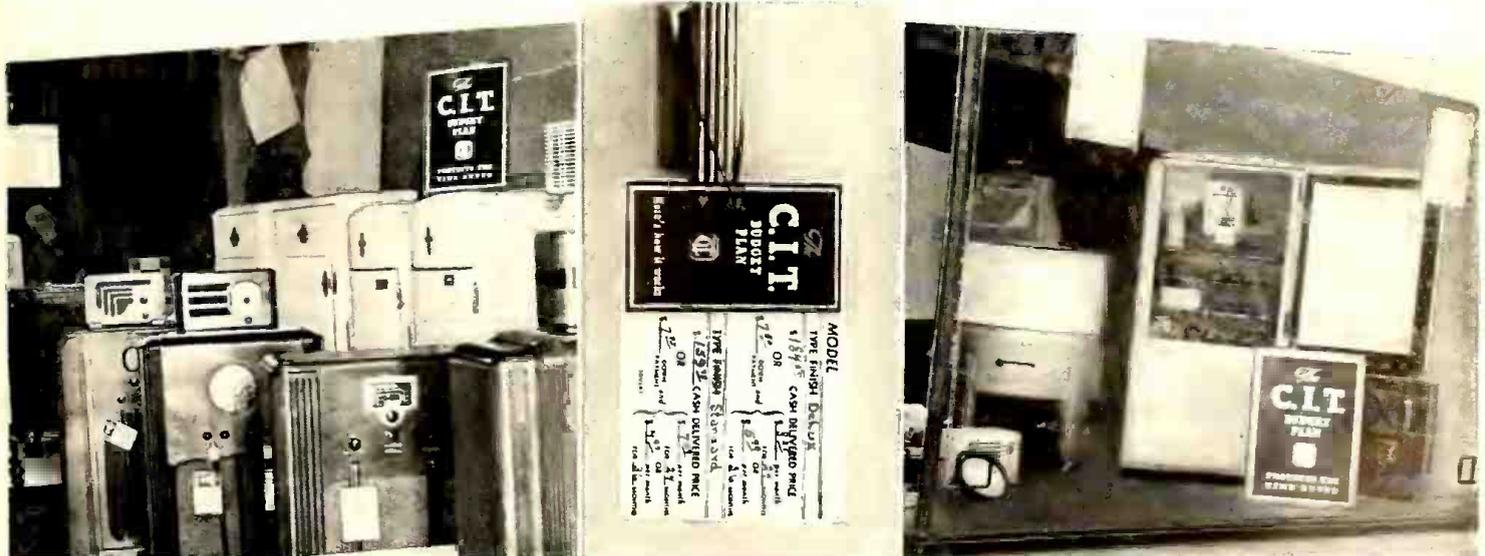
There is a growing tendency by dealers everywhere to make time-selling one of their principal features. More and more they are discovering that the name of C. I. T. attracts new business and are featuring it accordingly. By means of tactful, friendly service C. I. T. cooperates with the dealer in keeping the good-will of the customer.



C. I. T. Floor Plan enables You to Show All Models

Dealers can now stock a complete line of appliances with moderate cash outlay

The C. I. T. Floor Plan enables you to stock a complete line of refrigerators—as well as ranges, electric washers, room coolers, oil burners and stokers—at an investment of a fraction of the total wholesale cost. Ask your distributor or C. I. T. local office about the Floor Plan now, and profit by it during the big refrigeration months.

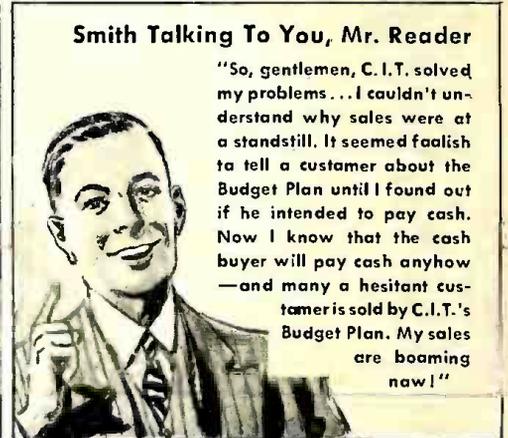
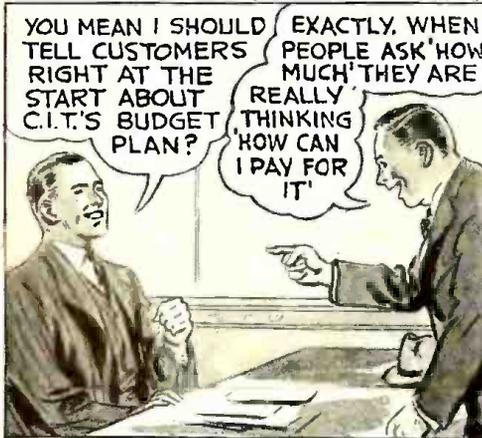
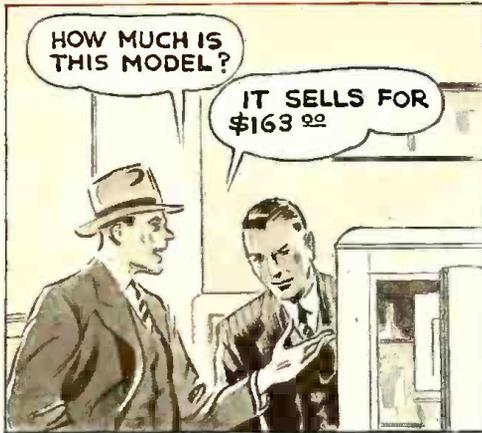


Inside stores the country over, the familiar C. I. T. placard greets the buyer with its assurance of the best in time-buying service.

The refrigerator door handle card illustrated above provides space for showing the prospective buyer prices, monthly instalments and terms under the C. I. T. Budget Plan.

An example of the prominent window display dealers are giving the C. I. T. poster. The popularity of the Budget Plan makes it a sales-getter.

HOW DEALER SMITH SOLVED THE MYSTERY OF LAGGING SALES—by Westcott



Dealer Praises Limited Recourse as Sales Booster

The following is an excerpt from a dealer's letter. It is typical of the spontaneous praise that comes to us from pleased dealers all over the country. He writes:

"We herewith enclose contract on above mentioned party endorsed by us on the Limited Recourse Plan . . . P. S. You will have noted that our appliance business is much greater than last year. Your Budget Plan and the Limited Recourse Plan, and quick service deserve our recommendations."

How Limited Recourse Helps You

One of the outstanding recent developments in appliance financing is the Limited Recourse Retail Finance Plan offered through C.I.T. for your benefit. Under this plan the dealer's endorsement of paper becomes without recourse after the purchaser has paid C. I. T. the first four monthly instalments. Yet it operates without cost to the dealer!

With Limited Recourse, dealers may do a larger volume of business on the same capital, adding to their capital while reducing their liabilities. There is no hold-back to tie up part of your profit. You receive 100% cash at once. Your capital remains fluid; your current assets increase and are not frozen beyond immediate reach. Ask your C. I. T. branch for complete details.



C.I.T. CONSUMER ADVERTISING

Full-page advertisements in The Saturday Evening Post, Collier's and Time, designed to promote "consumer good-will" and keep the name of C. I. T. before your customers and prospects. Through national advertising, C. I. T. is becoming a household synonym for reliable sales financing.

C.I.T. HAS STRONG "DEALER APPEAL"

The dealer finds it good business to deal with C.I.T. The "open and above board" rate structure which pleases the public makes it easier for the retailer, too. Another advantage is the approval of many new appliances for financing. At present C.I.T. dealers may finance radios, refrigerators, automatic heating equipment, ranges, electric washers, ironing machines, water heaters, dish washers, commercial refrigeration, air conditioning units, room coolers, and other appliances under a uniform schedule of rates.

Rapid, Efficient Credit Investigation

For nearly 30 years C. I. T. has been investigating the credit of time buyers. Dealers everywhere profit from this experience.

It is the dealer, rather than the Finance Company, who is held responsible if the investigation is made in such a way as to embarrass the prospective buyer. C. I. T. has developed a technique by which the facts about a buyer's financial standing are gathered rapidly and with quiet good taste. Grateful letters from dealers in all parts of the country testify to their appreciation of this part of C. I. T. service.

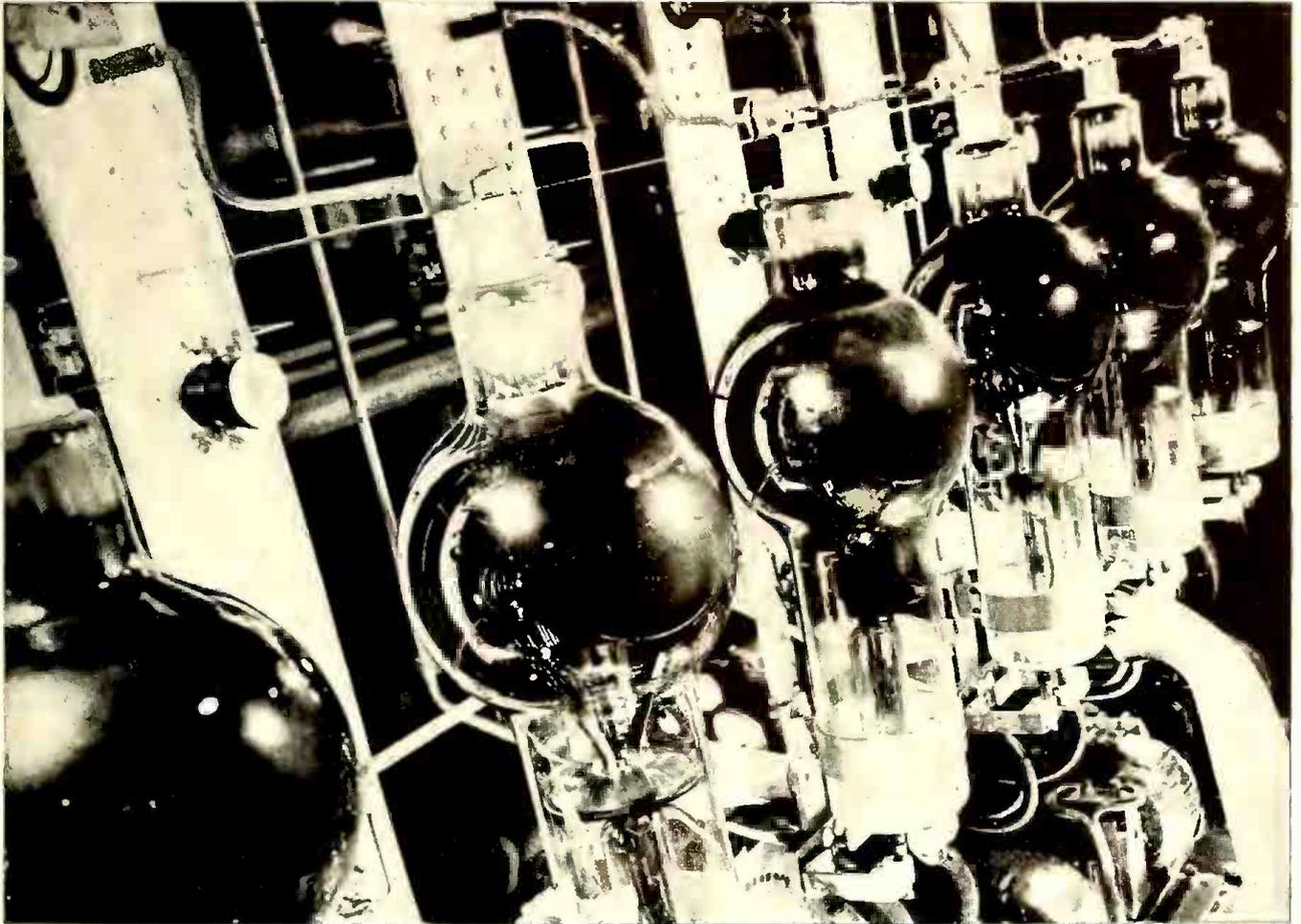


THE PHILOSOPHY OF DEALER DAN

One of my customers said to me the other day, "I don't want the whole neighborhood to know I'm thinking of buying a refrigerator." I assured him that C. I. T. credit investigators were as tactful as they were efficient.

I saw something about a dentist in Boston who is employing a hypnotist to free his patients from pain. Someone suggested the hypnotist try his skill when it came to collecting the bill! Hypnotists aren't generally needed for collecting overdue instalment payments, but trained collectors are. C. I. T. seems to be able to extract painless payments.

BEHIND THE VOICE



High-Voltage rectifiers at 50,000-watt broadcasting station of WJR, Detroit, Michigan. Built by Western Electric Company

● Supplying power to every broadcasting transmitter is a battery of high-voltage rectifier tubes. In the better engineered stations Isolantite is liberally used to harness the power behind the far-flung voice of radio. Isolantite's unusual mechanical properties and low electrical losses make it the ideal insulation not only for the high voltage, but also for the

radio frequency circuits of broadcast and other transmitting equipment. Broadcasting stations insulated throughout with Isolantite attain maximum operating efficiency. Isolantite engineers will aid in the design of suitable insulators.

ISOLANTITE INC.

CERAMIC INSULATORS

FACTORY: BELLEVILLE, N. J. • SALES OFFICE: 233 BROADWAY, NEW YORK, N. Y.



Marion Claire, guest soprano with General Motors Orchestra Sunday Concert.



Cinaudagraph execs. S. R. Hoyt, vp. chf. engr.; L. B. Cornwell, engr. speakers; H. H. Harwell, vp. gm.; H. H. Friend, magnet steel div.; H. C. Seaman, sec.-treas.



Dave Bright, pres. Pioneer Gen-E-Motor.



H. H. Brown, g. m. Technical Appliance Corp.



Muchers—George and Victor—of Clarostat Mfg. Co.



John Erwood, Webster-Chicago.



Chas. Golenpaul, sales mgr. Aerovox.



Lewis Winner and Oscar Hammarlund of Hammarlund Mfg. Co. marking firm's 25th year.
Irving J. Kahan Chicago mgr. Sprague Prod. Co.
Harry A. Olson, Micarta Fabricators—and golf champ Revolva.





Eddie Riedel and Earl Dietrich, study returns of Raytheon's service contest.

Bernice Claire, blonde star of the Waltz Time broadcasts.



H. E. Rhodes, chf. engr., and S. I. Cole, pres. Aerovox Corporation.



G. A. Tatem, new Grebe general manager.



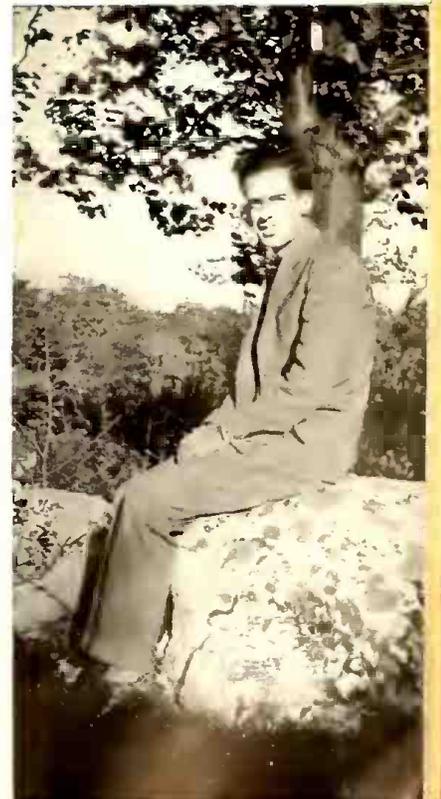
H. L. Shortt, pres. Transformer Corp.

RADIO HEADLINERS

Stars of the airways and stars of the radio parts industry. Men you will see at the National Radio Trade Show, Chicago, June 10-13.



Norman Keevers, president Electronic Laboratories, Inc.



J. C. Smack of S. S. White industrial division.



H. E. Osmun of Centralab, on Lake relaxation.

ROLL-CALL AT THE SHOW

Those answering "here" for the national event
Hotel Stevens, Chicago, June 10 to 13

★ **MAGNETS** to draw the parts buyers of the country fill the Hotel Stevens exhibition floors to the extent of 150 booths. The following firms and people are included among the exhibitors at the big show:

Aerovox Corp., with S. I. Cole, president, Charley Golenpaul, sales manager, and others, showing resistors and condensers. Booth 62

Aladdin Radio Industries, with U. S. Johnson, president, J. C. McGinley, vice-pres. and general manager, and H. H. Burt, showing coils and transformers. Booth 108

Alpha Wire Corp., with Peter Berco-witz, president and sales manager, showing wire products, cables, aerial kits, intercommunicators, etc. Booth 18

American Microphone Co., with A. H. Bruning, Chicago representative, and F. A. Yarbrough, showing a transparent microphone, crystal and carbon microphones and dynamics. Booth 28

American Phenolic Corp., with Arthur J. Schmitt, president, showing sockets, plugs and connectors, specialties, etc. Booth 65

American Radio Hardware Co., with D. T. Mitchell, general manager, and M. J. Steffin, sales manager, showing brass, screw machines and stamping parts, transmitter and receiver accessories, test equipment, etc. Booth 14



S. N. Shure, president of the Show Corp., and active in Shure Bros. Booths 71 and 72.

American Television & Radio Co., with Albert Goffstein, general manager, showing vibrators and battery eliminators. Booth 21-A

Ampere Electronic Products, Inc., with S. Norris, sales manager, showing transmitting tubes, power and rectifying. Booth 64

Amperite Co., with Samuel Ruttenberg, sales manager, and H. J. Gold of Furman-Gold Co., showing microphones and stands. Display will feature "Name It and Win It" contest. Booth 36

Arcturus Radio Tube Co., with C. E. Stahl, vice-pres. and general manager, J. Geartner, resale manager, Wm. J. Johnston, W. E. Watson, R. S. Diethert and J. A. Stobbe, showing radio tubes. Booth 110

Ariston Mfg. Co., with Walter H. Bauman, sales manager, and Jesse F. Gudeman, secretary, showing condensers, speakers, etc. Booth "F"

Astatic Microphone Laboratory, Inc., with F. H. Woodworth, president, C. E. Semple, Jr., vice-pres. and general manager, C. M. Chorpening, vice-pres. and chief engineer, and R. T. Schottenberg, sales manager, showing crystal phonographic pickups, crystal microphones, and offset head pickups. Booth 118

Audak Co., Inc., with Maximilian Weil, president, and George V. Sullivan, vice-pres., showing pickups. Booth 43

Belden Mfg. Co., with Herb W. Clough, sales manager, E. K. Butler and others, showing antenna systems, microphone cables, hook-up wires, magnet wires, aerial wires, etc. Booths 80 & 81

Bendix Radio Corp., with O. C. Holiday, service equipment sales manager, E. D. Gibbs, service equipment engineer, W. P. Hilliard, vice-pres. and engineering head, Tim Murphy and J. Walker, fleet car managers, and D. E. Johnson, radio equipment sales manager, showing testing instruments. Booths 46 & 47

David Bogen Co., Inc., with David Bogen, president, Haskel A. Blair, sales manager, Joseph B. Hersh, P.A. engineer, and Jack Keim, Chicago representative, showing portable, fixed and mobile P.A. systems, inter-communicators, pickup turntables, horns and baffles, and amplifiers. Booth 12

Wm. Brand & Co., with William Brand, William Naumburg, Jr., and Chicago representative Earl W. Brinson, showing oil tubing,

saturated sleeving, mica films, varnished cambric, insulation materials, etc. Booth 4

Breez-Electric Corp., with Prentiss Cleaves, vice-pres. and sales manager, showing windcharger equipment. Booth 10

Bruno Laboratories, Inc., with W. A. Bruno, president, and Paul von Kunits, chief engineer, showing microphones and accessories. Booth 3

Brush Development Co., with W. H. St. Clair, sales manager, and John Altmayer, advertising manager, showing crystal microphones, vibration pickups, crystal headphones, oscilloscope units, transmitters. Booth 95

Bud Radio, Inc., with Max L. Haas, sales manager, G. E. Grosttick, engineering dept., and N. Spitz, sales dept., showing test servicing tools, variable condensers, miscellaneous parts and hardware. Booth 78

Burton-Rogers Co., with V. S. Church and C. W. Burton, sales manager, showing meters, test equipment and aerials. Booth 31

Allen D. Cardwell Mfg. Co., with R. L. Morehouse, general sales manager, showing air, oil, and dual transmitting condensers. Free catalog. Booth 95

Carron Mfg. Co., with Charles S. Linell, Hugh A. Howell and Jerome Prince, showing universal types of RF, antenna, oscillator and pre-selector coils, etc. Booth 66

Centralab, with H. E. Osmun, vice-pres. and sales manager, W. S. Parsons, asst. sales manager, and W. H. Fritz, showing volume controls, tone controls, fixed resistors, suppressors, wave-change switches and switch kits. Booths 124 & 125

(Continued on page 51)



Leslie F. Muter is RMA president and in Muter Co.'s Booth No. 129.

*Here's the News You Have
Been Waiting for—*

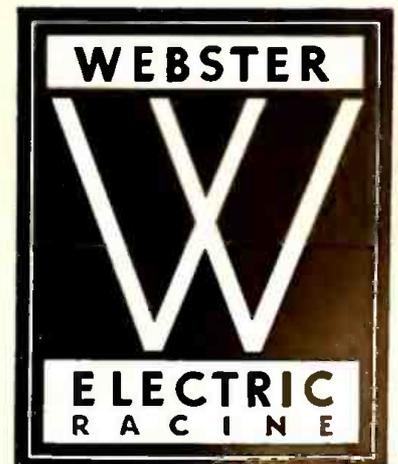
Webster Electric

**THE WORLD'S FINEST
SOUND EQUIPMENT**

A NEW LINE OF SUPERLATIVE QUALITY
THAT WILL COMMAND A PRICE—ASSURE
A GOOD PROFIT—ESTABLISH YOU AS
"SOUND" HEADQUARTERS

●

WHENEVER YOU SEE OR
HEAR THE NAME "WEBSTER"
LOOK FOR THIS MARK ▶▶▶▶▶
IT IDENTIFIES THE PROD-
UCTS OF THE —



Webster Electric

Quality Appearance • Quality



5-10 WATT SYSTEM



20 WATT SYSTEM



4 POSITION MIXER



35-50 WATT SYSTEM

FEATURES

New streamline design in Silver, Black and Red which will permit attractive window, counter and shelf display . . .

Visual Output Overload Indicator

New escutcheon design providing open view graduation marks which greatly facilitate operation

Extremely compact, fully enclosed housing which protects against damage, dust and dirt

Input mixing facilities for two and three positions

Stabilized performance characteristics

High level mixing controls

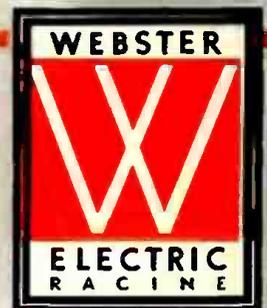
Dual acting attenuating type tone control

Variable output impedance arrangement

Accessible "B" supply tap for remote control

Convenient Plug-in receptacles

Oversize transformers and components assure a wide margin of safety

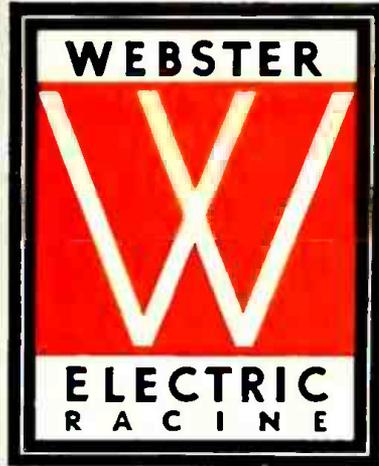


Spells *Quality*

Design • Quality Performance assures you

leadership in the profitable sound market

Webster Electric now offers the trade a complete line of Sound Equipment in compact, two-tone, streamline housings which definitely convey the impression of the superlative quality that has always been characteristic of, and associated with, the name WEBSTER ELECTRIC. A complete range of sizes from 5 to 50 watts is available. Four chassis accommodate the complete range of wattages, including the new Four-Position Mixer.



The compactness and beauty greatly simplify handling and display. Each system is complete with necessary microphones and carrying cases to match. Speakers are also housed in matched cases.

The line also includes a new two-tone Phonograph Unit. Its beauty alone will create a strong demand. Its performance exceeds that of any previous model and completely outstrips competition both in appearance and performance.

Distributors, jobbers, dealers, sound service men can now meet practically every demand for

quality Sound Equipment right off their shelves. Think what this means in simplified selling, in easy demonstration, in quick installation, in rapid turn-over and consequent larger net profits!

The market for sound equipment is increasing by leaps and bounds. Aggressive, merchandising-minded distributors and dealers who stock this new line are going to get their share of this rapidly expanding market. Webster Electric provides

you with the highest quality. Webster Electric Sound Equipment will accord you leadership, command a price, assure a profit.

Read the list of features at the left. They tell the story of the selling points embodied in this new equipment. Compare the features listed here with any other equipment you can buy and your choice will be WEBSTER ELECTRIC.

Webster Electric Sound Systems are licensed by agreement with Electric Research Products, Inc., under patents owned by Western Electric Company, Inc., and American Telephone and Telegraph Company, Inc.

Visit Booths No. 25 & 26, National Radio Parts Trade Show, Exhibition Hall, Stevens Hotel, June 10th to 13th inclusive. Visit the Webster Electric Demonstrating Rooms.

Sit Down Right Now and fill in this coupon. Get all the facts about this new line as well as all the details about Teletalk—the inter-communicating system that is sweeping the country. Take advantage of the intensive Webster Electric merchandising program that is built to support your sales efforts.

**WEBSTER ELECTRIC COMPANY,
Racine, Wisconsin, U. S. A.**

Gentlemen:

Please send me complete technical and merchandising data regarding the new Webster Electric Sound Equipment Webster Electric Teletalk Please check.

Name

Address

City State

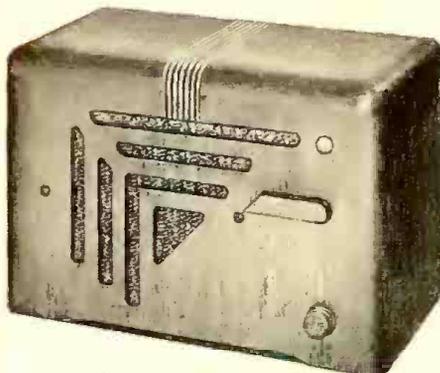
WEBSTER ELECTRIC Teletalk

REG. U. S. PAT. OFFICE

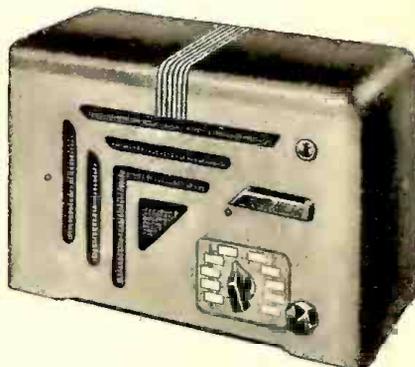


—the inter-communication system that is

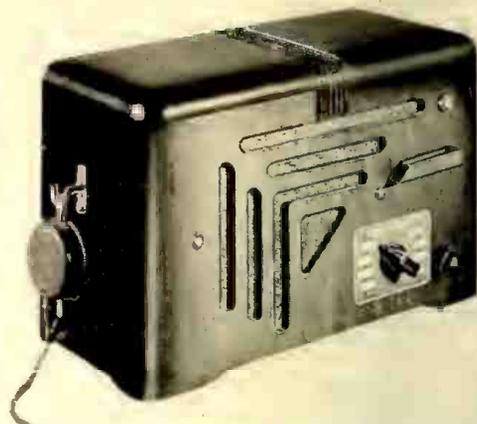
Out-Selling All Competition!



● This is the Non-Selective Teletalk. It is an integral part of models T, MT and HMT.



● This is the Selective Teletalk. This unit is in the following models: S, MS, HMS and MIS.



● This is the Confidential Teletalk. It forms part of the combinations in models CT, CMT, CMS and CHMS.

● The big market for inter-communication systems which Webster Electric is creating demands a broader scope of service than that provided by the ordinary communication system.

Only Teletalk gives you the range of combinations which the market requires!

Only Teletalk gives you the tone quality and the features which are being demanded!

Only Teletalk is being merchandised through the mediums which reach the ultimate buyers — the mediums which actually create a demand for you!

Only Teletalk (of all the new-type systems)

is in the movies, on the desks of State, County, Municipal officials: in use by some of the best known department stores, offices of nationally known business institutions and manufacturing plants; in hospitals, on farms and large estates and in the homes of well-known people.

Only Teletalk is meeting specific inter-communication requirements and is keeping abreast of this demand. Only Teletalk is leading the field!

Use the coupon on the back of this page. Find out how you, too, can cash in on Webster Electric Teletalk leadership, quality and merchandising!



● This is the 6 WB Speaker-Microphone which is a part of all combinations in which the letter "M" appears in the model number.



● This is the 10 WB Speaker-Microphone specially designed for industrial use. It is employed in all models in which the letter "H" appears.

WEBSTER ELECTRIC Teletalk

REG. U. S. PAT. OFFICE



ONLY WITH

DO YOU

GET ALL INTER-COMMUNICATION COMBINATIONS



A Natural FOR "772" OWNERS!

Your Model

"772"

fits here — in this light-weight, solid-wood combination carrying case with real luggage handle... along with —



**A Companion TUBE CHECKER
EQUALLY OUTSTANDING!**

This New Model

"773"

Tube Checker which matches your "772"... giving you a complete, modern, servicing combination.

Simply mount your Model "772" Analyzer in this handsome, combination carrying case along with the matched Model "773" Tube Checker, and you have the most modern, up-to-the-minute servicing unit available. Model "773" represents the last word in tube checkers... in design... in operating characteristics... in simplicity and dependability! But if you don't own Model "772"... purchase the *complete* unit (Model "775" SERVISSET). Be set for better business in the active season ahead... be able to service sound movies, P.A. systems, electronic circuits and television, as well as all receivers. Have a servicing unit that will enable you to get the profits from *all* these sources... and one that will remain serviceable and dependable for years to come. Be sure to get complete information. Return the coupon.

Remember...
WESTON Instruments can be purchased under the WESTON INVESTMENT PLAN.



Model "773" also is available for counter use in this striking, polished, solid-wood case. Note the new WESTON Rotator-Type Tube Chart. You "spot" your tube instantly. Charts easily replaceable.



Here is Model "773" Tube Checker in the polished, solid-wood, individual carrying case. Send coupon for full details.

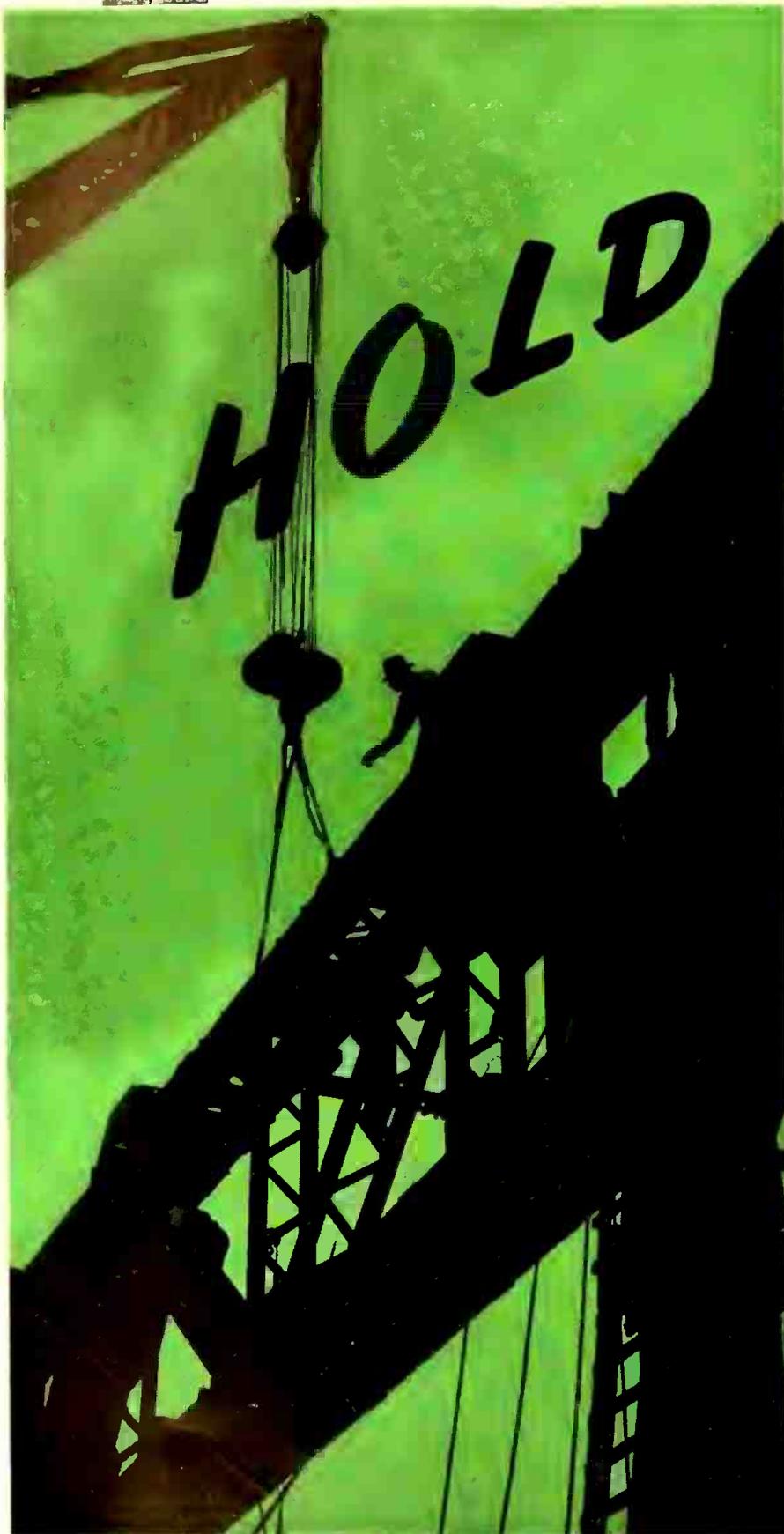
**WESTON
ELECTRICAL
INSTRUMENT
CORPORATION**

597 Frelinghuysen Avenue,
Newark, New Jersey
Send data on Models 773,
and 775 combination.

NAME

ADDRESS

CITY STATE



IT!

Don't let those tube profits get away from you. Sell dependable Sylvania . . . they stay sold!

An installation kickback, because of a defective or poorly-functioning tube, is bad business in more ways than one. It puts your customer in a bad frame of mind . . . it mars the sale you have so carefully made . . . and it might interfere seriously with future business volume. All this, in addition to the fact that a replaced tube means a lost profit all by itself.

No service man or dealer can afford to compromise with tube quality—ever. From time to time, you may be able to buy tubes cheaper — but they are likely to be cheaper tubes, that will end by cheapening your reputation. Sylvania has a “single standard” of quality.

If you want to rid your business of “tube replacement trouble” — sell Sylvania. They're a profitable line to carry—and the profits stick with you. For complete sales and technical information, write to the Hygrade Sylvania Corp., Emporium, Pa.

SYLVANIA

 THE SET-TESTED RADIO TUBE



SPECIALISTS in Resistance Units

... of more different types ...
... in more different shapes ...
... for more different applications ...

... than those produced by any other manufacturer in the world. IRC engineering achievements have given the International Resistance Company a position of *international leadership!*



Initiative - Resourcefulness - Cooperation
to advance the interests
of the industry



2 Watts

1 Watt

1/2 Watt

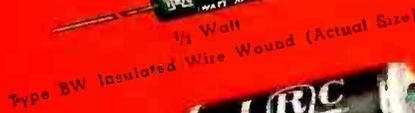
Type BT Insulated Metallized (Actual Size)



Types FH and
MG Ultra High
Ohmage

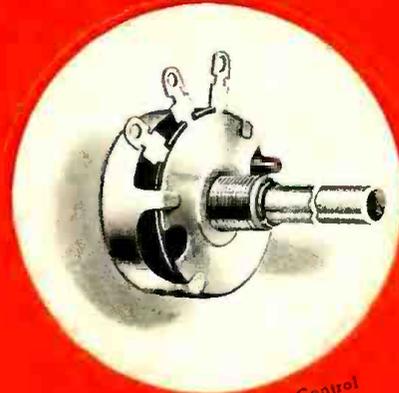


1 Watt

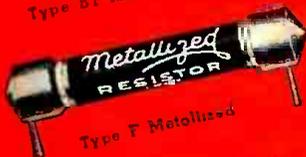


1/2 Watt

Type BW Insulated Wire Wound (Actual Size)



Type C Volume Control



Type F Metallized



Type MS Noise Suppressor



Type WW-1
Precision Wire Wound



Lug Type
Precision
Wire Wound



Heavy Duty Wire Wound Types



Type WW-3
Precision
Wire Wound



Type MCA Noise Suppressor



Type MW Insulated Power Wire Wound (With Taps)



Type MD Noise Suppressor

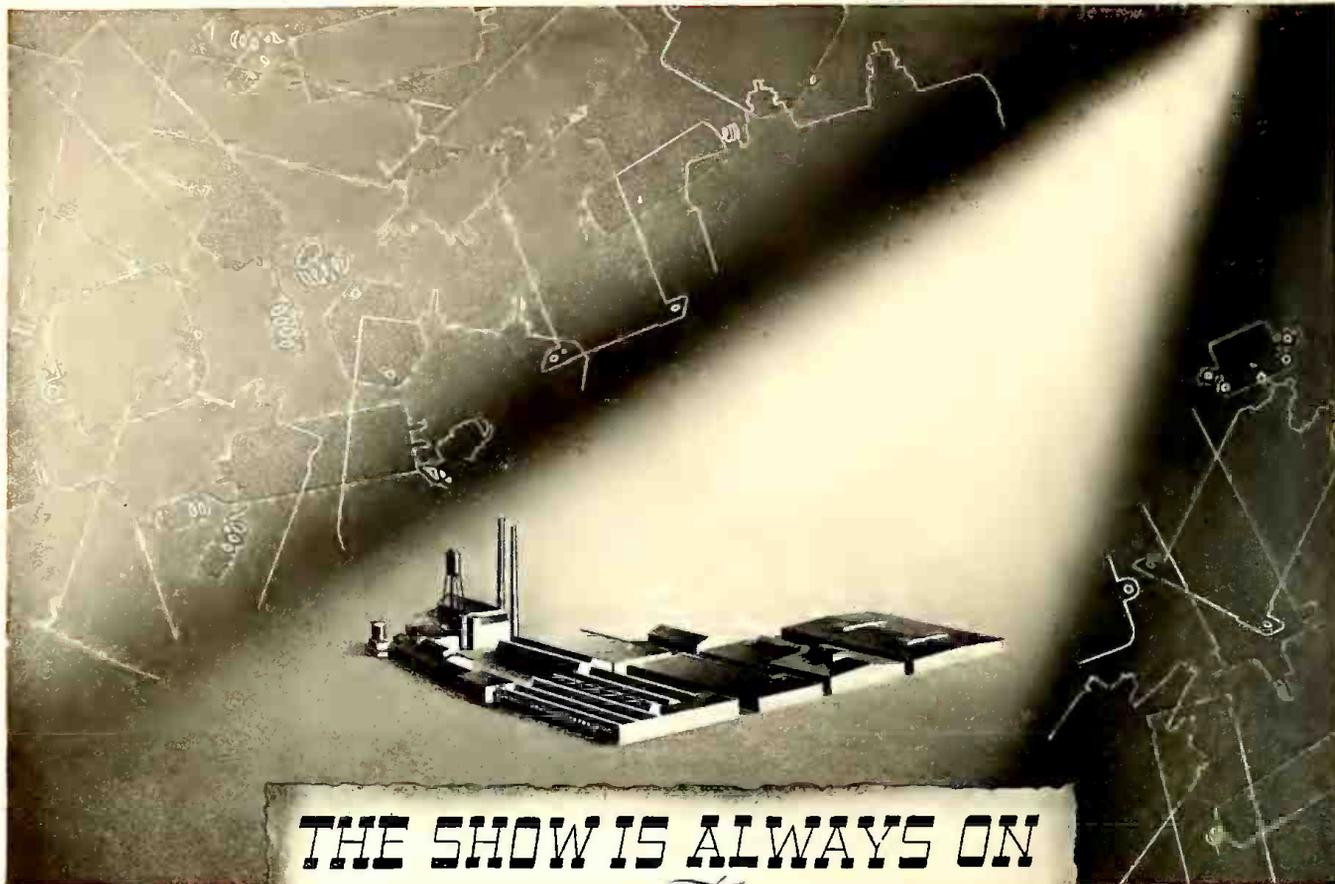


Type MW Insulated (Ferrule End) Wire Wound

INTERNATIONAL RESISTANCE COMPANY

401 NORTH BROAD STREET, PHILADELPHIA, PA.

Factories or Licensees in CANADA • ENGLAND • FRANCE • GERMANY • ITALY • DENMARK • AUSTRALIA



THE SHOW IS ALWAYS ON
at
CORNELL-DUBILIER

Having watched the opening and closing of so many Trade Shows in our 27 years, we cannot help but reminisce about the show that never ends at Cornell-Dubilier. Here at our great South Plainfield plant, the stage is always set . . . a stage covering 33 acres . . . the cast of more than 3,000 skilled workers is hard at it year in and out . . . busily engaged in the manufacture of more than 500,000 condenser units a day. It is only natural that our chest should swell with pride as we review our part in the industry. Veterans in

the condenser manufacturing business that we are, we combine the wisdom of an old stage-hand with the enthusiasm of youth.

Upon this occasion, Cornell-Dubilier renews its pledge for the continuance of its policy of quality first—prompt and efficient service—and square-shooting business tactics to all.

For complete customer satisfaction and utmost profits get in on the C-D "show". We cordially invite you to visit with us at the Chicago Convention (Booth 86).

MICA • DYKANOL • PAPER • WET AND DRY ELECTROLYTIC CAPACITORS

CORNELL-DUBILIER CORPORATION



SOUTH PLAINFIELD • NEW JERSEY

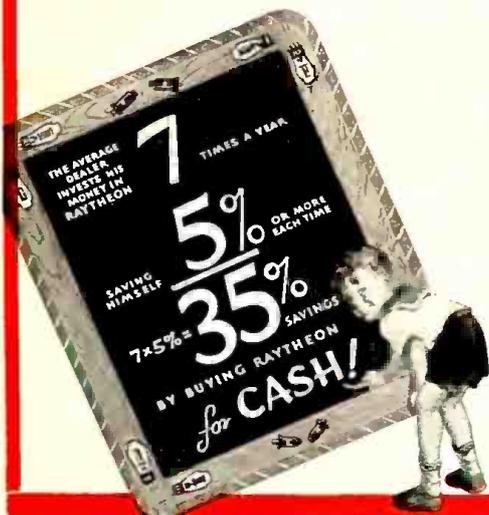
demand C-D and you demand Dependability



THE BEST "BUYS" ARE MADE FOR CASH!

RAYTHEON dealers are business men who know that 5% or better can be *added* to their tube profits by buying

RAYTHEON for cash. They know that it costs at least 5% to handle merchandise on a "no-investment" finance plan. They are handling the highest quality tube and still putting that 5% in the cash register. ASK YOUR RAYTHEON JOBBER.



RAYTHEON

445 Lake Shore Drive, Chicago, Illinois
555 Howard Street, San Francisco, Cal.

420 Lexington Ave., New York, N. Y.
55 Chapel Street, Newton, Mass.

415 Peachtree Street, N. E., Atlanta, Ga.



FINEST IN QUALITY yet COMPETITIVE in price

The
AMPERITE



VELOCITY

PREFERRED by leading P.A. Men the world over!

FEATURES
Compact, streamline, modern, the Amperite Velocity now features . . .

1. Output increased 6 DB.
2. Triple Shielded—against all RF or magnetic fields, entirely eliminating hum pickup.
3. Eliminates feedback troubles.
4. Excellent for close talking and distant pickup.
5. Acoustically designed to eliminate any possibility of cavity resonance.

The remarkable success of the Amperite Velocity is the result of Amperite's P.A. Policy—to give P.A. Men the finest possible microphones at prices no higher than what they would pay for other mikes. A letter from Ridley's P.A. Systems is typical of the general response of the P.A. industry. It says: "Your Velocity is the finest type of microphone I have ever used. . . Please duplicate my order."

You, too, will duplicate orders . . . improve installations . . . and enjoy better quality at a competitive price by using Amperite Velocity Microphones. There's a model for every type of installation.

CONSULT YOUR JOBBER NOW!

LEADING MODELS

MODELS RBHn (High Impedance); RBMn (200 ohms); with Cable Connector and Switch. . . . \$42.00 LIST

MODELS RBSn, RSHn, streamline design, slightly lower output than above, with switch only. . . . \$32.00 LIST

With Cable Connector . . . \$34.00 LIST

FINISHES: All microphones have the new standard gunmetal finish. Chrome or Egg Shell. . . . Extra \$1.00 LIST

Other pastel shades Extra \$2.00 LIST

NAME

NEW! Desk Stand



New and novel! Ideal for desk, pulpit, footlights, banquets. Microphone can be rotated in the horizontal plane, and used in various positions, as desired. LEAF SPRING SUSPENSION ACTS AS AN EXTRA SHOCK ABSORBER. Unusually stable. STAND ONLY. \$4.00 LIST. Name plate with maximum of 10 letters. \$2.00 LIST

NEW! "Ham Mike"



No peaks! No splashing! Real broadcast quality Output, —68 db RF Choke Circuit included in microphone. Operates directly into grid of tube. Rugged. Not affected by temperature or pressure changes. MODEL HAM (high impedance) MODEL HAL (200 ohms) \$22.00 LIST

Price includes new special Ham Desk Stand, call letters and 6 feet of cable.

AMPERITE JUNIOR



A "pocket" Velocity of surpassing quality. Size of a match box. Ideal for lectures and specialty acts. Can be hidden under coat! Output constant with any position of the head. Transformer included in microphone case. MODEL 7J (200 ohms) or MODEL 7J-H (2000 ohms) \$30.00 LIST

FREE

WINDOW DECAL advertising your Sound Service. Size 5 1/4 x 9 1/4, finished in 4 striking colors. WINDOW DISPLAY. 11 x 17, and . . . New illustrated bulletins. Write for these valuable sales helps today.

A POPULAR AMPERITE VELOCITY \$22.00 LIST

A Velocity Microphone of very high excellence. Built on Amperite standard. Used for both speech and music with great success. No peaks. Flat response over wide range. Output, —68 db. Triple shielded. Fitted with shock absorber and swivel bracket. Model RAL (200 ohms) with 8 ft. of cable. Model RAH (2000 ohms) high impedance, with 12 ft. of cable.



AMPERITE CO. 561 BROADWAY, N. Y. U.S.A.

Cable Address: Alkem, New York

VELOCITY **AMPERITE** MICROPHONES



The Best "BUYS" Are Made For Cash!



SUCCESSFUL BUSINESS MEN
KNOW THAT THE WAY TO MAKE
MONEY IS TO DISCOUNT THEIR
BILLS—AND A RADIO MAN CAN SAVE
UPWARDS OF 5% BY BUYING
RAYTHEON FOR CASH!

It costs a distributor or a dealer at least 5% to sell and handle tubes on any of the "no investment" finance plans. You, the dealer, have to pay this 5% or more . . . The depression is over and depression methods of doing business are rapidly becoming obsolete. That is why increasing thousands of dealers and service men are saving money and getting the highest quality tube by buying RAYTHEONS on regular terms, ASK YOUR RAYTHEON JOBBER.



RAYTHEON

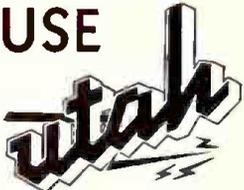
445 Lake Shore Drive, Chicago, Illinois
555 Howard Street, San Francisco, Cal.

420 Lexington Ave., New York, N. Y.
55 Chapel Street, Newton, Mass.

415 Peachtree Street, N. E., Atlanta, Ga.



USE



PARTS

TO INSURE CUSTOMER SATISFACTION

Every Utah part is accurately engineered and precision-built to do its specific job better and more economically. Use Utah parts wherever possible—they make your job more satisfactory and your customers happier.

- ★ Chokes
- ★ Volume Controls
- ★ Tone Controls
- ★ Vibrators
- ★ Resistors
- ★ Plugs
- ★ Transformers
- ★ Jacks
- ★ Jack Switches
- ★ Push Button Switches

12 CONSECUTIVE MONTHS OF UNINTERRUPTED SALES INCREASE

In rapidly increasing numbers, Servicemen are turning to Utah as a source of supply for replacement parts, that is dependable in quality and service. This acceptance is reflected in Utah's Jobber Sales, which show a phenomenal and unbroken record of increase for a solid year—incontrovertible proof of the "swing to Utah."

What does it mean? It means that Utah's high standards of quality are meeting recognition among servicemen everywhere—and who should be a better judge than these men with first hand knowledge of Utah's inherent economy and quality?

Join the "swing to Utah"—you'll be repaid with greater customer satisfaction.

THERE'S A *Utah* SPEAKER FOR EVERY JOB



A complete line of speakers of every type, precision-engineered and precision-built to Utah's standards, that have won universal recognition among service men, set-builders and the general public for quality of tone and superlative performance. Send for complete Utah Speaker Catalog.



SEE THE UTAH DISPLAY AT BOOTH 69-70 AT THE NATIONAL RADIO PARTS SHOW!

UTAH RADIO PRODUCTS CO.
CHICAGO, ILLINOIS

TORONTO
ONTARIO, CANADA

BUENOS AIRES
(UCOA RADIO PRODUCTS CORP.)

"16 YEARS OF LEADERSHIP"



P.A. UNLIMITED

The unlimited horizons of P. A. have fired the imagination of the industry. It has grown apace with its mighty brother, Radio, and to that growth - Lafayette has inexhaustibly contributed. Today, Lafayette offers the Sound Engineer - theatre owner - bandsman - dance hall operator - a line of P. A. systems as unlimited in their applications, as they are unlimited in profit-making possibilities.

Look to LAFAYETTE for P. A. Unlimited.

THE MOST COMPLETE LINE OF P.A. EQUIPMENT IN THE WORLD



- MODEL 245-A
5-8 WATT
AMPLIFIER
Price
\$14³³
- MODEL 103-A
15 WATT
AMPLIFIER
Price
\$20⁹⁵
- MODEL 131-A
20 WATT
AMPLIFIER
Price
\$31⁰⁰
- MODEL 264-A
30 WATT
AMPLIFIER
Price
\$38²⁵
- MODEL 342-P
5-8 WATT
PORTABLE
SYSTEM
Price
\$25⁵⁰
- MODEL 359-P
15 WATT
PORTABLE
SYSTEM
Price
\$39⁵⁰
- MODEL 367-P
20 WATT
PORTABLE
SYSTEM
Price
\$59⁷⁵
- MODEL 372-P
30 WATT
PORTABLE
SYSTEM
Price
\$72⁹⁰
- MODEL 293-ADF
60 WATT
AMPLIFIER
Price
\$59⁵⁰
- MODEL 321-P
20 WATT
PORTABLE
SYSTEM for both
6 volts D.C. and
110 volts A.C.
Price
\$89⁵⁰
- MODEL 365-T
STUDIO MODEL
PORTABLE 30
WATT SYSTEM
Price
\$116⁵⁰
- MODEL 148-A
CONVERTIBLE
AMPLIFIER for
6 volts D.C. and
110 volts A.C.
Price
\$34⁵⁰
- MODEL 710-P - 40 WATT
FACSIMILI-TONE THEATRE
SYSTEM.
Price upon request.
- MODEL 1030-T - 60 WATT
CO-ORDINATED SCHOOL
SYSTEM.
Price upon request.

FREE CATALOGS MAIL THIS COUPON NOW!

WHOLESALE RADIO SERVICE CO. INC.

NEW YORK, N. Y. • CHICAGO, ILL. • ATLANTA, GA.
100 SIXTH AVENUE • 901 W. JACKSON BLVD. • 430 W. PEACHTREE ST., N. W.

BRONX, N. Y. • NEWARK, N. J. • JAMAICA, L. I.
542 E. FORDHAM RD. • 219 CENTRAL AVE. • 90-08 • 166TH STREET
(MERRICK ROAD)

WHOLESALE RADIO SERVICE CO., INC.,
100 Sixth Avenue, New York, N. Y.

Gentlemen: Please rush FREE Catalog No. 68-12F7
Facsimili-Tone Theatre System Catalog No. T-12F7

Name.....
Address.....
City.....Sta.....

Wedge ANNOUNCES

"The Arrow"

"Wedge Power"

A New Auto-Top Aerial New Portable Power Plant



Style—striking ornamental value, plus exceptional performance, characterizes this unique new Auto-Top Aerial.

The graceful arrow-like shape suggests speed and action—enhancing modern streamline design. The Aerial of highly polished finish harmonizes with any color.

Wide, semi-rounded strips give outstanding pick-up power—clear reception any place, any time. Easy to install—no holes to drill in top or cowl—eliminates wheel static—one model fits all cars.

For Outstanding Performance



The Original Auto-Top Aerial

Full car length of wide, copper bearing alloy strip gives unequalled pick-up power. Over-the-top mounting eliminates wheel static—independent of ground conditions—efficient clear reception any place—no holes in top or cowl—the choice of car owners who want good reception under all conditions. Write for literature.

Available in 6, 12, and 32 volt D.C. models



A Big Step Forward in Portable Power Plants!

For boats, trailers, camps, cottages! Gasoline-driven generator makes electricity on the spot for lights, charging batteries, operating tools, washing machines, pumps, etc. Power take-off-pulley drives washing machines and similar equipment direct.

New design—ruggedly built for long, dependable service—light weight for easy moving—push button starting for convenience. Simple to operate—uses little gas. Hundreds of uses make a big market for this efficient, portable power plant. Mail the coupon for literature and prices.

Wedge Manufacturing Co.
4238 S. Michigan Ave., Chicago

Please send literature describing

- Wedge Power Portable Power Plant
- Arrow Model Auto-Top Aerial
- The Original Auto-Top Aerial

Name

Address

HERE'S GRUNOW... THE "SMART MONEY" LINE FOR 1938!

GRUNOW HALVES THE
PRICE OF
AUTOMATIC TUNING
WITH THE 1938 TELEDIAL

DISCOUNTS
THAT
INSURE PROFIT

CABINETS STYLED
AND FINISHED IN
THE FINEST FURNITURE
TRADITION



ZIP! Your Station
Tuned to a Pin Point!

EUROPE GUARANTEED!

GRUNOW for 1938 is a "natural"! A "natural" for sales... a "natural" for profits! Imagine! Automatic Tuning at half competitive prices in the 1938 Teledial! FOR THE FIRST TIME... real, automatic tuning in table models! Europe Guaranteed! A price range from \$24.95 to \$159.95! And a choice of cabinets styled and finished in the finest furniture tradition! YES! GRUNOW is the "smart money" line for 1938... It's nationally advertised of course... It's priced to sell fast and show plenty of profit. On this page and the next are a few GRUNOW models for 1938... destined to be the most amazing values in the whole history of radio retailing! So... be money ahead with GRUNOW for 1938!



NOW..TABLE MODELS WITH
REAL AUTOMATIC TUNING..
ROCK BOTTOM PRICES AND
PLENTY OF PROFIT!

GRUNOW CONSOLE No. 589... A.C.; 5 tubes; 10 station "Teledial" automatic tuning; Europe Guaranteed; also American, aviation, police, amateur broadcasts. Size: 37" x 10-3/16" x 22". Banjo type cabinet of matched walnut in straight, stump, striped, mottled and rotary grains.



UNIVERSAL TABLE MODEL NO. 624... A.C.-D.C.; 6 tubes; 8 station "Teledial" automatic tuning; Europe Guaranteed; also American, amateur, police, aviation broadcasts. Size: 9 1/4" x 7 1/4" x 15 3/4". Cabinet: pin stripe, stump and straight walnut.



TABLE MODEL NO. 588... A.C.; 5 tubes; 8 station "Teledial" automatic tuning; Europe Guaranteed; also American, police, amateur, aviation broadcasts. Size: 9" x 7 1/4" x 14 1/4". Cabinet: pin stripe and straight grain walnut.



UNIVERSAL TABLE MODEL NO. 592... A.C.-D.C.; 5 tubes; airplane type dial; American and police broadcasts. Size: 8" x 6 1/4" x 8". Violin shaped cabinet of matched stump walnut. Also available in Antique Ivory Finish. Specify Model 594.



UNIVERSAL TABLE MODEL NO. 622... A.C.-D.C.; 6 tubes; 8 station "Teledial" automatic tuning; Europe Guaranteed; also American, amateur, police, aviation broadcasts. Size: 8 3/4" x 7 1/4" x 12 3/4". Cabinet: pin stripe and straight grain walnut.



TABLE MODEL NO. 576... A.C.; 5 tubes; illuminated, airplane type dial; also American, police, amateur, aviation broadcasts. Size: 8 3/4" x 7 1/4" x 13 1/4". Cabinet: pin stripe and plain walnut. Also available in Antique Ivory Finish. Specify Model 578.

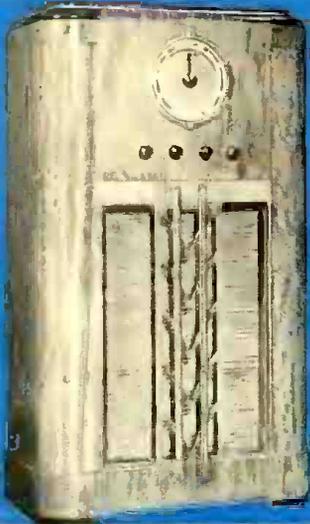


ALL-WAVE TABLE MODEL NO. 632... A.C.; 6 tubes; 8 station "Teledial" automatic tuning; Europe Guaranteed; also American, amateur, police, aviation broadcasts. Size: 9 1/4" x 7 1/4" x 15 3/4". Cabinet: pin stripe, stump and straight walnut.

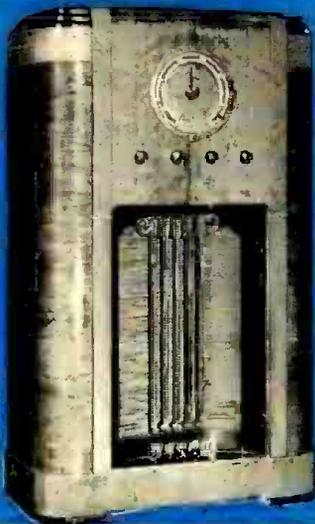
GRUNOW CONSOLES HAVE PLENTY OF "EYE APPEAL" (SEE NEXT PAGE)



BEAUTIFUL CONSOLES WITH "TELEDIAL" AUTOMATIC TUNING FROM \$54⁹⁵ TO \$159⁹⁵!



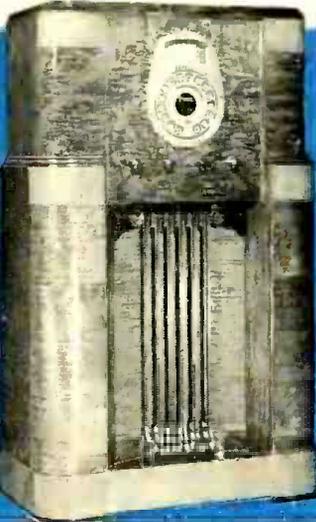
GRUNOW CONSOLE No. 663 . . . A.C.; 6 tubes; large 10 station "Teledial" automatic tuning; All-wave; foreign, American, police, amateur, aviation broadcasts. Size: 40" high x 12 3/16" deep x 24 3/8" wide. Cabinet: Oriental, half round and rotary walnut. Has A.V.C., one control and 12-inch speaker.



GRUNOW CONSOLE No. 1067 . . . A.C.; 10 tubes; large 10 station "Teledial" automatic tuning; All-wave; foreign, American, police, amateur, aviation broadcasts. Size: 40 1/2" high x 12 1/4" x 24 1/4" wide. Cabinet: California, pin stripe and rotary walnut. Has A.V.C., tone control and 12-inch speaker.



GRUNOW CONSOLE No. 1081 . . . A.C.; 10 tubes; "Super-Teledial" automatic tuning; All-wave; foreign, American, police, amateur, aviation broadcasts. Size: 41" high x 12 3/16" deep x 25 3/8" wide. Cabinet: matched stump, mottled and pin stripe walnut. This model has Automatic Frequency Control.



GRUNOW CONSOLE No. 1091 . . . A.C.; 10 tubes; "Super-Teledial" automatic tuning; All-wave; foreign, American, police, amateur, aviation broadcasts. Size: 41 1/2" high x 12 3/4" deep x 26" wide. Cabinet: matched stump, striped and pin stripe walnut. This model has Automatic Frequency Control.



GRUNOW CONSOLE No. 1181 . . . A.C.; 11 tubes; "Super-Teledial" automatic tuning; All-wave; foreign, American, police, amateur, aviation broadcasts. Size: 42 1/2" high x 13 1/4" deep x 26 1/2" wide. Cabinet: matched stump, crotch and striped walnut inlays. This model has Automatic Frequency Control.



GRUNOW CONSOLE No. 1183 . . . A.C.; 11 tubes; "Super-Teledial" automatic tuning; All-wave; foreign, American, police, amateur, aviation broadcasts. Size: 41" high, 13 1/4" deep, 26 1/2" wide. Cabinet: matched stump, crotch, French and rotary walnut. This model has Automatic Frequency Control.

GRUNOW CONSOLE MODEL No. 1185 . . . A.C. . . . 11 tubes; "Super-Teledial" automatic tuning; 3 wave bands; All-wave; foreign, American, police, amateur, aviation broadcasts; Size: 42 1/2" x 14 1/2" x 28 1/4". Cabinet: French and stump walnut, crotch walnut borders, striped walnut inlay. Super Teledial Models have Automatic Frequency Control.



**WRITE FOR CATALOG OF COMPLETE
GRUNOW LINE FOR 1938!**

Also name of nearest GRUNOW distributor . . . Compare GRUNOW'S prices . . . GRUNOW'S merchandising PLUS . . . Get set to cash in on GRUNOW national and local advertising helps! . . . Write today for details on the line that will put you MONEY AHEAD . . . The GRUNOW Line for 1938!

Grunow
FOR 1938

GENERAL HOUSEHOLD UTILITIES COMPANY, CHICAGO, ILL.; MARION, IND.



**ZIP! Your Station
Tuned to a Pin Point!**

EUROPE GUARANTEED!

SHOW ROLL CALL

(From page 34)

Cinaudagraph Corp., with John S. Hoyt, pres., D. P. O'Brien, sales manager, H. H. Harwell, vice-pres. and general manager, showing speakers Booth 19

Clarostat Mfg. Co., Inc., with Victor Mucher and Edward Trefz, showing volume and tone controls, T pads, L pads, attenuators, ballast tube and other type resistors. Booth 120

Clough-Brengle Co., with Kendall Clough, president, R. T. Brengle, sec. and treas., R. L. Barr, general sales manager, R. O. Lund, district sales manager, and engineers Chester Hylkema, Harry Cooper, Parker Wickham and John Wazny, showing signal generators, frequency modulators, cathode ray oscillographs, analyzers, voltmeters, service laboratories, audio oscillators, power level meters, etc. Booth 33

Continental Carbon, Inc., with F. G. Benkelman, W. F. Kohring, J. W. Jira, W. W. Boyd, showing insulated resistors, condensers, suppressors, carbon specialties, etc. Booth 112

Continental Diamond Fibre Co., with A. G. Rosnes, C. R. Jones, H. P. Weldon and E. W. Scheuer, showing dial materials, fabricated parts and coil tubes Booth 35

Continental Motors Corp., with D. A. Andrews, F. E. Garner, and H. E. Wilber, showing speakers, portable power plants, and air cleaners. Booth 30

Cornell Dubilier Corp., with Octave Blake, president, Wm. Dubilier, vice-pres., Leon A. Adelman, sales and advertising manager, engineers P.M. Deely and W. M. Bailey, and others, showing radio condensers and industrial capacitors. Booth 86

Crowe Name Plate & Mfg. Co., with W. W. Barry, M. M. Lane, E. P. Walley, H. C. Whitacre, W. L. Rayner and J. L. Robinson, showing panel controls. Booths 92 & 93

Tobe Deutschmann Corp., with Tobe C. Deutschmann, Arnold Deutschmann, Mrs. Mae Strauss, C. W. Metcalf and Mort Heineman, showing filterettes, condensers, service instruments, automatic recorders for frequency testing. Booths 20 & 21

Drake Electric Works, Inc., with W. A. Kuehl, president and treasurer, George Feigel, vice-pres., and Roy Sweet, showing electric soldering irons Booth 23

Hugh H. Eby, Inc., with A. H. Haak, chief engineer, C. N. Wiltbank, sales manager, and W. F. E. Bomke, Chicago district manager, showing parts, including photoelectric cell equipment. Booth 85



Arthur Moss, a director of the Show, is Solar's new sales manager.

Eddie Mfg. Co., with H. B. Wiggins, president, showing dials, escutcheons, etc. Booth 11

Electrad Products of P. R. Mallory & Co., Inc., with L. A. DeRosa, chief engineer, showing resistors, volume and tone controls, power rheostats and attenuators. Free catalog Booth 113

Electro-Acoustic Products Co., with Frank Freimann, president, L. M. Sandwick, sales manager, R. H. Dreisbach, chief engineer, L. R. Conrath, field engineer, C. R. Zoeller, sales dept., and A. E. Hoover, Chicago manager, showing and demonstrating sound equipment. Inspection tours. Booths 15, 16 & 17

Electro-Motive Mfg. Co., Inc., with P. Lauter, E. W. Brinson, L. B. Weyburn and V. Schoenberg, showing condensers, resistors, suppressors and attachment plugs. Booth 13

Electronic Design Corp., with John S. Meck, president, and Earl Petersen, vice-pres., showing sound amplifiers Booth 48-A

Electronic Laboratories, Inc., with Norman Kevers, president, and W. W. Garstang, showing vibrators Booth 32

Federal Microphone Stand Mfg. Co., Inc., with H. Mann, president, S. Levine, eastern representative, and H. Levine, western representative, showing microphone accessories, stands, amplifier bases and cases, covers and panels, metal punches, etc. Booth "C"

General Transformer Corp., with Henry Shafer, sales manager, G. McL. Cole, chief engineer, and Conrad De Horn, engineer, showing transmitters, amateur products, amplifiers and service parts. Booths 100 & 101

Edwin I. Guthman & Co., Inc., with E. I. Guthman, president, showing coils Booth 106

Hallicrafters, Inc., with W. J. Haligan, president, R. W. Durst, secretary, George Masilek, vice-pres., Karl Miles, chief engineer, J. L. A. McLaughlin, design engineer, Herbert Hartley, factory superintendent, R. J. Higgins, service manager, J. Frandreis, auditor, and others, showing communication receivers Booths 82 & 83

Hammarlund Mfg. Co., showing variable condensers, coils, I.F. transformers, trimming condensers, coil forms and shields, tube sockets and shields, and super-pro receiver. Special "25th Year" display by Lewis Winner, advertising manager Booth 68

Hickock Electrical Instrument Co., with R. D. Hickok, Jr., general manager, Robert Williams, sales manager, J. R. Barnhart, engineer, Walter A. Weiss, engineer, and John M. Forshay, New York representative, showing tube testers, set testers, oscillographs, oscillators, voltmeters, etc. Booth 130

Hygrade Sylvania Corp., with B. G. Erskine, president, M. F. Balcom, vice-president, R. M. Wise, chief tube engineer, C. W. Shaw, tube sales manager, P. S. Ellison, renewal tube sales manager, W. R. Jones, commercial engineer, A. L. Milk, Emporium sales supervisor, R. P. Almy, western sales supervisor, other execs E. A. Nickel, H. G. Kronenwetter, E. T. Reid, R. S. Merkle, J. M. DeVoe, and eight territorial representatives, showing tubes and new literature. Booths 56 & 57

Indiana Steel Products Co., with A. D. Plamondon, Jr., president, George Klein, manager, and Phil

(Continued next page)



A. A. Berard of Ward-Leonard, is the Show Corp.'s vice-president, and will show up at Booth 107.



Ed Doyle, Triumph's chief engineer, interests himself in television equip.

Smith, eastern representative, showing permanent magnets. Booth 7

Insuline Corp., with S. J. Spector, president and sales manager, and Walter Boyd, showing auto, servicing, amateur parts and accessories. Booth 2

International Resistance Co., with Ernest Searing, president, Fred D. Williams, vice-pres. and general manager, and Dan Fairbanks, sales manager, showing three types of resistors, volume controls, suppressors and resistor kits. Booth 84

Jackson Electrical Instrument Co., with Paul F. Jackson, president, G. M. Buchard, chief engineer, and others, showing tube testers, oscillographs, oscillators and multimeters. Booths 76 & 77

Jefferson Electric Co., with J. A. Bennan, president, A. E. Tregenza, vice-pres. and general sales manager, and R. Benson, advertising manager, showing transformers. Booth 116

Jensen Radio Mfg. Co., with Peter L. Jensen, president, Thos. A. White, sales manager, and others, showing loudspeakers. Booths 53 & 54

E. F. Johnson Co., with E. F. Johnson and L. W. Olander, chief engineer, Bryon E. Hargrove, sales and advertising manager, and others, showing transmitting condensers, voltage ratings, insulations, etc. Booth 63

Ken-Rad Tube & Lamp Corp., with C.C. Mathews, sales manager, A. O. Perlitz, sales promotion manager, Ernest Kohler, commercial engineer, Eugene Carrington, sales representative, and George E. Phillips, sales representative, showing receiving tubes and test equipment. Booth 61

Kenyon Transformer Co., Inc., with F. P. La Dieu Kenyon, president, J. B. Carter, general sales manager, Edward Allman, sales representative, showing transformers, amplifiers, phone transmitters, etc. Booth 45

Kester Solder Co., with F. C. Engelhart, president, E. H. Williams, vice-pres., P. C. Ripley, advertising and general sales manager, showing solders, solder paste, solder salts, etc. Booth 1

Krauter & Co., Inc., with G. H. Beaudin, Sr., Chicago manager, showing pliers and other mechanics' tools. Booth 37

Lenz Electric Mfg. Co., with J. M. Lenz, president, Philip C. Lenz, vice-pres., and Raymond G. Zender, sales engineer, showing wire products, cords, cables, etc. Booth 60

Magnavox Co., with Richard A. O'Connor, president, Stanley S. Sondles, sales manager, and others, showing condensers, speakers, P.A. parts, etc. Booths 15 & 16

P. R. Mallory & Co., Inc., with Ray F. Sparrow, vice-pres., Howard W. Sams, wholesale manager, Gordon V. Peck, condenser manager, Harry W. Gebhard, switch manager, M. U. Nulsen, vibrator manager, P. Newton Cook, advertising manager, and engineers G. W. Carpenter, B. V. K. French, and I. M. Slater, showing dry electrolytic condensers, auto radio vibrators, rectifiers and battery chargers, volume controls, all wave switches, jacks, jack switches and hardware. Booths 89 & 90

Meissner Mfg. Co., with James T.

Watson, president, George U. Rockey, vice-pres. and sales manager, William Carduner, jobber sales manager, and others, showing coils, condensers, etc. Booth 121

Micamold Products Corp., with E. B. Tyler, sales manager, and assistants, showing condensers, fixed and variable resistors, and metal ballast tubes. Booth 98

Micarta Fabricators, Inc., with Harry A. Olson, president, J. V. Park, Perry Saftler, E. R. Peel, B. B. Steele, E. L. Ihle, W. W. Robinson, A. L. Sullivan and L. Nordlie, showing tube sockets, dial light sockets, terminal strips, screw terminals, coil forms, etc. Booth 99

J. W. Miller Co., with John W. Million, Chicago representative, showing RF coils, I.F. transformers, RF chokes, line filter chokes, line filters, and new catalog. Booth 88R

Million Radio & Television Laboratories, with John W. Million, president, showing tube testers, analyzers, multimeters, oscillators, etc. Booth 88L

The Muter Co., with Leslie F. Muter, president, J. R. Scanlon, vice-pres. and general sales manager, Fred B. Stevens, A. A. Dailey, and others, showing resistors, condensers, test equipment, interference filters, ballast tubes, relays, switches, spirashields, etc. Booth 129

National Co., Inc., with James Millen, president, Arthur Lynch, New York, Arthur Deutsch, Northwest representative, L. A. Chambers, Chicago, and E. P. Demarest, Cali-

COMPLETE PROGRAM OF FIFTH ANNUAL NATIONAL CONVENTION

Thursday, June 10th

- 7:30 P.M.—"Radio Tomorrow"—O. H. Caldwell, Editor, RADIO TODAY.
- 8:00 P.M.—"Proven Merchandising Ideas that Will Boost Your Profits"—"Sandy" Cowan, Service.
- 8:30 P.M.—"Universal Coils"—Chas. S. Linell, Carron Mfg. Company.
- 9:00 P.M.—"Psychology of Selling Service"—J. P. Kennedy, Triumph Mfg. Company.

Friday, June 11th

- 2:00 P.M.—"Crystal Devices in Radio Service Field"—J. A. Altmeyer, Brush Development Co.
- 2:30 P.M.—"Recent Developments in Crystal Microphones and Phonograph Pickups"—Ralph P. Glover, Shure Brothers.
- 3:00 P.M.—"New Developments in Crystal Microphone Cable"—N. Hogenbirk, Belden Mfg. Company.
- 3:15 P.M.—Questions and Answers on above three subjects.
- 3:30 P.M.—"The Development of Heavy Duty Vibrators and Converters"—W. W. Garstang, Electronic Laboratories, Inc.

- 4:00 P.M.—"Mutual Conductance Tube Testers"—J. R. Barnhard, The Hickok Electrical Instr. Co.
- 6:00 P.M.—Institute of Radio Engineers' Banquet. (The evening Program will be under the auspices of I. R. E.)
- "Tubes"—Roger Wise, Chief Engineer, Hygrade Sylvania Corp.
- "Instruments"—Kendall Clough, Clough-Brengle Company.
- "Receivers"—Speaker to be announced.

Saturday, June 12th

- Saturday afternoon Program under auspices of ARRL.
- 2:00 P.M.—"Amateur Transmitting Tubes"—A. Anderson, Taylor Tube Co.
- 2:30 P.M.—"Antennas and Antenna Systems"—Robert Wood, Galvin Mfg. Corp.
- 3:00 P.M.—"Recent Research Developments on Ultra High Frequency Problems"—Dave Elam, Montgomery, Ward & Co.
- 3:30 P.M.—"Modern Transmitter Design"—Henry Argento, Raytheon Production Corp.

fornia, showing communication equipment, both parts and complete receivers Booth B

National Union Radio Corp., with S. W. Muldowny, board chairman, R. M. Coburn, general sales manager, J. H. Robinson, export manager, G. E. DeNike, advertising manager, R. H. Van Dusen, asst. sales manager, J. J. Clune, New York representative, 10 district managers and others, using the theme "Plus Profit for Radio Service Specialists Through Better Service Equipment and More of It". Booths 104 & 105

Ohmite Mfg. Co., with D. T. Siegel, president, R. S. Hill, radio sales manager, J. S. Howe, chief engineer, J. A. Greig, G. E. Gray, and R. S. Laird, showing resistors, switches, rheostats, etc. Booth 117

Operadio Mfg. Co., with J. McWilliams Stone, president and advertising manager, Laurence A. King, sales manager and others, showing sound equipment Booth 94

Oxford-Tartak Radio Corp., with J. S. Gartner and C. R. Bluzat, showing electro-dynamic and permanent magnet dynamic speakers, public address replacement models. Booth 48

Park Metalware Co., Inc., with F. B. Farrington and John O. Olsen, showing radio and electrical displays, screwdrivers, nut drivers, aerial connectors, wrench sets, etc. Booth 9

Parris-Dunn Corp., with C. L. Parris, president, and F. E. Brown, sales manager, showing windchargers. Booth 8

Pioneer Gen-E-Motor Corp., with L. E. Bright, president, R. D. Wright,

H. A. Simms, Ben Golder, W. F. Beck, and others, showing light and power plants, battery chargers, rotary converters, dynamotors, gen-e-motors, etc. Booth 59

Quam-Nichols Co., with James P. Quam, I. B. Picard, T. S. Trzyna, H. Sappenfield, M. Little, Jr., and F. E. Gore from the Chicago office; representatives from New York, Minneapolis, Seattle, San Francisco, Illinois, Los Angeles, Cleveland, Texas and Georgia, showing speakers, auto aeriels, antenna kits, etc. Booth 22

Radiart Corp., with L. K. Wildberg, president, B. Thomas, M. J. Shapiro, K. C. Burcaw, showing vibrators, vibrator checkers and auto aeriels Booth 55

Radio City Products Co., with F. H. Ellinger, special sales representative, and M. Reiner, chief engineer, showing assorted parts, featuring oscillators and tube testers. Booth 67

Radiotechnic Laboratories, with H. P. Manly, president, and J. M. Haggard, showing tube test equipment Booth 127

Raytheon Production Corp., with L. K. Marshall, president, P. T. Weeks, chief engineer, E. S. Riedel, general sales manager, David T. Schultz, vice-pres. and general manager, E. S. Dietrich and others, showing tubes Booth 91

RCA Mfg. Co., with G. K. Throckmorton, exec. vice-pres., Thomas F. Joyce, advertising manager, and Dave Finn, showing parts, tubes, test and amateur equipment, etc. Booths 38 & 39

Readrite Meter Works, with R. L.



Charles E. Stahl, Arcturus exec., concludes an agreement with Kyi-Tsing Chu, Chinese government official.

Triplett, F. E. Wenger, D. W. Bowman, N. A. Triplett, B. W. Heuvelman, J. T. Keeney and A. R. Baker, showing test equipment. Booth 123

John F. Rider, at the show in person, showing trouble-shooter's manuals, auto radio manual, volumes on alignment, servicing, etc. Booth 34

The Rola Co., with B. A. Engholm, president, and Leon Golder, sales manager, showing loudspeakers. Booth 50

Shure Bros., with S. N. Shure, general manager, E. L. Berman, sales manager, and R. P. Glover, chief engineer, showing microphones, crystal phonograph pickups and acoustic devices .. Booths 71 & 72

Simpson Electric Co., with Ray R. Simpson, president, Herbert Bernreuter, vice-pres. and chief engineer, and George H. Koch, sales manager, showing tube testers, set analyzers, milliammeters, signal generators, panel instruments, etc. Booth 109

Solar Mfg. Corp., with W. C. Harter, Arthur Moss, Sylvan A. Wolin, advertising manager, and 13 district managers, showing condensers and capacitor analyzers. Souvenirs. Booth 75

Sprague Products Co., with Irving J. Kahan, Chicago manager, and Harry Kalker, sales manager, showing condensers and featuring interference subjects. Contest. Booth 49

Standard Transformer Corp., with Jerome J. Kahn, president, Everett E. Gramer, vice-pres. in charge of sales, Louis Gamache, development engineer, Jimmy Wood, city salesman, Joe Ward, road salesman, showing transformers. Souvenirs. Booths 73 & 74

(Continued on next page)

INSTITUTE OF RADIO SERVICE MEN, HOTEL STEVENS, CHICAGO

- 4:00 P.M.—"Amateur Receiver Design"—K. W. Miles, The Hallcrafters, Inc.
- 4:30 P.M.—"Oscillographic Measurements on Amateur Transmitter and Receiver Equipment"—Floyd Faucett, Supreme Instruments Corp.
- 5:00 P.M.—"Scientific Method of Improving Code Speed"—T. R. McElroy, National Code Champ.
- 8:00 P.M.—Installation of IRSM Officers—John T. Rose, presiding.
- 8:30 P.M.—"How to Choose Test Instruments"—John S. Meck, Electronic Design Corp.
- 9:00 P.M.—"A Technical Discussion of Inter-office Communication Systems"—Robert Herzog, Service.
- 9:30 P.M.—"Oscillographic Demonstration of New Developments in Receiver Circuits"—Chas. Herbst, RCA Mfg. Co., Inc.

Sunday, June 13th

- 1:30 P.M.—"AC-DC Ballast Tube Resistors"—Edward Trefz, Clarostat Mfg. Co., Inc.
- 2:00 P.M.—"Twenty Thousand Ohms Per Volt Radio Testing Instru-

- ments"—O. J. Morelock, Weston Electrical Instrument Corp.
- 2:30 P.M.—"Auto Antennas"—Neal Bear, The Ward Products Corp.
- 3:00 P.M.—"New Tube Developments"—Walter Jones, Hygrade Sylvania Corp.
- 4:00 P.M.—"Practical Testing of Auto Vibrators for Service Men"—I. M. Slater, P. R. Mallory & Co., Inc.
- 4:30 P.M.—"Hum and Distortion Problems in Public Address Work"—J. H. Kleker, Thordarson Elec. Mfg. Co.
- 7:30 P.M.—"Noise in Volume Control Circuits"—W. H. Fritz, Centralab.
- 8:00 P.M.—"Speakers and Speaker Systems" (Their proper selection and application)—Austin Ellmore, Utah Radio Products Co.
- 8:30 P.M.—"Vacuum Tube Volt Meters and Their Applications to Receiver Test Problems"—R. L. Barr, Clough-Brengle Company.
- 9:00 P.M.—"Identification of Radio Interference Sources Including a Demonstration of Both the Sounds and Their Wave Forms"—C. W. Metcalf, Tobe Deutschmann Corp.



John F. Rider will greet radio men again from his booth No. 34.

Supreme Instruments Corp., with D. N. Dulweber, president and sales manager, Samuel C. Milbourne, service engineer, Floyd Fausett, chief engineer, Raymond Soward, test engineer, and others, showing oscilloscope models, test equipment and accessories.
Booths 51 & 52

Technical Appliance Corp., with T. Lundahl, sales manager, H. H. Brown, treasurer, A. H. Bruning, and L. A. Bauman, Chicago representatives, showing antenna systems and kits, line filters, set couplers and wave traps.
Booth 281

Thordarson Electric Mfg. Co., with C. P. Cushway, sales manager, and Henry Johnson, advertising manager, showing testing units.
Booth 128

Transducer Corp., with G. M. Gianini, president, J. T. Kane, sales manager, and E. Moxham, treas-



William W. Garstang, Electronic Labs' vice-pres. and chief engineer, will be found in that firm's Booth 32.

urer, showing dynamic microphones and intercommunicators.
Booth 44

Transformer Corp. of America, with Hubert L. Shortt, president, Harry Berman, Chicago representative, and others, showing amplifiers and sound systems Booth 6

Triad Mfg. Co., with H. H. Steinle, director of sales, Edward Singer, Chicago district manager, and others, showing tubes .. Booth 102

Triplett Electrical Instrument Co., with R. L. Triplett, F. E. Wegner, N. A. Triplett, D. W. Bowman, A. R. Baker, J. T. Keeney and B. W. Heuvelman, showing test equipment Booth 79

Triumph Mfg. Co., with J. J. McCarthy, president, Ed. Doyle, chief engineer, J. P. Kennedy, sales manager, and Phil Hoffman, production manager, showing oscillographs and wobulators, signal generators, tube testers, voltmeters, etc. Booth 96

Turner Co., with R. L. Thompson, chief engineer, and H. W. Johnson, sales manager, showing crystal microphones, intercommunicators and amplifiers Booth 24

United Sound Engineering Co., with H. M. Richardson, showing sound system Booth "D"

United Transformer Corp., with S. L. Baraf, sales manager and vice-pres. and eight members of technical staff, showing transformers, broadcast equipment, automatic voltage controls, equalizer and filters, amateur line, amplifier kits, etc. New bulletins.... Booth 126

Universal Controls, Inc., with Irving P. Karlin, sales director, Emil Gartner, sales manager, and others, showing remote control equipment; pre-assembling display a feature Booth "E"

Utah Radio Products Co., with Ira J. Owen, president, R. M. Karet, sales-wholesale director, Austin Ellmore, chief engineer, Edward Barrett, chief vibrator engineer, Malcolm Hume, sales engineer equipment division, Oliver Read, amateur equipment engineer, L. L. Worner, wholesale sales division, and Ray Hutmacher, wholesale division, showing speaker, vibrator and amateur transmitter equipment. New catalog.....Booths 69 & 70

Ward Leonard Electric Co., with Arthur Berard and J. R. Jones, showing resistors, rheostats, relays, and line voltage reducers.
Booth 107

Ward Products Corp., with R. N. Wiesenberger, president, and H. Wiesenberger, advertising manager, Neal Bear, John T. Rose, H. E. Walton, J. J. Kay, Nat Lazarus, and Adolph Schwartz, showing antennae Booth 5

Earl Webber Co., with Earl N. Webber, sales manager, R. M. Krueger and Wm. Schlessinger, showing service laboratory, vibrator analyzers, RF oscillators, tube testers, oscillographs, radio analyzers.
Booth 119

Webster-Chicago, with John Erwood, vice-pres., Joe Erwood, in charge of design, R. M. Gray, eastern sales manager, M. F. Klicpera, western sales manager, G. J. Irving, sales promotion manager, showing intercommunicators, portable and fixed public address systems, and accessories.
Booths 114 & 115

Webster-Electric Co., with S. A. Loeb, president, A. C. Kleckner, vice-pres. and chief engineer, H. G. Kobick, asst. to the president, R. Ferda, sound equipment sales manager, sales dept. members Whan, Johnson, Williamson and engineers Reeves, Daniels and Campbell, showing sound equipment and intercommunicators.
Booths 25 & 26

Weston Electrical Instrument Corp., with V. E. Jenkins, electronic sales division manager, J. O. Morelock, engineer, Paul Westburg, Chicago office manager, showing test equipmentBooths 40 & 41

S. S. White Dental Mfg. Co., with John C. Smack, assistant industrial manager, and Vincent J. Giangrande, showing resistors and flexible shafting. Aeroplane flying stunt a feature.....Booth 87

Wincharger Corp., with W. W. Watts, general sales manager, Mort Duff, advertising manager, and others, showing windcharger equipment. New catalogs Booth 14-A

Wirt Co., with Paul G. Duryea, sales manager, R. F. Taylor, central division sales manager, and Leon Podolsky, chief research engineer, showing resistors, volume controls, tone controls, switches, cores, voltage regulators, and cord connectors Booth 22

Wright-DeCoster, Inc., with D. H. Wright, president, Raymond Dupuy, vice-pres. and chief engineer, D. W. DeCoster, treasurer, and D. F. Tobias, New York representative, showing speakers and P.A. accessoriesBooth 58

Zenith Radio Corp., with Commander E. F. McDonald, Jr., president, Paul M. Bryant, president's assistant, E. A. Tracey, vice-pres. in charge of sales, Edgar G. Herrmann, advertising manager, R. F. Weing, auto sales manager, and others, showing parts and equipmentBooth "A"

★ Annual convention of radio servicemen and Radio Trade Show, to be held in St. Paul, Minn., on June 20, 21, and 22, will be sponsored by manufacturers' representatives handling radio parts, sound and test equipment. There will be a John Rider dinner and various technical talks and clinics. Agents actively involved in sponsorship include Merrill Franklin, Fred Hill, Jack Hedquist, Jack Heimann, Tex Leonard, Mel Foster, Flint Harding, Roland Borke, Fred Delancy, Dwight Lindvorg, H. Hilderandt, and James Pope.



The center of attraction at the I. R. S. M. Convention will be the RCA booth. See these displays and meet your friends there.

Surprises Await You!

Be Sure You Visit the RCA Booth at the I. R. S. M. Convention at Chicago

YOU will be surprised at what you see. There will be an extremely interesting display—a physical representation of beam power and pentode tubes in operation... In addition, there will be an interesting presentation of the famous RCA Check-up—the promotion which enables you to sell more tubes, more service and more parts, as well as many other electrical appliances which you stock. The RCA Check-up makes

sales prospects pay you for being discovered!

You will also see displays featuring the new RCA Magic Wave Antenna, RCA Test Equipment, Amateur Tubes, Amateur Receivers and Transmitters. Another feature will allow you to "Look into the Future" via RCA Television.

But be sure to see all these things! You will find your time well spent.

These RCA Technical Helps will also be on display

•
 Socket Layout Guide...RC-13 Radio Tube Manual... Radio Service Tip File... RCA Service Tip Packets... RCA Pindex... RCA Service Engineer's Pencil... RCA Cathode Ray Tube Manual TS-2... RCA Air-Cooled Transmitting Tube Types Listing... RCA Air-Cooled Transmitting Tube Types Supplementary Listing... Characteristic Chart of all Glass and Metal Tubes... HB-3 Tube Handbook

RCA presents the "Magic Key" every Sunday, 2 to 3 P. M., E. D. T., on NBC Blue Network



Radiotrons

RCA MANUFACTURING CO., INC., CAMDEN, N. J. • A SERVICE OF THE RADIO CORPORATION OF AMERICA

June, 1937

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NOW PRESENTING THE "REPS"

- manufacturers' agents credited for work
- their position, their ideas, their future

★ ANYONE who operates in the radio trade will eventually run into a gentleman called a "manufacturers' representative."

He belongs to a powerful section of the industry which has rather missed being glorified as a separate factor. These representatives are persons with a special job to do in the production and distribution of radio receivers and parts. They exist in all branches of the trade. A good slant on their functions, however, may be had by an examination of their position in the radio parts field.

As a group, they may be different from sales managers employed by radio parts makers, and they are strictly not the same as district or divisional representatives which those firms use. The companies whom they represent often name them "Eastern sales manager," "West Coast sales supervisor," etc., but in many cases they are also representatives for several non-competing lines.

National figures

There are between 350 and 400 radio parts manufacturers' representatives in the country, and each one of them may represent 3 to 6 companies. The basic nature of their work is to supply the needs of the purchasing agents connected with radio receiver plants.

It is not often that the representative is associated with enough parts companies to supply purchasing agents with all the units involved in the assembly of a radio set, but he does know the sources of supply for all of them. To his client, the set manufacturer, he thus becomes an advisor on all problems of set construction.

In this capacity, he becomes a well known specialist, who picks up data from all branches of the trade. He keeps up on all new engineering developments so that his recommendations will be valid in terms of the current competitive situation among makers of receivers. He watches the movements of all parts manufacturers and interprets them where they will do the most good.

A few of the "reps" are mixed up in export activity, but in most cases the parts people maintain their own export departments.



Perry Saftler has a finger in much of "The Representatives'" activity; he's vice-president of the group.

Manufacturers' representatives are by no means aloof from the matter of public acceptance, in spite of the fact that they never deal with the ultimate consumer. Those who assemble sets obviously have no reason for doing so unless the sets will sell, and the parts representative would have no business unless he could talk sales appeal. The consumer may not identify the parts of a set by trade names, but he learns which ones perform best.

The average type of representative sells also to parts jobbers. Many of them have a wide acquaintance



David Sonkin, New York, "sales engineer for manufacturers," secretary-treasurer of "The Representatives."

among distributors, and offer them complete service on parts stocks. However, selling to wholesalers is often done directly by those in the employ of a single parts company.

Agent's future

The remark has been made that "the manufacturers' representatives of today are the advertising managers and sales managers of tomorrow." It is true that these gents do have a finger in the advertising programs used by parts manufacturers. They are often depended upon for expert advice as to what media are preferred by dealers.

Today many representatives are working together in an organization now 2 years old called "The Representatives." Membership of the group has grown to 120; national officers are Earl Dietrich, president; Perry Saftler, vice-president; Dave Sonkin, secretary-treasurer. D. R. Bittan is chairman of the membership committee.

Courtesy stunt

Example of service to the industry given by manufacturers' agents in the sponsorship of the "1937 Radio Industries De Luxe Special Train" engaged to carry guests to the National Parts Show at Chicago. This stunt is credited to the joint auspices of "The Representatives" and the Sales Managers' Club.

Mr. Saftler is chairman of the special train committee, which includes, besides Mr. Bittan and Mr. Dietrich: J. B. Price, New York City; H. Gerber, Boston, Mass.; and Harry Segar, Buffalo, N. Y. Representing the Sales Managers' Club (N.Y.) was chairman Charles Golenpaul, Brooklyn, N. Y.

EASTERN TRADE SHOW, N. Y. OCT. 1-3

★ Arthur Berard and Arthur Moss, vice-president and secretary-treasurer, respectively, of the Radio Parts Manufacturers National Trade Show, in conference with the show committee of the eastern division of the Sales Managers Club, comprising Charles Golenpaul, Paul Ellison, and Walter Jablon, have unanimously agreed to hold the 1937 New York National Trade Show at Commerce Hall in the Port of New York Authority Building, and have designated the Victoria Hotel as Show and Convention Headquarters. Oct. 1, 2 and 3 have been selected as the dates.

Find out what the

FAIRBANKS-MORSE

Radio Line has to offer you . . .

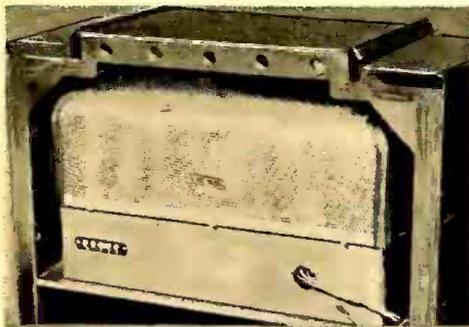
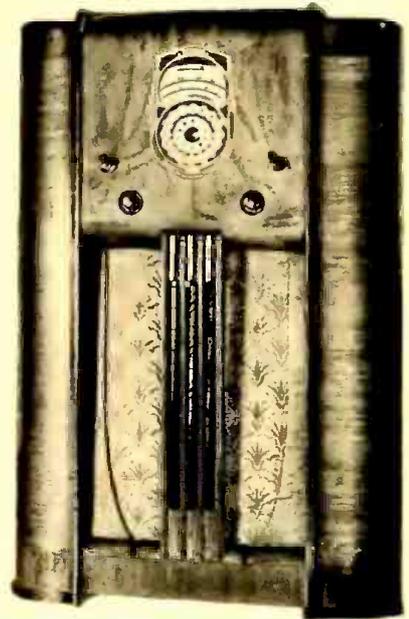
NOW READY • YOUR DISTRIBUTOR HAS THEM!

● Distributors who attended the Radio Convention at the Fairbanks-Morse factory at Indianapolis recently acclaimed the new 1938 line the outstanding receiver values on today's market.

You'll say the same thing when you see this new line because then, and then only, can you appreciate what this new line can mean to you, in your territory.

It incorporates every desirable feature found in any radio plus new features found in no other. These features contribute to better performance. They step salability way up. They change shoppers into buyers. There are sales-closing models in every price bracket from \$19.99 up. 24 models in all and every one a leader—the model illustrated at right is No. 9AC4 incorporating automatic tuning and listing at \$105.00 F. O. B. factory with antenna.

The Fairbanks-Morse dealer proposition is "aboveboard." Your investment is protected. There is no red tape . . . no mandatory requirements of heavy financial investment. It takes only a few moments to get the whole story—and it may prove the most profitable few minutes you ever spent. Write Fairbanks, Morse & Co., Home Appliance Division, 2060 Northwestern Avenue, Indianapolis, Indiana.



TURRET SHIELDING

A sales-closing feature, developed and introduced by Fairbanks-Morse. Turret Shielding closes more sales per prospect for Fairbanks-Morse dealers—because it is one of the reasons why this radio has so much less of the popping and crackling noise that mars foreign reception. Here's extra value and better performance that any prospect immediately appreciates and wants.

AUTOMATIC TUNING

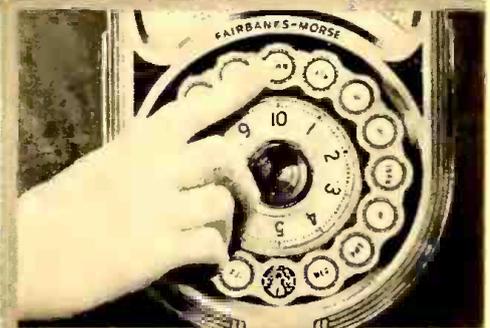
With true automatic frequency control. Prospects want the greater convenience and operating ease provided by the distinctive Fairbanks-Morse Automatic Tuning Dial.

It works with the smoothness of a railroad watch—because it is precision-built. An ingenious circuit makes this radio adjust itself to the incoming signal of the station they want to listen to. The automatic dial brings in their favorite domestic programs with one flip of the finger—instantly, perfectly.



TONE PROJECTOR

Another exclusive feature that gives this radio new faithfulness and beauty of tone. Like Turret Shielding it is a sales clincher because prospects can see what it is and hear what it does. It is the first thing that catches their eye when you show them the back of the radio.



FAIRBANKS-MORSE PLUS-VALUE RADIO

THE MEN WHO SOLD FAIRBANKS-MORSE RADIOS LAST YEAR KNOW

"SHOE-LEATHER" KINKS

- picking and training salesmen for summer selling
- qualities to consider when selecting outside crew

★ "WE are selling higher priced merchandise because we have quit talking about price to both our outside selling force, and to our customers." This is the trading-up policy of Missouri's Electric Store, 1317 Grand Ave., Kansas City, Mo.

"The problem, as we emerge from the past years of depression, as we see it," says C. E. Healy, sales manager, "is one of forcing people into the habit of thinking in terms of merchandise and radio entertainment instead of price."

To accomplish this, he has begun with the personnel of the outside selling force. The important thing is that the new men have no knowledge whatever of the selling game. Not necessarily young men—older men are proving valuable, provided they have had no previous *selling* experience.

Any recent selling experience is certain to mean that the salesman is price-conscious, according to Mr. Healey. His theory is that the only possible way to eliminate that price-consciousness is to begin with a clean slate.

Having advertised for salesmen, the matter of selection boils down to those who have, first, no selling experience. But, personality, with an enthusiasm to sell and accept instruction, is the other requirement.

No mention of price is made during the training period of these men who are selected to represent this firm.

"We believe in the merchandise we have for sale; we honestly believe that it works no hardship on people to buy a \$75 radio rather than a \$29 one," says Mr. Healey. "We instill that belief into the minds of our new men, sending them out with an enthusiasm backed by our own enthusiasm in the merchandise."

They, in turn, are better equipped to present the merits of the higher priced merchandise (though in their minds it is rather *better* merchandise) to prospective buyers.

Users solicited first

With some 35,000 users' names on the store's list, new men have the way paved for replacement sales. Beginning with this kind of sale, the more simple one, the step toward finding and selling new prospects is made easier.

Users are approached by the usual method of inquiry as to satisfaction of service. Openings quickly occur for suggestions of a trial of a new radio. The enthusiasm of the merchandise-conscious salesman makes the apologetic, but often sure resistance, "But I can't afford a better radio" a simple matter to break down. It is turned into, "How much, though, are they?"

Commission or salary?

The salesman has been given to understand that the *merchandise* is of prime importance, and having had no previous knowledge of selling, has not questioned this method of training—has not rebelled against that trading-up theory, without the stressing of price.

He cannot, therefore, sympathize, in the manner of the price-conscious salesman of the depression period,

DON'TS FOR SALESMEN

Offensive qualities which interfere with pleasing personality and effective selling

- Untidy appearance
- Undue familiarity
- Knocking competitors
- Knocking anybody
- Boisterous entrance
- Loud talking
- Loose conversation
- Too much slang
- Laughing loudest at own jokes
- Interrupting when others talk
- Monopolizing conversations
- Rudeness to any one
- Conspicuous apparel
- Argumentative manner
- Showing the other fellow up
- Lack of attention when others talk
- Impulsive contradicting
- Extravagant claims
- Spreading scandal or harmful gossip
- Persistence that becomes insolence
- Unwillingness to end a discussion that is finished
- Lack of respect for the achievements of others
- Sarcastic or unkind comments about the conversations or opinions of others
- Failure to bring some new helpful thought on succeeding calls

with the harassed buyer. Rather, does he make that prospective buyer want the *merchandise*, forgetting price.

Neither does he know how much commission he is going to make on the sale. He only knows that the more enthusiasm he can put into his explanation of the merchandise, the more sales he will make, with an increasing income.

"When a man aims at a certain amount each week, and is satisfied to attain that amount in commission," says Mr. Healey, "his usefulness ceases. He might as well be paid a small regular salary with a stipulated amount which must be done to earn that salary."

During the training process, after a prospect has consented to the placing of a radio in the home, a member of the firm makes the final call *with* the salesman to help close the sale. The salesman, of course, is permitted to make the opening.

Later, back in the store, the entire transaction is discussed. Any mistakes in analyzing the customer are pointed out. In this way, the next sale is made easier.

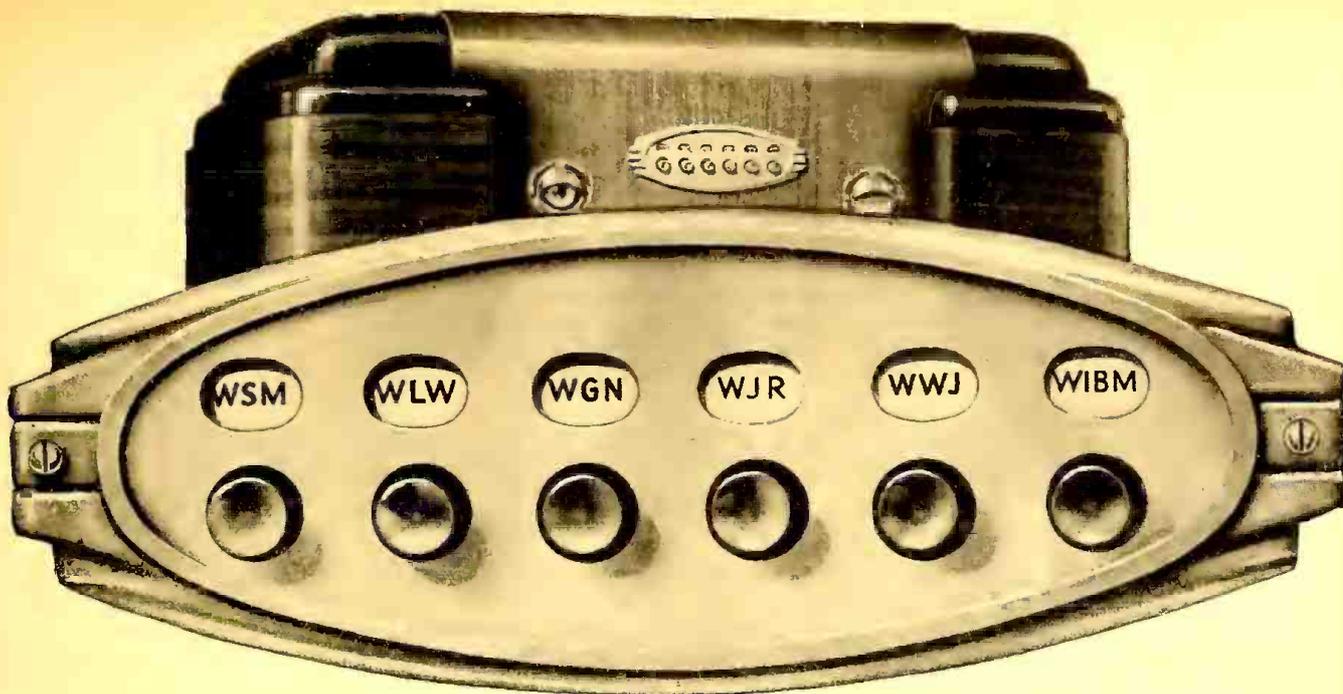
Once the salesmen are so trained to be merchandise-conscious instead of price-conscious, they can close sales, knowing prices; knowing, too, that price is of secondary consideration!

"The new enthusiasm of these merchandise-conscious salesmen is reflecting itself in our customers," says Mr. Healey. "Telephone calls from them, eagerly asking us to hurry the installation of better radios, prove the value of the theory, a theory which is workable."

Offensive qualities in salesmen

Another radio sales manager who has had wide experience in hiring men has made up a list of the objectionable qualities in salesmen—characteristics which can negative even good qualities the men may have. Here is his list, reproduced on this page, both as a reminder for the boss in hiring, as to what kinds of men to pass up, and as a memo for the salesman himself if he wants to study what characteristics are interfering with his most effective selling.

Interviews which end without immediate sales should close with an expression of confidence on the part of the salesman, confidence in how his line will stand up among others, if the prospect intends to go shopping about. Do not conceal your disappointment at not making a sale, though, as any prospect likes to feel that it makes some difference to somebody.



The **SPARTON SELECTRONNE**

PATENT APPLIED FOR

Instantaneous push button tuning!!

Normal day-to-day enjoyment of radio in the average home now centers upon a limited number of those stations which consistently afford the best programs and interference-free reproduction in a particular locality.

It will be found that, in nearly every instance, not more than six such stations, and usually fewer, are tuned in regularly and habitually. The six usually comprise those carrying the chain programs, a local and possibly one or two others for which the listener has special preference.

In making it possible to tune any one of these six stations by merely pressing a button SPARTON has achieved the ultimate, truly a revolutionary principle, in the normal use of a radio receiver. The principle is simplicity itself. There are no moving parts but the button switch assemblies. The action is instantaneous.

The six desired stations are pre-tuned by three trimmer type condensers, each. The push button switch connects the proper set into the receiver circuit, at the same time releasing any other button from the "in" position. Automatic frequency control circuits keep the station always in exact tune.

The trimmers are easily accessible without removing chassis or any parts. The desired stations are "set-up" by adjusting the trimmers with an ordinary screw driver, using the Viso-Glo tube of the set as a guide for correct adjustment.

By skilled engineering and design, the Selectronne in no way restricts the band coverage and operation of the radio set as a conventional, all-wave receiver.

The escutcheon carries tabs for station letters above the buttons which always remain in the same position on the panel and hence the Selectronne can be used with eyes shut.

THE SPARKS-WITHINGTON COMPANY
Jackson, Michigan, U. S. A.

AVAILABLE IMMEDIATELY

AVAILABLE IMMEDIATELY

June, 1937

59

DISC DEPARTMENT

Summer players important to record promotion

★ **PLAN FOR PORTABLES**—these are words that mean a great deal to record merchandisers with the coming of June days.

Investigation reveals that "in June and July the sale of phonograph equipment goes up, owing to the demand for portables by vacationists and the demand for coin-machine phonographs which are installed in roadside stands."

Seasonal upswing in phonograph equipment, of course, means a wider market for records, and the phonograph buyers who interest the dealer are the ones who invest in portables. The record jobber has an important hand in the coin machine business, but the dealer is concerned elsewhere.

Summer, 1937, offers excellent outdoor performance at a lower price in point of record-playing gadgets. Meanwhile the record companies develop more skill in combining hit tunes with popular artists, and the combination is a happy one for the man who has a disc department.

Attractive variety

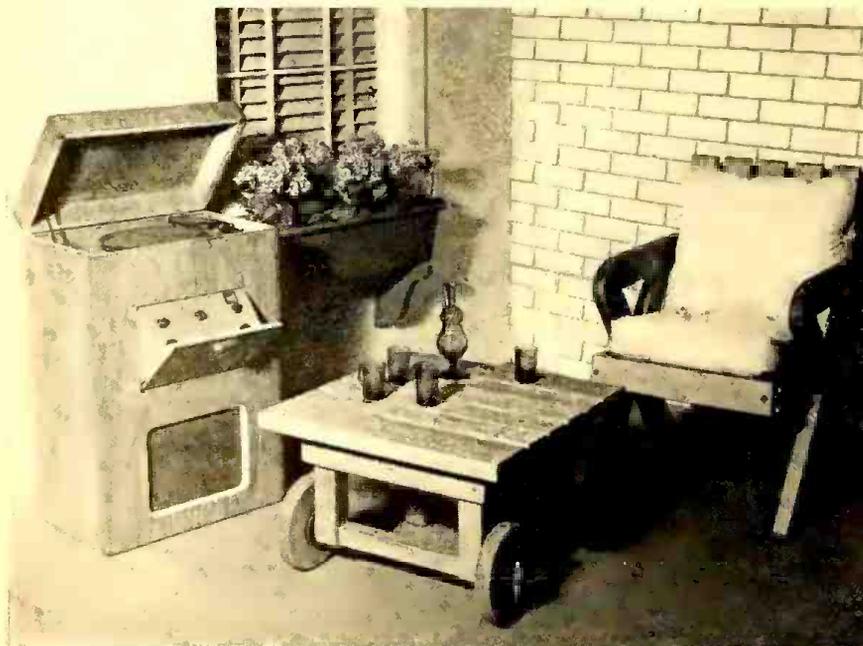
There are eight leading manufacturers actively promoting the portable instruments. One of them makes a quality phonograph-radio combination, seven tubes, automatic record



Engineer Nehlsen and Announcer Morrison of WLS, with their famous Presto recording of the "Hindenburg" crash.

changer, AC-DC, costing \$174.50. From there the prices range downward to \$16.50 for a straight electric record-player, manual operation.

With such a string of gadgets thrown into the summer market, the record retailer can go after all income groups with "the outdoor angle." Wax has taken its place among the summer specialties.



Outdoor finish for radio as a summer appeal is illustrated here by an Ansley radio-dynaphone, shown with other summer items at Wanamaker's, New York.

RECORDING NEWS EVENTS

★ What big sales opportunities dealers have in connection with recording equipment was demonstrated as a result of the *Hindenburg* disaster at Lakehurst, N. J. The business of recording news events made its appearance as an important sales idea.

Two gents from the staff of WLS, Chicago, were at the airport with Presto equipment to make a recording of the *Hindenburg* landing. Taken by surprise when the ship burst into flames, Engineer Charles Nehlsen and Announcer Herbert Morrison still managed to transcribe a complete record of all that happened. Resulting disc had such great dramatic interest that radio network and newsreel officials went after it instantly.

Incident indicates definitely that dealers who stock recorders will find considerable extra profit in making and selling records of local events.

SUMMER AUTOMATICS

★ Automatic features of portable phonograph-radio combinations make a powerful sales argument in the "relaxation" atmosphere of vacation months, according to M. Lehman, of Port-O-Matic Corp., New York City.

"People in a vacation mood," remarks Mr. Lehman, "want their portable instruments to be very easy to operate. The fact that our Port-O-Matic instruments will play 8 records automatically and flick them out through a 'robot' door has sold hundreds of them on sight."

Mr. Lehman has made provision for ease in carrying and storing records and fool-proof operation throughout. Exterior finishes have been designed in an appropriate mood. Reproduction quality has been carefully engineered to provide "rich, beautiful tones" for all locations.

Special prospects include college students, those with country homes or summer cabins, people who plan cruises or outings, and those who live in hotels or are otherwise on the move. All of these will fall for automatic features because, although they are record buyers, they are also radio fans and are used to continuous music.

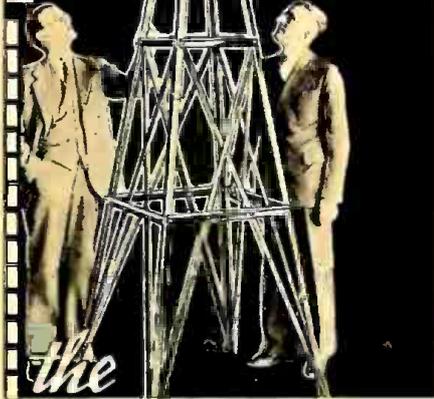
HOME MOVIE PLUGS

★ To be used in merchandising Univex home movie cameras and projectors, Universal Camera Corp., 32 W. 23rd St., New York City, has issued two booklets entitled, respectively, "How to Take Home Movies" and "How to Project Home Movies."

These will be of interest to dealers who are just starting into the business, but are specially designed to be given to the customer when he buys the units.

THE HIGHER THE TOWER
THE GREATER
THE POWER

10 FT. TALL



The
HY-TOWER
IS APPROVED BY
14 LEADING RADIO
MANUFACTURERS

HY-TOWER CHARGER
WILL BE ON DISPLAY AT THE
NATIONAL TRADE SHOW
STEVENS HOTEL - BOOTH No. 8

HY-TOWER
MAKES 10 FOOT INSTALLATION
**World's Best Wind-Driven
BATTERY CHARGER**
Best in 7 Ways

- 1 THE DUNN GOVERNING PRINCIPLE permits the propeller to tilt back and "slip the excess wind" relieving the tower of 690 lbs. of undue strain in 90 mile wind.
- 2 THE DUNN GOVERNING PRINCIPLE requires only 3 simple working parts—contrasted with 25 to 70 parts in other chargers.
- 3 THE DUNN GOVERNING PRINCIPLE utilizes a positively controlled propeller, eliminating propeller breakage in severe winds.
- 4 THE DUNN GOVERNING PRINCIPLE permits the use of a simple throwout collar, that takes the propeller out of the wind when batteries are fully charged, yet permits generator to motor in case of a short circuit.
- 5 THE DUNN GOVERNING PRINCIPLE takes all weight and controls off the propeller, keeping it light and free to run in the slightest breeze.
- 6 THE DUNN PATENTED Automatic Turntable Brake makes the "slip the excess wind" principle of governing, an engineering success. Keep charger always full face into the wind.
- 7 THE DUNN fool-proof collector ring has only two moving parts. No brushes; nothing to wear out.

PARRIS-DUNN CORPORATION
Dept. 31-B CLARINDA, IOWA
*Backed by Over 20 Years of Successful
Manufacturing Experience*

THE DEALER SPEAKS . . .

and ALL Set Manufacturers Listen!

In another broad survey, *RADIO TODAY* takes the temperature of the merchandising fever. Dealers again have an opportunity to register their feelings in a mass-expression on the principal selling problems of the retail trade. The second annual merchandising study is under way.

Lines that *sell!* What are they? Methods that work—and those that won't? Profits that are kept—and profits that vanish? The dealer talks frankly and the manufacturer pays friendly attention.

As the dealer thinks, so he acts. When we know how he thinks, it is not difficult to forecast how he will act. When we know how he acts, we have a good clue to the way he thinks.

Reduced to summaries, these opinions and actions form an excellent basis for dealer and manufacturer to work for their great mutual interest: *Better merchandising.*

By contributing actual experience to a study of this kind, dealers can spotlight the main problems and help in their solution. Thus they get a powerful voice in the future plans and policies of the manufacturers.

Quite naturally, the magazine that makes this kind of a study is an important medium of contact between the producer and the merchandiser.

All dealers who see the value of a group-expression on matters of their own self-interest, are urged to answer the accompanying questions as completely as possible. *RADIO TODAY* is mailing several thousand questionnaires direct to dealers. If you have already received your copy, you need not use the form on this page.

Individual replies will not be published. The editors assure cooperating dealers that their answers will be kept strictly confidential.

TEAR OUT ANSWER-FORM ON THIS LINE AND MAIL TO
RADIO TODAY, 480 LEXINGTON AVE., NEW YORK, N. Y.

What make of home set did you push last season?

What make of home set do you intend to push in the 1937-38 season?

What new set appears to have the greatest improvements?

What set manufacturer gives you the greatest help or cooperation in:

Maintaining profits and preventing price cutting?

Actual merchandising or promotion aids?

Servicing data?

Is interest in color increasing or decreasing?

Is interest in foreign reception increasing or decreasing?

Is interest in phono-radio combinations increasing or decreasing?

How do you rate the selling importance of:

Tone? .. Styling? .. Tuning methods? ..

Manufacturer's reputation? .. Price? ..

What are the chief obstacles to adequate profits?

What brands or makes of the following products do you carry in stock?

Home receivers? .. "A" and "B" batteries? ..

Auto radio? .. Sound equipment? ..

Radio-phonographs? .. Intercommunicating systems? ..

Radio tubes? .. Phonograph records? ..

Do you do your own servicing?

What brands or makes of the following service products do you use:

Condensers? .. Resistors? ..

Volume controls? .. Transformers? ..

Set analyzers? .. Tube checkers? ..

Your name?

Firm name?

City and State?

Says Dr. John W. Wingate, of New York University's School of Retailing: "RADIO TODAY is to be congratulated on this first thorough-going attempt to determine the operating facts of radio selling in America. Every radio merchant should compare his operations with the figures of the volume classification in which he belongs. There may be good reasons why his own operating results should

vary from the average, but when his figures are clearly out of line, he should investigate. Comparisons such as these do not effect a cure but they are invaluable in diagnosing an ailment.

"For example a radio dealer may conclude that his stock turn is too low and that this accounts for his profits being less than the average of stores in his volume range. He will

then cast about for ways and means to realize the business on a lower stock investment.

"It is to be hoped that RADIO TODAY will undertake this survey annually and that more and more stores can be drawn into the averages. If the same types of data can be made available annually, the ground work will be laid for a scientific analysis of the problems of the radio merchant."

"YARDSTICK" OF RADIO EXPENSES

Explaining how averages of retail costs may lead to future profits

★ LIFTED from our field of selling as it stands today, certain national averages for radio have been written squarely across the merchandising map.

Total sales equalling 100 per cent, here's what happened during the last year, according to RADIO TODAY's cost-of-doing-business survey, reported last month; analyzing the returns from 150 retail radio dealers:

Salary of owners	10.5%	
Employees	8.1%	
Rent	3.4%	
Advertising	2.3%	
Telephone, light, heat	2.4%	
Free servicing, installation	1.9%	
All other expenses	1.7%	
Total expenses		30.3%
Cost of merchandise		58.0%
Net profit		11.7%
Stock turnover, per year	6.5 times	

Exactly what these final figures mean to the radio man can be explained from many different angles.

From E. A. Tracey, Zenith's vice-president in charge of sales, comes a lively comment on the results of the investigation.

"I am very much interested in your survey," writes Mr. Tracey. "It should be of real service to the dealer.

"Obviously, it is not only the duty but should be the privilege of manufacturers to consider carefully the adequacy of retail profits to cover needed expenses.

"On this subject, it seems to me that one of the expense variables that can best be controlled by the manufacturers is the cost of repossession, which, for many dealers, constitutes a substantial figure either in dollars or percentages. In my opinion, no

radio manufacturer can properly say that his set is sold until it has reached the ultimate consumer and the final payment has been made; because, until that time, the manufacturers' engineering, design and merchandising policies are on trial so far as dealer profits are concerned.

Lesson in policy

"Your survey clearly indicates that increased volume sharply reduces the percentage cost of various charges such as rent, advertising, telephone, salaries, etc., so, in a real sense, the greatest contribution we can make to the retailer is to so design our product—to accurately analyze the market both as to design and price—in such a manner as to insure him a larger share of the consumer's dollar.

"Certainly that is our obligation to any retailer who is willing to devote a substantial part of his capital and sales effort to the promotion of radio sales. Further, it should be reasonable for him to expect absolute protection so far as we are able to deliver it, of his investment and profit on time payment sales.

"In our estimation this is not too big a job for any manufacturer to deliver if his merchandising policies are as sound as is possible in this industry and if his determination to properly control his sales and production is sufficiently great."

Further comment of an expert nature was forthcoming from Parker H.

Ericksen, radio sales manager for Fairbanks, Morse & Co.:

"May I say that RADIO TODAY is to be congratulated and the dealer organization of the United States should greatly appreciate your efforts to present to them a clear, concise, accurate analysis of the radio dealer's business.

"It seems to me that as a result of your findings that free service during the guarantee period was shown to be so genuinely important, that this should make the average aggressive dealer realize that this is an item he can reduce by the simple method of using more care in making a more thorough investigation before taking on new lines.

Accurate analysis

"I was a little surprised at the chart (page 11, May issue) entitled 'Volume, Turnover and Payment Methods.' I had the feeling that smaller dealers in the \$10,000 to \$20,000 bracket had a larger and faster turnover. It seems to me that herein lies an opportunity for the dealer to exercise better judgment in buying so that he realizes more frequent turnover. This is something we continuously preach to our distributors, urging them to pass the word along to our radio dealers."

Dr. J. W. Wingate, associate professor of merchandising in New York University's School of Retailing, looked the figures over and wrote thoughtfully:

"RADIO TODAY'S" YARD-STICK OF RETAIL

Based on operating figures of 150 radio dealers

MERCHANDISE COST 58%



"The two basic indexes of healthy operation of any store are (1) increasing sales volume and (2) an adequate net-profit percentage. RADIO TODAY's analysis of 1936 operation of radio stores reveals that both these conditions exist to a marked degree. Sales were 34 per cent over the 1935 figure and net profit averaged almost 12 per cent of sales. Both these results are well above the figure for total retail trade, where the sales increase was about 15 per cent and profits probably less than 5 per cent. Radio is riding the crest of the wave of customer demand for the replenishment of home furnishings and allied goods—a demand that is likely to continue for some time to come.

Dollar vs. unit increases

"There are certain dangers in the situation, however, that should be recognized by every radio merchant. If the experience in allied fields is true in radio, a considerable portion of the sales increase may be attributable to the demand for better quality and higher-priced sets, and not to a marked increase in unit sales. In noting his healthy dollar sales increases, the merchant may lose sight of the fact that he may not be increasing and may even be losing his customers. A prosperity built simply upon larger sales to a few customers is unsound in that a sudden decline in volume is always a very probable contingency.

Expense example

"Again, dollar sales increases, accompanied by little increase in physical volume, lead to laxity in expense control and undue expansion. This survey shows total expenses for radio stores of about 30 per cent in 1936, a figure that compares closely to the U. S. census figure for 1935 of 28.3 per cent for radio stores. With sales volume increasing faster than unit sales, stores should not be satisfied unless the expense percentage is decreased somewhat in 1937. Not only are many expenses fixed, but variable expenses should increase more nearly in proportion to the change in transactions than to the change in sales.

"For example, expenses may be \$30 to \$100 in sales. Of the former fig-

SAMPLE STATEMENTS FROM 7 INDIVIDUAL DEALERS ANALYZED

Dealer	A	B	C	D	E	F	G
Sales of radio in 1936	\$1,000	\$4,000	\$7,500	\$14,380	\$18,500	\$29,000	\$69,400
Cost of merchandise in % of sales	66	55	60	56	56	51	48
Total expense in % of sales	26	40	19	42	33	23	45
Profit on sales in % of volume	8	5	21	2	11	26	7
Turnover (times per year)	1.7	3	4.5	3.4	3	12	10
Installment biz, % of sales	20	50	45	65	90	90	92

ure, \$10 may represent fixed expense and \$20 variable expense. With a dollar sales increase of 25 per cent (to \$125), unit sales may increase only 15 per cent. A reasonable expense plan, then, is \$30 plus 15 per cent of the \$20 variable expense figure, or a total of \$33. With sales of \$125, the expense ratio would thus be only 26.4 per cent compared to 30 per cent before. In practice, the current demand of labor for a relatively larger share of the income of industry, plus the need to restore certain functions and equipment curtailed during the depression may result in a somewhat larger expense plan than this—but one still less than 30 per cent.

"Another danger in the current situation is that such a large portion of radio volume is dependent upon installment terms. On an average, installment business is more than half the total and in the larger stores reporting it averages 84 per cent. If prices continue to rise, merchants will find installment financing more and more burdensome for even with an increase in the number of sets in the hands of customers on installment, the capital requirements will be greater. There is already a tendency in some stores to recognize this danger, not by discouraging installment buying, but by restricting somewhat the length of time over which payments may be distributed. In other words, an attempt is being made to speed up the turnover of installment accounts outstanding.

"The survey by RADIO TODAY reveals a number of other interesting points. A sales volume in radio of at least \$5,000 a year would seem necessary to insure a good showing. Under this \$5,000 figure, rent is out of line and final profit is relatively

small. When radio volume is less than \$1,000 a year, the inefficiency of small scale operation is particularly apparent with a high expense ratio and a low stock-turn figure.

"The amount spent for advertising seems rather low, particularly in view of the fact that a good many of the stores showed sales increases of over 100 per cent, even though the average was 34 per cent. It is quite possible that many of the reporting stores could realize much greater sales increases than they did by spending more for promotions. If with \$2 for advertising, \$100 in sales are realized, it is quite likely that sales of \$150 could be realized with \$6 for advertising. The advertising expense ratio would now be 4 per cent but a great deal more profit would be realized due to the increased volume and the fixed nature of many other expenses.

Competition

"The figures of the survey reveal further that radio stores operate on a comparatively large gross margin—from 40 to 45 per cent. Keen competition, customer resistance to rising prices, and the tendency on their part to seek out 'less than retail' sources may reasonably be expected to result in some decline in this gross margin percentage, although not necessarily in the dollar gross margin.

"Customers are going to 'get wise' to such price differences and may develop resistance to so-called standard prices. Many customers in metropolitan centers are now seeking out the cut-rate shops or making buying connections through institutions or brokers that will save them money. Legitimate radio dealers should recognize this type of competition and decide how best to meet it."

SELLING COSTS IN RADIO

with annual sales totalling \$3,000,000

OWNERS' SALARY
11%

EMPLOYEES' SAL.
8%

RENT
3%

TELEPHONE
LIGHT-HEAT
2%

ADVERTISING
2%

INSTALLATION
FREE SERVICE
2%

OTHER
EXPENSES
2%

PROFIT

12%



DEALERS SPORT NEW SELLING IDEAS

Summer session opens with proud efforts to deliver finer sets

USE THE SUN PORCH

★ In the midst of the current dealer activity in selling a second and third set to the same customer, Junction Radio Service, Corona, L. I., N. Y., has discovered an important field for summer development.

H. Walin, of the Junction shop, points out that besides the bedrooms, kitchens and dens which are steady prospects for the extra sets, approach of hot weather makes the sun porch an additional spot where folks will need reception. This special market is of course for small sets, or portable ones, but they may often be sold along with the main console, and the whole idea is extremely attractive to the thousands of householders who are proud of their sun porches.

MOVIE CAMERAS FOR SUMMER SELLING

★ Home movies hit the radio business as a first-rate specialty with substantial profit involved. A department set up by radio dealers for this supplementary merchandise requires little room, and attracts traffic.

Example of what can be done in this respect is found in the activity

of Universal Camera Corp., makers of Univex equipment. In this case, retail price for camera and projector has been lowered as far as \$25, which puts the first investment figure within reach of thousands of dealers.

Business involves no servicing problems, as films are sent to convenient headquarters for processing. Projectors are electrically driven, and will handle other films (such as Pop-eye, Mickey Mouse, etc.) besides those taken by the Univex owner. All equipment has been simplified, and has the benefit of a vigorous national advertising campaign.

TRAILER PROSPECTS

★ New trend toward merchandising by the trailer method appears to give sound men an opening for more biz. Edwin F. Laker, radio and sound engineer, Baltimore, recently installed a novel system for a big trailer carrying merchandise, "permitting the salesman accompanying the unit to talk to the audience gathered outside and providing for the use of electrical transcriptions which were a part of the sales program."

No matter what type of merchandise is being hauled around, the trailer needs a sound system. In Mr.

Laker's case his customer was the May Oil Burner Corp., that company having purchased a new 25-ft. streamlined trailer from the Auto Cruiser Sales Corp.

TUBE WRINKLE ON DEMONSTRATIONS

★ Friendly but firm, the Russell Radio Co., Indianapolis, Ind., features 10-day home demonstration trials, but insists that prospects must keep and pay for the tubes involved. When tube requirements are altered because the patron switches to another set, the salesman consents to adjustments, of course.

Company's sales manager, T. A. Brown, declares that the scheme loses him no business that is worth while, and that plan substantially cuts demonstration costs.

HUBBY'S SALES NET BONUS TO WIFE

★ H. C. Doss, sales manager of the Midwest Radio Company, Fort Wayne, Ind., not only keeps his salesmen keyed up to a high selling pitch, but also has the wives of his salesmen working for him.

A short time ago salesmen of the company found themselves in the midst of a "Fashion Campaign!" Not only did the title of the promotion sound suspiciously feminine, but the men soon discovered that all bonuses on sales were to go to their wives.

At the beginning of the campaign the "women of the sales force" were advised by letter that "they had been appointed assistant sales managers." Each week they were to be notified of the bonus forthcoming to them in the form of so many dollars credit on the leading department stores in the city.

The percentage of credit given per \$100 worth of radios sold increased progressively as the sales mounted until \$1,000 in sales netted \$15.25 in credit for the wife. At the close of the campaign, some of the women received as high as \$45 in credit. Mr. Doss estimates that business was at least 15 per cent more than what it would normally have been, and the goodwill created among the women was invaluable.



Car radio, plus a set for the trailer and an inter-phone, constitute the radio man's interest in equipment like this by Pinches Trailer Corp.

X-RAY SELLING

★ E. B. Dare, South Bend, Ind., maintains a file of under-chassis photographs of current model sets. These are used in competitive selling to allow the customer to see under "both" chassis and realize that the extra quantity of material employed in the sets Mr. Dare is selling accounts for the greater value and superior performance of his sets.

"I don't like to resort to this method of selling," says Mr. Dare, "unless exaggerated and untrue claims have been made for a competitive set. However, it does help just to use the photograph of our own receivers rather than dismantle the receiver or carry around an open chassis for inspection."

HOSPITALITY WINDOW

★ Crowds of interested persons were attracted by a radio demonstration stunt used in the window of Sachs Bros. department store, N. Y. C. Using a series of radiobars, an attractive young lady appeared in the window dressed as a hostess, to demonstrate how easily hospitality can be dispensed with these radios.

Check-up revealed that the display drew about 27 times the number of pedestrians normally stopping to look at a window. Success of the stunt justified holding it over for a week, after which Sachs managers transferred it to a branch store, with similar results.

FARMERS DOUBLED TUBE BUSINESS

★ Bill Kidd, owner of the Kidd Radio Store, Terre Haute, Ind., goes out into the country and solicits farmers for radio and tube business.

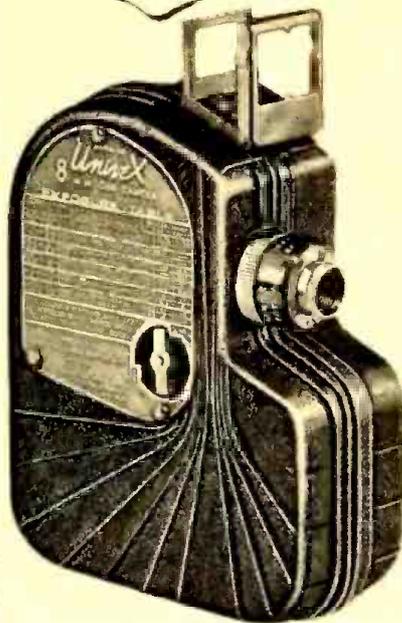
Kidd was able to induce many farmers to replace their old, obsolete sets with new radios. About 30 per cent of the farmers he called on had radio sets that were not in use. Most of them were well able to have their radios repaired, but had put it off, waiting for some radio dealer with initiative to come after their business.

If the farmer was found interested in having a demonstration of a new radio, Kidd arranged to send a radio out on trial, or made a definite appointment for the prospect to drop into his store. A good many were sufficiently interested to do this, and a large proportion of them purchased radios. Kidd's tube business was doubled after the rural selling campaign.

June, 1937

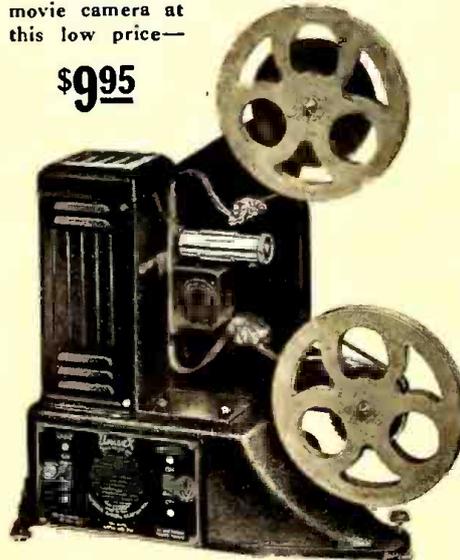
MOVIE OUTFIT BEATS WARM WEATHER SLUMP

The Answer to Radio Dealers' Prayers



Sturdily built. Easy to load—simple to operate. No complicated gadgets! Movies that screen up to 34" x 24". Only 8 mm. movie camera at this low price—

\$9.95



Here's the only motor-driven 8 mm. projector under \$26. Projects any 8 mm. film. 15 important features! **\$14.95**
Written Guarantee.

A COMPLETE MOVIE OUTFIT FOR \$27.50

You can make people who never before entered your store stop... look... and come in; for everybody wants this sensational UniveX Movie Outfit that takes and shows theatre-quality movies that cost less than snapshots! Hundreds of radio dealers all over the country are promoting this sensational movie outfit during the warm weather lull in radio sales.

FASTEST SELLER! It's no wonder that more UniveX Movie Cameras and Projectors are being sold than those of all other makes combined! The reasons are simple! For the first time a lifetime movie outfit can be obtained for less than the usual cost of a movie camera alone. In addition, dynamic UniveX advertising is appearing in over 30 national magazines and in over 100 newspapers—from coast to coast.

CASH IN!

The \$27.50 outfit contains everything a person needs to take and show clear, sharp movies at less cost than snapshots.

UniveX Cine "8" Movie Camera **\$9.95**
UniveX 8 mm. Projector . . . **14.95**
Eveready Case for Camera . . . **2.00**
1 roll UniveX Cine Film . . . **.60**

What hundreds of other dealers are doing you can do, too! Get complete details from your jobber or write direct to Universal Camera Corp., (World's Largest Unit-Manufacturers of Cameras) New York City.



ATTRACTS VACATIONISTS

★ Sales argument figured out by C. M. Grover, at the H. C. Bohack auto stores in Bay Shore, Long Island, N. Y., is that vacationists will get their best contact with home activities through a good auto radio installed in their car. He tells his prospects, too, that car radio is the best possible way to keep up with the news of the world without bothering to have a newspaper mailed to isolated spots.

Grover also points out that weather reports and time signals are important to vacationists, as well as to anyone making a long drive. The sales talk is positive in its insistence that the broadcasters will certainly take care of the needs of drivers having their "month off," if they will only invest in a good car receiver.

KNOW YOUR BROADCASTS

★ "Know your stations and the broadcasts they carry," says Reed R. Smith, manager electrical appliances in Wright's, Ogden, Utah, "and it is an easy matter to break down sales resistance."

Every radio demonstration in Smith's department has become an almost sure-fire sale. Salesmen trained to discover what type of radio entertainment the customer likes and to dial the proper station for that entertainment, have turned the trick.

When a prospect begins to signalize his interest by looking over different sets in the department, salesman takes the cue and engages him in conversation about radios and radio entertainers. Music is usually the key point. It soon comes out whether the prospective customer is a "Wayne King fan," likes his melodies soft and smooth; whether he prefers the torrid tunes of Cab Calloway's orchestra, the swing jazz of Benny Goodman, or the classical symphonies of Leopold Stokowski. Perhaps he is a hill-billy fan. At any rate, his likes and dislikes are easily generalized and his musical taste classified.

Next step calls into use the salesman's knowledge of radio stations. So familiar are salesmen in Wright's with the programs and time schedules of stations accessible to Ogden that they can immediately dial exactly the type of music the customer wants to hear.

In this way, there is no "crabbing the act" by music the prospect wouldn't listen to over any radio. He hears the set being demonstrated un-

der the most favorable conditions and the result is usually a sale.

Few customers enjoy waiting while a salesman thumbs through several log books to pick up a station. That makes it look hard; immediate "sales resistance" is the result. Salesman station knowledge in Wright's extends to short-wave, police, and amateur broadcasts. Thus, a mere flip of the dial leaves an impression of smooth and simple tuning.

DEMONSTRATION WRINKLE

★ Display of auto radios on fancy panels is all very well, says L. Block, manager of Lightning Auto Stores, Hackensack, N. J., but there's nothing like demonstrating the car receiver in its real setting.

To this end, four salesmen at the store have each had a different make set installed in their own cars, which are kept parked near the store. Each of these installations is up-to-the-minute in every respect, and shows off the matched controls as well as the newest antenna facilities. Thus the store is always ready to demonstrate any model, actually in a car, in which a prospect shows interest.

RADIOS ON MOVIE SCREENS

★ Many radio dealers are literally putting radios into their local movies in the merry scramble for favored public acceptance of the new receiving sets.

Approximately 641 dealers this year are using brief, talking motion

picture films on their local theatre screens to merchandise the new models, with their motion picture campaigns supplementing their other advertising media. This number represents double the dealers using theatre-screen advertising a year ago.

Zenith, Philco, Fairbanks-Morse and Crosley all are "in the movies" as a part of the sales program for the new models. Brief, quick-changing scenes, aided by trick camera and natural color effects are the backbone of film production series for each radio.

DUMMY WINKS AND PASSERS ENTER

★ A winking dummy, a tall wooden fellow who stands in front of the Plane Radio Shop, Muncie, Ind. (Middletown to you) proved the store's best salesman. Says E. M. Minder, the robot's master, "Many people tell us they came into the store because he attracted their attention. Others say they know they have the right place because they saw the man out in front."

The winking eye is caused by a flasher which breaks the circuit to a small electric light set in the eye socket. The other eye also lights but stares straight ahead. A loud-speaker, connected to a set inside the store door, is concealed on a shelf behind the dummy's stomach and covered by his shirt.

"We keep clean clothes on our dummy and dress him to accord with the season," said Mr. Minder.



Ultra modern Radio Shop opened by dealer S. B. Shellhorn, St. Petersburg, Fla., featuring colors black, ivory and green.

This is a



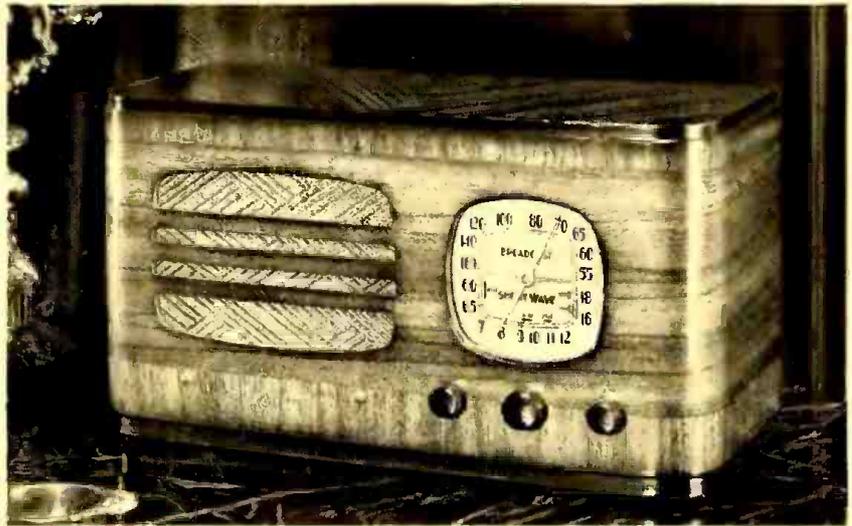
KADETTE YEAR!

KADETTE has been hoarding its creative ability. At last it is releasing the pent-up power of years of research. Kadette now offers the public an entirely new concept of radio value, performance and beauty!

How's this—

**A 10-TUBE AC
SUPERHETERODYNE FOR**

\$19⁹⁵



OTHER FEATURES: Model K1019—Illuminated gold-finish enclosed dial. • Two bands including 49M. European. • New QAVC circuit. • Full Electro-dynamic speaker. • Superb piano-finish wood cabinet. • Size 16½" long x 9" high x 7¼" deep.

And this—

KADETTE'S biggest AC-DC seller—
now in improved dress at a new
lower price!

A similar knock-out in wood cabi-

net models in every price bracket
from \$13.95 to \$39.95.

All this in the face of rising costs!

Only Kadette can do it!

KADETTE DIVISION
INTERNATIONAL RADIO CORPORATION
WILLIAMS STREET ANN ARBOR, MICHIGAN

Largest selection of molded plastic
cabinet models in color ever offered
—from \$10.00 to \$29.50.

Introducing Crystalin—the new-
est and most beautiful plastic.

KADETTE

THE WORLD'S BEST VALUE

Model Chassis	I.F. Peak	77-A Ser B
		456-R
		79.....262-R
		80.....262-R
		88.....175-R
		100.....262-R
		110.....262-R
		J-8.....175-R
		S-10.....175-R
		Dual 6.....262-R
		Dual 34.....262-R
		Super 6.....456-R
		Twin 8.....262-R
		Golden Voice
		1936.....262-R
		1937.....262-R

MIDWEST*		MOTOVOX
5-35 AC-DC.....	465-RC	10-A
5-36 AC-DC.....	456-RC	(Above 500).....175
6-33.....	450	10-E.....175
6-34.....	450-RC	
6-37 Auto.....	175-RC	
6-37 AC-DC.....	456-RC	
7-36.....	456-RC	
7-36 AC-DC.....	456-RC	
7-37.....	456-RC	
7-37 Batt.....	465-RC	
8-33.....	450	
9-34.....	456-RC	
10-34.....	456-RC	
10-35.....	456-RC	
10-37 AC-DC.....	456-RC	
11-32.....	175	
11-36.....	456-RC	
11-37.....	456-RC	
11-37 AC-DC.....	456-RC	
12-33.....	450	
14-37.....	456-RC	
16-33.....	450	
16-34.....	450-RC	
16-35.....	456-RC	
16-37.....	456-RC	
18-35.....	456-RC	
18-36.....	456-RC	
18-37.....	456-RC	
22-37.....	456-RC	
24-36.....	456-RC	

NASH		NATIONAL*	
AC989.....	260	AGS.....	495
AC1089.....	260	AGSX.....	495
AC1289.....	260	FB7A.....	495
C.....	260	FBXA.....	495
D.....	260	HRO.....	456
NT15.....	260	HRO Jr.....	456
O.....	260	NC-100.....	456
Q.....	260	NC-100X.....	456
T8.....	260	NC-101X.....	456

NOBLITT-SPARKS		NORCO	
5.....	465	4 Super.....	250
7.....	465		
25.....	460		
35.35A.....	460		
36.....	460		
45.....	460		
46.....	460		
47.....	460		
48.....	460		
50.....	460		
55.....	460		
65.....	465		
66.....	460		
67.....	460		
76.....	465		
77.....	460		
85.....	470		
86.....	465		

ODLSMOBILE*		PACKARD RADIO CO.	
393884.....	262-R	4.....	235
393885.....	262-R	5.....	470
405045.....	262-R	11.....	235
405046.....	262-R	13.....	235
405057.....	172-R	24.24-C.....	235
405062.....	172-R	46.....	470
405063.....	172-R	85.....	470
980393.....	262-R	4.....	465
980455.....	262-R	5T, Auto.....	465
980459.....	262-R	6T Auto.....	470
982006.....	262-R		
982007.....	262-R		
982008.....	262-R		

MISSION BELL*		OZARKA	
10.....	252-RC	93 Battery.....	175
11.....	252-RC	93A.....	175
41.....	465-RC	93B.....	175
41.....	465-RC	94 (AVC).....	175
42.....	252-RC		
43.....	465-RC		
44.....	465-RC		
374.....	456-RC		
375.....	456-RC		
378.....	456-RC		
3516.....	465-RC		
3517.....	465-RC		
3518.....	262-RC		
3519.....	252-RC		
3545.....	465-RC		
3546.....	465-RC		
3710.....	456-RC		

MONARCH*		PACIFIC*	
523-G.....	465-R	30.....	456
558.....	456-R	31.....	456
633-G.....	465-R	40.....	465
811.....	465-R	50.....	465
6320.....	465-R	51.....	465
4169-H.....	465-R	60.....	465
		61.....	465
		70.....	465
		80.....	465
		90.....	465
		102B.....	262.5
		110.....	465
		150.....	465
		320.....	465
		481.....	456
		681.....	465
		6320.....	465
		6322XE.....	465
		7370.....	465
		14370.....	465
		ZZ.....	456
		H5.....	456
		H6.....	262
		H7.....	26

MONT-WARD		PACIFIC MOTOR CAR	
See Airline		Deluxe 3801.....	260
		A.....	260
		PA.....	260
		PB.....	260
		PHD.....	260
		PXXD.....	260
		PS.....	260
		PT14.....	260

MOTOROLA*		PATTERSON	
6.....	456-R	6Q.....	465
7T-47A.....	175-R	60.....	465
34.....	262-R	65AW.....	262.5
35.....	262-R	65LW.....	130
44.....	456-R	65 SW.....	262.5
45.....	262-R	70AW.....	262
49.....	456-R	74-AW.....	262
50.....	262-R	75AW.....	262.5
55.....	456-R	80AW.....	262
57.....	456-R	84AW.....	262
60.....	262-R	85AW.....	262.5
60A.....	262-R	86AW.....	458
61.....	175-R	87BA.....	458
62.....	456-R	88B.....	458
65.....	262-R	89B.....	458
75.....	262-R	90B.....	458
70.....	262-R	104AW.....	262
77-A.....	456-R	105AW.....	262.5
		106AW.....	458
		107AW.....	458
		126AW.....	458
		175AW.....	262.5
		185AW.....	262.5
		186AW.....	458

I.F. PEAKS and COLOR CODING

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Model Chassis	I.F. Peak
PACIFIC Radio Exchange Spero Super.....	175
PACKARD BELL* 5.....	465
7.....	465
25.....	460
35.35A.....	460
36.....	460
45.....	460
46.....	460
47.....	460
48.....	460
50.....	460
55.....	460
65.....	465
66.....	460
67.....	460
76.....	465
77.....	460
85.....	470
86.....	465

Model Chassis	I.F. Peak
207AW.....	262
210AW.....	202
275AW.....	262.5
285AW.....	262.5
286AW.....	458
386AW.....	458
507AW.....	262
508AW.....	262
510AW.....	262
1105AW.....	262.5
1106AW.....	458
1108AW.....	458
1126AW.....	458
2105AW.....	262.5
2106AW.....	458
2126AW.....	458
3105AW.....	262.5
3106AW.....	458
3126AW.....	458
4105AW.....	262.5
PR-10.....	432.5
PR-12.....	262.5
PR-12C.....	262.5
PR-16.....	458
PR-16-CK.....	458
PR-16-CKT.....	458
PR-16-CTS.....	458
PR-16-K.....	458
PR-16-KP.....	458

Model Chassis	I.F. Peak
PILOT 2.....	456
7X.....	115
8.....	115
10.....	115
11.....	115
12.....	115
18.....	456
20.....	115
23.....	456
28.....	115
31.....	115
33.....	456
35.....	456
39.....	115
41AC.....	456
41DC.....	115
43.....	456
45.....	456
48.....	456
53.....	115
55.....	115
63.....	456
65.....	456
68.....	456
69.....	546
73.....	456
75.....	456
81.....	115
84.....	115
88.....	115
92.....	115
93.....	115
93 AC-DC.....	456
94.....	115
103.....	456
105.....	456
108.....	456
109.....	456
114.....	456
115.....	456
123.....	456
125.....	456
148.....	456
149.....	175
153.....	456
155.....	456
183.....	456
185.....	456
193.....	456
203.....	456
205.....	456
213.....	456
215.....	456
223.....	456
243.....	456
253.....	456
255.....	456
268.....	456
269.....	456
290.....	456
293.....	456
295.....	456
298.....	456
303.....	456

Model Chassis	I.F. Peak
304.....	456
305.....	456
364.....	456
365.....	456
390.....	456
393.....	456
403.....	456
405.....	456
423.....	456
605.....	456
1010.....	456
2108.....	456
2109.....	456
2203.....	456
2205.....	456
2253.....	456
A6.....	456
B2.....	456
C63.....	456
C114.....	456
C116.....	456
C151.....	175
C153.....	175
C154.....	175
C157, C157A.....	175
C157B, C157F.....	175
C162.....	175
C165.....	175
C183.....	456
C193.....	456
C203.....	456
C213.....	456
C215.....	456
C243.....	456
C293.....	456
C298.....	456
C304.....	456
C403.....	456
CX63.....	456
CX68.....	456
CX114.....	456
D3.....	456
F14.....	456
L8.....	115
P63.....	456
P393.....	456
PX68.....	456
PX114.....	456
S148.....	175
S164.....	175
X41.....	456
X63.....	456
X65.....	456
X68.....	456
X69.....	456
X73.....	456
X75.....	456
X105.....	456
X114.....	456
X115.....	456
Y41.....	456
Y43.....	456
Y48.....	456
AC Dragon.....	115

Model Chassis	I.F. Peak
67M.....	260-R
67M1.....	260-R
67M2.....	260-R
67M3.....	260-R
84BT.....	460-R
84BT6.....	460-R
85BK.....	460-R
85BT.....	460-R
86BK.....	460-R
86BT.....	460-R
100.....	460-R
101.....	460-R
103.....	460-R
110.....	175
111.....	175
112 AC-DC.....	175
112A.....	175
114.....	175
115.....	175

POSTAL		PRECISION	
T.....	175	511.....	465
		644.....	465
		645.....	465
		845.....	465
		8 T, AW.....	465
		121.....	370
		122.....	370
		124.....	175
		125.....	460-R
		126-B.....	460-R
		127.....	370
		128.....	460-R
		128E.....	460-R
		135-B.....	460-R
		140.....	445
		141.....	445
		141E.....	445
		142B.....	175
		143.....	460-R
		210.....	175
		211.....	460-R
		211A.....	460-R
		220.....	175
		221.....	370
		222.....	175
		223.....	175
		224.....	460-R
		224E.....	460-R
		225.....	460-R
		226.....	460-R
		235B.....	460-R
		236B.....	460-R
		240.....	445
		241B.....	175
		242.....	460-R
		243.....	460-R
		260.....	175
		261.....	175
		262.....	460-R
		263.....	460-R
		280.....	175
		281.....	460-R
		301.....	460-R
		310.....	175
		320 (Duo).....	370
		321 (Duo).....	370
		322 (Duo).....	460-R
		322E.....	

PRACTICAL ALIGNMENT OF A.F.C. CIRCUITS

A discussion of the numerous methods of adjusting AFC sets

★ WHILE some servicemen may find automatic frequency control circuits a bit hard to understand at first, the alignment of AFC circuits is really quite simple.

Before tackling the adjustment of an AFC discriminator circuit the serviceman should realize precisely what AFC does in a set. Its one and only function is to correct for minor inaccuracies (up to 7 or 15 KC) in tuning. This is done by varying the oscillator frequency of the set so that the heterodyne produced by the modulator-oscillator is exactly equal to the I.F. frequency of the set.

The correction in tuning by AFC is applied only to the oscillator of the set. If the oscillator is at the correct frequency to provide the right intermediate frequency signal, then the AFC circuit has no correction to perform.

Testing AFC operations

Herein is the test for correct operation of an AFC circuit. If the set dial is tuned for resonance with the AFC switch *off*, and then the switch turned *on* there should be no difference in the signal received. If the set can be detuned on the dial by some 8 or 10 KC either side of resonance with satisfactory reception, the circuit is performing okay in this respect. Finally the set should be able to bring itself into proper resonance when the dial is tuned to within 8 or 10 KC of the proper dial position. Some models may perform up to 15 or more KC depending upon the design.

If the radio doesn't fulfill these requirements on a station with moderate signal strength, it is an indication that the AFC is not working properly.

As in any other radio circuit, there may be 101 different things that could be causing trouble. However, this discussion will be limited solely to ways of obtaining proper alignment of the AFC discriminator, the heart of the circuit.

Since the theory of the circuits has been described in past numbers of RADIO TODAY (June, 1936, April and May, 1937) it will be omitted.

Alignment using discriminator voltage

First of all the regular I.F. channel of the set should be aligned in accordance with accepted procedure. If the set is of the type using a combination second detector and AFC discriminator, the discriminator is first aligned in its specialized manner and the remainder of the set handled in the usual way. Naturally, when the I.F. channel is being aligned, the AFC should be in the *off* position.

When the discriminator is properly adjusted and when signal exactly equal to the I.F. is fed to the discriminator tube, zero voltage exists across the discriminator load resistances. If the I.F. is not correct either a positive or negative voltage is produced by the discriminator circuit. If we have a sufficiently accurate measuring device (and sensitive

as well) it should be an easy thing to adjust the circuit for zero voltage.

That is just what is recommended for the Westinghouse and American-Bosch receivers. The signal generator is connected to the grid of the I.F. amplifier tube and the oscillator adjusted to the proper I.F. frequency. A 0-5 microammeter is then connected across part of the AFC voltage divider circuit as shown in Fig. 1. This meter thusly connected serves as an extremely sensitive voltmeter. The AFC control switch should be in the *on* position.

First of all the primary condenser of the discriminator transformer is adjusted for *maximum* output on the meter. Next the secondary trimmer is adjusted for *zero* reading on the meter—which means that the voltage output of the discriminator is zero. A vacuum-tube voltmeter, if available would serve just as well as the microammeter.

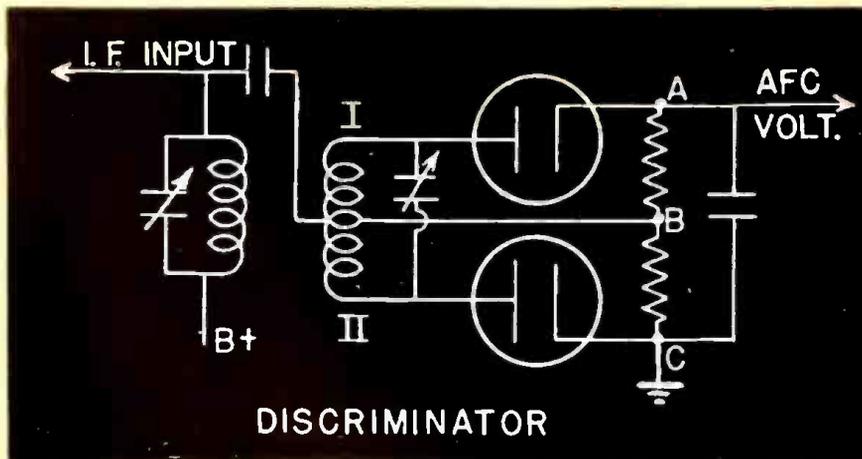
The rest of the set is aligned as usual with the AFC switch in the *off* position.

Control tube as VT meter

In the 1316 Crosley set, the AFC oscillator control tube is utilized as a vacuum tube voltmeter for alignment purposes. With the oscillator connected to the grid of the modulator tube and tuned to the proper I.F. frequency, the primary discriminator transformer is adjusted for *minimum* output as indicated by the output meter in the power stage. Next the bias on the control tube is adjusted to 4.8 volts by means of the variable resistor.

A 0-5 milliammeter is then inserted in the cathode lead of the control tube where it functions as the indicating element of a vacuum tube voltmeter—see Fig. 2.

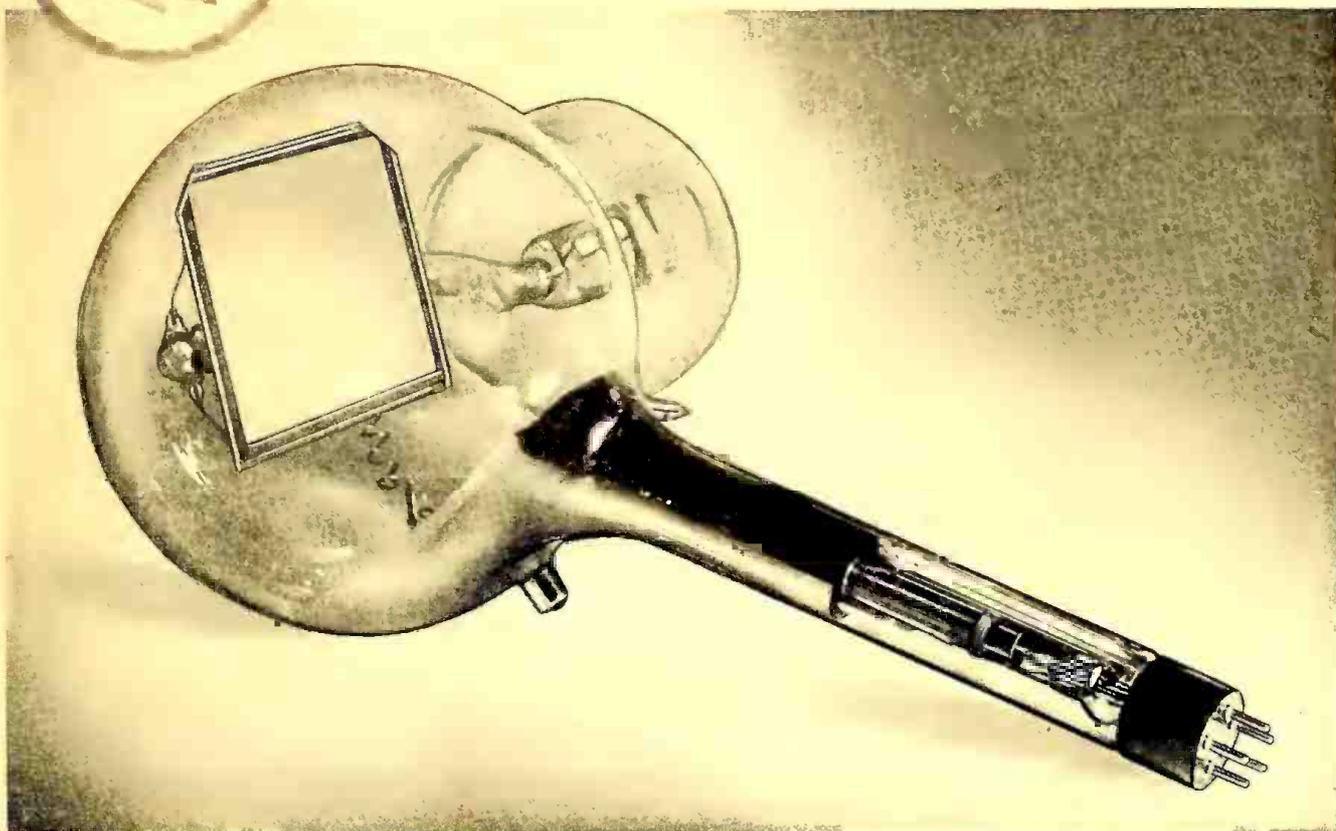
When the AFC control switch is turned *off* the meter reading is noted. Then the control switch is turned *on* and meter reading again noted—the secondary condenser is adjusted so that the meter reads the same as with the switch *off*. (False readings will be apparent at maximum and minimum settings of the condenser.) Since the AFC voltage was *zero* in the *off* position, the fact that the meter again indicates the same reading in the *on* position means that the discriminator voltage is equal to *zero*. Zero voltage is synonymous with proper alignment.



Simplified discriminator circuit. Usually in practice the two rectifiers are combined in one envelope



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PRACTICAL A.F.C. ALIGNMENT

(Continued from preceding page)

An alternative method is suggested by Crosley when the alignment is only slightly inaccurate. First connect the test oscillator to the first detector grid and adjust for maximum indication of the output meter (oscillator at I.F. peak frequency). Without touching the oscillator, tune in a local broadcasting station adjusting the receiver dial for zero beat. Then turn on the AFC control switch—if the beat-note is less than 200 cycles the alignment is okay.

Beat-note adjustment

If the beat does not exceed 1000 or 1500 cycles adjust the discriminator secondary condenser for zero beat. The circuit is very critical and a slight adjustment will produce a great change in beat-note.

With the Westinghouse receiver the primary condenser was adjusted for maximum response on the meter—in Crosley for minimum reading on the output meter. This is not a contradictory condition as it seems at first. In the Crosley circuit the AVC as well as AFC is derived from the discriminator. When the voltage in the discriminator circuit is maximum, the AVC voltage is likewise greatest. The presence of an AVC voltage reduces the sensitivity of the set—hence the output meter reading will drop.

In the G-E set the discriminator supplies AFC, AVC, and audio output—but in this receiver the AVC is not applied to the last I.F. amplifier stage, hence it does not affect the following procedure.

The signal generator is adjusted to the I.F. frequency and connected to the grid of the final I.F. amplifier—the primary condenser of the discriminator transformer is adjusted for *maximum* reading on the *output* meter and secondary condenser for *minimum* reading. This latter adjustment will be very broad. The final adjustment is as follows:

Without changing the frequency of the signal generator place the oscillator lead on the rubber insulation of the converter grid lead and turn off the AFC control switch. Increase the signal generator output to make the signal audible—then tune in a broadcast station and carefully adjust the dial of the set for zero beat. Then turn on the AFC switch—and adjust the secondary trimmer of the discriminator for zero beat. When zero beat is obtained the circuit is properly aligned.

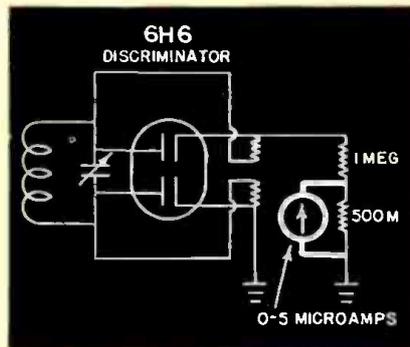


Fig. 1. Meter connection for alignment of Westinghouse WR-315 set.

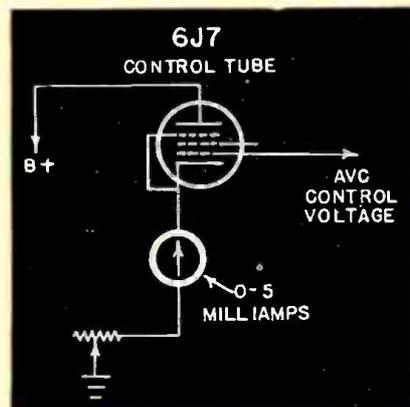


Fig. 2. Crosley employs the control tube as a vacuum tube voltmeter.

AVC-sensitivity alignment method

In the Philco receiver the AVC circuit is taken off the high potential side of the discriminator primary. This means that the AVC voltage will be greatest when the primary circuit of the discriminator transformer is in resonance.

With signal generator tuned to the I.F. peak and connected to the grid of the converter tube through a .1 mfd. condenser, the primary trimmer of the discriminator is adjusted for *minimum* reading on the output meter connected between the plate and cathode of the output stage. This minimum is caused by the presence of an AVC voltage which reduces the sensitivity of the set.

Next the set is tuned to 1000 KC as is the signal generator. With the AFC switch *off* the set dial is tuned for maximum output. Output of the signal generator is set for maximum voltage. Then the AFC is turned *on* and the secondary condenser of the discriminator adjusted for *maximum* output on the meter. If the indicating meter goes off scale turn down the audio gain control of the receiver.

(Continued on page 110)

RIGHT PLACE FOR CAR ANTENNA

- "on top" gets it as far as possible above chassis
- under-slung pick-ups giving way to top-side aerials

★ NO question is more puzzling to automobile designers today than that of the proper location for the auto-radio antenna.

Whether to put the antenna front, top, or rear, is providing a continuous headache for Detroit designers of stream-lined cars, just as it baffles a good many radio-receiver experts, as well.

Until the late-1934 auto styles appeared, there was no question—all cars had nice big holes in their tops, covered over with cloth or some kind of fabric, and it was perfectly simple and quite effective merely to bury some wires or screening in the top between the outer covering and the inner upholstery.

But the 1934 car styles changed the picture completely when all-steel tops came in. When they came in, the old-style roof antenna had to get out—or get no signals. Radio waves can't get through solid steel sheets. Therefore, solid-steel top cars shortly had to utilize antennas mounted under their bodies. This went on for a year or two. But complaints began to develop.

Under-car trouble

Underneath a car isn't exactly a nice place to put a radio aerial, for several reasons. In the first place, ruts, ridges, and stones frequently appear suddenly under cars and smack any parts which project downward very far. Secondly, calcium-chloride dust-laying compounds, put on the roads, soon found their way into the under-slung antennas, producing destructive corrosion which destroyed the antenna's efficiency. And third—the under-car antenna was so close to the brake mechanism as to pick up tire-static, brake-static, and interference from the moving parts of the car.

An automobile antenna differs from a house antenna in that no part of the car antenna circuit has a solid connection to earth, or ground. The chassis is used as the so called "ground" connection, but it actually isn't earthed. So we had better look at this circuit as it really is, namely, two conductors suspended in mid-air (one the chassis, and one the installed antenna). They complete their circuit through the receiver, to which

both are connected, and so together they pick up the signals.

The first important rule to note is that the further apart these two conductors are (chassis and antenna), the more signal they can intercept from traveling wave signals. In other words, the further the antenna is hung below the car away from the chassis, the better it will be. Also the further the chassis is lifted up in the air away from the antenna, the better the reception will be.

Separation

Next rule—the closer to the ground either one of the conductors is placed, the better the pickup will be. You can't very well put the chassis any closer to the ground, but if you put the antenna closer to the ground, it will help. This is because getting it closer to the ground makes the whole arrangement more like the house antenna system, which has an actual connection to earth. Of course, when the antenna is put under the car, the antenna acts like the ground because



Cal J. Zamoiski, president The Electricians of Washington and Baltimore, with Al Spears of Philco.

it is close to it, and the chassis is really the aerial, but that doesn't make any difference.

Therefore, with the under-running type of car-antenna, it helps in two ways to put the antenna as low as possible—first because it is farther from the chassis, and second, it is closer to the ground. The only remaining factor, in pickup ability, is the size or area of the antenna. The rule is simply, the bigger the better, and a sufficiently good compromise is two wires or rods under one running board (but at least three or four inches from it) although it is noticeably better to have wires under both running boards. Insulated running boards have proven useful.

Must be up

On the other hand, insulated bumpers, insulated tire covers, etc., ordinarily cannot be very good antennas because they don't satisfy either of the above rules for good under-car antennas—they are not spaced far from the chassis and they are not close to the ground. Also they are shielded from radio signal waves by the car body. Use of the front bumper only, for example, gives practically no pickup of signals from behind.

During the past year or so, increasingly antennas are being put where they belong, namely, on top, and they are being made appropriately good looking. Fortunately, modern body design tendency lends itself gracefully to a rod rail over the center of the top—in fact, most car-body designers feel the need of something down the center, and put on some decorative stripe or metal strip. The eventual body will probably have a vertical stabilizing fin projecting above the tail and top, and if this is made of insulating material, rather than of steel, an antenna wire can be hidden in its top edge.

Chromium gleam

This logical top-of-car antenna arrangement is now catching on rapidly and already commercial designers are at work producing attractive creations in chromium-plated rods which add considerably to the car's appearance and style. It seems likely even that the antenna on a car may provide a suitable outlet for the car-owner's spirit of design or artistic taste, and that antenna forms, if equally effective electrically, may serve as changeable style decorations, something like a man's necktie or a woman's handbag. Some eager motorists even install the new roof-top and whip antennas when they have no radio set inside!

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WIRING TO RADIO SETS

- new Handbook of Interior Wiring provides for receivers
- built-in antennas and grounds recommended for homes

★ MORE than half a million new dwellings will be built during 1937. This represents an increase of 100 per cent above last year.

With new homes going up at such a tremendous pace, it becomes especially important right now to have these homes properly equipped for radio service. No longer should American home-owners be satisfied with a crude antenna wire and ground connection tacked onto the woodwork or run across the surface of the wall, as was done with the electric-light wiring a generation or two ago.

Some helpful standards for radio house-wiring have been laid down in a new "Handbook of Interior Wiring Design," issued by a joint committee of electrical and radio men, in which the engineering division of the RMA co-operated. Dr. W. R. G. Baker of General Electric acted as chairman of the radio section, with a committee comprising E. T. Dickey, Virgil M. Graham, L. C. F. Horle, and A. F. VanDyck.

During construction

The Handbook discusses the general and specific details of the desirability of adequate wiring in homes and other structures. It explains in considerable detail the absolute need for extensive wiring and the provision of power outlets, adequate from the standpoint of number and location.

In each of the sections of the Handbook emphasis is placed on the need for provision for the operation of radio receivers, not only so far as

the provision of power outlets is concerned but, more specifically and in considerable detail with reference to the need for provision of antennas and of antenna "down-leads" concealed within the structure in the process of construction. Thus the details of construction as they concern the provision of adequate power and antenna wiring for radio receivers appears in the several sections of the Handbook. In Section 1, on page 15, is included a general discussion of the advantages of carefully made provision in building design and production for proper power outlet and antenna details.

For small dwellings

In Section 2, which is designed to serve as a guide in preparing wiring specifications for dwellings of small and medium size, there is included in Art. 10 (page 18) detailed reference to wiring for radio reception and in Art. 29 (page 22) are given sample specifications pertaining to radio wiring. Similarly, there is included in the "Sample Specifications" designed to accompany the specific plans for a small home. Item 26 (page 25) a section illustrative of the section which should be included in such specifications to assure proper provision for radio receivers. This section reads:

"RADIO WIRING—Provide at each individual location an outlet box for radio antenna and ground connections separate from electric power outlet boxes. Receptacles used shall be of a type not easily confused with

standard convenience outlets, and provided with flush outlet box covers suitably marked. For ground connections, rubber-covered copper wire not smaller than No. 14 shall be run to the nearest cold-water pipe and reliably connected thereto with a corrosion-resisting ground clamp. The antenna lead shall consist of a twisted pair of No. 18 rubber-covered wires not in metal raceway, run to the attic and left accessible."

Apartment houses

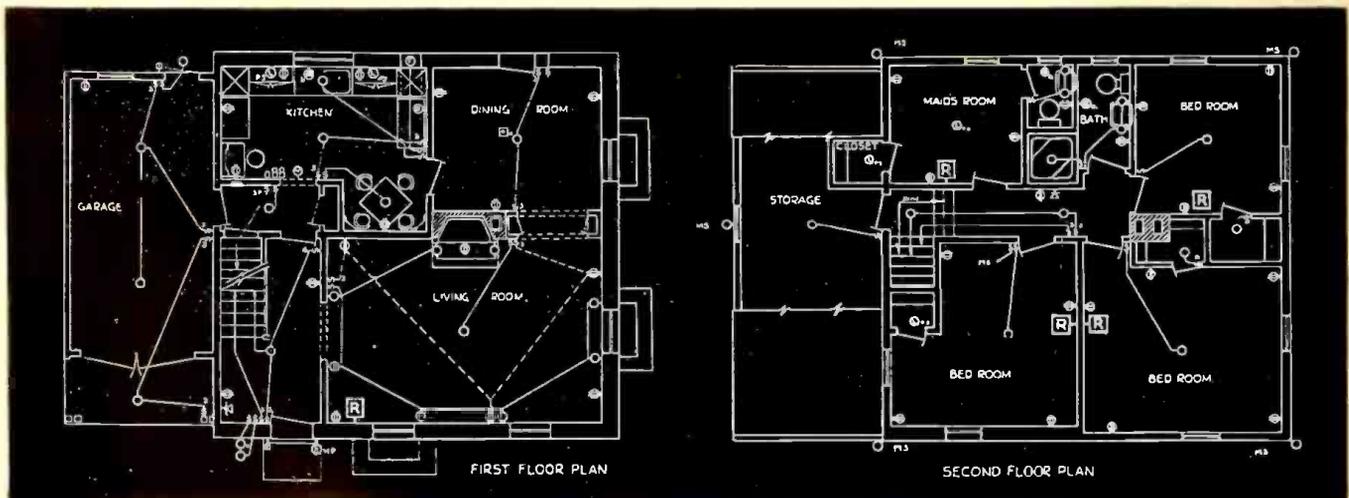
In Section 4, which is devoted to the matter of wiring of apartments and apartment houses and other "general occupancies," are given definite and detailed specifications as to outlets to be provided for radio receivers, Item 7 (page 42); while similar specifications with respect to antennas and signal amplification and distribution systems are given in Item 18.

"RADIO OUTLETS—At least one radio outlet, preferably adjacent to a standard convenience outlet, but separate from it, shall be installed in each four-room or smaller apartment. Larger apartments shall provide at least one extra outlet for each additional two rooms. Radio antenna and ground connections shall be brought to all outlets.

"ANTENNA RADIO SERVICE—Provide necessary antenna structures on the roof and wiring from these to the antenna and ground outlets in each apartment, together with amplifiers, transformers, power outlets, and other equipment for the proper functioning of the particular antenna system used, also necessary equipment at central panel location if a centralized radio system is installed."

Finally, there are included in Section 5 (page 67) appropriate symbols for use by the architect and the

(Continued on page 112)



Although these plans are presented as examples of "adequate outlets" in the new Handbook of Interior Wiring, radio men will be quick to recognize as far from complete, any layout that does not provide for radio in the kitchen, dining room, porch, basement gameroom, and all bedrooms.

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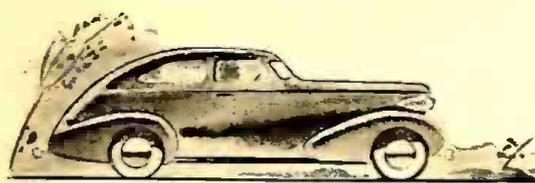
CROSLLEY FIVER ROAMIO

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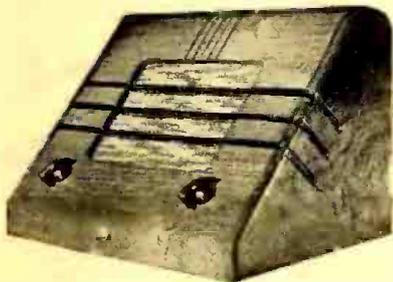
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Interphone system



★ Low cost 2-way intercommunicating system. Master unit handles up to 10 remote stations. Screwdriver volume control—PM speaker. Sensitivity such as to permit pick-up from 50 feet. Model M-50 with 1 remote unit—list \$49.50. Electronic Sound Labs., 5912 Melrose Ave., Hollywood, Calif.—RADIO TODAY.

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★ Arm chair type electric phonograph with automatic record changer playing eight 10-inch or seven 12-inch records. All controls on the top within easy reach—disappearing lid. Sound Products, 704 N. Curson Ave., Hollywood, Calif.—RADIO TODAY.

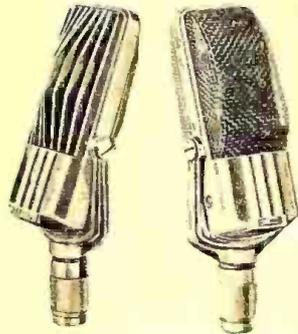
Knight sound systems



★ Complete line of matched unit sound systems featuring calibrated output indicator, universal input, streamlined cases, metal tubes, polarized plugs and receptacles. Available in mobile, portable, fixed types, centralized sound systems. Allied Radio Corp., 833 W. Jackson Blvd., Chicago, Ill.—RADIO TODAY.

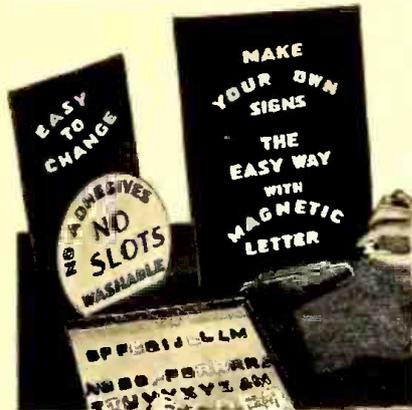
Bruno velocity mike

★ Microphone employing principle which tends to amplify the pick-up angle in front and reduce it at rear, enables 2 mikes to do work of 3 of



usual type in covering a large area. Die cast housing of modernistic design. Output minus 65—response 50—12,000 cycles. Model WM-HF—list \$40. Model VR contains no iron pole pieces—list \$32 for hi-fi model. Bruno Labs., 20 W. 22nd St., New York, N. Y.—RADIO TODAY.

Magnet-o-sign



★ Sign kit with movable magnetic letters. Adhere to any position on the sign board. Can be arranged in curves, straight lines, or any desired design. Standard colors—black, red, silver in 1/2, 3/4, 1 1/4 inch sizes. Boards up to 24 x 36 inches in variety of finishes. Magnet-O-Signs Corp., 180 N. Wacker Dr., Chicago, Ill.—RADIO TODAY.

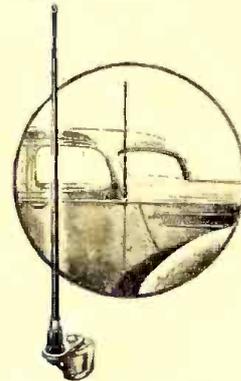
Remote control switch



★ Mercury type switch for remote control. Operates on AC or DC—rating 15 amps at 125 volts. Adjustable

sector permits mounting to a vertical, horizontal, or angular positioned panel. Switch handle for finger-tip master control. Jefferson Electric Co., Bellwood, Ill.—RADIO TODAY.

Door hinge antenna

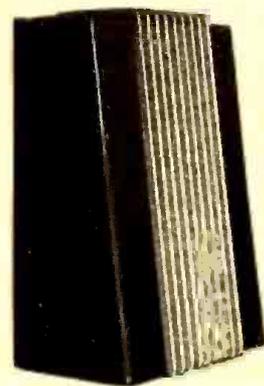


★ Tapered auto door hinge antenna of tempered steel. Completely assembled with rubber insulators and 37 inches of lead-in wire. Easily mounted by removing hinge pin and inserting pin through bracket of aerial. Tobe Deutschmann Corp., Canton, Mass.—RADIO TODAY.

Universal interphone

★ Inter-office communicating system for two-way loudspeaking conversation. Volume controlled at master unit—talk-listen switch on master and remote stations. Crystal type speaker-mike. Operates on AC and DC. Universal Sound Systems, Inc., 6300 Euclid Ave., Cleveland, Ohio.—RADIO TODAY.

Streamlined speaker



★ Cabinet and speaker unit for sound installations. Provides excellent frequency response over a wide range. Finished in black and ivory—wall or floor mounting. Type 302. United Sound Engineering Co., St. Paul, Minn.—RADIO TODAY.—See also advt. p. 117.

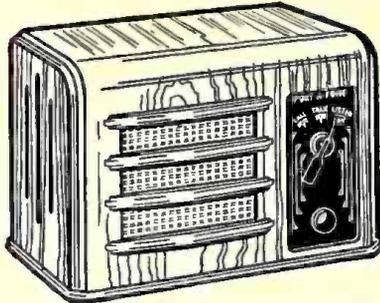
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NEW THINGS

work. Operates from 12-volt battery. Crystal controlled oscillator—31.1, 34.6, 37.6, 40.6 megacycles selected by switch. Uses half-wave doublet antenna fed by 50-70 ohm concentric line. Total weight only 40 pounds. Lear Development Corp., 121 W. 17th St., New York, N. Y.—RADIO TODAY.

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★ Carrier operated interphone. Uses power lighting circuit in place of transmission line. Picks up speech up to 20 feet from unit. Operates on AC or DC line. Wooden case 6x7x9½ inches. Model FL—list \$65. Electronic Devices, Inc., 626 Broadway, Cincinnati, Ohio.—RADIO TODAY.

Speaker cabinet

★ Vehicle cabinet for speakers. Suede finish. Black grille with taupe suede. Chrome metal ornaments. Single stud mounting for cabinet. Cabinet carries weight of speaker. Available in 8 and 10-inch sizes. 8-inch cabinet only—list \$2.96. Wright-WeCoster, Inc., St. Paul, in.—RADIO TODAY—see also advt. p. 118.

Electric headlight

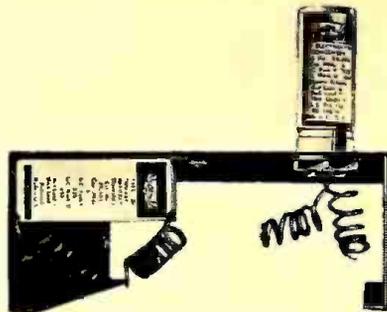


★ Electric light for use attached to the head or hat by means of a strap. Ideal for trouble shooting in dark places. Sponge rubber pad protects wearer from rubbing of metal parts. Battery container slips in coat pocket. Operates with 2 to 6 flashlight cells. Type 109. Burgess Battery Co., Freeport, Ill.—RADIO TODAY.

Philco cowl aerial

★ Auto antenna for mounting on side of car—easy to install—maximum signal pick-up. Chromium plated steel rod 54 inches long with 2 bakelite supports. When mounted in pairs—one each side of car—highly satisfactory performance is obtained even in bad areas. Part No. 45-2470—list \$3.75. Philco Radio & Television Corp., Tioga & C Sts., Philadelphia, Pa.—RADIO TODAY.

Compact electrolytics



★ Flexible mounting and extreme compactness featured in C-B JR and KR etched foil electrolytic condensers. Type JR enclosed in square container with universal type brackets. KR is round can type on small size. Designed for use where space is at premium and all-around replacement use. Cornell Dublier Corp., Plainfield, N. J.—RADIO TODAY—see also advt. p. 42.

30-watt all-purpose sound system

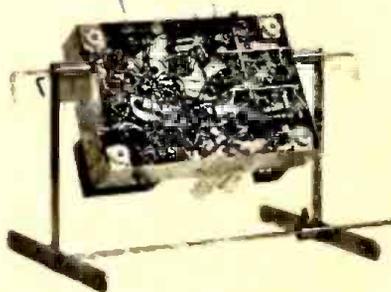


★ Universal type sound system for 110 AC and 6-volt operation. Plug-in type power pack. 30-watt amplifier with phono turntable. Crystal mike and 2 PM dynamic speakers. Webster Co., 5622 Bloomingdale Ave., Chicago, Ill.—RADIO TODAY—see also advt. p. 105.

All-wave Filterette

★ Power line type filterette for screen booths and test rooms. Provide 60 DB attenuation of frequencies between 200 KC and 30 megacycles. Operates on single-phase 110 AC and handles up to 25 amps without excessive heating or voltage drop. Poly-phase and other voltage units designed to order. Tobe Deutschmann Corp., Canton, Mass.—RADIO TODAY.

Acro chassis cradle



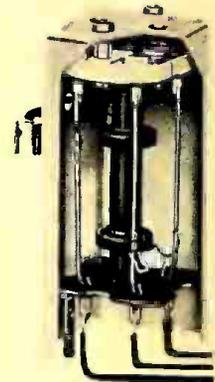
★ Cradle for simplifying work on radio chassis—holds chassis in any position—prevents damage to exposed parts such as tubes, dials, etc. Special mechanical clamps with vise-like grip. Allows both hands for repair work. Acro Tool & Die Works, 1401 Wilson Ave., Chicago, Ill.—RADIO TODAY.

Tube metals

★ Cobalt-nickel alloy for tube filaments. High hot tensile strength. Cobalt alloy most popular in 5Z3, 82, 83 type tubes.

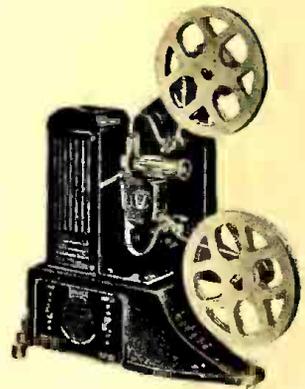
RadioCarb A is a carbonized nickel strip supplied in all widths up to 6 inches and thicknesses from .002 to .015 inches. Free from loose carbon, slivers, waves, seams, rough edges, oil, and grease. Wilbur B. Driver Co., Newark, N. J.—RADIO TODAY.

Iron-core I.F. transformer



★ High-gain, sharp selectivity transformers using high-permeability magnesium alloy core. Core is rust and corrosion proof. Available in types for single and two-stage amplifiers. Size 1¼ square by 4½ high. 465 KC. Hammarlund Mfg. Co., Inc., 424 W. 33rd St., New York, N. Y.—RADIO TODAY.

Low-cost motion picture outfit



★ 8 millimeter home movie output with inexpensive camera and projector. Guaranteed by manufacturer for 1 year. Takes pictures easily and without technical knowledge. Film costs 60 cents a roll. Univex Cine 8 Camera—list \$9.95—projector \$14.95. Universal Camera Corp., 32 W. 23rd St., New York, N. Y.—RADIO TODAY—see also advt. p. 76.

Photoflash lamp

★ Flashlight lamp with fine hydro-lanum wire instead of foil. Diameter of wire predetermines timing characteristics of flash and length determines volume and intensity of light. Peak intensity of light lengthened so that flash is longest at its brightest point. Ignited with flashlight battery. Peak illumination within 26-28 milliseconds. Wabash Photolamp Corp., Brooklyn, N. Y.—RADIO TODAY.

DAILY DIVIDENDS WITHOUT A DIME IN STOCKS



Under the TUNG-SOL CONSIGNMENT PLAN more than 8000 dealers and service organizations in the United States are drawing daily dividends from every tube sale . . . without tying up their capital in stocks.

They have no investment . . . yet they carry adequate stocks with no fear of loss from obsolete numbers.

Tung-Sol retailer partners simply keep the profits and remit the cost price after the sales have been made.

Dealers who can qualify for this attractive partnership may still secure a Tung-Sol agency. Write for the name of your nearest wholesaler.

TUNG-SOL
Tone-flow radio Tubes
TUNG-SOL LAMP WORKS INC.
Radio Tube Division

SALES OFFICES: Atlanta, Boston, Charlotte, Cleveland, Chicago,
Dallas, Detroit, Kansas City, Los Angeles, New York.
General Office: Newark, N. J.

Tung-Sol Branch Managers will be available during the Radio Parts National Trade Show,
Chicago, June 10th to 13th, at the Stevens Hotel

NEW THINGS

Ear level speaker

★ Speaker for ceiling or wall mounting which gives ear level response. Sealed chamber with apertures for sound release. High frequencies diffused outwardly from axis of cone in equal directions. Made in 10 and 12 inch sizes. Color-Tone, Inc., South Bend, Ind.—**RADIO TODAY**.

Remler interphone

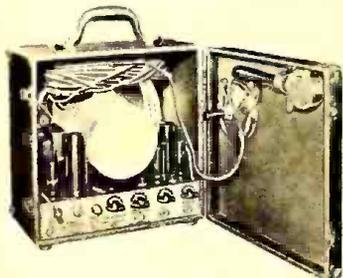


★ 2-way intercommunicating systems housed in wood or plastic cabinets. Master unit has key switch for selecting up to 12 outlying stations. 2 station system—list \$49.50. Remote stations list \$10 in wood, \$12 in molded plastic. Remler Co., Ltd., 19th at Bryant, San Francisco, Calif.—**RADIO TODAY**—see also advt. p. 105.

G-H condensers

★ New Girard-Hopkins line of condensers features uncased paper units, paper types for replacing electrolytics, paper tubulars, cased by-pass units, paper-cased and can type electrolytics for all uses. Transmitting types with stand-off insulators available with paper dielectric. Girard-Hopkins, 1437 23rd Ave., Oakland, Calif.—**RADIO TODAY**.

Sunco soundmaster



★ 12-watt sound system with self-contained mike, amplifier, and 12-inch speaker. Powerful enough for indoor audiences of 3000 and outdoor areas of 25,000 sq. ft. Two extra inputs for mike or phono. Operates from 110 AC—converter available for battery power. Size 13½x13½x9. List—\$63.50. Sundt Engineering Co., 4238 Lincoln Ave., Chicago, Ill.—**RADIO TODAY**.

Vocagraph "hushed-power" amplifiers

★ Line of amplifiers with outputs of 20, 40, 60 watts with built-in monitor speaker and indirectly lighted control panel—streamlined cases. Im-



proved proportioning of stage gain reduces tube overloading and distortion. Internal noise and hum reduced by improvements in transformation and filter circuit. Complete portable systems available in addition to amplifiers. Electronic Design Corp., 164 N. May St., Chicago, Ill.—**RADIO TODAY**—see also advt. p. 103.

Universal frequency modulator

★ Electronic type frequency modulation for use with any oscillator or oscillograph. Calibrated sweep continuously variable from 5 to 40 KC. Self-contained power supply. Model OA-5. Hickok Electrical Instrument Co., DuPont Ave., Cleveland, Ohio—**RADIO TODAY**.

Pocket volt-ohm-milliammeter



★ Low-cost pocket type multi-meter combination. DC and AC volts 0/5/50/500/1000. Ohms 0/500/500M. 0/10/100/500 mils. 1000 ohms per volt sensitivity—meter accuracy 2 per cent. Steel case with baked enamel finish. Model 801A—net \$11.95. Try-Mo Radio Co., Inc., 85 Cortlandt St., New York, N. Y.—**RADIO TODAY**—see also advt. p. 120.

3-inch permag speaker

★ Small permanent magnet speaker designed for use with inter-phone systems. High sensitivity and full coverage of the voice range. Other PM speakers up to 14 inches available.



PM trumpet-type speaker with 6-inch cone housing for use with exponential horn. Suitable for automotive and portable installations. Type XA22 aluminum trumpet for use with this speaker unit. Oxford-Tartak Radio Corp., 915 W. Van Buren St., Chicago, Ill.—**RADIO TODAY**—see also p. 107.

Non-freezing ultra-compact wet electrolytics

★ "Minicap" a new ultra-compact condenser. Ranges up to 8 mfd. 500 volts peak and 38 mfd. 100 volts peak in a can only 1 inch diameter by 1½/16 high. Size reduction of 85 per cent from old type wet electrolytics. Operates at temperatures as low as -20° Centigrade. Fluted type anode and improved methods of foil etching. Solar Mfg. Corp., 599 Broadway, New York, N. Y.—**RADIO TODAY**—see also advt. p. 121.

Universal portable sound system



★ Sound system with turntable operating from 110 AC or 6 volts DC. Output of 20 watts at 4 per cent distortion. Plug-in type crystal mike and speaker. Crystal pick-up. PM type 12-inch speakers with aluminum dome baffles. Output impedances .35 to 500 ohms. Housed in all-metal modern type carrying case. Model 321-P. Wholesale Radio Service Co., 100 Sixth Ave., New York, N. Y.—**RADIO TODAY**—see also advt. p. 47.

Clarion sound system



★ 15-watt packaged sound system complete with mike, speakers, and connecting cables. Peak output of 21 watts—frequency response within 2 DB from 50-10,000 cycles. 3 input channels. Mixing and fading for phono and mike inputs. Tone control—speaker field supply. Model C-104—list \$142.40. Transformer Corp. of America, 69 Wooster St., New York, N. Y.—**RADIO TODAY**.

Webster-Chicago interphones

★ Intercommunicating systems in plastic cases that can be secured in various color combinations. System A is a 2-station set-up. B is a master system handling up to 10 remote stations. Type C utilizes two amplifiers making it possible for either station to call each other when the power to the other station is turned off. System D is a multiple one permitting each station to call any one of the others—capacity 10 stations. Webster Co., 5622 Bloomingdale Ave., Chicago, Ill.—**RADIO TODAY**—see also advt. p. 105.



“Oh, Georgie, just THINK of the millions of stars!”

“Uh-huh. You think of the stars. I’m thinking of the

86,117,500

people in the United States who live in the primary listening areas of the Columbia Broadcasting System. That’s 95% of all the listeners in the country.”

Village and town and city knit closely together—all listening regularly to Columbia. Reason: radio’s *top-ranking* programs. Columbia is the choice of more advertisers (and more of the country’s largest advertisers) than any other network. Naturally, Columbia’s broadcasts are *good*. But, not only because of its advertising sponsors. It’s *own* programs are among the biggest in radio—the New York Philharmonic... Ted Husing’s Sports... Major Bowes’ Capitol Family... American School of the Air. So many—we could hardly expect any one person to remember them all.

Columbia broadcasts 22,000 programs a year. Programs that contribute so *much* to radio sales. America will buy almost 9,000,000* *new* radios (173,000 weekly) in 1937.

**If the up-swing, as shown in the Manufacturers’ Federal Tax figures for the first quarter, continues its blistering pace!*

THE COLUMBIA BROADCASTING SYSTEM

NEW THINGS

Consolophone intercommunicator

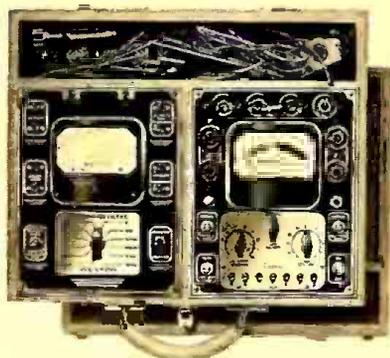
★ Interphone operating from power line—requires no transmission line—uses electric light line. Insures privacy of conversation. List \$49.50—2 stations. Model T listing \$47.50 uses a single wire—operates with 1 to 10 outlying stations. Consolidated Communications Corp., 1215 Fidelity Bldg., Baltimore, Md.—RADIO TODAY.

Peri-dynamic reproducer



★ Speaker and enclosure employing peri-dynamic principles—operation approaches that of infinite baffle. Available with 8, 10, 12, 15 inch speakers for all radio public address applications. Jensen Radio Mfg. Co., 6601 S. Laramie Ave., Chicago, Ill.—RADIO TODAY.

Service combination



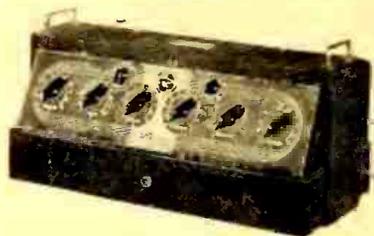
★ Dual-unit test unit with tube checker and 20,000 ohms-per-volt multimeter. Model 773 tube tester with obsolescence proof circuits. Model 772 analyzer features 50 microampere meter movement. Combination known as 775 Serviset—net \$104. 773 tube tester with dual case—\$58. Case of polished wood with luggage type handle. Size 14 x 17 x 5 3/4 inches. Weston Electrical Instrument Corp., Newark, N. J.—RADIO TODAY—see also advt. p. 39.

Philco police radios

★ Auto radio sets designed for use by police agencies. Special long life vibrators for 2000 hours service, PM dynamic speaker. "Q" circuit silences set when carrier goes off the air. Model 821PV is a variable frequency

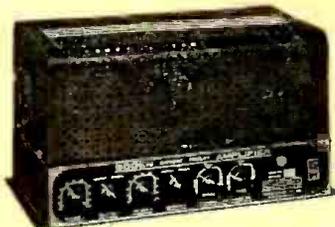
set. 821P is fixed frequency with a sealed quartz crystal. For all city, state and federal services. Philco Radio and Television Corp., Tioga and C Sts., Philadelphia, Pa.—RADIO TODAY.

Operadio amplifier



★ 55-80-watt amplifier with 3-mike inputs and phono input—electronic mixer. Beam power tubes—volume expansion—volume compression (mike anti-feedback). Electronic visual overload and output level indicators. Tone balancer for both high and low frequencies. Master gain control—six stages. Model 855. Operadio Mfg. Co., St. Charles, Ill.—RADIO TODAY—see also advt. p. 97.

Amplifier with frequency compensator



★ Push-pull 6L6 amplifier having electronic tone compensators for both high and low frequencies. Corrects tone to take care of all acoustical conditions and permitting a wide range of tonal balance. Filaments of pre-amplifier tubes operated on DC to insure low hum level. David Bogen Co., 663 Broadway, New York, N. Y.—RADIO TODAY—see also advt. p. 117.

Velocity mike by Universal

★ High-fidelity mike using the air velocity principle. Wide range corrugated ribbon weighing only 1/10 grain responds freely to all sound waves in the audio range. Transformer in base of mike with self-shielding square core—no hum pick-up. Model AV. Universal Microphone Co., Inglewood, Calif.—RADIO TODAY.

Interphone system



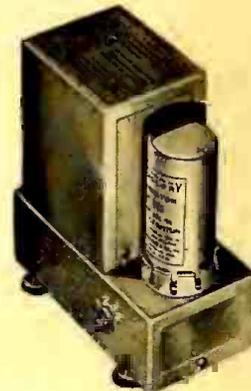
★ Two-way amplified system of intercommunication. Model CSM illustrated talks with 1 to 10 remote stations. Transmission line required between master unit and stations.

Housed in wooden cabinet. Autocrat Radio Co., 3855 N. Hamilton Ave., Chicago, Ill.—RADIO TODAY.

Black & white screens for television

★ Line of cathode-ray tubes with black and white screens—designed for television use. Available in 3, 5, 9 inch diameters. Spot intensity same as that of blue or green. May also be used in cathode ray oscilloscopes. Allen B. Dumont Labs., Inc., 532 Valley Rd., Upper Montclair, N. J.—RADIO TODAY.

Mallory vibrapack



★ Six-volt power supplies for P.A. equipment, radio transmitters, and other equipment requiring up to 300 volts DC. High and medium voltage models with synchronous or non-synchronous vibrators. Tapped power transformer delivers various voltages at highest efficiency. P. R. Mallory & Co., Inc., Indianapolis, Ind.—RADIO TODAY—see also advt. p. 2.

Interference filter for Winchargers



★ Noise eliminator for killing noise interference on the broadcast band and for reducing short-wave interference. Free to present users of Winchargers experiencing interference.

Model 37 6-volt Wincharger illustrated for charging radio storage batteries. Has ammeter and cut-out. 14 improved features. Wincharger Corp., Sioux City, Iowa—RADIO TODAY.

IRC exact duplicate volume controls

★ Complete line of metallized volume controls of exact duplicate type, including dual special units. Previously IRC units had been made in 35 standard types. Complete guide listing to be available by early July.

If it's a

STANCOR
it's Good

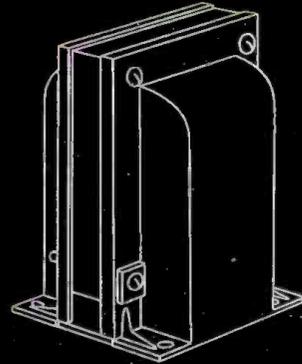
It's not only a good product . . . carefully designed, conservatively rated and honestly built . . . but its sale is governed by a firm policy that gives everyone a break.

Stancor's insistence that no Stancor product be over-rated — either in performance or price — is your best guarantee of value . . . whether you buy Stancor Products for personal use, re-manufacture or re-sale. Stancor Products are good . . . and it's "good business" to buy them.

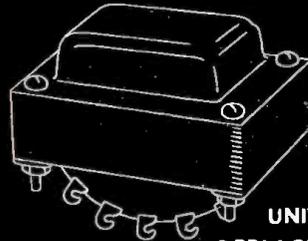
**S T A N D A R D
 T R A N S F O R M E R
 C O R P O R A T I O N**

850 Blackhawk Street

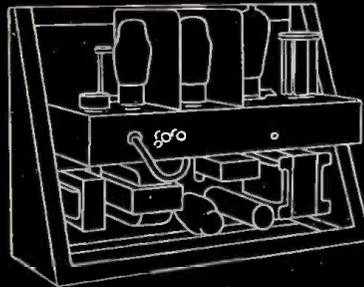
Chicago



EXACT DUPLICATE TRANSFORMERS



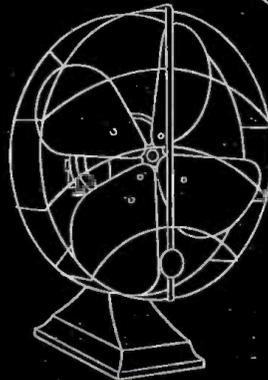
UNIVERSAL
 REPLACEMENT
 TRANSFORMERS



AMATEUR
 RADIO KITS



POWER PACKS



FANS

NEW THINGS

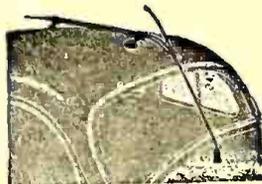
New resistor is the ABC control capable of carrying up to 2 watts. International Resistance Co., 401 N. Broad St., Philadelphia, Pa.—RADIO TODAY—see also advt. p. 41

Communications type mike



★ Crystal mike for speech communications—output 5 DB above type 70S. Desk mount and 7 feet shielded cable. Discriminates against lower frequencies providing a higher degree of intelligibility. Model 70SW—list \$25. Model 703S with swivel head—\$27.50. Shure Bros., 225 W. Huron St., Chicago, Ill.—RADIO TODAY.

ICA streamlined auto antennas



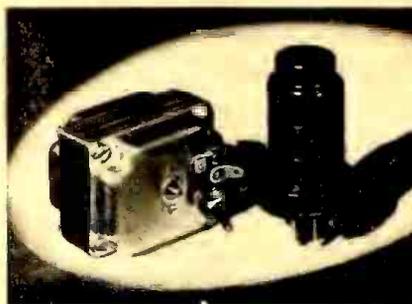
★ Line of 6 auto antennas—five finished in chrome. Roof, hinge, and fish pole types. Easy to install without marring or drilling car. Insuline Corp. of America, 25 Park Place, New York, N. Y.—RADIO TODAY—see also advt. p. 122

Clipper auto aerial



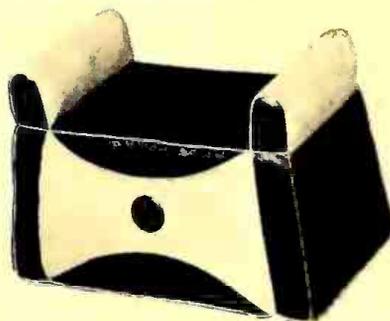
★ Ornamental type aerial for use on autos with steel roof. Streamline design enhances beauty of car. Fits all cars whether or not windshield opens. Increased efficiency of signal pick-up. List \$3.95. Galvin Mfg. Corp., 847 W. Harrison St., Chicago, Ill.—RADIO TODAY

Remote control motor



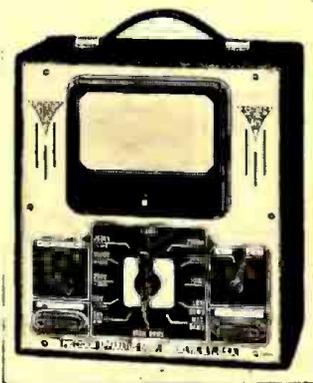
★ AC type motor for receiver tuning with remote control or push-button tuning. Shaded pole induction type—3-wire brushless and reversible. High torque—sizes $\frac{7}{8}$ and 1 inch diameters. For any voltage from 6 to 110 AC. Utah Radio Products Co., 820 Orleans St., Chicago, Ill.—RADIO TODAY

Radio bench hassock



★ Hassock type radio bench made of manchu grain art leather trimmed with art leather cord. Covered buttons tufted through center to match trim color. Obtainable in dark green, blue, plum, rust and sand, brown and sand, maroon and red. Weight 20 lbs. Model 425—net \$24 a dozen. Crawford Mfg. Co., 2nd and Decatur Sts., Richmond, Va.—RADIO TODAY

AC-DC multi-meter



★ Combination AC-DC voltmeter, milliammeter, and ohmmeter. Voltage ranges 0/10/50/250/1000/2500 volts AC and DC at 1000 ohms-per-volt. 0/10/50/250/1000 mils DC. 0/400/1meg/10megs resistance scales. Decibel ranges -50/15/29/43/65/63. Large square cased meter—2 per cent accurate. Ball bearing type switch with silver plated contacts. Model 840—net \$9.95. Precision Apparatus Co., 821 E. New York Ave., Brooklyn, N. Y.—RADIO TODAY

Wedge power plant

★ Farm power plant delivering 6, 12 or 32 volts DC—output up to 200 watts. 2-pole generator direct connected to 4 cycle $\frac{5}{8}$ H.P. gas engine governor controlled for constant speed. Starts by push-button from battery. Built-in magneto for hand starting. Operates up to 18 hours on a gallon of gas. Wedge Mfg. Co., 2334 S. Michigan Ave., Chicago, Ill.—RADIO TODAY—see also advt. p. 48

Cinaudagraph speaker



★ 5-inch permo-dynamic speaker using Nipermag alloy for field. Dust-proof voice coil—polyfibrous speaker cone for large frequency response. Available in 2 models $5\frac{3}{4}$ -inch diameter with mounting holes— $5\frac{3}{4}$ diameter without mounting holes. Cinaudagraph Corp., Stamford, Conn.—RADIO TODAY—see also advt. p. 98

Arrow model auto-top aerial



★ Roof aerial for steel-top cars. Mounts on rubber vacuum cups—no holes needed in roof or cowl. Wide semi-rounded strips afford a large area of surface for exceptional pick-up. Flowing arrow-like lines harmonize with beauty of modern streamline design. Wedge Mfg. Co., 2334 S. Michigan Ave., Chicago, Ill.—RADIO TODAY—see also advt. p. 48

Portable sound system

★ 5-watt complete sound system with double-button microphone, 11-inch dynamic speaker, banquet stand and necessary cables. Flat frequency response from 40 to 9,000 cycles within 2 db. 6B5 dual triode output tube. Housed in sturdy carrying case which also serves as a baffle. Radolek Co., 601 W. Randolph St., Chicago, Ill.—RADIO TODAY—see also advt. p. 112



**QUIET . . .
HIGH FIDELITY . . .**



6F6G

ARCTURUS

**PERFECTION OF DETAIL AGAIN
BRINGS YOU A BETTER TUBE**



**MAKING
TUBES
IS A SCIENCE**

*demanding precise
detail engineering*

ARCTURUS PIONEERED "G" TUBES

QUESTION: Why do technicians who know their tubes insist on Arcturus 6F6G's for output pentode applications?

ANSWER: Because they know Arcturus engineers have definitely conquered the weaknesses of ordinary tubes of this type. They know the Arcturus 6F6G gives uniformly good tone over a longer period of time and further that it eliminates the noise, distortion and "gargling" commonly noticeable in this type.

Advanced processing and improved cathode coating tends to lower grid emission and other forms of grid

current—and keeps them low. Also, like other Arcturus types, each 6F6G is individually tested many times during manufacture. Then to make doubly sure, all tube elements are given an excessive voltage that immediately discloses any grid emission defect. The final test in a highly sensitive receiver is triple assurance that you receive trouble-free tubes.

Thus, not only are Arcturus Tubes made better in the first place. They are likewise more carefully tested so that each and every tube coming to you will measure fully up to our slogan "*None but the very best!*"

ARCTURUS RADIO TUBE CO., NEWARK, N. J., U. S. A.

ARCTURUS

INDEPENDENT TUBES FOR DEALERS WHO DO THEIR OWN INDEPENDENT THINKING

HOW TO SELL "SOUND"—

—what the customer wants to know; how to explain simply
—learning exactly what the job conditions and needs are

★ FOR years almost everyone connected with the infant "sound" industry has been speculatively wondering what period of time must elapse before "sound equipment came into its own"—in other words, gained a strong hold on the popular imagination—and consequent recognition as a necessary tool of modern business, religion, and entertainment.

But "wondering when" is about all most of us have attempted from a merchandising standpoint, comments L. M. Sandwick, sales manager of Electro-Acoustic Products Company. The business has been left largely in the hands of technical experts who have achieved wonders in the development of well-designed apparatus with dependable operating characteristics and acceptable reproducing quality. The engineers have, however, surrounded the industry with technical terms and a general air of mystery that discourages many a sales opportunity.

What does it do?

It is timely, therefore, with the season of greatest annual interest in sound equipment approaching to consider the sales problem from the layman's viewpoint and see what we can do to bring "sound" out of the lab-

oratory and into the light of everyday specialty selling experience.

"If I were the average prospect for a sound installation, the first thing I should want to know is—what is sound equipment, and what will it do?" continues Mr. Sandwick. "And I would venture to say that hardly one of ten representatives who might call upon me, if my wants were made known, could enlighten me. Certainly I would not want to be confused by a discussion of 'output' and 'response'; of ohms and decibels; of harmonic content and voltage gain.

"No, if I were the pastor of a good-sized church, for example, I should want to know what I could do to enable my parishioners to hear me comfortably and with no perceptible distortion of my natural speaking voice. The technicalities would not, at least at the outset, interest me. I would want a definition something like this: Sound equipment is the apparatus which enables a man to deliver his sermon, his instructions, his music, or his announcements—much more easily and to far larger groups of people than he can possibly address unaided. To impress this definition permanently upon my mind, I should want the representative to go a step farther and illustrate.

"I should want him to show me a microphone and explain that the microphone is the 'ears' of the system, picking up my voice and transforming its sound waves into feeble electrical impulses. Then I should welcome knowing that the amplifier (which, in my ignorance, fed by erroneous reports of public meetings in newspapers, I have been confusing with the loud speakers) is really the heart and lungs of the system. That through its several vacuum tubes the amplifier builds up these electrical impulses which it receives from the microphone. Finally, to complete my mental picture I should know that the loud speaker reconverts the strengthened electrical impulses into sound and makes them audible."

What will sound do for me?

The prospect now has a sufficiently good general understanding of the subject and presumably his interest has been aroused to the point where he wants to translate the information into terms of his particular problems.

Here is where many a sale goes astray! It's the point in the interview to stop, ask questions, and *listen*.

Before you can tell the prospect what your equipment and service will accomplish for him, you have some questions to ask. Something like this:

1. For what general use are you purchasing the equipment?
Do you intend to use it indoors, outdoors, or both?
Do you wish to reproduce voice or music or both?
Is the equipment intended for individual use with one microphone only, or do you intend to pick up groups, such as band, orchestra, theatrical cast or choir?
2. What is the description of the location where you intend to use the equipment?
For example, is it a hall, church, school, auditorium, theatre, factory, playground, athletic field, store, cafe, skating rink, ballroom?
3. What is the approximate size of the area you wish to cover?
4. How large an audience is the equipment expected to cover?
Will the audience be gathered in one hall or room or must provision be made for overflow crowds as well?
Do you intend to distribute sound to remote points? For example, to school classrooms, factory depart-



Every industrial plant and stock-room is a prospect—for communicating with employees, or for speeding work with stirring music.

I AM AMPLIFIER 855

THE
ARISTOCRAT
OF ALL
AMPLIFIERS



THEY call me the pride of the Operadio crowd. I'm not the result of any brainstorm. Months and months of patient toil went into my designing, testing. I was tried and tried again under conditions that would test any Amp's metal.

Dealers take a look at me and say: "Boy, she's a beauty." But the thing that's most important is what's inside me, and the job I'll do out in the field. And believe me, I've never let a jobber, dealer or service man down.

I'm packed with exclusive, up-to-the-minute Operadio features such as Volume Expansion and Volume Compression (the cure for microphone feedback).

Twelve beam power tubes in the latest, most efficient type

circuit make my wheels go 'round for maximum performance. I've a four channel input. In other words, I electronically mix three microphones simultaneously with phonograph or auxiliary input.

With my electronic visual overload indicator and my electronic visual output level indicator, you can tell at a glance whether or not I'm being overloaded. And you can check the average watts output going into your speaker system. Tone balancing for both high and low frequencies is no trick for me—not with my new non-resonant equalizer. *With these and many more features, all I cost you, complete with tubes, is \$180.00.*

I can't give you more than the highlights, but clip and mail the coupon and you get my complete story.

MODEL 835

35-52 Watt Amplifier

This amplifier is a package of dynamite. It has more clean, undistorted watts output per cubic content than any amplifier on the market today. Can be bolted down on table or desk, mounted on a wall, or on a standard 19-inch rack.

Price, complete with Tubes . . \$120

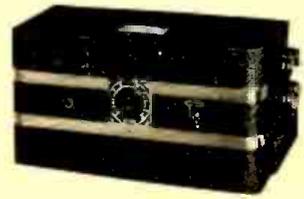


MODEL 870

70-104 Watt Booster Amplifier

Designed specifically to be used as a booster amplifier with the Model 835 Power Amplifier. It makes available an additional 70 watts per unit, under normal rating, to the already 35 watts normal rating of the Model 835. Furnishes field for as many as four electrodynamic speakers, or may be used with A. C. type dynamic or permanent magnet dynamic speakers.

Price, complete with Tubes . . \$125



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MANUFACTURING COMPANY
ST. CHARLES • • • ILLINOIS

OPERADIO MANUFACTURING COMPANY

Dept. R6T, St. Charles, Illinois

Please send me complete information on the following:

- AMPLIFIER 855 Amplifier Booster 870
 Amplifier 835 Intercommunicating Systems
(Check mark what interests you.)

Name

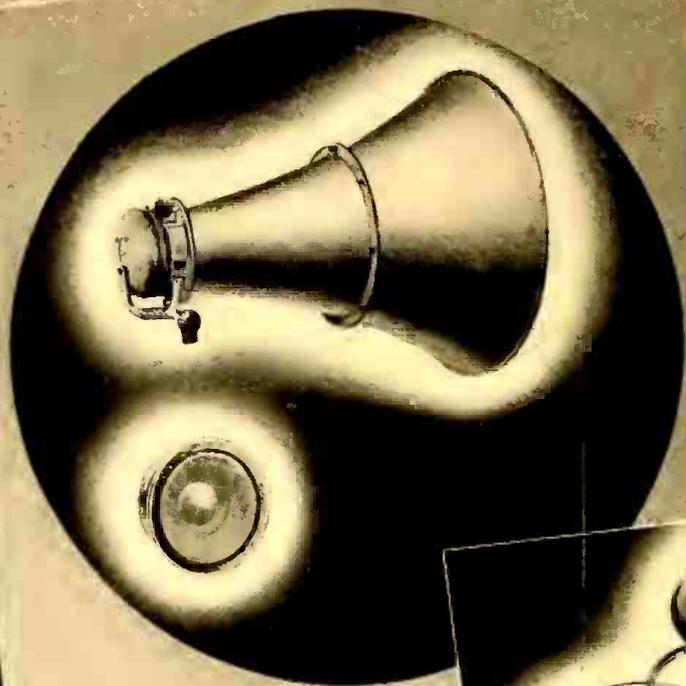
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Send me your NEW CATALOG NO. 12

P. A. EQUIPMENT AND SPEAKER HEADQUARTERS FOR THE NATION

RECOGNITION—the REWARD FOR ACCOMPLISHMENT



MODEL SUA—A powerful exponential unit with 3½" voice coil—the ultimate in air column sound projectors.

CINAUDAGRAPH CORPORATION, with its extensive background of engineering experience and modern manufacturing facilities, has justifiably earned leadership recognition from the entire radio industry. This is because its line of speakers is outstanding in performance, quality of materials and workmanship. CINAUDAGRAPH Speakers are styled and built to meet today's requirements—they are sold on a competitive price basis.



COUPLING RING UNIT ASSEMBLY Assures Permanent Voice Coil Alignment and Simplifies Cone Replacement.



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CINAUDAGRAPH will continue to set the pace in Speaker design, improvement and efficiency. Send NOW for latest descriptive literature.

CINAUDAGRAPH CORPORATION

Speaker Division • Stamford, Conn.

A complete line of Magic Magnet Speakers ranging in size from 5 to 18 in.

ments, hospital corridors, or private dining rooms.

5. What are the noise conditions in the area to be covered? Will the audience be silent, as in church or school convocations? Will you be contending with street noises?

Must announcements be made audible above shop, factory, garage or other mechanical noises?

If your application is for restaurant, cafe, or dance hall what are the existing noise conditions, such as rattling of dishes, conversation of patrons, floor noises created by dancers?

The answers to these question accomplish far more than merely enabling you or your firm to lay out and execute the job correctly. Properly presented, the questions you have asked have won you the confidence of the prospect as no other approach could. They have gone a long way to convince him that you have a service to render him and the sincere desire to render it honestly. By indirection you have conveyed to him the impression that you recognize the importance of his job and that you want to give it special attention. By so doing, you have successfully appealed to one of the strongest of all buying motives—pride of ownership. We all respond to it.

Conservative claims

Now it's the salesman's turn. He understands the problem, and the prospect is pleased that he has been "asked" and not "told." But it's not yet time to unlimber the heavy artillery. Maybe the prospect has had his ears assaulted by inferior equipment in the past. Possibly he attended a meeting at one time or another where the equipment failed to function. So proceed cautiously and tread lightly. You've won his confidence in your sincerity. Now do the same for your equipment. Do it by making your story of what your equipment will do for the prospect a *model of understatement*.

Be convincing, but don't claim too much. If two microphones are needed, don't hesitate to say so and give your reasons.

One of the largest centralized radio and public-address awards in the state of Ohio was recently won by this method. Two representatives were competing. The hearing before the board of education had reached the point where a discussion of results was in order. The particular problem was voice reinforcement in the large auditorium. Representative A claimed his company had developed a new microphone—so startling in sensitivity and pickup radius that he would guarantee to reinforce all

voices on the 40-foot stage with but a single instrument.

Representative B was more cautious. He reminded the board members that a microphone was a sufficiently remarkable device when it picked up voices 6 to 8 feet away, without attempting to endow it with magical powers. He made his claims for his equipment a model of conservative understatement. Naturally, what he said rang true and his firm was awarded the contract.

What will it cost?

You're now about to win or lose the sale. It all depends on how you handle that all important subject—*what will it cost?*

It's time for you to bring up your heaviest guns. Don't lose control of the interview for an instant. Don't give the prospect the slightest opening to remind you that your competitor has offered to do the job for half the money and thereby get you on the defensive. Get the prospect on the defensive instead. Remind him that sound equipment—appealing as it does to the ear alone—*must be right*. If he takes a chance on cheap equipment of inferior quality he *can't keep it quiet*. Everyone in his congregation, his store, his school, or his plant is going to hear it and *shudder at it*. They're going to blame him for installing a liability instead of an asset.

Why should I buy it now?

Fear is a powerful buying motive. It sells millions of dollars worth of insurance annually. Make it work for you.

And now the final hurdle—procrastination. Yes, says the prospect, we're going to put in a system, but we don't need it just yet.

Bring up that appeal to pride of ownership again. You want to do a particularly fine job, but you can't do it overnight. The installation must be carefully laid out. The equipment must be set up and thoroughly tested. Perhaps some final changes will have to be made in the loud-speaker locations.

It's not like moving in a grand piano or even installing a radio, comments sales-closer Sandwick, in conclusion. "You can do the job to which he is entitled only if he signs the order form and enables you to start the preliminaries—*right now!*"

INNOCENCE ABROAD

★ A curious brand of radio thinking goes on under the wide sombreros of Mexican peons or "hillbillies." Most of their radios are out of date and outrageously ragged in performance, but they have the answer.

Valentin V. Rivero, general manager of Radio Electrica, Ltd., Crosley distributor of Mexico City, has overheard two peons of Tierra Caliente. They were defending their positions as owners of tumble-down radios over ten years old.

One of them declared that his set was the best because it would bring in only a single station—it was too "selective" to bother with other inferior signals. The other insisted that his receiver was such a sensation that all signals were anxious to come in at the same time, no matter where the dial was set.



Even modern cemeteries are "wired for sound." From the hill-top campanile come chimes—and organ music during ceremonies.

CHARACTERISTICS OF TUBE CHECKERS

Operating and construction details of tube testers compiled by *Radio Today*

Model No.	Net price	Meter calibration	Meter scale length	Line volts			Power source	Basic test principle	No. of controls	No. of sockets	Short tests	Hot leakage tests	Pre-heat sockets	Style case	Dimensions	Wt. in lbs.
				Fused meter	Adjustment	Reading										
Burton Rogers Co., 755 Boylston St., Boston, Mass.—"Burton-Rogers"																
20	\$ 29.95	English	2.25	No	TT	Yes	AC	Mutual	4	6	Yes	Yes	None	Port	12x12x5	10
20	31.95	English	2.25	No	TT	Yes	AC	Mutual	4	6	Yes	Yes	None	Port	12x12x5	10
25	39.50	English V-M-O	4.0	No	TT	Yes	AC	Mutual	4	6	Yes	Yes	None	Port	12x12x5	11
Jackson Electrical Instrument Co., 129 Wayne Ave., Dayton, Ohio—"Jackson"																
427A	\$ 29.50	English	2.25	No	TT	Yes	AC	Output	4	6	Yes	Yes	None	Port	11x11x6	12
535	39.50	V-M-O	2.63	No	TT	Yes	AC	Output	5	6	Yes	Yes	None	Port	13x13x6	16
580	59.50	English V-M-O DB-MF	3.5	No	TT	Yes	AC	Output	5	12	Yes	Yes	None	Port	13x20x6	19
Hickok Electrical Instrument Co., 10514 DuPont, Cleveland, Ohio—"Hickok"																
AC51	\$ 75.00	English Mhos	3.5	No	SR	Yes	AC	Mutual	10	6	Yes	Yes	None	Port Ctr	13½x13½x6	19
AC47-A	125.00	Mhos	2.03	No	SR	Yes	AC	Mut-Emis	5	3	Fil-Cath	Yes	None	Port	10½x15½x5	22½
J-M-P Mfg. Co., Inc., 3048 N. 34th St., Milwaukee, Wis.—"Checkatube"																
C-111	\$ 21.95	English	2.5	No	TT	Yes	AC	Output	4	5	Yes	Yes	5	Port	10x12x6	10
C-111	29.95	English	5.0	No	TT	Yes	AC	Output	4	5	Yes	Yes	5	Port	18x11x6	18
Million Radio & Television Labs., 671 W. Ohio St., Chicago, Ill.—"Million"																
CN	\$ 9.95	Neon lamp	...	...	TT	No	AC	Emis	3	5	Yes	Yes	None	Port	8x8x3	6
TM	18.95	English	2.25	No	SR	Yes	AC	Emis	4	6	Yes	Yes	None	Port	11x8x3	8
TV	27.95	English V-M-O	2.25	No	SR	Yes	AC	Emis	4	6	Yes	Yes	None	Port	11x8x3	9
Philco Radio & Television Corp., Tioga & C Sts., Philadelphia, Pa.—"Philco"																
066	NS	English	2.75	No	TT	Yes	AC	Emis-mut	4	8	Yes	Yes	None	Port Ctr	15½x7½x11	16
Preceptor Mfg. Co., 179 Minna St., San Francisco, Calif.—"Preceptor"																
J	\$ 39.50	Lamp	.75	...	None	No	AC	Emis	5	6	Yes	Yes	None	Port	NS	NS
K	79.50	Lamp	....	....	SR	Yes	AC	Emis	6	5	Yes	Yes	None	Port Ctr	11x11½x5½	12
Precision Apparatus Corp., 821 E. New York Ave., Brooklyn, N. Y.—"Precision"																
500	\$ 39.50	English	4.0	No	SR	Yes	AC	Emis	3	6	Yes	Yes	None	Port	12x12x6	11
600	45.75	English	4.0	No	SR	Yes	AC	Emis	3	6	Yes	Yes	None	Port	12x12x6	11
700	45.75	V-M-O	4.0	No	SR	Yes	AC	Emis	3	6	Yes	Yes	None	Port panel	12x12x6	11
Radio City Products Co., Inc., 88 Park Place, New York, N. Y.—"Dependable"																
305-C	\$ 21.95	English	3.0	No	SR	Yes	AC	Emis	4	5	Yes	Yes	None	Ctr*	13¼x9¼x6¼	6¼
306-C	17.95	English	1.75	No	SR	Yes	AC	Emis	4	5	Yes	Yes	4	Ctr*	8½x11x5¼	5¼
307	44.50	English V-M-O	3.5	No	SR	Yes	AC	Emis	4	6	Yes	Yes	4	Port	18x12x7½	10½
*Portable models \$2.55 additional.																
Radio Technic Laboratory, 1328 Sherman Ave., Evanston, Ill.—"R-T-L"																
MC	\$ 41.00	English	3.38	No	Pot	Yes	AC	{ Grid }	3	8	Yes	Yes	None	Ctr	14¼x16½x15¼	NS
MP	39.50	English	3.38	No	Pot	Yes	AC	{ Control }	3	8	Yes	Yes	None	Port	5x12x17½	NS
Readrite Meter Works, College Ave., Bluffton, Ohio—"Readrite"—"Ranger-Examiner"																
430	\$ 18.00	English	NS	No	Pot	Yes	AC	Emis	4	5	Yes	Yes	None	Port	9x8¼x7	18
440	18.00	English	NS	No	Pot	Yes	AC	Emis	4	4	Yes	Yes	None	Port	5½x7½x4½	21
Simpson Electric Co., 5216 W. Kinzie St., Chicago, Ill.—"Simpson"																
220	\$ 57.00	English	3.0	Yes	SR	No	AC	Emis	4	7	Yes	Yes	None	Port	8½x13x9	13
222	39.50	English	2.56	Yes	SR	No	AC	Emis	4	7	Yes	Yes	None	Port Ctr	12x12x6	12
Superior Instruments Co., 136 Liberty St., New York, N. Y.—"Superior"																
V-45	\$ 10.40	English	2.25	No	None	No	AC	Emis	3	5	Yes	Yes	None	Port	10x6½x5¼	5
Supreme Instruments Corp., Howard St., Greenwood, Miss.—"Supreme"																
400	\$ 38.95	English V-M-O	3.0	No	TT	Yes	AC	Emis	4	5	Yes	Yes	None	Port	6¼x12½x13¼	14
500	\$ 66.95	English V-M-O-DB	4.0	No	TT	Yes	AC	Emis	6	6	Yes	Yes	None	Port	7x14x19	24
505	47.95	English	4.0	No	TT	Yes	AC	Emis	6	6	Yes	Yes	None	Port	7x14x19	20
Triplett Electrical Instrument Co., Harmon Rd., Bluffton, Ohio—"Triplett"																
1210-A	\$ 20.00	English	2.25	No	TT	Yes	AC	Emis	4	4	Yes	Yes	None	Port	7½x6½x4½	11
1310	24.67	English	2.25	No	TT	Yes	AC	Emis	4	4	Yes	Yes	None	Ctr	11x8½x8	18
1502	36.67	English	2.25	No	TT	Yes	AC	Output	5	8	Yes	Yes	None	Port	15x11½x7½	26
1503	46.67	English V-M-O-DB	2.25	No	TT	Yes	AC	Output	5	8	Yes	Yes	None	Port	15x11½x7½	NS
Triumph Mfg. Co., 4017 W. Lake St., Chicago, Ill.—"Triumph"																
420L	\$ 29.95	English	2.75	No	TT	Yes	AC	Emis	4	6	Yes	Yes	None	Port	10¼x11¼x12¼	11¼
420V	39.95	English	2.75	No	TT	Yes	AC	Emis	4	6	Yes	Yes	None	Port	12½x13x6 13x19x16½	9¼ 27
Earl Webber Co., 1313 W. Randolph St., Chicago, Ill.—"Webber"																
30	\$ 34.95	English	2.25	No	TT	Yes	AC	Output	4	6	Yes	Yes	No	Port Ctr	13x12x5½	12
Weston Electrical Instrument Corp., Frehlinghuysen Ave., Newark, N. J.—"Weston"																
771	\$ 45.00	English	2.36	No	Pot	Yes	AC	Emis	3-10	7	Yes	Yes	None	Port	14¼x9¼x6	13¼
773-1	54.00	English	3.5	No	Pot	Yes	AC	Emis	3-10	8	Yes	Yes	None	Port	5¼x9¼x15¼	10¼
773-2	58.00	English	3.5	No	Pot	Yes	AC	Emis	3-10	8	Yes	Yes	None	Port	7¼x10¼x14¼	10¼

NOTES:—NS—Data not supplied; V—Volts; M—Milliamperes; MF—Microfarads; O—Ohms; DB—Decibels; Mut—Mutual—Mutual conductance; Emis—Emission; Ctr—Counter; Port—Portable; SR—Series resistor; TT—Tapped transformer; Pot—Potentiometer and tapped transformer.

The accompanying tabulations have been compiled from information furnished to the editors of RADIO TODAY by the manufacturers whose apparatus is described.

THE NEW 1937 LINE

HOWARD AUTO RECEIVERS

Breaking Sales and Performance Records
Everywhere

Three great models: A six-tube built-in speaker, a six-tube Deluxe with separate speaker and an eight-tube Deluxe. COMPETITIVELY PRICED AND CARRYING FULL DISCOUNTS.

If you do not have complete information on this fast selling high performance line, do not fall to wire or write at once.



You Are Invited and it is our earnest hope you will attend and make your headquarters the HOWARD DISPLAY OF 1938 HOUSEHOLD RECEIVERS at the Blackstone Hotel during the Radio Parts Show June 10th to 13th inclusive.

SEVEN REASONS WHY EVERY LIVE DISTRIBUTOR WILL MAKE IT HIS BUSINESS TO BE AT THE HOWARD DISPLAY:

- 1 **Because** HOWARD receivers are made by the oldest manufacturer in radio.
- 2 **Because** Since the inception of radio, the ownership and management has never changed hands.
- 3 **Because** Cabinet designs and dials are so outstanding they will be the talk of the Radio Show.
- 4 **Because** Every receiver offered by HOWARD has the same custom built quality that made the HOWARD name famous.
- 5 **Because** Of the 100% jobber and dealer set-up which offers complete protection in your territory.
- 6 **Because** All receivers are outstanding values, made possible through concentration on fewer models covering the entire popular price range.
- 7 **Because** Of the cooperative advertising plan and the distinct distributor and dealer helps offered.

HOWARD RADIO COMPANY
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America's Oldest Radio Manufacturer

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WITH THE NEW



ME ELECTRIC & MFG. CO.	T-56R01	T-13C T-43C9	T-13A34	T-13A35	T-29A	T-57A
ACRATEST PRODUCTS CO. (See also Federated Purchasing)	T-13K06	T-13C07	T-13A36	T-13A37	T-29B	T-57A38
ADVANCE ELECTRIC CO. Falch	T-13R01					
Falch Superbet "B"	T-13R03					
Falch 77, 88, 89	T-13R03					
ALLEN CORP. 7-tube TRF. & Tube TRF	T-13R01					
	T-13R02					
	T-13R03					
	T-13R04					
	T-13R05					
	T-13R06					
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Demand "Power by Thordarson"

SERVICE NOTES



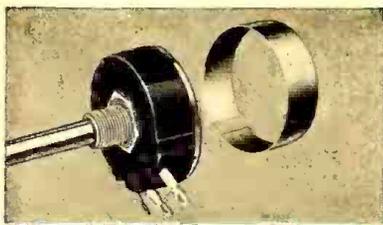
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1. Maximum resistor length for each case diameter
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6. Better power dissipation
7. Longer life

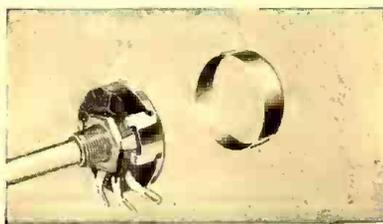
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Paris XI, France

MORE DOPE ON CLEARING UP EXTERNAL CROSS-MODULATION

★ A few pointers concerning the elimination of external cross-talk interference have been offered by Fred S. Johnston, Crosley's chief engineer:

"Cross-talk interference external to the receiver is usually not a common cause of complaint with field strengths much under one volt per meter, although occasional cases will occur with field strength of the order of two or three tenths of a volt per meter.

"Electric wires for lighting circuits will be found to be one of the most common sources of this type of interference. This is particularly true in districts where the wiring is old and where neutrals are not grounded. Difficulty may be caused by poor connections in fuse blocks, attachment sockets and electric light switches. Trouble is often experienced due to poor connections at ground clamps which are frequently found to be corroded. Water or gas pipe lines crossing each other and making poor connections may cause trouble. Interference has been found to be due to poor insulation of lead-in straps used under metal window sashes. If this insulation is badly worn so that the lead-in conductor makes a poor contact to metal sash or weather stripping serious interference may be caused.

Finding source with portable set

"When cross-talk is present in a locality the source may be found by attaching a small portable antenna to a shielded portable battery receiver and exploring the premises, holding the antenna close to various suspected structures in turn. If the antenna can be constructed in the form of a loop so as to show directional properties this will be of some advantage in pointing out the source of interference.

"During this procedure the receiver is tuned to one of the spurious signal frequencies which may be calculated from the frequencies of the stations involved in the cross-talk. For instance, if a station at 550 KC. is cross-talking with a station at 700 KC. one of the spurious signals expected would be found at 850KC. This is twice 700 minus 550. If the receiver is tuned to the spurious signal

it responds only to the waves generated by the source of cross-talk which may thus be readily located.

"Sometimes the cross-talk may appear to radiate from every metallic structure on the premises," Mr. Johnston said. "In this case a general clean-up is initiated," he stated. "It may be that after all piping is separated and all ground and other connections are made good, that cross-talk persists, indicating that interference is originating outside the building and is being conducted in by means of the electric service wires. In such a case opening the service switch at the point where the lines enter the building may cause a very material reduction in the cross-talk picked up by the portable receiver.

"In this instance the difficulty may be looked for on the exterior lines themselves. Poor splices at service branches, poor contacts at cut-outs and poor transformer grounds may cause the difficulty. It is also possible that the cross-talk may be originating in an adjacent building and be transmitted to surrounding buildings by way of the electric wiring. It is sometimes necessary to clean up all the houses in a district in order to get rid of this interference.

Poor grounds on power lines

"High voltage transmission lines may be sources of cross-talk. Some of these lines have a grounded guard wire located above the circuit wires. This guard wire passes through grounded metal rings on each pole making only a loose contact. Some available evidence appears to indicate that this form of construction is responsible for cross-talk difficulties.

"It thus appears that a type of interference unthought of but a few years ago may be a serious factor under conditions of substantial field strengths. However, it may be said that the cause of this type of interference can be removed. In districts where the service wiring is all underground and conduits and piping are properly grounded external cross-talk is practically non-existent. In other words, where elevated metallic structures are in proper condition no trouble is experienced.

"Frequently the broadcast listeners can help themselves very materially by re-routing the antenna or ground leads or both so as to keep them well away from lighting circuits which

Don't miss the
WARD
EXHIBIT



Booth 5

NATIONAL RADIO
PARTS TRADE SHOW

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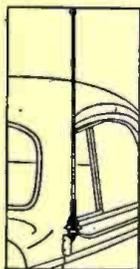
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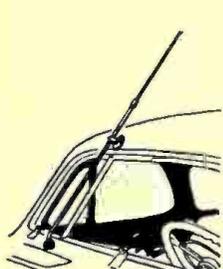
ALL OTHER
IMPORTANT
RADIO SHOWS

NEW WARD AERIALS

Town and Country Series



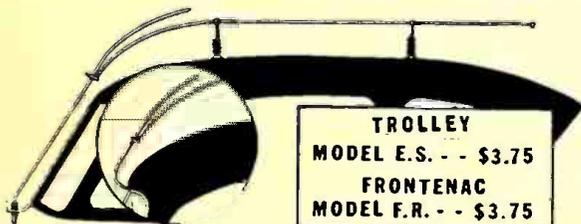
MAINLINER
MODEL M.L. \$2.45



CHIEFTAIN
MODEL F.M. \$2.45



CORONATION
MODEL C.O. \$2.45



TROLLEY
MODEL E.S. - - \$3.75
FRONTENAC
MODEL F.R. - - \$3.75

PROMPT DELIVERIES GUARANTEED

Ward Products Corporation manufactures the world's finest line of Top, Pole and Undercar Aerials. Insist on GENUINE Ward Aerials.

WRITE FOR CATALOG TODAY

The WARD PRODUCTS Corp.
WARD BUILDING CLEVELAND, OHIO

NONE HAVE DARED...
-to Build Sound Amplifiers
with "HUSHED POWER"
Performance!



New VOCAGRAPH Sound Systems

Combine—
Startling Performance
Lowest Cost

"HUSHED POWER"

—one of many exclusive VOCAGRAPH features

"Hushed Power"—provides more usable watts from the same rated power output—thus giving you more sound per dollar invested.

"Hushed Power"—performance is secured by new circuit design and balancing stage gain to give greater output with fewer tubes. These tubes are operated at lower ratings, thus reducing noise and overload.

"Hushed Power"—results are not guesswork. Every VOCAGRAPH amplifier must pass tests for gain, output, and wave-form on the beat-note audio oscillator, power level indicator, cathode-ray oscillograph, and General Radio's finest wave-analyzer.

Series 40 Line—offers these additional features: Built-in monitor speaker; Dual tone controls; All plug-in connectors; Illuminated control panel; and modern streamlining. Write for full description.

Here at last is the answer to your sound problems! Quality performance at a new low cost.

You ask how it is done, for NONE HAVE DARED to take such a revolutionary step. Only VOCAGRAPH, with the advantages of "Hushed Power" design and modern production methods, can afford to offer so much performance per sound dollar.

The new VOCAGRAPH line has been designed today—for today's needs—eliminating time-worn engineering and production handicaps.

The complete line contains over twenty models in separate chassis, semi-portable and fully portable systems.

Write today for your copy of the new engineering bulletin, "NONE HAVE DARED," and the complete VOCAGRAPH catalog.

Distributors' Franchise
A proposition offering 100% complete protection on a line of sales compelling merit is available in certain distributing centers. If interested, write at once.

Write or wire TODAY
for full information

ELECTRONIC DESIGN CORPORATION

162-C N, May St., Chicago, U. S. A.



VOCAGRAPH SOUND SYSTEMS

Send at once new VOCAGRAPH engineering bulletins, complete catalog, and dealer net prices.

Clip and
Mail Today

Name _____
Address _____
City _____ State _____

FREE EQUIPMENT LIST

Listed below are some of the things you can have free with your purchases of National Union radio tubes. If you don't see what you want, ask for it!

Equipment You Can Have	Tubes You Buy Per Week	For	
Carry Case	2	For	1 Year <input type="checkbox"/>
Clough-Brengle OM-A Freq. Modulator	11	"	2 Years <input type="checkbox"/>
Clough-Brengle 81-A Freq. Modulator	6	"	2 Years <input type="checkbox"/>
Clough-Brengle Signal Generator	6	"	2 Years <input type="checkbox"/>
Clough-Brengle 85-A	5	"	2 Years <input type="checkbox"/>
Clough-Brengle CRA Oscillograph	15	"	2 Years <input type="checkbox"/>
Clover Remote Control Cable Kit	4	"	1 Year <input type="checkbox"/>
Communication Inst. Audio Oscillator	3	"	2 Years <input type="checkbox"/>
Electric Clock	4	"	1 Year <input type="checkbox"/>
Hickok OS-11 Oscillator	8	"	2 Years <input type="checkbox"/>
Hickok No. 99 Tube Tester	8	"	2 Years <input type="checkbox"/>
Hobart Cabinet (100 Drawer)	5	"	2 Years <input type="checkbox"/>
J.F.D. Remote-O-Cable Replacer	7	"	2 Years <input type="checkbox"/>
Precision No. 600 Electronometer	7	"	2 Years <input type="checkbox"/>
Ranger 640-740 Volt-Ohm-Milliammeter	4	"	2 Years <input type="checkbox"/>
Ranger 557 Signal Generator	3	"	2 Years <input type="checkbox"/>
Ranger 735 Volt-Ohm-Milliammeter	3	"	1 Year <input type="checkbox"/>
Readrite No. 430 Tube Tester	3	"	2 Years <input type="checkbox"/>
Royal Portable DeLuxe Typewriter	10	"	2 Years <input type="checkbox"/>
Service Manual (any volume except 2 and 7)	3	"	1 Year <input type="checkbox"/>
Simpson All-Wave Signal Generator	8	"	2 Years <input type="checkbox"/>
Simpson Set Tester No. 225	5	"	2 Years <input type="checkbox"/>
Simpson Set Tester No. 250	6	"	2 Years <input type="checkbox"/>
Simpson Roto-Ranger Tester No. 220	9	"	2 Years <input type="checkbox"/>
Simpson Roto-Ranger Milliammeter No. 201	5	"	2 Years <input type="checkbox"/>
Simpson Roto-Ranger Milliammeter No. 202	5	"	2 Years <input type="checkbox"/>
Shop Coat	2	"	1 Year <input type="checkbox"/>
Supreme No. 525 Soldering Tool	2	"	1 Year <input type="checkbox"/>
Supreme No. 450 Set Analyzer	6	"	2 Years <input type="checkbox"/>
Supreme No. 510 Meter Kit	3	"	2 Years <input type="checkbox"/>
Supreme No. 400 Tube Tester	7	"	2 Years <input type="checkbox"/>
Supreme No. 590 Multi-Meter	8	"	2 Years <input type="checkbox"/>
Supreme No. 580 Signal Generator	10	"	2 Years <input type="checkbox"/>
Supreme No. 550 Radio Tester	10	"	2 Years <input type="checkbox"/>
Supreme No. 500 Automatic	12	"	2 Years <input type="checkbox"/>
Supreme No. 585 Diagonometer	17	"	2 Years <input type="checkbox"/>
Supreme No. 585 Diagonoscope	26	"	2 Years <input type="checkbox"/>
Triplett 1503 Multipurpose Tester	8	"	2 Years <input type="checkbox"/>
Triplett 1250 Vacuum Tube Voltmeter	6	"	2 Years <input type="checkbox"/>
Triplett 1240 Condenser Tester	4	"	2 Years <input type="checkbox"/>

I Want The Items Checked! How Can I Get Them?

Name

Address City State

CHECK! FILL IN! MAIL TO NATIONAL UNION RADIO CORP.
570 LEXINGTON AVE. NEW YORK CITY

GUTHMAN

Coils

NEW GUTHMAN CATALOG
READY!

Write TODAY for your copy of this complete new Guthman Catalog! All of the newest types of dependable Guthman Coils are described and illustrated. Address inquiry on your letterhead NOW—we will send it to you at once!

EDWIN I. GUTHMAN and CO., Inc.
400 South Peoria Street, CHICAGO, ILLINOIS



SERVICE NOTES

may be located within the walls of the building or by changing the direction of the outside antenna used so that it is as far as possible away from overhead lines and changing the direction of the antenna so that it is at right angles to such lines," he said.

"In the larger cities where there are several broadcasting stations in the immediate vicinity it has become quite a common practice on the part of the receiver owner to connect the antenna terminal of a radio receiver to a steam radiator or some other grounded metal object and not to use a ground on the receiver at all. This practice has been found to be a very prevalent source of cross-talk.

"The use of so-called antenna 'eliminators' has also been found to cause a great deal of this difficulty, as many of these 'eliminators' are merely coupling units to the power circuits. Thus the signal energy received by the receiver is picked up by the power circuit which is carrying the spurious radio signals."

PUT ONE UP FOR YOUR SERVICEMEN

★ A New York concern which has a number of mechanics contacting the public, makes every effort to impress on its men the importance of neat and clean personal appearance.

Near the door from which its men leave the shop to call on housewives, a full-size mirror has been put up, and alongside it, this sign:

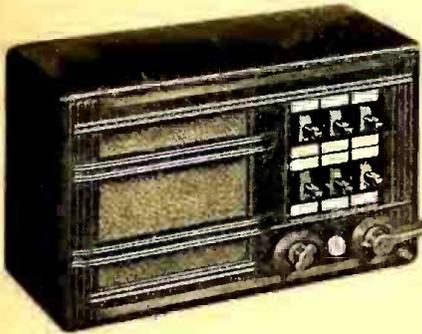
"This is how you look to the customer."

EXPLANATION OF TUBE BLUE GLOW

★ That the blue fluorescent glow present in many types of tubes, such as the 45, 2A5, 42, 80, etc., is not harmful and entirely separate from a gas condition is aptly explained in the following note from F. B. Stone, of the RCA Engineering Department.

"The glow that is present on the envelope is caused by excessive electrons continuing beyond the plate and hitting the envelope, thereby fluorescing into a bluish glow. This glow is always on the envelope and is usually above or below the plate. It should not be confused with a blue glow that is confined to the tube elements, inside of the plate, as this indicates a gassy condition, something entirely removed from the fluorescent glow."

New **REMLER** INTER-COMMUNICATION SYSTEMS



- Bakelite Cabinets
- 12 Stations Permit up to Six Simultaneous Two-Way Conversations!

Complete line of inter-communication units that will take care of practically every communication requirement. Prices start at \$49.50 for two station systems. Outlying units may be added as required at \$10.00 for wood, or \$12.00 each for molded plastic cabinets. Master units available, equipped at factory with required number of station selector keys for any number of outlying stations up to and including twelve.

Modern bakelite cabinets . . . superior selector system simplifies operation . . . high sensitivity, volume control and many other features. Approved listing by Underwriters Laboratories.

REMLER-SINCE 1918

Remler systems backed by the reputation and stability of a trust-worthy firm continuously under the same management for twenty years. Low prices . . . highest quality. Write for illustrated catalog and name of nearest distributor.

REMLER COMPANY, Ltd. 19th at Bryant San Francisco

RED TOP GAS-O-LECTRIC POWER PLANTS



LIST
\$98.50

A Sensational Development "2 Plants in 1"

COMBINATION A. C.—D. C.

The new all purpose RED TOP combination A.C. and D.C. light and power plant provides both 110-V., A.C.; 300 watts for lighting, household appliances, small electric tools, and up to 325 watts D.C. for charging 6, 12, and 32-V. batteries. The only practical "2-in-1" gas electric plant for farm, home, trailer, boat, etc. Prices from \$98.50 f.o.b., Chicago. Push button starter.

For D.C. Only

RED TOP Gas-O-Letric Power Plants, for charging 6 or 12-volt batteries, 175 watts, available at \$54.50 and \$57.95 list. Portable. Efficient. Push button starter. Also other plants from 100 to 2000 watts A.C. or D.C. Send for dealer discounts and complete literature.

Pioneer Gen-E-Motor Corporation
Manufacturer of "PINCO" Products
466 W. SUPERIOR ST., CHICAGO, ILL.
Dept. No. R-2F

Go **RED TOP**
IN 1937!

A PIONEER GEN-E-MOTOR PRODUCT

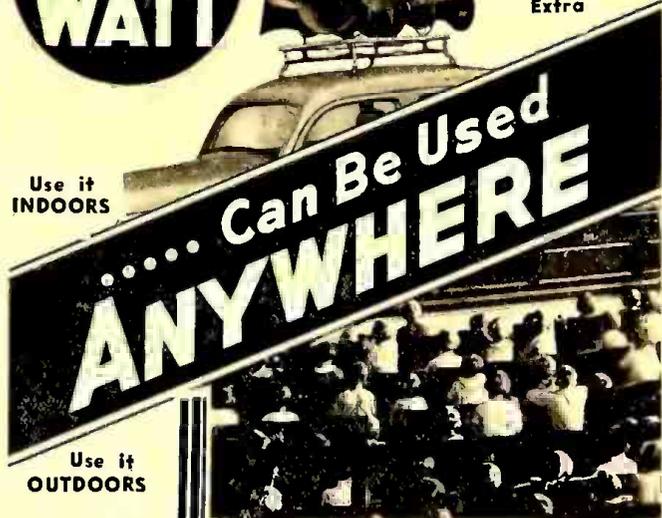
30 WATT

ALL-PURPOSE SOUND SYSTEM



Turret Projectors
Extra

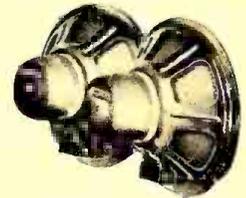
Use it
INDOORS



Use it
OUTDOORS

Operates on
6 V. (d.c.)
and
110 V. (a.c.)

Webster-Chicago's "All-Purpose Sound System" is the one system all dealers should own. It will take care of any kind of rental demand; inside auditoriums, outside pavilions, sound trucks, roadside stands, camps, water front. Handles any size audience to approximately 5000 people outdoors—twice this number indoors.



Model MP-530
has

- Plug-in Power Pack for either 6 Volt D.C. or 110 Volt A.C. operation
 - Hand Type Crystal Microphone
 - Phonograph and High Fidelity Pickup built into Amplifier
 - Two Heavy Duty P.M. Speakers
 - Mixes Microphone and Phonograph, Tone Control also incorporated
 - Economically Priced
- Fully Licensed
Under All
Important
Patents

Model MP-530

To many dealers interested in the sound market, how to get actively in it has presented a serious problem. Every dealer realizes he must stock in order to sell but . . . what to stock.

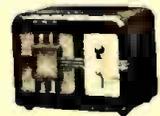
Model MP-530 is designed to answer that problem with one sound system that will perform anywhere. By taking care of rentals and rush jobs you pave the way for final sales.

Everything you need is included, even a phonograph is built into the amplifier. Get into the fast-growing Sound Market today.

Invest in a Model MP-530—the relatively low cost will surprise you. Webster-Chicago sales and advertising will help you make a profit from the start.

WEBSTER-CHICAGO'S INTER-OFFICE COMMUNICATING SYSTEMS

Plastic Cases . . . Choice of Colors Made in 2-station and multiple-station systems with all variations. The Multiple System shown here is fast becoming the most popular. Dealers find that for a slight additional cost, customers can add more stations at a later date, should expansion make it desirable.



Model OCM

WEBSTER-CHICAGO

WEBSTER-CHICAGO

Section JN-9, 5622 Bloomingdale Ave., Chicago, Ill.

Please send me more information on your

- Model MP-530 All-Purpose Sound System
- Inter-Office Call Systems

Name

Address

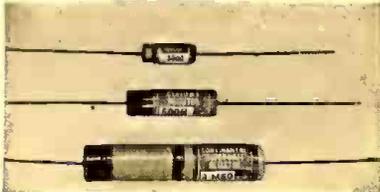
City

**Strict
Dealer Policy
Time Payment
Plan**

State

For Quiet Radio and Amplifier Performance, For Radio Service Work Which Satisfies . . . CHOOSE CONTINENTAL Carbon Products!

Insulated Carbon Resistors



Quiet, moisture-proof insulated resistors are now the standard of the radio industry. This style of resistor was pioneered by CONTINENTAL Carbon, who now offers the choice of bakelite or ceramic insulation.

- ½ Watt, M½, 5/8" x 3/32", bakelite, list \$0.17
- 1 Watt, M1, 1" x 3/32", bakelite, list .20
- 3 Watt, M3, 2" x 3/32", bakelite, list .30
- ½ Watt, G4, 1" x 1/4", ceramic, list .17
- 1 Watt, D2, 1 3/4" x 1/4", ceramic, list .20
- 3 Watt, E2, 2" x 3/8", ceramic, list .30
- 5 Watt, H5, 3" x 3/8", ceramic, list .50

FREE, Service Engineering Bulletin 104-B

High Efficiency Capacitors



Charge any CONTINENTAL condenser at full rated voltage. Let it stand an hour and discharge it. The crackling blue-white spark which results is proof of negligible leakage and high efficiency! CONTINENTAL condensers range in size from small tubular T models, to Model P illustrated above, to Models E & L, which are available in standard sizes to more than 20 mfd! Special high voltage Model W condensers are designed for transmitters of commercial, police, or amateur design. Ask your jobber to stock CONTINENTAL condensers.

FREE, Service Engineering Bulletin 103-A

Auto-Radio Accessories



Suppressors which do not affect the performance of your car and always improve auto-radio reception are the features of CONTINENTAL's new 5000 ohm insulated spark suppressors! A complete line of ignition noise suppressors at a list of only 30c each! CONTINENTAL makes Filternoys devices for every circuit of an auto electrical system—offering the certain method of keeping an auto-radio sold—from list prices of 40c to \$1.00 in standard sizes.

FREE, Service Engineering Bulletin 101-A

Filternoys Suppression Devices



Noise elimination offers the most fertile field for experienced radio servicemen, and CONTINENTAL Filternoys provide the means of capitalizing upon this market. Filternoys are made in three types: Suppressors to block interference at its source; Rejectors to block interference out of a receiver; and Diverters to tune out power line interference. For complete information on interference elimination, send 10c for Handy Pocket Data on Interference, postpaid.

FREE, Service Engineering Bulletin 105

CONTINENTAL CARBON Inc.

13900 Lorain Ave. Cleveland, Ohio
Canadian Plant, Toronto, Ontario

SERVICE NOTES

Tube dealers and service engineers should explain this condition to customers making such complaints. The explanation is so simple and understandable that it easily sets any unwarranted fears at rest.

SET ONLY GOOD AS ITS INSTALLATION

★ Poor installations by dealers and servicemen can easily rob the public of most of the benefits of the tremendous advances made by radio engineers during the last three years.

Robert F. Herr, Philco's manager of parts and service, calls attention to this serious situation following a nation-wide survey.

"Our survey would indicate that at least one quarter of all new radio installations are so handled that the resulting reception, no matter how expensive the set, is far below what could be obtained," Mr. Herr said. "In extreme cases the reception from the new set will be ruined almost to the extent that it shows little improvement over an older model."

Better antennas

One of the worst offenses Mr. Herr found was faulty *aerial* installation.

He pointed out that radio engineers in the past three years have produced radios capable of better tone quality, greater distance range, greater freedom from whistles, "birdies" and similar interferences and greater stability such as holding a station once it is accurately tuned.

"Our men in their survey," Mr. Herr said, "found very few new sets functioning the way they should to bring out to the fullest all of these improvements. The tragedy is that the average owner of a new set isn't getting more than a fraction of the performance of which present models are capable of delivering. This kind of installation work is resulting in serious loss of business, especially in sections where reception is difficult."

Worse in future

Unless dealers give more attention to this situation, Mr. Herr warns, the condition is likely to grow worse as time goes on because of the great technical advances now being made and because of developments in the near future.

"The problem can be solved," Mr. Herr said. "For example, one of our dealers, located in a section notorious for poor reception, has been awake

110 VOLTS AC ANYWHERE

KATOLIGHT, JR., AC PLANTS

Sells itself! 55 pounds. Self-cranking 300 watts, and rope-cranking 350 watts. Also 6, 12, 32 and 110 volts DC.

300 TO 10,000 WATT AC PLANTS

Specially designed for sound-truck, amplifier, P.A., radio and other work. Self-contained. Self-cranking by connecting to auto batteries.

DIESEL PLANTS

Full Diesel AC & DC plants, 2, 3, 5, 6 KW sizes.

AC, DC Generators, Rotary Converters; DC Plants; Windmill Lighting Plants.

Dealers, Jobbers, write for details and discounts

KATO ENGINEERING COMPANY

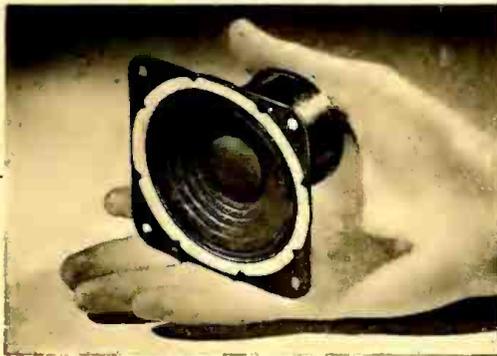
MANKATO, MINNESOTA, U. S. A.

NEW YORK OFFICE: 259 WEST 14TH STREET
CHelsea 2-7330



See Our Display at Congress Hotel During June National Radio Show in Chicago

**THE
WORLD'S SMALLEST
PERMAG SPEAKER**



3" OXFORD PERMAG . . . a high quality permanent magnet dynamic speaker with remarkable sensitivity for its size. Has excellent speech range—can be used as both microphone and speaker. Ideal for Inter-Office Communication Systems, and applications where current drain is limited.

This is just one of the many advanced models in the new COMPLETE line of OXFORD PERMAG (permanent magnet) SPEAKERS now available from 3" to 14" . . . including a trumpet-type "Permag" speaker with a 6" cone for use with an exponential horn.

Get complete data now—or see them at Booth 48, Radio Parts Manufacturers National Trade Show, Chicago, Hotel Stevens, June 10-13.

New York Office: 27 Park Place, New York City

OXFORD-TARTAK
RADIO CORPORATION
915 W. VAN BUREN ST. • CHICAGO, U. S. A.



New RCA Magic Wave Antenna System

Assembled in one complete unit, ready for installation. **\$6.95** List Price
Stock No. 9812.

FEATURES: Noise reduction on both standard and international short wave bands (530 to 23,000 kcs.) • Easily installed with antenna lengths from 20 to 120 feet. • Transmission line can be cut to any length without loss of efficiency. • No doublets, no critical lengths, adaptable to existing installations. • Up to 16 outlets on 1 antenna—provided through use of additional special distribution and set coupling transformers.

Ask your RCA Parts Distributor about the new RCA Magic Wave Antenna System—get the new RCA Test Equipment and Accessories Catalog, just off the press.

RCA Parts FOR PROFIT

RCA MANUFACTURING CO., INC. • CAMDEN, N. J.
A Service of the Radio Corporation of America

Wherever You Go..



WASHINGTON PARK

**WHILE AT THE CHICAGO
TRADE SHOW**

- SOUTH SHORE COUNTRY CLUB
- OLD HEIDELBERG
- COLLEGE INN of the Sherman
- WALNUT ROOM of the Bismarck
- WRIGLEY FIELD
- WBBM AIR THEATER — Key Station of the Columbia Broadcasting System.
- CHICAGO PARKS — Outdoor Programs

YOUR PLEASURE WILL BE GREATER *Because An*

ELECTRO • ACOUSTIC

HIGH FIDELITY SYSTEM WITH
MAGNAVOX SPEAKERS

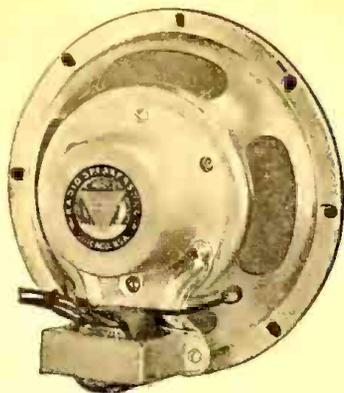
is a permanent feature at these outstanding spots

DON'T FORGET—get a "close-up" of the latest in sound equipment . . .

BOOTHS 15-16-17 AT THE STEVENS

ELECTRO ACOUSTIC PRODUCTS COMPANY
SUBSIDIARY OF THE MAGNAVOX COMPANY
FORT WAYNE, IND.

EXPORT SALES DIVISION • 310 SOUTH WELLS ST. CHICAGO, ILL.
CABLE ADDRESS • EAPCOMPY, U.S.A.



RADIO SPEAKERS, Inc.

Permanent and Electro Dynamic
Speakers for

HOME RECEIVERS
AUTO RADIO
SOUND SYSTEMS
CENTRAL RADIO
PHONOGRAPH-RADIO
COMBINATIONS
COMMUNICATING SYSTEMS

Open House during Show Week and the
Year Round

RADIO SPEAKERS Inc.

Henry C. Forster, President
1338 SOUTH MICHIGAN AVE.
CHICAGO, ILLINOIS

SERVICE NOTES

to this weakness on the selling line and hired the best experts he could find to handle his installation work. The result was startling and the increase in business was almost incredible."

ELECTROLYTIC CONDENSER FAILURE

★ When a power transformer has failed, particular care should be taken to note whether or not the filter capacitors are O.K. The wet electrolytic capacitors will very often check O.K. when cold, but when the voltage is applied the defective one will heat up and place a heavy load on the transformer. After a power transformer has been changed and the power applied, the set should be carefully watched for the first 15 minutes of operation to see whether or not the capacitors are heating. This precaution should be taken to prevent a second power transformer failure.—*G.E. Services Flashes.*

AD UNDER PROGRAMS GETS REPAIR BUSINESS

★ Running an ad each day directly under the radio programs, occupying a space of two columns by twenty-five lines, featuring repair parts for all makes, and "we repair all makes of radio." The Sun Radio Company in Washington, D. C., has been able to keep eight men busy in the repair department.

"Our advertising tie-up with the radio programs has brought us some good results," explained H. A. Sugar, store manager. "The object is to get the public acquainted with the store and to sell them repair parts. Also to get radio repair jobs. The ad appears every day in the week at the same place, and its cumulative effect has sales value. It puts the name *Sun Radio* on the map.

"Our display signs carry the wording, 'Buy With Confidence. 100% Satisfaction Guaranteed. Save Your Receipt . . . It Is Our Guarantee,'

Stewart AUTO RADIO Control Unit and Dash Panel Plates for 1934-35-36-37 Automobiles



Stewart Panel Plate Kit

STEWART RADIO PANEL KIT used in conjunction with the Stewart Universal Control Unit. Furnished for all popular makes of automobiles from 1934 to date. Custom built panel plates furnished with these kits are designed so that the shape, color and finish of the plate and knobs harmonize with the other fittings of the instrument board.

STEWART CONVERSION ASSEMBLY for converting Philco radios from one car to another. Composed of the necessary parts to make a quick change over. May be used with any Stewart panel kit.

F. W. STEWART MFG. CORP.

344 W. HURON ST. Est. 1913 CHICAGO, U. S. A.

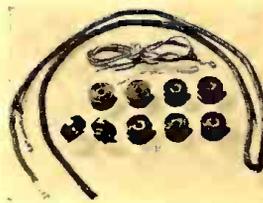
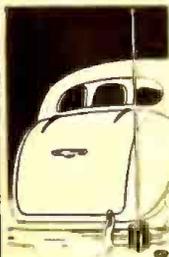


Stewart Conversion Assembly

J.F.D. AUTO RADIO ANTENNAS

13 MOST POPULAR TYPES

Double grip oil rubber covered running board antennas. . . . Cowl antennas. . . . Four different toppers—fit oil cars. . . . Door hinge antennas. . . . Bumper antennas. . . . Special insulators for Oldsmobile and Buick cars.



Ask
for Our
Complete
Catalog



J. F. D.
MANUFACTURING
COMPANY
4111 Ft. Hamilton Parkway
Brooklyn, N. Y.



and 'Courtesy and Satisfaction Is Our Aim,' 'A Pleased Customer Is Our Best Investment.' In this way we keep the public constantly reminded of our business policies when they come in to pay cash . . . for a cash business is the only method of selling.

"All service work done carries an unconditional three months guarantee. Regan Smith, manager of the service department, makes a practice of securing personal contact with each customer through the telephone, by checking up on all work done to see if the servicemen have done their job satisfactorily."

SERVICE TIPS*

Atwater-Kent 511-W Tun-O-Matic

Won't Shut Off

★ File the switch blades at the right front of panel narrower so that they can make only one contact at a time. The switch blades may be replaced with the later models if desired. See that the blades do not contact two points at the same time. If reception is cut out entirely on this set, inspect the leads soldered to the tone control

*Service tips are selected from the files of H. K. Bradford, President, Capitol Radio Research Labs., Washington, D. C.

switch. In some cases these will accidentally touch the volume control housing and thus ground out. Bend leads, and re-insulate or correct the present insulation. If hum appears before going into the circuit, reverse the antenna and ground. The 5Z3 and 2A3 tubes are critical to hum and should be replaced when they are found at fault in this respect.

Clarion 220

Dead

★ Make sure that the 4,000 ohm resistor used to bias the autodyne has not increased in value. If this happens it will prevent the tube from oscillating. It is located near one end of the chassis and soldered to it. It is a ½ watt carbon unit and is by-passed with a .001 mfd. condenser. While you are on this set it would be well to check the 11,000 and 4,100 ohm sections of the divider, and the primaries of the i-f transformers, as these often give considerable trouble.

Zenith 35P to 40P

Noisy Reception

★ Very often a high resistance ground develops from the audio transformer secondaries. This is usually caused by corrosion at the terminal and cannot be found ordinarily with an ohmmeter test.

Ford V-8

Noise Pick-up

★ Bond the motor to the frame with copper braid. Remove the coil primary wire and the generator wire from the high tension boom and fasten them away from the high tension circuit.

American DYNAMIC

- Exceptionally Rugged
- High Output, Low or High Impedance
- Minimum Feedback
- Immune to Temperature Changes
- Excellent Frequency Response



Multi-Purpose
Modern Design
Low Price

Approaches the ideal for general use due to its versatility and dependability

The D-5-T 10,000 Ohms Imp.
List Price \$32.50

The D-5 50 Ohms Imp.
List Price \$27.50

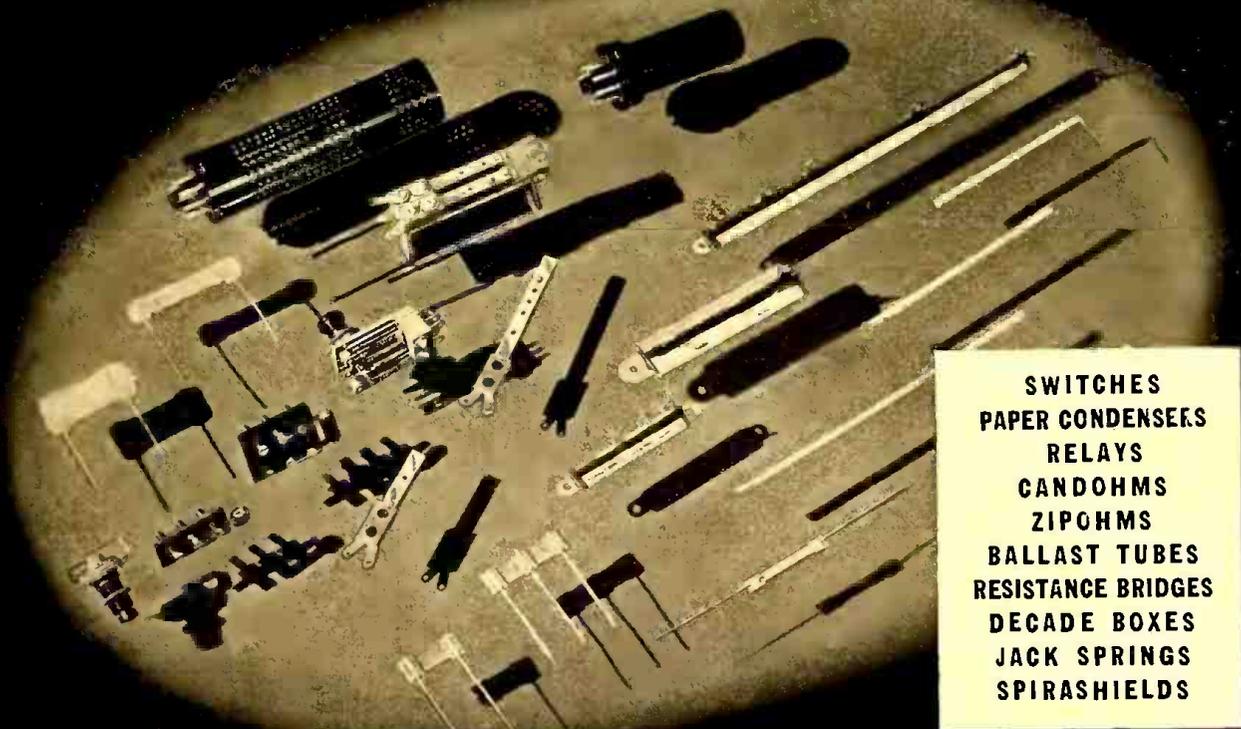
(Both include 25' cable and plug)

Write Today for Free Catalogue on DYNAMIC, CRYSTAL, CARBON and CONDENSER MICROPHONES, STANDS and ACCESSORIES.

AMERICAN MICROPHONE CO.
INC., LTD.

1915 S. Western Ave. Los Angeles, Cal.

YOU'LL DO BETTER with MUTER PARTS



SWITCHES
PAPER CONDENSERS
RELAYS
CANDOHMS
ZIPOHMS
BALLAST TUBES
RESISTANCE BRIDGES
DECADE BOXES
JACK SPRINGS
SPIRASHIELDS

THE MUTER COMPANY

1255 S. MICHIGAN AVE.
CHICAGO • ILLINOIS

**WHEN YOU
REPLACE
RADIO SHAFTS
USE ONLY**



**S.S. White FLEXIBLE SHAFTS
and CASINGS**

*They're standard original equipment
on practically all Auto Radios . . .*

They're specially designed and built for auto radio application.

They provide smooth, sensitive tuning, without "stiff" spots or "jumping."

They assure satisfied customers—and that means more business for you.

**• BE SURE to ask your jobber
for genuine S. S. WHITE
Shafts and Casings.**

The S. S. WHITE

DENTAL MFG. CO.

INDUSTRIAL DIVISION

10 East 40th Street, Room 2310T
NEW YORK, N. Y.

SEE OUR
EXHIBIT
at the NATIONAL
TRADE SHOW
• Chicago •
Booth 87

INSIST ON Radiart VIBRATORS

*Don't fail seeing the New Radiart
Vibrator Checker and Radiart Auto
Aerial at Booth No. 55*

**THE RADIART CORPORATION
CLEVELAND, OHIO**



SERVICE NOTES

Kolster K-43 Excessive Hum

★ Test for a defect in the orange colored resistor between one terminal of the first A.F. transformer and the hum adjustment control center-tap. Its value should be 250,000 ohms and if it is more than 10 per cent off (either way) or if it fluctuates in value, replace it.

Stromberg Carlson Noisy Volume Control
38, 39, 40

★ This may be cleared up by replacing the 56 tube in the first audio stage. Gas in this tube is responsible for the trouble, causing it to draw too much plate current.

Zenith 34 Low Volume and Hum

★ A short in any of the heater type tubes type 27 from heater to cathode will cause hum. This trouble can most easily be checked by substituting new tubes known to be in good condition. Low volume may often be attributed to poor contact at the end brushing on the condenser gang. Cleaning of this item will clear up this trouble.

Emerson Dynamotor Low Voltage
"B" Eliminator

★ The voltage of this unit is proportional to the speed at which it rotates. Lack of oil will cut the speed considerably. Apply oil to both bearings and the trouble will be eliminated.

AFC ALIGNMENT

(From page 81)

When the meter indicates a peak the adjustment should be complete.

The above setting is adjusted for accuracy by turning the AFC off—there should be no change in tone or a hiss. If so, the adjustment must be made again.

In some of the previous methods, the secondary was adjusted for minimum reading (AFC control voltage)—here in the Philco set it is for maximum audio output. When the secondary is adjusted to proper resonance, the discriminator tube circuit draws more power from the primary and consequently reduces the voltage in the primary circuit. Since the primary also feeds the AVC circuit, any loss of voltage in that circuit will reduce the AVC voltage which in turn increases the gain of the set resulting in an increased signal output.

While several different methods of aligning AFC circuits have been described, they all accomplish the same result. Namely the primary circuit of the discriminator is adjusted to resonance so that maximum voltage exists across it—and the secondary is likewise adjusted for resonance which

FREE TO OWNERS OF ALL SEVEN RIDER MANUALS



That you may let customers know you know—merchandise your Rider Manuals—and benefit from a selling stunt proved by other servicemen—we will send FREE to every owner of all seven Rider Manuals the materials listed at left.

This Rider 100% Group Certificate will prove to your customer that you are equipped with the circuit information necessary for servicing any American made radio.

Send us the seven title pages from your seven Rider Manuals and we will send you your material.

Vol. VII—1600 Pages—Covering 1936-37—\$10.00
Six other volumes covering sets issued between 1920 and 1936—\$7.50 each.

- 1 A 10 $\frac{1}{4}$ by 13 $\frac{3}{4}$ inch "Rider 100% Group" Certificate for framing.
- 2 A 3-color 11 by 14 inch Poster saying, "We Don't Guess, We Know" for counter or window.
- 3 A 3 $\frac{1}{2}$ by 8 $\frac{3}{4}$ inch Pocket Certificate, on the back of which is printed the manufacturers and trade names of sets covered in Rider Manuals.

AUTOMATIC FREQUENCY CONTROL SYSTEMS HARD COVERS — 144 PAGES — \$1.00

With Automatic Frequency Control Circuits in many new higher-priced models, knowledge of "AFC" means money in your pocket!

Learn the practical facts, from the easy to understand explanations by John Rider. Get your copy today and have the timely information enabling you to cash in on profitable "AFC" repair work.

**A NEW
RIDER
BOOK
JUST
OUT!**

JOHN F. RIDER, Publisher, 1440 Broadway, N. Y. C.

"then send an old man to fix my radio!" ...



Even the sultan knows that the old, experienced radio man will use Ward Leonard Replacement Units. They enable the service man to do satisfactory work that lasts and thus build up customer "good will."

Visit our booth 107, Radio Parts Show

WARD LEONARD ELECTRIC CO.

40 SOUTH STREET, MOUNT VERNON, N. Y.
Please send me your Service Man's Bulletin No. 507A.

Name.....
Address.....
City..... State.....
Jobber's Name.....

ATTENTION ALL SERVICEMEN Here's What You've Always Needed...The— VARI-VOLT TRANS- FORMER

\$9.00
NET
To Dealers
Complete



(1) Test radio receivers at correct voltage, or apply over-voltage or under-voltage.

(2) Filament supply voltages available for any type tube.

(3) Calibrate meters use transformer for measuring unknown high or low voltages with your present A.C. meter.

(4) Maintain correct heat on soldering irons.

(5) Control primary of high voltage rectifier system.

MAKE YOUR TEST BENCH VOLTAGE EXACTLY WHAT YOU WANT IT

Throw away your makeshifts—toss your guesses out the window... with Halldorson's new Vari-Volt Transformer, you can step up your voltage or step it down. Improve your test work with exact voltages... find troubles quickly with over voltage judiciously applied.

The Vari-Volt Transformer gives voltages from 0 to 256 volts in two-volt steps or from 0 to 128 volts in one-volt steps. Power Output, 250 watts maximum. Small in size and can be carried in service kit if desired.

You can get one Free—Send Coupon—Made by Makers of

Halldorson Vacuum Sealed Transformers

The Halldorson Company, RT-637
4500 Ravenswood Ave., Chicago, Ill.

I am interested in your Vari-Volt Transformer. Please send complete information on how I can obtain one Free.

Name.....
Address.....
City..... State.....

**GET IT
FREE**

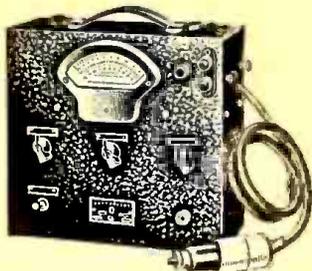


Profits from Those Tough Ones

You can't give your customers their money's worth and make profits from those "hard-to-fix" radio repair jobs without good equipment and knowledge of modern methods.

Competent authorities estimate 34,000,000 radio sets will be in use during this summer.

Be prepared to get your share of the profits from servicing these receivers by using the BEST equipment available -- C-B instruments.



MODEL 88 Vacuum-Tube Voltmeter

Invaluable for automatic frequency control adjustments, gain and impedance measurements, checking oscillator stages, amplifier performance, and other difficult measuring problems. MODEL 88 Vacuum-Tube Voltmeter, complete \$45.50

Use the C-B Easy Payment Plan—only \$5.50 down and ten monthly payments of \$4.57.

Free

Write for our new technical bulletin



telling all about the Vacuum-Tube Voltmeter and what it does.

Mail Coupon Now

Please send additional information on the MODEL 88 Vacuum-Tube Voltmeter.

Name
Address
City State

The CLOUGH-BRENGLE CO.

2827 W. 19th St., Chicago, Ill.

SERVICE NOTES

is indicated by the absence of AFC control voltage across the diode load resistors.

When AVC circuits are fed from the discriminator, their effects can be used to indicate the proper alignment, such as is done in the Philco circuit and to a lesser extent in the Crosley set. Where the discriminator supplies only the AFC voltage, it is not possible to use an output meter in the output stage as an indicating device. Either a connection must be made to the AFC circuit or reliance placed upon the adjustment for zero beat.

When the output meter is used the test oscillator should be modulated at an audio frequency. For best results when using the zero beat method of adjustment, the oscillator should be unmodulated although this is not absolutely necessary.

The AFC switch should be in the *on* position when adjusting the secondary trimmer on the discriminator transformer. When adjusting the regular I.F. trimmers and the R.F. and oscillator trimmers, the AFC should be in the *off* position.

Another method of aligning the AFC circuits is the use of the cathode ray oscillograph which at this time will not be described.

WIRING OF HOMES FOR ANTENNAS

(From page 84)

builder to make easy and unmistakable the designation of simple and combination radio outlets.

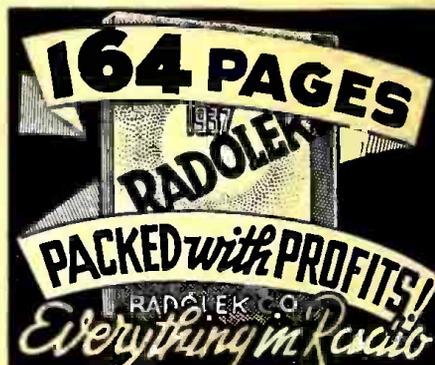
Along with this data of especial importance in connection with the more adequate provision for radio receivers in all forms of building construction, the Handbook includes important data as to conductor loading, and similar power data as well as such general information as to lighting and power wiring as to make the Handbook of tremendous usefulness to all concerned with electrical problems in the field of building construction.

"It is believed that the sections devoted to radio will serve well to rationalize the viewpoint of the architect, builder and contractor with respect to the problems presented by the need for proper provision for radio receivers in all forms of building construction including some of the details of the financing of proper construction," comments Mr. Horle of the committee.

"Instructions given in the Handbook will doubtless result in an increasing number of homes being built with 'down-leads' from the attic floor to the lower floors and terminating in suitable outlets to which the radio set may be attached through plug connections.

"To make complete the radio system of which the structural details here referred to are only a small part, requires that the radio industry concern itself with providing receivers to be signal-fed out of simple lines as described in the Handbook and, additionally, with providing specific data as to desirable antenna construction details and with making available to the construction trades and industry suitable coupling means for use between antennas and multiple down-leads as described in the Handbook.

Copies of the "Handbook of Interior Wiring Design" may be obtained at \$1 each from the committee headquarters, Room 2650, 420 Lexington Avenue, New York City, or from any of the sponsoring organizations, including RMA.



THE SUMMER AND EARLY FALL EDITION of the 1937 Radolek Profit Guide is the most complete and up-to-date radio parts book ever published. Over 1000 new items . . . plus AN ADVANCE SHOWING OF 1938 RECEIVER MODELS. Radolek's new edition is the only absolutely NEW parts book in Radio! New repair parts. New test instruments, New auto radios, New home receivers, and New P.A. equipment. Contains over 12,000 parts . . . the most extensive listings of replacement condensers, resistors, volume controls, transformers, and auto radio parts and accessories ever assembled under one cover.

RADOLEK SERVICE IS FAST AND DEPENDABLE. There's no Sit-Down, Lay-Down, or Slow-Down at Radolek—our organization is geared-up to serve you best, to give you what you want when you want it and at the Right Prices. Send for this Big New Book TODAY—it's FREE!

RADOLEK

601 W. RANDOLPH, CHICAGO, DEPT. O-8
Send me the Radolek Radio Profit Guide FREE.

Name
Address
Serviceman? Dealer? Experimenter?

TRIAD

The Radio Tube that Gives

SATISFACTION

DOUBLE-CHECKED FOR QUALITY

Used by Leading Set
Manufacturers and
Preferred by Expert
Servicemen.

A PROFITABLE LINE TO HANDLE

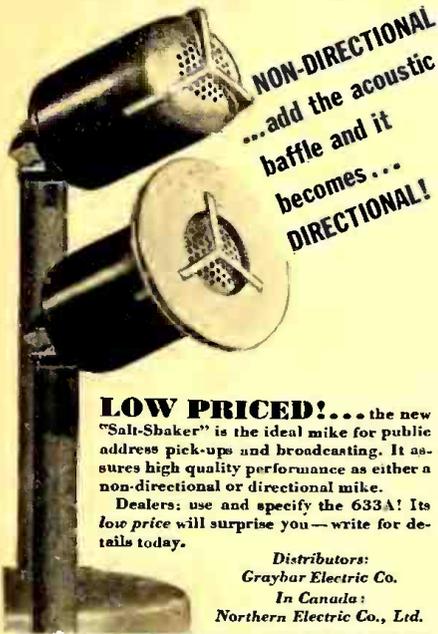
...

TRIAD
MANUFACTURING CO.
INCORPORATED

PAWTUCKET RHODE ISLAND

The Quality Name in Radio Tubes

Western Electric 2-in-1-MIKE



LOW PRICED!... the new "Salt-Shaker" is the ideal mike for public address pick-ups and broadcasting. It assures high quality performance as either a non-directional or directional mike.

Dealers: use and specify the 633A! Its low price will surprise you—write for details today.

Distributors:
Graybar Electric Co.
In Canada:
Northern Electric Co., Ltd.

GRAYBAR ELECTRIC CO., Graybar Bldg., New York
Please send me new bulletin on Western Electric
633A Microphone. RT-6-37

Name.....
Address.....
City..... State.....

STAR BOOKLETS

★ A price list and interchangeable calculator on resistance tubes has been issued in a novel form by Hytron Corp., Salem, Mass. Chart has a rotating disc in which are two slots; through these are seen the corresponding type numbers. One or more of these may be obtained by writing the company.

★ Just issued by Isolantite, Inc., 233 Broadway, New York, is a new bulletin No. 103 on "Stand-off Insulators." Eight-page booklet includes novel illustrations, size charts.

★ Second Quarter program book for dealers has been issued by Norge, Detroit, Mich. Item is a 120-page, ring-bound, full-colored manual outlining all aspects of Norge's "most extensive advertising and sales promotional campaign in the firm's history."

★ Size of the wind-electric farm market, and the growth of the Win-charger business are described in a book just published by Wincharger Corp., Sioux City, Iowa. Volume is available to all dealers, distributors, or manufacturers in radio, batteries or appliances.

★ Ready to be mailed to anyone interested is a new bulletin No. R15 released by Magnavox Co., Fort Wayne, Ind. Booklet carries complete specifications on 85 current model speakers, including many Alnico PM types.

★ First issue of "Movie and Photo Merchandising" has been issued by Universal Camera Corp., 32 W. 23rd St., New York City. Booklet covers all angles of home movies and still cameras, and is available free to all dealers who stock this merchandise.

★ The specially designed booklet on "New Super-Pro" has been issued by Hammarlund Mfg. Co., Inc., 424 W. 33rd St., New York City, in a Spanish edition. Also under the supervision of Lewis Winner, Hammarlund advertising manager, is an edition (prices in English currency) for use in British areas.

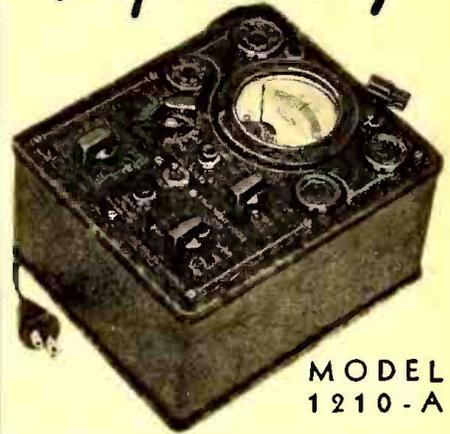
★ Following their appointment as sales agents by Graybar, Wholesale Radio Service Co., Inc., 100 Sixth Ave., New York City, will list Western Electric transmitting tubes and amateur apparatus in their new Amateur and Short-Wave Catalog No. 66, now being released. Free copy may be obtained from the above address in the East or from branches at 901 W. Jackson Blvd., Chicago, and 430 W. Peachtree St., N.W., Atlanta, Ga.

★ Recently revised folder which classifies more than 400 makes and types of vacuum tubes according to base connections has been issued by Weston Electrical Instrument Corp., Newark, N. J. Ninety-five types have been added since the previous edition; base connection diagrams show 85 different arrangements. Leaflet is available free to servicemen.

(Continued next page)

THERE ARE MANY
REASONS FOR ITS
EVER INCREASING

Popularity



MODEL
1210-A

THE MASTER UNIT TUBE TESTER

1. Tests All Types of Radio Tubes.
2. A Single Unit . . . Not Part of a Compound Tester.
3. Portable and Flexible.
4. Maximum Protection Against Obsolescence . . . Hard to Misuse . . . Simple to Operate.
5. Additional Co-related Master Units Can Be Added as Business Expands or Circumstances Permit.

\$20.00 Tests all types of radio tubes. Direct Net reading (GOOD-BAD) scale. Tests for shorts and cathode leakage. Individual tests on diodes and full wave rectifiers. Line voltage regulation. Housed in black metal case with popular wrinkle finish. Complete with rectifier tube and all necessary accessories. Dealer Net \$20.00

A TRIPLET MASTER UNIT

One of a series of co-related single unit testers, made in standard sizes; the most economical method yet devised for completely equipping the all-around radio service shop with high quality instruments.

Remember Booth 79, Radio Parts Show, Hotel Stevens. Many New Items in the Ever-Enlarging Triplet Line Will Be Displayed.

**SEE YOUR JOBBER
WRITE FOR CATALOG**



The Triplet Electrical Instrument Co.
196 Harmon Ave., Bluffton, Ohio
Without obligation please send me more information on Model 1210-A;
Triplet Master Unit Model
Name
Address
City State

The ONE Complete LINE



plus

- Each AEROVOX condenser and resistor is fully guaranteed for satisfactory service. Why gamble with your time and effort on uncertain components?
- AEROVOX units last longer by actual test. Check their service records in the field. Yet they cost no more than comparable units.
- And for good servicing work, AEROVOX offers the most extensive line of exact-duplicate radio and electric refrigerator replacement units.
- To aid you in doing still better work, AEROVOX issues practical, helpful literature, including the monthly RESEARCH WORKER.
- Lastly, your AEROVOX jobber has been carefully selected because of his ability to carry adequate stock and to serve you best.



New CATALOG . . .

Many more pages. More items. More choice. Write for your copy, giving name of your favorite jobber.



★ New catalog listing replacement parts, speaker repair and other accessories, coil test set, intercommunicators, etc., has been issued by Carron Mfg. Co., 415 S. Aberdeen St., Chicago, Ill.

★ Special bulletin will soon be issued by Universal Microphone Co., Inglewood, Cal., describing a new mike designed specially for orchestra pickup.

★ Copies of a brand new catalog, re-designed and enlarged by Bill Many, advertising manager for Aerovox Corp., are available to those writing the company at 70 Washington St., Brooklyn, N. Y. Special handy listing of condenser applications is a feature of this, Aerovox's biggest catalog in years.

★ New engineering bulletin, "None Have Dared," is offered free by Electronic Design Corp., 164 N. May St., Chicago.

★ David Bogen Co., Inc., 663 Broadway, New York City, have released a new catalog describing and illustrating intercommunicators. Booklet is available free from headquarters or from Bogen distributors.

★ New export manager for General Household Utilities Co. is E. G. Heffer, who will head a newly formed export department through which foreign distributors will be supplied with Grunow products direct from the factory. Heffer was formerly export manager for Zenith, and was for many years head man at the Great Western Auto Supply Co., St. Louis, Mo.

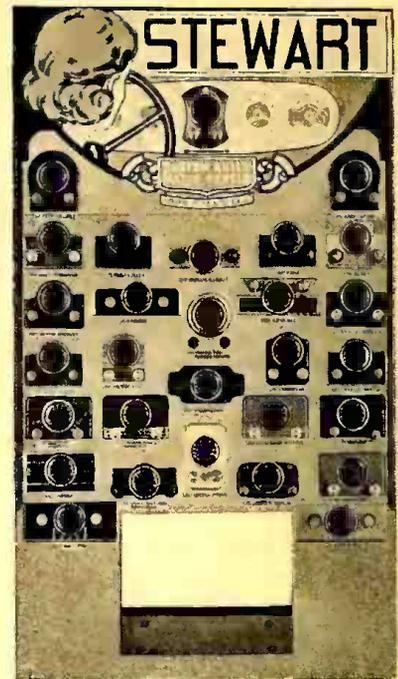
★ Officials of the government of China have made a contract with Arcturus Radio Tube Co., Newark, N. J., naming that company as official technical advisers in the Chinese tube manufacturing program. Representatives of the National Resources Commission of China surveyed the tube industry both in Europe and America before the Newark firm was selected.

★ Harvey Radio Co., New York City, is currently remodeling and enlarging its store at 103 W. 43rd St., New York City. Elaborate show rooms will be built and basement room will be fitted up for shop work. Harvey's will add a camera and photographic department and will increase its sales staff.

★ New merchandising advertising manager for Westinghouse Elec. & Mfg. Co. is Roger Bolin, succeeding S. D. Mahan, who was appointed general advertising manager for the firm. Mr. Bolin's headquarters will be at Mansfield, Ohio, where Westinghouse merchandising operations center.

★ Goat Radio Tube Parts, Inc., Brooklyn, N. Y., have taken additional space in an adjacent building at 314 Dean St. Production schedules on tube parts which the company supplies to independent tube makers, will be hiked by the expansion.

NEW DISPLAY BOARD



★ All-metal display board, built to show radio panel plates for all leading cars, is offered by F. W. Stewart Mfg. Corp., 340 W. Huron St., Chicago, Ill. Complete unit includes 29 1937 panel kits, and tuning facilities for demonstrations.

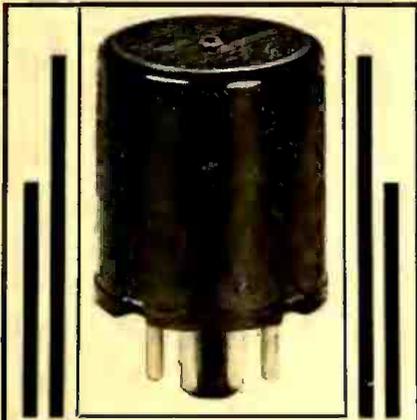
Shelf for the radio has rubber studs, and the legs of the gadget are demountable.

★ Wesley M. Angle, president of the Stromberg-Carlson Telephone Mfg. Co.; Lee McCanne, radio sales manager, and Jack Kennedy, sales promotion manager, recently visited Chicago, where they joined the meetings of Chicago area dealers who were gathered to see the 1938 Stromberg-Carlsons.

★ Extensive factory improvements at Utah Radio Products Co. include the installation of a giant punch press, described as one of the largest in the industry. Press has a capacity of about 100 tons and is used to blank and form speaker pots, heads and plates.

★ From executive headquarters of Transducer Corp., in Radio City, New York, comes the news of a 700 per cent increase in factory space. Factory, which has been located at 22 W. 48th St., New York, has been moved to 455 W. 45th St., where new production schedules on the company's mikes and intercommunicators will be put in force. In charge of activity at the new address, besides G. M. Giannini, president, are: F. L. Lester, production engineer; Ben Eisenberg, test and design engineer; Richard W. Carlisle, design consultant.

★ Quam-Nichols Co. will hold open house at their new Chicago factory during the Trade Show. Manufacturers, jobbers, dealers and servicemen are invited to visit the plant.



THE BRUSH TRANSFILTER FILLS THE GAP

• The transfilter fills the selectivity gap between the electrically tuned circuit and the quartz filter. A transfilter can be employed in any super-heterodyne whose intermediate frequency amplifier can be tuned to 465 kilocycles.

Technical data on request

See us at Booth 95, Chicago Trade Show

The BRUSH DEVELOPMENT COMPANY
3313 PERKINS AVENUE
CLEVELAND, OHIO



Complete Electric Plants

ONAN ALTERNATING CURRENT GENERATING PLANTS furnish the same electricity as city power lines. Made in sizes 350 to 10,000 watts to meet the requirements of those who must provide their own electricity for Farms, Summer Camps, Cottages, Boats, Commercial Purposes.

OPERATE A. C. RADIO

These A. C. Plants operate RADIO, HOUSEHOLD APPLIANCES, WATER PUMP, MOTORS—anything that normally would operate from city lines. Will run Public Address Systems, Demonstrating Car Equipment, Talking Moving Pictures, X-Ray.

MODERN CONSTRUCTION

ONAN PLANT Engines are like the Motor Car, Truck or Tractor Engines. Operate on Gasoline, Gas or Distillate. Wiring and Installation is the same as for standard applications. Also 32 volt, Direct Current Models. Write for Details

D. W. ONAN & SONS

574 Royalston Ave. Minneapolis, Minn.



J. V. Dahlstrom, formerly Radolek ad mgr., now exec for Vanden Co., Chicago adv. agency.

★ RCA will now resume its national newspaper advertising in 200 big city papers, after a lapse of three years. Cooperative dealer and distributor advertising campaign will continue, according to a recent announcement by Thomas F. Joyce, RCA advertising manager. Ads on records, record players and phonograph combinations will also be hiked 25 per cent.

★ Transducer Corp. of New York City has received from the U.S. Naval Bureau of Standards, Washington, D.C., an affidavit indicating that the company's Bullet mike has successfully passed the Navy test.

★ Clarostat Mfg. Co. have announced that their products will be exhibited at the Midwest Radio Show, June 20 to 22, at St. Paul, Minn., in a booth (No. 31) similar to the one used by the company at the Chicago show. Guessing contest in resistance values will be featured. Victor Mucher, sales head, Eddie Trefz of the engineering dept., and local representatives will be in attendance.

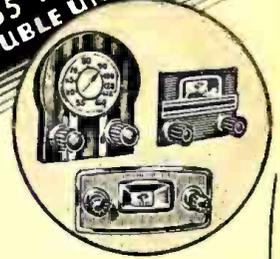
★ Arthur Moss, prominent radio personality who has been with Electrad, Inc., for 14 years, has resigned as president and has become sales manager for Solar Mfg. Corp. Move was made as a result of the control of Electrad passing to new hands. Wickham Harter, sales head at Solar since the company began, has been promoted to the post of general sales manager.

★ Million Radio & Television Laboratories, formerly located at 361 W. Superior St., Chicago, now have a larger, improved home at 671 W. Ohio St., that city. Company has announced the appointment of new representatives: Theo. W. Keller, Council Bluffs, Iowa; F. J. Bullivant, St. Louis, Mo.; E. H. Pratt, Kansas City, Mo., and H. A. Killam, Portland, Ore. President John Million, Jr., says that as the new line of service equipment is introduced, current business is running 5 times that of a year ago.

CROWE

Auto Radio PANEL CONTROLS

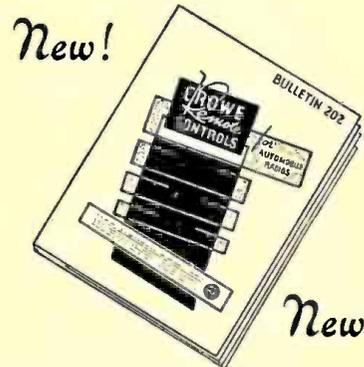
for 1935-1936-1937 Cars
NEW DOUBLE UNIT DESIGNS.



DOUBLE-UNIT DESIGN—a distinctive CROWE feature—permits providing each car manufacturer's official style dial (airplane or porthole) with panel mounting kit!

SAME CONTROLS FOR ALL CARS! Same controls and shafts can be put on any car and re-used when moving radio to another car. A panel kit is the only new part required on re-installation jobs.

LESS STOCK INVESTMENT. This interchangeable CROWE feature enables the distributor and dealer to have a flexible, readily available stock, with much less investment.



Send for **NEW Bulletin 202**

—containing complete line of CROWE Auto-Radio Remote Controls. Also, valuable ready reference data sheet showing exactly what controls to use with each of 100 different models of auto-radios.

CROWE NAME PLATE & MFG. CO.
1771 Grace Street
CHICAGO, ILLINOIS

ON THE TRADE TICKER

★ **ACTUALLY LISTED** in the news of the trade this month are eight factory expansions among leading manufacturers. It's a record.

All of these were made "in response to increased demand for our product," or "anticipating greater activity in our lines." Announcements say that "production will be stepped up immediately" and that "necessarily our personnel will be increased."

Thus a new note of health does not creep, but sweeps into our business.

AUTO-RADIO Re-Installations

TRANSFER JOBS MADE EASY WITH PRE-ASSEMBLED UNIVERSALS

• **Universal Dashboard Controls** have opened up a rich new market for extra profits. Now you can transfer ANY set to ANY car in only a few minutes' time. Mail the coupon today for illustrated Catalog.



No fussing around with loose parts. Single-unit control head ready to slip into the dash-board opening. Hooks up with any set.



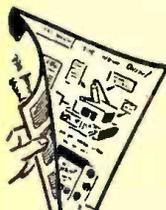
Beautifully-finished dashboard plates custom-styled for harmonious match. Stocked for all car models (1937-36-35).

At the Radio Parts Show, June 10-13
See the "MAGIC PRE-ASSEMBLER"

72 different parts miraculously transformed into one single unit! Come to Booth E—Stevens Hotel.

Universal

DASHBOARD CONTROLS



Mail coupon
today for the
New 1937 catalog

UNIVERSAL CONTROLS, INC.
21-07 40th Ave., Long Is. City, N. Y.

Please send your new Catalog C-4.

Name

Address

Dealer Serviceman Jobber

★ New company, incorporated to merchandise a complete line of radio parts and tubes under one trade name, is **American Appliance Associates, Inc.**, with headquarters at 143 Montgomery St., Albany, N. Y. Engineering head is **M. A. Feldstein**; financial director, **A. O. Linzey**; sales manager, **L. T. Holland**. A specialty will be financial assistance to radio servicemen and the company plans to limit its activity to New England, New York and Pennsylvania for the next few months.

★ Big-scale production of radio furniture has started at the newly formed organization, the **Illinois Wood Products Corp.**, 2512 S. Damen Ave., Chicago, Ill. New machinery has been installed, an experienced personnel lined up, and all modern manufacturing facilities set up. **Robert Fogelson** is president of the new company.

★ **Otto Paschkes**, president of **Solar Mfg. Corp.**, is currently making visits at the affiliates and sales offices of his firm in England and Continental Europe. Tour includes a stop at **A. H. Hunt, Ltd.**, London, and a six weeks' journey through Sweden, Norway, Holland and France.

★ **O. P. Smith** has resigned as general sales manager of **Utah Radio Products Co.**, Chicago, a position he has filled for the past year. Mr. Smith has not announced new plans.

★ **Wincharger Corp.**, Sioux City, Iowa, have moved to a new plant, where the layout covers a full city block and has facilities for producing 2,000 winchargers daily. Expansion is due to vigorous development of the radio market, as well as activity in products for trucks and trailers, for commercial installations on railroads, for foreign use, and for lighting outdoor advertising displays.

★ **Harry A. Lasure**, manufacturers' agent, of 2216 W. 11th St., Los Angeles, Calif., is currently making a series of visits at his factories



W. J. Bauman is the new sales manager for Ariston Mfg. Corp., Chicago.

in the East. His headquarters during the National Radio Parts Show, Hotel Stevens, Chicago.

★ **T. T. Scott**, sales representative of **Ken-Rad Tube & Lamp Corp.**, Owensboro, Ky., has been transferred from the Detroit territory to the Cincinnati area.

★ **Fred N. Anibal**, manager of the distributor division of the **Stromberg-Carlson Telephone Mfg. Co.**, recently visited New York City and attended several dealer meetings of **Gross Sales, Inc.**, where showings of the 1938 Stromberg-Carlsons were made.

★ **Manufacturer Wants Agents**—A nationally known radio manufacturer has a few territories open for district representatives or manufacturers' agents with radio trade followings. Applicants must be able to establish direct dealer outlets for leading radio line. Excellent permanent proposition. State experience, age, employment last 5 years. Replies confidential. Address Box A, care **Radio Today**, 480 Lexington Ave., New York, N. Y.

The following amplifier specifications are a correction of those published on page 48 of the May **RADIO TODAY**.

Model No.	List price complete	Type	Rated watts	Dist. at rated watts	Max watts	Total DB gain	No. of inputs	No. of mixers in addit. to master
Webster Co., 5622 Bloomingdale Ave., Chicago, Ill.—"Webster-Chicago."								
2A30	\$115.00	Fixed	30	2.6%	40	135	2	2
712	45.00	Fixed	12	6.5%	13	127	2	2
C-7	31.50	Fixed	7	4%	8	69	2	2
X-7	32.50	Fixed	7	4%	8	114	2	2
2L20	80.00	Fixed	20	3.5%	30	125	2	2
4P60	165.00	Fixed	60	3.2%	60	143	4	4

Model No.	Can addit'l speakers be used	No. of tone controls	No. of tubes	Output tubes	Class output amp.	Phono turntable	Line watts	Carried in stock	Power source
2A30	Yes	2	12	4-2A3	A	No	230	Yes	AC
712	Yes	1	7	2-6V6	AB	No	87	Yes	AC
C-7	No	1	3	1-6L6	A1	No	57	Yes	AC
X-7	No	1	4	1-6L6	A1	No	64	Yes	AC
2L20	Yes	1	7	2-6L6	AB1	No	155	Yes	AC
4P60	Yes	1	12	2-6L6	AB2	No	210	Yes	AC

In the Setchell-Carlson PA-25 and PA-115 amplifiers the output tubes are 6L6's instead of 6V6's as listed in May issue.



J. Finkel, of J. F. D. Distributing Co., a radio veteran currently active in auto radio developments.

★ P. R. Mallory & Co., Inc., Indianapolis, announce the purchase of the assets, good will, trademarks, patents and patent rights of Electrad, Inc., New York City, L. A. de Rosa, chief engineer, and other key employees of Electrad will join the Mallory organization. Plant and offices will be moved to Indianapolis.

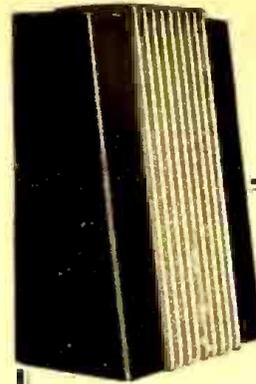
★ Grunow distributor meetings held for dealers began May 28 with a 3-day showing of 1938 lines by Specialties Distributing Corp. in Detroit. Scheduled meetings run to June 16 and others will be announced later; active in the program are the Grunow officials J. J. Davin, sales promotion manager, and Harry Alter, director of sales. Also included in the events are the division managers Welling, Darden, Finger, Gilmore, Hutchings, Kane, Peck, Thompson, Young, and Newmark. Dates and hosts follow: June 1-4, E. A. Wildermuth Co., New York; June 5-6, Newark, N. J., distributor; June 7-8, Motor Parts Co., Philadelphia; June 9-11, Stern & Co., Hartford, Conn.; June 13-16, Harry Alter Co., Chicago.

★ Standard Sound Products Co., makers of Commun-A-Phone inter-office communicating systems, have moved from 55 W. 42nd St., New York City, to 19 Rector St. Leon Josephson is president of the firm.

★ Highlight of Sentinel's distributor convention in Chicago on June 21 and 22 will be on the latter date, when guests attend the Braddock-Louis fight at the invitation of Sentinel Radio Corp. A banquet is scheduled for the 21st; the 2-day program will include a first-time presentation of the company's 1938 line of farm and AC sets, according to E. A. Alschuler, Sentinel president.

★ Majestic Radio & Television Corp. and its president, N. L. Cohen, have announced a special presentation of their 1938 line, July 5th to 17th, for the company's complete dealer organization and members of the firm's sales staff. Event will take place at the Furniture Mart in Chicago, where Majestic maintains permanent quarters. Company recently increased its facilities by moving to a new plant at 50th and Rockwell Streets, Chicago.

★ Pre-showing of the new 1938 Kadette line is set for June 9, 10, 11, and 12 at the Blackstone Hotel in Chicago. W. Keene Jackson, general sales manager of the Kadette division of International Radio Corp., invites jobbers to view the new models. Mr. Jackson will be supported by Gere Burns, newly appointed to direct advertising and sales promotion. Charles Pilliod, Pacific Coast manager for Kadette, will also have headquarters at the Blackstone, and Jack Hursch, district manager of Denver, Colo., will be at the Stevens Hotel.



Stream Lined Speaker

For use in U. S. E.'s new line of complete sound systems

Type H-302 Speaker

12-inch permanent magnet dynamic. Cabinet finished in smooth telephone black and ivory.

For portable or permanent use. Packing case is designed as container for portable use.

U.S.E.'s new 16-page catalog illustrates Complete Sound Systems for every application.

Write for Catalog No. 107 and Proposition

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We carry in stock all standard and many special items of radio hardware used by manufacturers of sets, speakers, sound equipment, testing instruments, parts, etc. You will save valuable time by using our Bulletin 50 as your buying guide for



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TUBULAR RIVETS
EYELETS
EYELET LUGS
SPADE LUGS

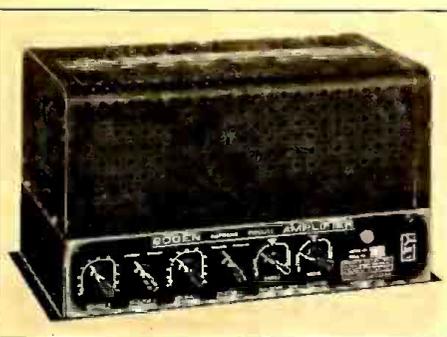
SOLDERING LUGS
BRASS WASHERS
STEEL WASHERS
FIBRE WASHERS
LOCKWASHERS

METAL TAPPING SCREWS
SPEAKER MOUNTING SCREWS
ESCUTCHEON SCREWS
WOOD SCREWS
RUBBER GROMMETS

Send for a Copy of Bulletin 50 Today

Please Check Manufacturer Jobber

FEDERAL SALES CO., 26 S. JEFFERSON, CHICAGO



IF YOU MISS THE SHOW
WRITE FOR NEW CATALOG

See and Hear

ELECTRONIC TONE CORRECTOR

(Patent Pending)

Most Radical Development in P A for Years

Booth 12 and Demonstration Room 532-A
NATIONAL RADIO PARTS TRADE SHOW—HOTEL STEVENS, CHICAGO, ILL.

Also a complete line of Bogen Communo-Phones,
both wired and wireless

DAVID BOGEN CO., Inc.

Manufacturers of Sound Equipment

663 BROADWAY

NEW YORK CITY

TALK-BAK*

The first word used to abbreviate inter-communication systems.

NOKOIL

The first small permanent magnetic dynamic speaker to be used in Talk-Bak* Systems.



Model 482 T.B.
5"



Model 682 T.B.
8"

Write for information regarding these brand new speakers manufactured especially for Talk-Bak* Systems and requiring no equalization.

Ask for the name of our nearest distributor. Wright-DeCoster distributors are always anxious to cooperate.

WRIGHT-DECOSTER, Inc.

2265 UNIVERSITY AVE. ST. PAUL, MINN.
Export Dept.—M. Simons & Son Co., New York
Cable Address: "Simontrice"
Canadian Office: Associated Sales Co., Guelph, Ont.

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Exact-Duplicate MT RESISTORS

- ★ Handiest form of line-dropping resistor, used in many AC-DC sets.
- ★ And now, matched MT Resistor Replacements for those sets.
- ★ Coded and base-wired according to RMA standards. Cross-indexed with other types.
- ★ Any total voltage drop and all pilot lamp combinations.

DATA: Wall chart listing sets and replacements sent on request. Also Volume Control Replacement Guide.

CLAROSTAT

MANUFACTURING CO.
Incorporated

245 North Sixth St.
Brooklyn, N. Y.

THE ORDERS I HAVE LOST

★ "A short time ago, I overheard the conversation of a group of radio parts salesmen, huddled in the corner of a certain manufacturer's reception room," reports J. B. Price, Eastern representative, Utah Radio Products Co.

"Each salesman waited his turn to enter the 'lion's den.' One man—a friend of mine—went in and came out, his face wreathed in smiles. 'You must have clinched a million-dollar order that time,' I said to him. 'No' he answered, 'I lost it.' And, still smiling, he left me to figure out what it was all about.

"Since that time, I have noticed that not many salesmen are upset about losing the orders of that particular firm. They feel that *not* selling, in certain cases, is a sign of *success* rather than failure. They feel—as I do—that in losing such business, they have chalked up another victory in their war against the Captain Kidds of the industry.

"What price integrity? Can the parts manufacturer sell solely on the basis of quality and workmanship? There is no other way that he can profit in the long run. Selling on a price basis forces him, in slicing his prices, also to slice off a good portion of his product's reliability and good name.

Disastrous

"Cut-throat competition in any industry is disastrous for the immediate parties concerned as well as the industry as a whole. It is a form of slow commercial suicide. The public is not completely composed of suckers. Even if there is 'one born every minute,' there is also his twin who is just crafty and clever enough to see that the wool is not slipped over his eyes.

"Reputable manufacturers—and fortunately they are in the majority—will not lower their standards for any one particular account. These reputable manufacturers refuse to meet the price of a small, unreliable competitor who maintains no engineering department, no scientific testing equipment, and gives no assurance that what he sells is not more suitable for the ash heap than the interior of a radio set.

"What price integrity? Is it a luxury anyone can afford? I think it is, providing that you are truthfully and accurately representing not only the company, but the article that you are selling. Once you prostitute quality for a slightly lower price, you are putting integrity on the bargain counter. There, it is worth a little less than nothing.

"There is," concludes Mr. Price, "a certain pleasure in refusing certain kinds of orders. Call it business ethics, conscience, or fair play. It all amounts to the same thing—increased respect and business from your important customers, and perhaps the ill wishes of the black sheep. The latter is nothing to worry about, and that is why I derive more encouragement than discouragement—more inspiration than disappointment—from many of the orders I have lost."

We DESIGN and MANUFACTURE RADIO PARTS



of steel
brass
copper
bakelite
mycalex
ameroid

This catalogue lists over 2,000 hardware and radio accessories... but that is only half our story.

WE ARE SPECIALISTS in all kinds of special stamping work, and invite engineers and manufacturers to consult us without obligation.

American RADIO HARDWARE CO. Inc.

476 Broadway, New York, U. S. A.

A NEW OPPORTUNITY!

Start today to let customers know that you have a complete stock of ALDEN or NA-ALD connectors, sockets and adapters.

The adapters and sockets are those used in and with the finest instruments manufactured.

The connectors are standard equipment on over two-thirds of the sets produced and have wide application in the new intercommunicating systems.

The variety of plugs and connectors is growing rapidly—it is extending to many industrial uses.

Because these connectors are unique in design, experimenters, engineers insist on them—there are no substitutes—therefore, don't delay becoming the established headquarters for these parts.

To make it easy—to make it profitable—we have a special limited proposition for summer stocking.

Write for it today and the list of new items.



ALDEN PRODUCTS CO.
Brockton Dept. RTJ Mass.



ONE CUSTOMER TELLS ANOTHER

The "good word" about Ken-Rad Tubes spreads, and you make more money. Take the first step to building better business by writing for our sales plan.

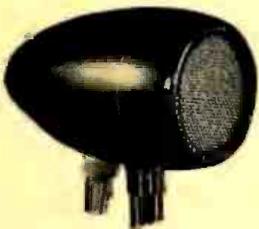


Manufacturers of a complete line of Standard Glass Types, G Series, and Genuine All-Metal Radio Tubes.

Ken-Rad Radio Tubes

KEN-RAD TUBE & LAMP CORPORATION, Inc., Owensboro, Ky.
(Also Manufacturers of Ken-Rad Electric Light Bulbs)

A HIT OF THE SHOW



the 1938 LINE OF "BULLET" MICROPHONES and "BULLET-PHONES"

The new models carry on the tradition of excellence and outstanding performance introduced by BULLET microphones last year.

See these new models . . . hear the results of "BULLET" engineering that more firmly entrenches BULLET microphones and BULLET-PHONES as leaders in their fields.

Send for new circular T-6

TRANSDUCER CORPORATION
30 Rockefeller Plaza
New York, New York

WHOLESALEERS



Hal Sheer, recently boosted to general managership at Philco Radio & Television Corp. of N. Y.

★ Lamar-Bankin Co., 75 Houston St., Atlanta, Ga., distributors for RCA, have recently taken over the activities of Dixie Radio Distributors, also of Atlanta. Under the new set-up, M. W. "Mitch" Edwards is manager of the appliance department, with the same sales force as at Dixie.

★ Dave Slobodien, president, Apollo Distributing Co., Crosley jobbers of Newark, N. J., reports unusual success with a series of evening meetings sponsored by the company for dealers and servicemen. Attendance at the meetings averages 75, and they are conducted by Harold Bergman, Apollo's sales manager. Guests are invited for a particular evening.

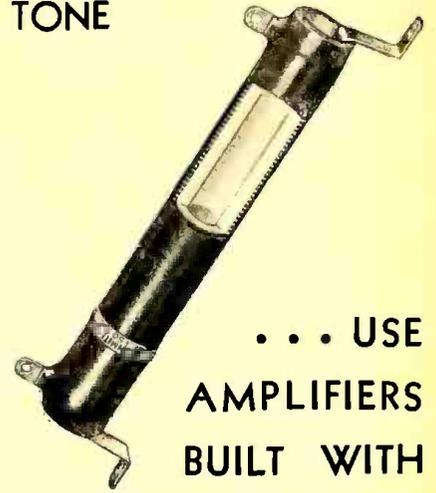
★ Personnel of the Dixie Radio Co., jobbers of Columbia, S. C., has been gradually increased until the total persons in the organization is now 15. J. A. Krell is proprietor and F. E. Beaudry is general manager of the firm; six full time servicemen are kept busy. Company handles National Union tubes and a complete line of quality parts.

★ Thomas H. Brown Co., jobbers of New Haven, Conn., have opened a branch store at 671 Bank St., New London, Conn., according to news from L. H. Brown, company exec. In charge of the new store is Newell E. "Val" Valentine, vet serviceman and ham.

★ Heat & Power Engineering Co., Toledo, Ohio, distributors of Arc-turus tubes, was recently robbed of several hundred radio tubes. Thieves ignored a large stock of valuable copper tubing in favor of the radio merchandise, according to a check-up by E. M. Gresham, sales manager.

Sound Engineers!

FOR TRUE TONE



... USE
AMPLIFIERS
BUILT WITH
OHMITE
RESISTORS

GOOD performance, with low hum level, low distortion, depends to a large extent on the resistors in the circuit. That is why the best amplifiers use OHMITE units throughout. Being wire-wound, OHMITE Resistors have no voltage and virtually no temperature characteristics. The specially developed vitreous enamel maintains the uniformity of the winding during and after the manufacturing process. Such BUILT-IN DEPENDABILITY assures consistently good performance. Catalog 16 lists OHMITE Resistors for replacement use, as well as every P. A. application.

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★ **BOOTH 117** ★
TRADE SHOW
JUNE 10-13

OHMITE
MANUFACTURING COMPANY
Rheostats • Resistors • Tapswitches
4847 FLOURNOY ST., CHICAGO, ILL.

JIM QUAM Says



● It's funny how things work out. About a year ago in our old plant we were working at absolute capacity trying to fill our orders. We knew that this was a dangerous situation so we moved to our new factory, with twice the capacity, and, by George, it's lucky we did. We never could have put out our present production in the old plant.

Our new facilities have enabled us to improve our product, too, and we've had lots of compliments on the uniformly high quality of Quam speakers, so that we feel real proud. I'll be glad to show you these new Quam Speakers at any time. Just drop me a line.

QUAM-NICHOLS CO.

33rd Place & Cottage Grove CHICAGO 1674 Broadway NEW YORK



ELGIN PRECISE INSTRUMENTS Model 801A

A.C. - D.C. Pocket Meter

The service man, experimenter, or "ham" will find it one of the most useful in the laboratory or shop. Eliminates the necessity of carrying bulky instruments for test purposes. The ELGIN 801A can be easily adapted for use as an output meter for signal generators, oscillators, etc.



Readings available:

0/5/50/500/1000 Volts O.C.
0/5/50/500/1000 Volts A.C.
0/5/50/500 O.C. Milliamperes
and 0/500/500,000 Ohms resistance.

DEALERS NET PRICE **\$11.95**

Model 801

Similar to above except that the A.C. Volt and D.C. Milliampere readings are not available. Will accurately test 0/5/50/500/1000 Volts O.C. 0/500/500,000 Ohms resistance

DEALERS NET PRICE **\$5.75**

SEND FOR CIRCULAR DESCRIBING TEST EQUIPMENT IN FULL

TRY-MO RADIO CO., Inc.
85 Cortlandt Street, N. Y. C.

WHOLESALE'S WORLD

★ More than 500 dealers and salesmen went to the recent "open house" held for three days by Trilling & Montague, Zenith jobbers of Philadelphia. Presentation of the 1938 lines was held in the firm's new showrooms at 24th and Walnut Sts.

★ Percival Stern, president, Interstate Electric Co., Crosley jobbers of New Orleans, La., has reported that his company's current radio business is nearly three times what it was last year. Stern mentions, as factors in the trade upswing, local oil developments, reforestation, state promotion of industry, a flood prevention program, and other improvements.

★ J. M. Marks, of Fada Radio & Electric Co., Long Island City, N. Y., currently featuring "Coloradio," points out that in some quarters his company is being confused with another trade name. Mr. Marks reminds the industry that "When our company took over the Fada set-up two and a half years ago, it should be borne in mind that Frank Andrea was out of the Fada picture for over a year and had already started an export company manufacturing radios for export only, under the trademark 'Andrea.' Naturally, our company could in no way undertake any legal action against the sale of Andrea radios and, therefore, we have never in any way sought to interpose any objection to Andrea's operations, nor is any intended at this time.

"We would like, however, to clarify the position of our company in the trade, inasmuch as we are the sole owner of the Fada trade-marks and all rights appertaining thereto, both in this country and throughout

the world; and we would want the trade to become familiar with the fact that our company is the original Fada Company and controls all the rights and trade-marks, patents, etc., dating from its inception since 1921; and that the firm of F. A. D. Andrea, Inc., selling Andrea Radios, outside of the fact that Frank Andrea is the head of the company, has no more relationship to our trade-mark (Fada) than Mr. DuPont has to the General Motors Co., with which he was importantly affiliated at the time of its inception. Our company is a bonafide licensee of RCA as well as Hazeltine."

KEY TO NOVELTY FEATURES OF NEW SETS ON FRONT COVER

★ On the front cover of this issue are listed a number of the novelty features and phrases used in promoting the new 1937-38 radio lines. The terms shown were those made available by the manufacturers as the front-cover went to press.

Following are these new features, with the names of the manufacturers offering them:

Coloradio	Fada
Dynaphone	Ansley
Electric Tuning	RCA-Victor
Flash Tuning	Stromberg-Carlson
Miracle Tone Chamber	Emerson
Network Tuning	Motorola
Phantom-Filter	Noblitt-Sparks
Robot Dial	Zenith
Selectronne	Sparks-Withington
Super-Teledial	Grunow
Teletune	Crosley
Tilt Tuning	Continental
Tone Projector	Fairbanks-Morse
Touch Tuning	General Electric
Wal-Radio	Wilcox-Gay



"Southern Senators," the group of sales contest prizewinners awarded a trip to Hygrade Sylvania's plant at Emporium, Pa., by J. C. Fulwiler and C. W. Chapman, Hygrade's southeastern representatives. Shown with their hosts, beginning with the gent leaning on the truck, back row, left to right: Jack Bennett, Brower Elec. Supply Co., Greensboro, N. C.; H. J. Ballum, Shuler Supply Co., New Orleans; F. H. Bartlett, Freck Radio & Supply Co., Asheville, N. C.; J. T. (Snake) Fulwiler, E. T. Reid, Sylvania. Front row: Ross Smith and A. L. Milk, Sylvania; A. E. Mason, Nashville Chair Co., Nashville, Tenn.; I. J. Pardee, Radio Sound & Service Co., Knoxville, Tenn.; J. R. (Honey Chile) McMillian, Fulwiler & Chapman salesman; J. R. Ledbetter, Shaw Distributing Co., Charlotte, N. C.; C. W. Sandy Chapman, H. G. Kronenwetter, G. B. Erskine, G. H. Klinefister, Sylvania; F. F. Dill, Chattanooga Paper & Woodenware Co., Tenn.

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While every precaution is taken to insure accuracy, we cannot guarantee against the possibility of an occasional change or omission in the preparation of this index.

"We Don't Keep Them—We Sell Them" is what any Solar jobber can say about "little giant" Dry Electrolytics. The reason is in the condenser itself: it is there you find **QUALITY ABOVE ALL!** . . .



SOLAR MFG. CORP., 599-601 BROADWAY, NEW YORK

PREMAX

TUBULAR STEEL
MASTS

GROUND RODS

AERIAL
ACCESSORIES

PREMAX PYRAMID
DOUBLE DOUBLET
ANTENNA
THE ONLY ONE ROOF AERIAL

Send for Bulletin RM 37

PREMAX
SALES DIVISION

Chisholm-Ryder Company, Inc.
3813 Highland Ave., Niagara, Falls, N. Y.

WHOLESALE

★ The 1938 GE radio line will be presented to 1,800 New York and New Jersey dealers by D. W. May, district radio sales manager, June 9, 10, and 11. Dealers will be taken by boat up the Hudson River to Bear Mountain Inn, where a dramatic presentation of the new line is the climax of a lively series of luncheons, dinners and entertainments. Earle Poorman, district appliance and merchandise sales manager, will be on the program, and other GE officials on hand will include John Abrahams, Joe F. Ryan, George F. Bart, Sam Hammer, Earl Wiederrecht, Earl Reihman and Walter Ferry. Dealers attend the stag affair by special invitation; an event for the ladies will be announced later.

★ More than 600 distributors, along with their sales and service staffs, were guests at the 3-day Zenith convention in Chicago last month. Business sessions, dinner and entertainment were followed by a mass trip through the new Zenith factory at 6001 Dickens Ave., on the last day of the convention. Company execs who addressed the convention included E. F. McDonald, Jr., president; Hugh Robertson, vice-pres. and treasurer; E. A. Tracey, vice-pres. in charge of sales; Paul M. Bryant, president's assistant; James H. Rasmussen, assistant sales manager; Edgar G. Herrmann, advertising manager; Frank Smolek, service manager; Hal Blakeslee, parts and accessories manager, and R. F. Weinig, automotive division manager. Irving R. Allen of the E. H. Brown advertising agency, also appeared.

★ Emerson Radio & Phonograph Corp. will stage a convention for distributors at the Hotel New Yorker in New York City, June 14 and 15. Feature presentation of 1938 lines is planned, and following this event the Emerson distributors, Emerson-New York, Inc., and Emerson-New Jersey, Inc., will use the same space for dealer showings.

★ Eastern Co., RCA jobbers of Cambridge, Mass., have announced the appointment of F. J. Bitz as head of the firm's refrigeration service dept. Bitz was formerly with Nash-Kelvinator Corp., Detroit, Mich. Thomas Olsen will be Eastern's field service representative, to aid Kelvinator dealers in the area with technical problems.

Alan Steuvert, president, and Ralph Cron, general manager of Eastern, were recent guests at the RCA distributor convention in Chicago. Attending the convention in Philadelphia for distributors' salesmen were sales representatives F. A. O'Leary, Emmet Ryan, W. F. O'Brien, W. H. Eden and A. J. Shuffer; tube, parts and service manager John Sheridan; credit manager C. A. Collins; personnel director Frank Wright; Victor record sales representative Jack Stafford; and advertising director A. A. Morse.

6 NEW AUTO ANTENNAS by ICA



EAGLET
TWIN FLOW

A handsome Broadcast and Short Wave Antenna. Utilizing the Doublet system of noise cancellation. Chromium finish, no drilling

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No. 4507 (Open wind shield installation) List . . . \$4.25
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As illustrated; triple chrome finish; extends from 27" to 50". Attached to hinge pin of any car. Complete with lead in and hardware. . . \$2.50

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Similar to Hinge-Whip in mounting, but in one 40" length. Completely assembled. List . . . \$1.95

WINDOW-POLE HOME ANTENNA
Fastens to the window sill; telescopic, extending to 8 feet. Black Duco finish. Ideal for Broadcast and Short Wave reception. Complete . . . \$2.25

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Triple chrome finish, 62" length; adjustable for city and country driving. Easily installed. Used on any type car. Complete . . . \$2.25

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Tube Tester
Complete with
Instructions.

Carrying
Handle
(not shown)
Included.

- Tests all 4, 5, 6, 7s-7L and octal base tubes.
- Tests all diode, triode, pentode and tetrode receiving tubes, as well as many transmitting tubes.
- Tests diode, triode and pentode sections of composite tubes separately.
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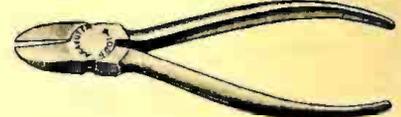
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JUN 16 1937

RADIO TODAY

IN TWO PARTS, PART TWO

Caldwell-Clements, Inc., 480 Lexington Ave., New York, N. Y.

JUNE, 1937

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SALES FEATURES AND SPECIFICATIONS OF THE 1937-38 RADIO SETS

A detailed buying guide of all American receivers compiled by *Radio Today*. Lines unannounced as we go to press and farm models will be listed in July.

Model No.	List price	Cabinet style	Wave-bands	No. of tubes	S. W. R. F. amp.	Spkr. size type	Watts audio power	Power Supply watts	Selectivity control	Tone controls	Visual tuning	Auto-matic tuning	Dial		Acous-tical AVC	I.F. Peak devices	Fea-tures	
													AFC	Size				Ratio
Air-King Products Co., Inc., 15 Hooper St., Brooklyn, N. Y.—"Air-King"																		
700	NS	FT	B	5-G*	....	5EE	1.2	40AC-DC	No	0	No	No	No	3½x5	8:1	No	No	TRF
701	NS	FT	B	6-G*	....	5EE	1.2	40AC-DC	No	0	CR	No	No	3½x5	8:1	No	No	TRF
705	NS	FT	B,P	5-G*	No	5EE	1.2	40AC-DC	No	0	No	No	No	3½x5	8:1	No	No	TRF
710	NS	FT	B	6-G*	....	5EE	1.2	40AC-DC	No	0	No	No	No	3½x5	8:1	No	No	456
812	NS	CON	B,P,S	11-G*	No	12EE	4.8	AC-DC	No	1	CR	No	No	8	11:1	Yes	No	456
715	NS	FT	B	6-G*	....	5EE	1.2	40AC-DC	No	0	No	No	No	3½x5	8:1	No	No	456
720A	NS	FT	B,S ₁	6-G*	No	5EE	1.2	40AC-DC	No	0	No	No	No	3½x5	8:1	Yes	No	456
721A	NS	FT	B,S ₁	7-C*	No	5EE	1.2	40AC-DC	No	0	CR	No	No	3½x5	8:1	Yes	No	456
722	NS	FT	B,S	6-G*	No	5EE	1.2	40AC-DC	No	0	No	No	No	3½x5	8:1	Yes	No	456
723	NS	FT	B,S	7-C*	No	5EE	1.2	40AC-DC	No	0	CR	No	No	3½x5	8:1	Yes	No	456
725A	NS	FT	B,S ₁	7-C*	No	8EE	2.2	45AC-DC	No	1	CR	No	No	4½x4½	8:1	Yes	No	456
770	NS	VT	B,S ₁	6-G*	No	5EE	1.2	40AC-DC	No	1	No	No	No	3½x3½	8:1	Yes	No	456
787	NS	FT	B,S	7-C*	No	8EE	2.2	45AC-DC	No	1	CR	No	No	4½x4½	8:1	Yes	No	456
1001	NS	FT	B	4-G	....	5EE	1.2	40AC-DC	No	0	No	No	No	1½x3	1:1	No	No	TRF
250	NS	FT	B	5-G	....	5EE	1.2	40AC-DC	No	0	No	No	No	3x3	NS	No	No	456
771	NS	VT	B,S ₁	7-C*	No	5EE	1.2	40AC-DC	No	1	CR	No	No	3½x3½	8:1	Yes	Yes	456
2001	NS	PO	B	4-G	....	5EE	1.2	40AC-DC	No	0	No	No	No	1½x3	1:1	No	No	TRF
784X	NS	FT	B	4-G	....	5EE	1.2	40AC-DC	No	0	No	No	No	1½x3	8:1	No	No	TRF
780X	NS	FT	B	6-G*	....	5EE	1.2	40AC-DC	No	0	No	No	No	3½x5	8:1	No	No	TRF
F. A. D. Andrea, Inc., 48-02 48th Ave., Woodside, L. I., N. Y.—"Andrea"																		
410	NS	VT	B	5-G*	....	5EE	1	45AC-DC	No	0	No	No	No	5½	1:1	No	No	TRF
520	NS	FT	B,S	6-G*	....	5EE	1.1	50AC-DC	No	0	No	No	No	5½	18½:1	Yes	No	470
620	NS	FT	B,S	6-G*	No	6½EE	2	50AC-DC	No	0	No	No	No	5½	18½:1	Yes	No	470
2D6	NS	VT	B,S	6-G*	No	6½EE	4½	55AC	No	0	No	No	No	5½	18½:1	Yes	No	470
2B6	NS	VT	B,S	6-MG	Yes	8EE	4½	60AC	No	1	No	No	No	5	60&12:1	Yes	No	470
2D7	NS	FT	B,S	7-O	Yes	8EE	6	65AC	No	1	No	No	No	7½	26:1	Yes	No	470
4D7	NS	VT	B,S	7-O	Yes	8EE	6	65AC	No	1	No	No	No	7½	26:1	Yes	No	470
2B8	NS	VT	B,P,S	8-M	Yes	8EE	4½	72AC	No	1	CR	No	No	5	60&12:1	Yes	No	470
2D10	NS	VT	B,P,S	10-O	Yes	8EE	9	85AC	Yes	2	CR	No	No	7½	26:1	Yes	No	470
1402	NS	VT	B,P,S	14-O***	Yes	8EE	5	91AC-DC	Yes	2	CR	No	No	7½	26:1	Yes	No	470
5D7	NS	CON	B,S	7-O	Yes	12EE	6	65AC	No	1	No	No	No	7½	26:1	Yes	No	470
4D10	NS	CON	B,P,S	10-O	Yes	12EE	9	85AC	Yes	2	CR	No	No	7½	26:1	Yes	No	470
1404	NS	CON	B,P,S	14-O***	Yes	12EE	5	91AC-DC	Yes	2	CR	No	No	7½	26:1	Yes	No	470
8D7	NS	PC	B,S	7-O	Yes	12EE	6	105AC	No	1	No	No	No	7½	26:1	Yes	No	470
6D10	NS	PCM	B,P,S	10-O	Yes	12EE	9	125AC	Yes	2	CR	No	No	7½	26:1	Yes	No	470
1406	NS	PCM	B,P,S	14-O***	Yes	12EE	5	116AC-DC	Yes	2	CR	No	No	7½	26:1	Yes	No	470
8D10,10D10	NS	PCA	B,P,S	10-O	Yes	12EE	9	125AC	Yes	2	CR	No	No	7½	26:1	Yes	No	470
1408,1410	NS	PCA	B,P,S	14-O***	Yes	12EE	5	116AC-DC	Yes	2	CR	No	No	7½	26:1	Yes	No	470
Ansley Radio Corp., 240 W. 23rd St., New York, N. Y.—"Ansley Dynaphone"																		
D7	\$64.50	PC-PO	B	5-G	No	5EE	2	67AC-DC	No	1	No	No	No	2	3:1	No	No	456
D9	\$4.50	PC-PO	B,S	7-M*	No	6EE	2	75AC-DC	No	1	No	No	No	3½	7:1	Yes	No	456
D10	\$9.50	PC-T	B,S	7-M*	No	6EE	2	75AC-DC	No	1	No	No	No	3½	7:1	Yes	No	456
D17	\$35.00	PC	B,S	7-M*	No	12EE	2	75AC-DC	No	1	No	No	No	3½	7:1	Yes	No	456
D18	\$85.00	PCA	B,S	7-M*	No	12EE	2	90AC-DC	No	1	No	No	No	3½	7:1	Yes	No	456

SALES FEATURES AND SPECIFICATIONS OF THE 1937-38 SETS

Model No.	List price	Cabinet style	Wavebands	No. of tubes	S. W. R. F. amp.	Spkr. size type	Watts audio power	Power Supply watts	Selectivity control	Tone controls	Visual tuning	Automatic tuning	Dial		AVC	Acous-tical devices	I.F. Peak	Features
													AFC	Size Ratio				
Ansley Radio Corp.—Continued																		
D21	160.00	PC	B.S	13-M*	No	12EE	8	128AC-DC	No	1	No	No	No	3½	7:1	Yes	No	456
D22	210.00	PCA	B.S	13-M*	No	12EE	8	147AC-DC	No	1	No	No	No	3½	7:1	Yes	No	456
U-10	44.50	T	B.S	7-M*	No	6EE	2	62AC-DC	No	1	No	No	No	3½	7:1	Yes	No	456
U-11	49.50	PO	B.S	7-M*	No	6EE	2	62AC-DC	No	1	No	No	No	3½	7:1	Yes	No	456
D14	190.00	PC	B.P.S	15-M	Yes	12EE	8	128AC-DC	No	1	CR	No	No	3½x4¼	13:1	Yes	No	456
D23	99.50	PC-ACR	B.S	7-M*	No	12EE	2	75AC-DC	No	1	No	No	No	3½	7:1	Yes	No	456
Automatic Radio Mfg. Co., Inc., 122 Brookline Ave., Boston, Mass.—“Automatic”																		
B10	NS	FT	B	5-G*	Yes	SEE	.9	40AC-DC	No	0	No	No	No	4x2¾	1:1	No	No	“Vision Ray” TRF
B10P	NS	FT	B.P	5-G*	Yes	SEE	.9	40AC-DC	No	0	No	No	No	4x2¾	1:1	No	No	TRF
B10LW	NS	FT	B.W	5-G*	Yes	SEE	.9	40AC-DC	No	0	No	No	No	4x2¾	1:1	No	No	TRF
B15	NS	FT	B	5-G*	Yes	SEE	.9	40AC-DC	No	0	No	No	No	3x3	8:1	No	No	TRF
B20	NS	PO	B	5-G*	Yes	SEE	.9	40AC-DC	No	0	No	No	No	3½x3½	1:1	No	No	TRF
B30	NS	FT	B	6-G*	Yes	5EE	2.2	40AC-DC	No	1	No	No	No	4x2¾	8:1	Yes	No	456
B35	NS	FT	B.Si	6-GO*	No	5EE	2.2	45AC-DC	No	0	No	No	No	4x2¾	8:1	Yes	No	456
B40	NS	FT	B.Si	6-GO*	No	5EE	2.2	45AC-DC	No	0	No	No	No	7x5	8:1	Yes	No	456
B70	NS	FT	B.P.S	7-GO*	No	6½EE	2.2	50AC-DC	No	1	No	No	No	7x5	8:1	Yes	No	456
B80	NS	FT	B.P.S	8-GO*	No	6½EE	2.2	50AC-DC	No	1	CR	No	No	7x5	8:1	Yes	No	456
B85	NS	FT	B.P.S	8-GO*	No	6½EE	2.2	50AC-DC	No	1	CR	No	No	7x5	8:1	Yes	No	456
B80LW	NS	FT	B.S.W	8-GO*	No	6½EE	2.2	50AC-DC	No	1	CR	No	No	7x5	8:1	Yes	No	456
Belmont Radio Corp., 1257 Fullerton Ave., Chicago, Ill.—“Belmont” “Freshman Masterpiece”																		
588	NS	T	B.Si	5-O	No	6EE	1	55AC	No	No	No	No	No	5½	11:1	Yes	No	465
602	NS	PO	B	6-O*	No	5EE	1½	40AC-DC	No	No	No	No	No	NS	3:1	Yes	No	465
740	NS	T	B.P.S	7-OM	No	8EE	4.2	75AC	No	1	No	No	No	NS	11:1	Yes	No	465
840	NS	CO	B.P.S	8-OM	No	8EE	4.2	75AC	No	1	CR	No	No	NS	11:1	Yes	No	465
1170B	NS	CO	B.P.S	11-M	Yes	12EE	16	115AC	No	1	CR	No	No	NS	30:1	Yes	Yes	465
Bretting Radio Mfg. Co., 2117 Venice Blvd., Log Angeles, Calif.—“Bretting”																		
14	\$ 18.00	FT	B.P.S,U	14-MO	Yes	12EE	30	110AC	Yes	1	Meter	No	No	8	220&20:1	Yes	No	432
Capitol Radio Co., 43 E. Ohio St., Chicago, Ill.—“Capitol”																		
W104	\$ 22.50	PO	B.P	5-G*	No	5EE	1	35AC-DC	No	0	No	No	No	4	1:1	No	No	TRF
W105	18.75	PO	B.P	5-G*	No	5EE	1	35AC-DC	No	0	No	No	No	4	1:1	No	No	TRF
W107	53.50	FT	B.P.S	8-GM	No	6½EE	3	60AC	No	1	CR	No	No	7	16:1	Yes	No	456
W107	16.00	PO	B	4-G	Yes	5 Mag	½	35AC-DC	No	0	No	No	No	3	1:1	No	No	TRF
W120	29.95	FT	B.Si	5-G	No	6EE	2	45AC	No	0	No	No	No	4	8:1	Yes	No	456
W112	36.10	FT	B.P.S	6-GM	No	6EE	3	60AC	No	1	No	No	No	6	10:1	Yes	No	456
W114	38.50	FT	B.P.S	7-GM	No	6EE	3	60AC	No	1	CR	No	No	6	10:1	Yes	No	456
W122	24.75	FT	B.P	6-G*	No	5EE	2	40AC-DC	No	0	No	No	No	4	4:1	Yes	No	456
B241	29.00	FT	B.P	5-G	No	5EE	1	40AC-DC	No	0	No	No	No	4	8:1	Yes	No	456
B243	93.90	CON	B.P.S	11-GM	No	12EE	10	90AC	No	1	CR	No	No	8	20:1	Yes	No	456
B235	38.00	FT	B.P.S	7-G*	No	6EE	1	45AC-DC	No	No	CR	No	No	5	10:1	Yes	No	456
Climax Radio & Television Co., 511 S. Sangamon St., Chicago, Ill.—“Climax”																		
Esquire	\$ 79.95	CON	B.P.S	11-GO	No	12EE	4	65AC	No	1	CR	No	No	8	12:1	Yes	No	456 5
Esq. Jr.	49.95	CON	B.Si	7-GO*	No	8½EE	2	50AC-DC	No	1	CR	No	No	4	1½:1	Yes	No	456
Vision	54.50	FT	B.P.S	8-GO	No	6½EE	3	55AC	No	1	CR	No	No	8	12:1	Yes	No	456 5
Mona	49.95	VT	B.P.S	7-GO	No	6½EE	3	55AC	No	1	No	No	No	8	12:1	Yes	No	456 5
Emerald	36.00	FT	B.Si	6-G*	No	5EE	1½	40AC-DC	No	0	No	No	No	5	6:1	Yes	No	456
Silver	37.50	FT	B.Si	7-G*	No	5EE	1½	40AC-DC	No	0	CR	No	No	5	6:1	Yes	No	456
Coronation	22.50	FT	B.S	5-G*	No	5EE	1	40AC-DC	No	0	No	No	No	8½x3	1:1	No	No	TRF
Diamond	25.00	FT	B.S	5-G*	No	5EE	1½	40AC-DC	No	0	No	No	No	4	1½:1	No	No	TRF
Opal	16.50	PO	B	4-G	Yes	5 Mag	½	35AC-DC	No	0	No	No	No	2	1:1	No	No	TRF
Opal De Luxe	18.50	PO	B	4-G	Yes	5 Mag	½	35AC-DC	No	0	No	No	No	2	1:1	No	No	TRF
Duke	18.50	FT	B	5-G*	No	5EE	1	40AC-DC	No	0	No	No	No	3	1:1	No	No	TRF
Garnet	19.50	FT	B.S	5-G*	No	5EE	1	40AC-DC	No	0	No	No	No	5	1:1	No	No	TRF
Peer	22.50	FT	B.S	5-G*	No	5EE	1	40AC-DC	No	0	No	No	No	5	4:1	No	No	TRF
Crown	30.00	FT	B.Si	6-G*	No	5EE	1½	40AC-DC	No	0	No	No	No	5	6:1	No	No	456
Pearl	32.50	FT	B.Si	6-G*	No	5EE	1½	40AC-DC	No	0	No	No	No	5	6:1	No	No	456
Bronze	37.50	FT	B.Si	7-GO	No	6EE	4	50AC	No	0	No	No	No	5	6:1	No	No	456
Gold	34.00	FT	B.Si	7-GO	No	6EE	4	50AC	No	0	No	No	No	5	6:1	No	No	456
Ruby	36.50	FT	B.Si	7-G*	No	5EE	1½	40AC-DC	No	0	No	No	No	5	6:1	No	No	456
AO	27.50	FT	B.Si	5-G*	No	5EE	1½	40AC-DC	No	0	No	No	No	4	1½:1	No	No	456 3
Clinton Mfg. Co., 1217 Washington Blvd., Chicago, Ill.—“Clinton”																		
1501	\$129.50	CON	B.P.S	15-MO	No	12&6½EE	13½	AC	No	1	CR	No	No	8	28:1	Yes	No	456
1102	99.50	CON	B.P.S	11-G	No	12EE	7	AC	No	1	CR	No	No	8	28:1	Yes	No	456
257	44.95	FT	B.P.S	8-G	No	6½EE	3.2	AC	No	0	CR	No	No	6	11:1	Yes	No	456
247	39.95	FT	B.P.S	7-G*	No	6½EE	.8	AC-DC	No	0	CR	No	No	6	11:1	Yes	No	456
245	59.95	CON	B.P.S	7-G*	No	6½EE	.8	AC-DC	No	0	CR	No	No	6	11:1	Yes	No	456
300	59.95	FC	B.P	6-G*	No	6½EE	2	AC	No	1	No	No	No	6	5:1	Yes	No	456
249	34.95	FT	B.Si	7-G*	No	6½EE	.8	AC-DC	No	0	CR	No	No	4x5	6:1	Yes	No	456
148	33.50	FT-VT	B.Si	6-G*	No	5EE	.8	AC-DC	No	0	No	No	No	6	8:1	Yes	No	456
549	31.95	FT	B.Si	5-G*	No	6½EE	2½	AC	No	0	No	No	No	6	1:1	Yes	No	456
197	24.95	FT	B.P	5-G*	No	5EE	.7	AC-DC	No	0	No	No	No	4	5:1	Yes	No	456
297	29.95	FT	B.P	6-G*	No	5EE	.8	AC-DC	No	0	No	No	No	4	5:1	Yes	No	456
296	27.95	FT	B.P	6-G*	No	5EE	.8	AC-DC	No	0	No	No	No	4	5:1	Yes	No	456
253	24.95	FT	B.P	5-G*	No	5EE	.7	AC-DC	No	0	No	No	No	4x8½	6:1	No	No	TRF
153	22.95	FT	B.P	5-G*	No	5EE	.7	AC-DC	No	0	No	No	No	4x8½	6:1	No	No	TRF
156	24.50	FT	B.P	5-G*	No	5EE	.7	AC-DC	No	0	No	No	No	4	5:1	No	No	TRF
152	19.95	FT	B.P	5-G*	No	5EE	.7	AC-DC	No	0	No	No	No	4x5	1:1	No	No	TRF
155	24.50	FT	B.P	5-G*	No	5EE	.7	AC-DC	No	0	No	No	No	4	5:1	No	No	TRF
254	18.95	PO	B	4-G*	Yes	5EE	.7	AC-DC	No	0	No	No	No	1½x2½	1:1	No	No	TRF
Continental Radio & Television Corp., 325 W. Huron St., Chicago, Ill.—“Admiral”																		
990-5Z	\$ 19.95	FT-VT	B	5-G	No	5EE	¾	40AC	No	0	No	No	No	2½x2	1½:1	Yes	No	456
985-6Y	22.95	FT-VT	B.Si	6-G*	No	5EE	1.7	AC-DC	No	0	No	No	No	2½x2	1½:1	Yes	No	465
980-5X	27.95	FT	B.Si	5-G*	No	5EE	1	40AC	No	0	No	No	No	5½x4½	16:1	Yes	No	456
975-6W	34.75	FT	B.Si	6-G	No	6EE	1	40AC	No	1	CR	No	No	5½x4½	16:1	Yes	No	456
965-7M	49.95	FT	B.P.S	7-G	No	6½EE	3	70AC	No	1	CR	No	No	7½x6½	16:1	Yes	No	456
960-8K	59.																	

— A DETAILED BUYING GUIDE OF ALL AMERICAN RECEIVERS

Model No.	List price	Cabinet style	Wavebands	No. of tubes	S. W. R. F. amp.	Spkr. size type	Watts audio power	Power Supply watts	Selectivity control	Tone controls	Visual tuning	Automatic tuning	AFC	Dial		AVC	Acous-tical devices	i.F. Peak	Features
														Size	Ratio				
Continental Radio & Television Corp.—Continued																			
955-8T	89.95	ACR	B.P.S	8-G*	No	8EE	2	65AC-DC	No	1	No	TD	No	NS	NS	Yes	No	456	
945-8K	87.50	CON	B.P.S	8-G	No	12EE	6	8AC	No	1	No	TD	No	NS	NS	Yes	No	456	
945-8T	87.50	CON	B.P.S	8-G*	No	12EE	2	65AC-DC	No	1	No	TD	No	NS	NS	Yes	No	456	
940-115	109.50	CON	B.P.S	11-O	No	12EE	2	120AC	No	1	No	EPB	Yes	8½x2½	NS	Yes	No	456	
935-115	119.50	CON	B.P.S	11-O	No	12EE	7	120AC	No	1	No	EPB	Yes	8½x2½	NS	Yes	No	456	
925-16R	159.50	CON	B.P.S	16-O	Yes	15EE	20	195AC	No	2	No	EPB	Yes	8½x2½	NS	Yes	No	456	
930-16R	169.50	CON	B.P.S	16-O	Yes	15EE	20	195AC	No	2	No	EPB	Yes	8½x2½	NS	Yes	No	456	
Espey Mfg. Co., Inc., 124 E. 25th St., New York, N. Y.—"Espey"																			
671	\$ 69.50	FT	B.S	7-OM*	No	6EE	2	55AC-DC	No	1	No	No	No	4x3	NS	Yes	No	456	
771A	43.00	FT	B.S	7-OM*	No	6EE	2	55AC-DC	No	1	No	No	No	4x3	NS	Yes	No	456	
771B	49.50	FT	B.S	7-OM*	No	6EE	2	55AC-DC	No	1	No	No	No	4x3	NS	Yes	No	456	
771D	59.50	FT	B.S	7-OM*	No	6EE	2	55AC-DC	No	1	No	No	No	4x3	NS	Yes	No	456	
771E	66.00	FT	B.S	7-OM*	No	6EE	2	55AC-DC	No	1	No	No	No	4x3	NS	Yes	No	456	
771G&H	75.00	FT	B.S	7-OM*	No	6EE	2	55AC-DC	No	1	No	No	No	4x3	NS	Yes	No	456	
771J	45.00	FT	B.S	7-OM	No	6EE	2	55AC-DC	No	1	No	No	No	4x3	NS	Yes	No	456	
7111	99.50	VT	B.P.S,U,W	11-M	Yes	12EE	9	150AC	No	1	CR	No	No	8x6	NS	Yes	No	456	
7151	99.50	VT	B.S,S,V,W	15-MO	Yes	12EE	8½	120AC-DC	No	1	CR	No	No	8x6	NS	Yes	No	456	
Fairbanks Morse & Co., 2060 Northwestern Ave., Indianapolis, Ind.—"Fairbanks-Morse"																			
12AC6	\$149.95	CON	B.P.S,U	12-O	Yes	12EE	NS	125AC	No	1	No	TD	Yes	10	100&20:1	Yes	Yes	456	
9AC5	125.00	CON	B.P.S	9-O	Yes	12EE	NS	90AC	No	1	No	TD	Yes	10	100&20:1	Yes	Yes	456	
9AC4	105.00	CON	B.P.S	9-O	Yes	12EE	NS	90AC	No	1	No	TD	Yes	10	100&20:1	Yes	Yes	456	
8AC3	89.95	CON	B.P.S	8-O	Yes	12EE	NS	80AC	No	1	CR	No	No	8½	31:1	Yes	Yes	456	
8AC2	79.95	CON	B.P.S	8-O	Yes	12EE	NS	80AC	No	1	CR	No	No	8½	31:1	Yes	Yes	456	
8AT8	59.95	FT	B.P.S	8-O	Yes	8EE	NS	80AC	No	1	CR	No	No	8½	31:1	Yes	Yes	456	
6AC1	59.95	CO	B.P.S	6-O	No	8EE	NS	70AC	No	1	CR	No	No	5½	16:1	Yes	Yes	456	
6AC7	69.95	ACR	B.P.S	6-O	No	8EE	NS	70AC	No	1	CR	No	No	5½	16:1	Yes	No	456	
6AT4	44.95	FT	B.P.S	6-O	No	6EE	NS	70AC	No	1	CR	No	No	5½	16:1	Yes	No	456	
5AT1	19.99	FT	B	5-G	.....	5EE	NS	55AC	No	0	No	No	No	4	11:1	No	No	456	
5BT2	29.95	FT	B.S ₁	5-O	No	5½EE	NS	60AC	No	1	No	No	No	4	11:1	Yes	No	456	
5CT3	39.95	FT	B.P.S	5-O	No	6EE	NS	70AC	No	1	No	No	No	5½	16:1	Yes	No	456	
6BT6	29.95	FT	B.S ₁	6-O*	No	6EE	NS	50AC-DC	No	1	No	No	No	4	11:1	Yes	No	456	
69T7	19.99	FT	B	5-G	.....	5EE	NS	50AC-DC	No	0	No	No	No	4	11:1	No	No	456	
Freed Mfg. Co., Inc., 44 W. 18th St., New York, N. Y.—"Freed-Eisemann"																			
33	\$ 14.95	PO	B	3-G	.....	5EE	NS	AC-DC	No	0	No	No	No	NS	NS	NS	No	TRF	10
33W	14.95	FT	B	3-G	.....	5EE	NS	AC-DC	No	0	No	No	No	NS	NS	NS	No	TRF	10
24	19.95	FT	B	5-G*	.....	5EE	1	AC-DC	No	0	No	No	No	4	NS	NS	No	TRF	
25	25.50	FT	B	6-G*	.....	5EE	1	AC-DC	No	0	No	No	No	4	NS	NS	No	456	
26	29.95	PO	B	6-G*	.....	5EE	1	AC-DC	No	0	No	No	No	4	NS	NS	No	456	10
27	46.95	FT	B.P.S	7-G	No	6EE	2	AC-DC	No	1	CR	No	No	5½	10:1	NS	No	456	
97	49.95	FT	B.P.S	7-G	No	6EE	2½	AC	No	1	CR	No	No	5½	10:1	NS	No	456	
28	29.95	FT	B.S ₁	6-G*	No	5EE	1	AC-DC	No	0	No	No	No	4	NS	NS	No	456	
98	32.00	FT	B.S ₁	6-G*	No	5EE	2½	AC	No	0	No	No	No	4	NS	NS	No	456	
Galvin Mfg. Corp., 847 W. Harrison St., Chicago, Ill.—"Motorola"																			
5T	\$ 29.95	VT	B.S	5-G	No	6EE	4	60AC	No	1	No	No	No	NS	NS	Yes	No	465	9
5T1	39.95	HT	B.S	5-G	No	8EE	5	65AC	No	1	No	No	No	NS	NS	Yes	No	465	9
5T2	59.95	HT	B.S	5-G	No	6&6EE	5	65AC	No	1	No	No	No	NS	NS	Yes	No	465	9
6T	49.95	HT	B.P.S	6-O	No	8EE	7	75AC	No	1	No	No	No	6	40&8:1	Yes	No	465	11
6X	34.95	HT	B.S ₁	6-O*	No	6EE	NS	50AC-DC	No	1	No	No	No	NS	NS	Yes	No	465	
5Y	54.95	CO	B.S	5-G	No	10EE	5	50AC	No	1	No	No	No	NS	12:1	Yes	No	465	9
6Y	69.95	CO	B.P.S	6-O	No	8EE	7	75AC	No	1	No	No	No	6	40&8:1	Yes	Yes	465	
9Y	89.95	CO	B.P.S	9-O	No	10EE	7	85AC	No	1	CR	No	No	6	40&8:1	Yes	Yes	465	11
10Y	99.95	CO	B.P.S	10-O	Yes	10EE	7	100AC	No	2	CR	No	No	9	80&10:1	Yes	Yes	465	
10Y-1	129.95	CO	B.P.S	10-O	Yes	12EE	7	100AC	No	2	CR	Yes	Yes	9	80&10:1	Yes	Yes	465	
12Y	149.95	CO	B.P.S	12-O	Yes	12EE	7	130AC	No	2	CR	Yes	Yes	9	80&10:1	Yes	Yes	465	
12Y-1	169.95	CO	B.P.S	12-O	Yes	12EE	7	130AC	No	2	CR	Yes	Yes	9	80&10:1	Yes	Yes	465	
9R	149.95	PC	B.P.S	9-O	No	8EE	7	85AC	No	1	CR	No	No	6	40&8:1	Yes	Yes	465	
6A	79.95	ACR	B.P.S	6-G	No	10EE	7	65AC	No	1	CR	No	No	6	40&8:1	Yes	Yes	465	
General Electric Co., 1285 Boston Ave., Bridgeport, Conn.—"General Electric"																			
F53	NS	FT	B.P ₁	5-M	No	6½EE	2½	50AC	No	1	No	No	No	NS	1:1	No	No	465	6
F63	NS	FT	B.S ₁	6-MG	No	6½EE	5	60AC	No	1	No	No	No	NS	8:1	Yes	No	465	2.6
F65	NS	CON	B.S ₁	6-MG	No	8EE	5	60AC	No	1	No	No	No	NS	8:1	Yes	No	465	2.6
F66	NS	CON	B.S ₁	6-MG	No	12EE	5	60AC	No	1	No	No	No	NS	8:1	Yes	No	465	2.6
F70	NS	FT	B.P.S	7-MG	No	8EE	5	65AC	No	1	No	No	No	NS	40&8:1	Yes	No	465	2.6,11
F75	NS	CO	B.P.S	7-MG	No	12EE	5	65AC	No	1	No	No	No	NS	40&8:1	Yes	No	465	2.6,11
F81	NS	VT	B.P.S	8-MG	BC only	8EE	5	80AC	No	1	No	No	No	NS	40&8:1	Yes	No	465	2.6,11
F86	NS	CO	B.P.S	8-MG	BC only	12EE	5	80AC	No	1	No	No	No	NS	40&8:1	Yes	No	465	2.6,11
F107	NS	CO	B.P.S	10-MO	Yes	12EE	10	115AC	No	1	No	EPB	Yes	NS	70:1	Yes	No	465	2.6,11
F135	NS	CO	B.P.S,U	13-MO	Yes	12EE	20	160AC	No	1	No	EPB	Yes	NS	70:1	Yes	No	465	2.6,11
General Household Utilities Co., 2638 N. Crawford Ave., Chicago, Ill.—"Grunow"																			
576	\$24.95	T	B.P ₁	5-G	No	8EE	2	45AC	No	1	No	No	No	3½	10:1	No	No	465	
578	26.95	T	B.P ₁	5-G	No	8EE	2	45AC	No	1	No	No	No	3½	10:1	No	No	465	
588	36.95	T	B.S ₁	5-G	No	8EE	2½	50AC	No	1	No	TD	No	3	8:1	Yes	No	465	
586	38.95	T	B.S ₁	5-G	No	8EE	2½	50AC	No	1	No	TD	No	3	8:1	Yes	No	465	
585,583	NS	ACR	B.S ₁	5-G	No	8EE	2½	50AC	No	1	No	TD	No	3	8:1	Yes	No	465	
592	32.95	T	B	5-G	.....	5EE	1	50AC-DC	No	0	No	No	No	1½	5:1	Yes	No	465	
594	34.95	T	B	5-G	.....	5EE	1	50AC-DC	No	0	No	No	No	1½	5:1	Yes	No	465	
622	39.95	T	B.S	6-M*	No	6EE	2	50AC-DC	No	1	No	TD	No	3	8:1	Yes	No	465	
624	44.95	T	B.S	6-M*	No	8EE	2	50AC-DC	No	1	No	TD	No	3	8:1	Yes	No	465	
632	44.95	T	B.S	6	NS	8EE	NS	AC	No	NS	No	TD	No	NS	NS	Yes	No	465	
589	54.95	CON	B.S	5-G	No	8EE	3½												

SALES FEATURES AND SPECIFICATIONS OF THE 1937-38 SETS

Model No.	List price	Cabinet style	Wavebands	No. of tubes	S. W. R. F. amp.	Spkr. size type	Watts audio power	Power Supply watts	Selectivity control	Tone controls	Visual tuning	Automatic tuning	Dial		AVC	Acous-tical devices	I.F. Peak	Fea-tures	
													AFC	Size Ratio					
Hallicrafters, Inc.—Continued.																			
S12	99.50	FT	B.P.S.W	11-MG	Yes	12PM	17	127AC	No	1	CR	No	No	5	20:1	Yes	No	1600	7
S15	69.50	FT	B.P.S.U	9-MG	Yes	8PM	4	90AC	No	1	No	No	No	5	20:1	Yes	No	465	7
S16	99.00	FT	B.P.S.U	11-MG	Yes	12PM	15	120AC	Yes	1	Meter	No	No	5	70&20:1	Yes	No	465	7
Hammarlund Mfg. Co. Inc., 424 W. 33rd St., New York, N. Y.—“Super-Pro”																			
SP-110	\$405.00	FT	B.P.S	12-MG	Yes	8EE	18	140AC	Yes	No	Meter	No	No	NS	12:1	Yes	No	465	
SP-120	430.00	FT	B.P.S	12-MG	Yes	12EE	18	140AC	Yes	No	Meter	No	No	NS	12:1	Yes	No	465	
SP-110 S	405.00	FT	B.P.S.U	12-MG	Yes	8EE	18	140AC	Yes	No	Meter	No	No	NS	12:1	Yes	No	465	
SP-120-S	430.00	FT	B.P.S.U	12-MG	Yes	12EE	18	140AC	Yes	No	Meter	No	No	NS	12:1	Yes	No	465	
SP-110-L	405.00	FT	B.P.S.W	12-MG	Yes	8EE	18	140AC	Yes	No	Meter	No	No	NS	12:1	Yes	No	465	
SP-120-L	430.00	FT	B.P.S.W	12-MG	Yes	12EE	18	140AC	Yes	No	Meter	No	No	NS	12:1	Yes	No	465	
Crystal filter models available for \$30. additional																			
Harris Mfg. Co., 2422 W. 7th St., Los Angeles, Calif.—“Harris Electrotone”																			
700	\$135.00	PCA-PO	B	7-M	....	8EE	6	90AC	No	1	No	No	No	2½	3½:1	Yes	No	465	7
800	150.00	PCA-PO	B	7-M	....	8EE	4	85AC-DC	No	1	No	No	No	2½	3½:1	Yes	No	465	7
900	147.50	PCA-PO	B.S	7-M	No	8EE	6	90AC	No	1	No	No	No	2½	3½:1	Yes	No	465	7
1000	174.50	PCA-PO	B.S	6-M	No	8EE	4	85AC-DC	No	1	No	No	No	2½	3½:1	Yes	No	465	7
Hetro Electrical Industries, Inc., 4611 Ravenswood Ave., Chicago, Ill.—“Hetro”																			
10310	NS	T	B.S	6-G*	No	5EE	NS	AC-DC	No	No	No	No	No	3	1:1	Yes	No	456	
11210	NS	T	B.S.W	7-G*	No	5EE	NS	AC-DC	No	No	CR	No	No	3	2:1	Yes	No	456	
11710	NS	FT	B.P.S	7-G*	No	6½EE	NS	AC-DC	No	1	CR	No	No	6	5:1	Yes	No	456	
11110	NS	FT	B.S.W	8-G*	No	6½EE	NS	AC-DC	No	1	CR	No	No	6	5:1	Yes	No	456	
11110	NS	FT	B.P.S	8-G*	No	6½EE	NS	AC-DC	No	1	CR	No	No	6	5:1	Yes	No	456	
20110	NS	FT	B.S.W	8-M*	No	8EE	NS	AC-DC	No	1	CR	No	No	6	8:1	Yes	No	465	
15710	NS	FT	B.S	5-G	No	6½EE	NS	AC	No	0	No	No	No	5	5:1	Yes	No	456	
14810	NS	FT	B.P.S	5-G	No	6½EE	NS	AC	No	0	No	No	No	5	5:1	Yes	No	456	
15010	NS	VT	B.P.S	6-MO	No	6½EE	NS	AC	No	1	No	No	No	5	5:1	Yes	No	456	
14610	NS	FT	B.P.S	6-MO	No	6½EE	NS	AC	No	1	Yes	No	No	5	5:1	Yes	No	456	
14710	NS	FT	B.S.W	7-MO	No	6½EE	NS	AC	No	1	CR	No	No	5	5:1	Yes	No	456	
18810	NS	FT	B.P.S	8-MO	Yes	8EE	NS	AC	No	1	CR	No	No	6	8:1	Yes	No	465	
18820	NS	CON	B.P.S	8-MO	Yes	8EE	NS	AC	No	1	CR	No	No	6	8:1	Yes	No	465	
18830	NS	PC	B.P.S	8-MO	Yes	8EE	NS	AC	No	1	CR	No	No	6	8:1	Yes	No	465	
14510	NS	CON	B.P.S	14-OG	Yes	15EE	NS	AC	Yes	1	CR	No	No	6	12:1	Yes	No	456	
14541	NS	PC	B.P.S	14-OG	Yes	15EE	NS	AC	Yes	1	CR	No	No	6	12:1	Yes	No	456	
14500	NS	CON	B.S.W	14-OG	Yes	15EE	NS	AC	Yes	1	CR	No	No	6	12:1	Yes	No	456	
14551	NS	PC	B.S.W	14-OG	Yes	15EE	NS	AC	Yes	1	CR	No	No	6	12:1	Yes	No	456	
Laurehk Radio Mfg. Co., Michigan St., Adrain, Mich.—“Laurehk—Musique”																			
11-ESQ	\$79.95	CON	B.P.S	11-G	No	12EE	NS	AC	No	1	CR	No	No	6	NS	Yes	No	175	
L-77	37.50	FT	B.S.	7-G*	No	6EE	2½	AC-DC	No	0	CR	No	No	4	NS	Yes	No	456	
L-7A	39.00	FT	B.S.	7-G	No	6EE	3	AC	No	0	CR	No	No	4	NS	Yes	No	456	
L-66	32.50	FT	B.S.	6-G*	No	6EE	2½	AC-DC	No	0	No	No	No	4	NS	Yes	No	456	
6-6A	34.00	FT	B.S.	6-G	No	6EE	3	AC	No	0	No	No	No	4	NS	Yes	No	456	
L-50	18.50	FT	B	5-G*	....	5EE	1½	AC-DC	No	0	No	No	No	NS	NS	No	No	TRF	
L-55	19.50	FT	B.P	5-G*	No	5EE	1½	AC-DC	No	0	No	No	No	NS	NS	No	No	TRF	
L-55-AT	22.50	FT	B.P	5-G*	No	5EE	1½	AC-DC	No	0	No	TD	No	NS	NS	No	No	TRF	
Marconiphone, Inc., 679 Madison Ave., New York, N. Y.—“Marconiphone”																			
D	\$149.50	PCA-PO	B.P	8-G*	Yes	8EE	3½	150AC-DC	No	1	No	No	No	3½	4:1	Yes	No	175	
D-Jr.	99.50	PCA-PO	B	5-G*	....	5EE	2	120AC-DC	No	1	No	No	No	1	3:1	No	No	175	
AA	149.50	PCA-T	B.P	8-G*	No	8EE	3½	150AC-DC	No	1	No	No	No	3½	4:1	Yes	No	175	
	199.50	PCA	B.P	9-G*	Yes	12EE	3½	150AC-DC	No	1	CR	No	No	4½	5:1	Yes	No	175	
Mission Bell Radio Mfg. Co., Inc., 831 Venice Blvd., Los Angeles, Calif.—“Mission Bell”																			
376	\$17.95	FT	B	5-G*	....	5EE	1½	50AC-DC	No	1	No	No	No	2½	1:1	No	No	TRF	
387,387B	24.95	FT	B	5-G*	....	5EE	2	50AC-DC	No	1	No	No	No	3	1:1	No	No	465	
384	27.50	FT	B.P	5-G	No	6EE	2½	50AC-DC	No	1	No	No	No	5	8:1	Yes	No	465	
386	34.95	FT	B.P.S	6-GM	No	6EE	4	60AC-DC	No	1	No	No	No	5	8:1	Yes	No	465	
386C	64.50	ACR	B.P.S	6-GM	No	6EE	4	60AC	No	1	No	No	No	5	8:1	Yes	No	465	
3810	49.95	FT	B.P.S	8-MG	No	8EE	7	90AC	No	1	CR	No	No	5	8:1	Yes	No	465	9
3810C	79.95	CON	B.P.S	8-MG	No	8EE	7	90AC	No	1	CR	No	No	5	8:1	Yes	No	465	9
385	27.90	FT	B	6-GM	....	6EE	2	60AC	No	1	No	No	No	4½	8:1	Yes	No	262½	9
3811	97.50	CH	B.P.S	17-M	Yes	15EE	35	150AC	No	1	CR	No	No	4½	66&13:1	Yes	No	262½	9
Noblitt-Sparks Industries, Columbus, Ind.—“Arvin”																			
“Phantom Filter,” “Permatune Transformers,” “Geographical Compensator,” “Eliminose Line Filtration”																			
508	\$19.95	FT	B.P.	5-G*	Yes	5EE	1½	45AC-DC	No	0	No	No	No	3½	NS	No	No	TRF	
518	19.95	FT	B.P.	5-G	No	5EE	3	65AC	No	1	No	No	No	3½	NS	Yes	Yes	455	
518A	22.95	FT	B.P.	5-G	No	5EE	3	65AC	No	1	No	No	No	3½	NS	Yes	Yes	455	
568	26.95	FT	B.P.	5-G	No	5EE	3	65AC	No	1	No	No	No	3½	NS	Yes	Yes	455	
568-A	27.95	FT	B.P.	5-G	No	5EE	3	65AC	No	1	No	No	No	3½	NS	Yes	Yes	455	
608	32.95	FT	B.S.	6-G*	No	6EE	1½	50AC-DC	No	0	No	No	No	4½	NS	Yes	No	456	
618	34.95	FT	B.S	6-O	No	6EE	3	75AC	No	1	CR	No	No	4½	NS	Yes	No	455	
618A	39.95	FT	B.S	6-O	No	8EE	3	75AC	No	1	CR	No	No	4½	NS	Yes	No	455	
618	64.95	FT	B.P.S	8-O	No	8EE	3	85AC	No	1	CR	No	No	6½	NS	Yes	Yes	455	7
628	54.95	CON	B.S	6-O	No	8EE	3	75AC	No	1	CR	No	No	4½	NS	Yes	No	455	
628-CS	69.95	ACR	B.S	6-O	No	8EE	3	75AC	No	1	CR	No	No	4½	NS	Yes	No	455	
828	79.95	CON	B.P.S	8-O	No	10EE	5	85AC	No	1	CR	No	No	6½	NS	Yes	Yes	455	7
1237	99.95	CON	B.P.S	12-O	Yes	12EE	12	110AC	No	1	CR	TD	Yes	7½	NS	Yes	Yes	455	
1247	140.00	F	B.P.S	12-O	Yes	8EE&8PM	12	110AC	No	1	CR	TD	Yes	7½	NS	Yes	Yes	455	
1427	160.00	CON	B.P.S	14-O	Yes	12&6EE	20	160AC	No	1	CR	TD	Yes	8½	NS	Yes	Yes	455	
Pacific Radio Corp, 844 W. Adams St., Chicago, Ill.—“Pacific”																			
3215	\$16.95	FT	B	5-G*	NS	5EE	1	AC-DC	No	0	No	No	No	3½	NS	No	No	TRF	
15	19.95	FT	B.P	5-G*	NS	5EE	1½	AC-DC	No	0	No	No	No	3½	NS	No	No	TRF	
20	25.00	FT	B.P	5-G*	NS	5EE	2	AC-DC	No	0	No	No	No	4	NS	No	No	TRF	
30	29.45	FT	B.P	6-G*	No	5EE	2	AC-DC	No	0	No	No	No	4	NS	Yes	No	456	
31	29.45	FT	B.S	6-G*	No	5EE	2	AC-DC	No	0	No	No	No	4	NS	Yes	No	456	
40	44.95	T	B.P.S	8-GM*	No	6EE	2	AC-DC	No	0	CR	No	No	6½	NS	Yes	No	456	
40	59.50	CON	B.P.S	8-G*	No	6EE	2	AC-DC	No	0	CR	No	No	6½	NS	Yes			

— A DETAILED BUYING GUIDE OF ALL AMERICAN RECEIVERS

Model No.	List price	Cabinet style	Wavebands	No. of tubes	S. W. R. F. amp.	Spkr. size type	Watts audio power	Power Supply watts	Selectivity control	Tone controls	Visual tuning	Automatic tuning	AFG	Dial Size	Ratio	Acous-tical devices	I.F. Peak	Fea-tures
Pilot Radio Corp., 37-06 36th St., Long Island City, L. I., N. Y.—"Pilot"																		
TG752	\$29.90	FT	B.S ₁	5-G	No	5EE	2	45AC	No	1	No	No	No	4½	3:1	Yes	No	456
193	54.50	FT	B.S ₁	5-MO	No	8EE	3	60AC	No	1	No	No	No	6	100&10:1	Yes	No	456
C193	77.50	CON	B.S ₁	5-MO	No	12EE	3	60AC	No	1	CR	No	No	6	100&10:1	Yes	No	456
393	67.50	VT	B.P.S	7-MO	Yes	8EE	3	60AC	No	1	CR	No	No	6	100&10:1	Yes	No	456
H393	67.50	FT	B.P.S	7-MO	Yes	12EE	3	60AC	No	1	CR	No	No	6	100&10:1	Yes	No	456
293	74.50	VT	B.P.S	7-MO	Yes	8EE	3	60AC	No	1	CR	No	No	6	100&10:1	Yes	No	456
C293	99.90	CON	B.P.S	7-MO	Yes	12EE	3	60AC	No	1	CR	No	No	6	100&10:1	Yes	No	456
X114	99.50	VT	B.P.S	11-G	Yes	10EE	12	120AC	No	2	No	No	No	4½	80&10:1	Yes	No	456
TG528	129.50	VT	B.P.S,U	12-MG	Yes	10EE	20	200AC	No	2	CR	No	No	9½x5½	100&10:1	Yes	No	456
P393	147.50	PC	B.P.S	6-MO	Yes	12EE	3	60AC	No	1	CR	No	No	6	100&10:1	Yes	No	456
PH393	177.50	PC	B.P.S	6-MO	Yes	12EE	3	60AC	No	1	CR	No	No	6	100&10:1	Yes	No	456
TG162	29.90	FT	B.S ₁	5-G	No	5EE	2	45AC-DC	No	1	No	No	No	4½	3:1	Yes	No	456
WX201	29.90	T	B	5-G	.....	5EE	2	45AC-DC	No	1	No	No	No	3	35:1	Yes	No	456
VX201	33.90	T	B	5-G	.....	5EE	2	45AC-DC	No	1	No	No	No	3	35:1	Yes	No	456
BX203	37.50	T	B.S	5-G	No	5EE	2	45AC-DC	No	1	No	No	No	3	35:1	Yes	No	456
WX203	37.50	T	B.S	5-G	No	5EE	2	45AC-DC	No	1	No	No	No	3	35:1	Yes	No	456
VX203	42.50	T	B.S	5-G	No	5EE	2	45AC-DC	No	1	No	No	No	3	35:1	Yes	No	456
WG352	34.50	T	B.S	5-G	No	5EE	2	45AC-DC	No	1	No	No	No	4½	80&10:1	Yes	No	456
VG352	38.50	T	B.S	5-G	No	5EE	2	45AC-DC	No	1	No	No	No	4½	80&10:1	Yes	No	456
423	52.90	FT	B.P.S	7-MO	Yes	6EE	2	45AC-DC	No	1	CR	No	No	4½	80&10:1	Yes	No	456
X23	62.50	VT	B.P.S	7-MO	Yes	6EE	2	45AC-DC	No	1	CR	No	No	6	100&10:1	Yes	No	456
TG184	62.50	FT	B.P.S	7-MO	Yes	6	6	45AC-DC	No	1	CR	No	No	6	100&10:1	Yes	No	456
CX23	89.50	CON	B.P.S	7-MO	Yes	12EE	2	45AC-DC	No	1	CR	No	No	6	100&10:1	Yes	No	456
X304	94.50	VT	B.P.S	11-MO	Yes	10EE	6	130AC-DC	No	1	CR	No	No	6	100&10:1	Yes	No	456
CX304	129.50	CON	B.P.S	11-MO	Yes	12EE	6	130AC-DC	No	1	CR	No	No	6	100&10:1	Yes	No	456
TP423	94.50	PC-T	B.P.S	7-MO	Yes	6EE	2	45AC-DC	No	1	CR	No	No	4½	80&10:1	Yes	No	456
PX23	139.50	PC	B.P.S	7-MO	Yes	12EE	2	45AC-DC	No	1	CR	No	No	6	100&10:1	Yes	No	456
PG184	169.50	PC	B.P.S	7-MO	Yes	6EE	2	45AC-DC	No	1	CR	No	No	6	100&10:1	Yes	No	456
PX304	179.50	PC	B.P.S	11-MO	Yes	12EE	6	130AC-DC	No	1	CR	No	No	6	100&10:1	Yes	No	456
Portomatic Corp., 1013 Madison Ave., New York, N. Y.—"Port-o-matic" "Fidel-o-matic" "Robot Door"																		
112	\$139.50	PCA-PO	B.S	8-MO*	No	6EE	2	65AC-DC	No	1	CR	No	No	3x4½	6:1	Yes	No	465
110	129.50	PCA-PO	B.S	8-MO*	No	6EE	2	65AC-DC	No	1	CR	No	No	3x4½	6:1	Yes	No	465
100	89.95	PCM-PO	B.S	8-MO*	No	6EE	2	65AC-DC	No	1	CR	No	No	3x4½	6:1	Yes	No	465
101	105.00	PCM-PO	B.S	8-MO*	No	6EE	2	65AC-DC	No	1	CR	No	No	3x4½	6:1	Yes	No	465
8P	59.50	PO	B.S	8-MO*	No	6EE	2	65AC-DC	No	1	CR	No	No	3x4½	6:1	Yes	No	465
600	260.00	PCA	B.P.S,U	15-M	Yes	12EE	15	120AC-DC	Yes	1	CR	No	No	6x8	30&5:1	Yes	Yes	465
Radio Mfg. Engineers., 306 First Ave., Peoria, Ill.—"R. M. E."																		
69	\$252.00	T	B.P.S,U	9-G	Yes	8PM	2.6	65AC	No	1	Meter	No	No	4¾	200&40:1	Yes	No	465
69	262.00	T	B.P.S,U,W	9-G	Yes	8PM	2.6	65AC	No	1	Meter	No	No	4¾	200&40:1	Yes	No	465
69	262.00	T	B.P.S,U	9-G	Yes	8PM	2.6	65AC	No	1	Meter	No	No	4¾	200&40:1	Yes	No	465
Radio Products Sales Co., 238 W. 15th St., Los Angeles, Calif.—"Clipper"																		
140	\$12.95	FT	B	4-G	.....	5EE	2	35AC	No	0	No	No	No	2½	1:1	No	No	TRF
70	14.95	FT	B	4-G	.....	5EE	2	35AC	No	0	No	No	No	3	1:1	No	No	TRF
78	17.95	FT	B	5-GM	.....	5EE	3	45AC	No	0	No	No	No	4	2:1	No	No	456
60	20.95	FT	B,P	5-G	.....	5EE	3	50AC	No	1	No	No	No	4	2:1	Yes	No	456
Radolek Co., 601 W. Randolph St., Chicago Ill.—"Radolek"																		
N16700	\$15.95	T	B,P	4-C*	Yes	5EE	2	37AC-DC	No	0	No	No	No	5	1:1	No	No	TRF
N16729	21.95	FT	B.S ₁	5-G*	No	5½EE	3	42AC-DC	No	0	No	No	No	5	2:1	No	No	456
N16730	18.95	FT	B,P	5-G*	Yes	5½EE	3	42AC-DC	No	0	No	No	No	5	2½:1	No	No	TRF
N16731	29.95	FT	B.S ₁	7-G*	No	5½EE	3	48AC-DC	No	0	CR	No	No	5	1:1	No	No	456
N16763	57.95	FT	B.P.S	8-G	No	12EE	7½	80AC	.....	1	No	TD	Yes	7	2:1	Yes	No	456
N16762	74.95	CON	B.P.S	8-G	No	12EE	7½	80AC	.....	1	No	TD	Yes	7	2:1	Yes	No	456
N16761	99.95	CON	B.P.S	11-OG	Yes	12EE	10	80AC	.....	1	No	TD	Yes	3x7	NS	Yes	No	456
N16763	24.95	FT-VT	B	6-C*	.....	5EE	1½	48AC-DC	No	0	No	No	No	4	2:1	Yes	No	456
N16765	19.95	FT-VT	B	5-G	.....	5EE	1½	45AC	No	0	No	No	No	4	2:1	Yes	No	456
N16782	120.00	CON	B.P.S	11-MG	Yes	12EE	10	80AC	.....	1	Yes	Yes	Yes	8¾	3:1	Yes	No	456
RCA Mfg. Co., Inc., Front & Cooper Sts., Camden, N. J.—"RCA-Victor"																		
85T	\$24.95	FT	B	5-G	No	5EE	2½	55AC	No	0	No	No	No	4½	12:1	Yes	No	460
85T ₁	29.95	FT	B.S	5-G	No	5½EE	4	75AC	No	0	No	No	No	4½	12:1	Yes	No	460
86T	39.95	FT	B.P.S	6-M	No	6EE	4½	80AC	No	1	No	No	No	6¼	20:1	Yes	No	460
86T ₁	44.95	FT	B.P.S	6-M	No	6EE	4½	80AC	No	1	No	No	No	6¼	20:1	Yes	No	460
87T	49.95	FT	B.P.S	7-M	No	6EE	4½	80AC	No	1	CR	No	No	6¼	20:1	Yes	No	460
810T	89.95	VT	B.P.S	10-M	Yes	8EE	12	135AC	No	1	CR	No	No	6¼	20:1	Yes	No	460
86X	29.95	FT	B.S	6-G*	No	6EE	1.2	58AC-DC	No	1	No	No	No	4½	12:1	Yes	No	460
87X	49.95	FT	B.P.S	7-M*	No	6PM	3	55AC-DC	No	1	No	No	No	5½	20:1	Yes	No	460
6K1	52.95	CON	B.S ₁	6-M	No	12EE	4½	80AC	No	1	No	No	No	4	NS	Yes	No	460
86K	59.95	CON	B.P.S	6-M	No	12EE	4½	80AC	No	1	No	No	No	5½	20:1	Yes	No	460
86K7	69.95	CON	B.P.S	6-M	No	12EE	4½	80AC	No	1	No	No	No	5½	20:1	Yes	No	460
87K	79.95	CON	B.P.S	7-M	No	12EE	4½	80AC	No	1	CR	No	No	5½	20:1	Yes	No	460
88K	89.95	CON	B.P.S	8-M	Yes	12EE	4½	90AC	No	1	CR	No	No	6¼	20:1	Yes	No	460
810K	109.95	CON	B.P.S	10-M	Yes	12EE	12	135AC	No	1	CR	No	No	6¼	20:1	Yes	No	460
810K ₁	119.95	CON	B.P.S	10-M	Yes	12EE	12	135AC	No	1	CR	No	No	6¼	20:1	Yes	Yes	460
811K	150.00	CON	B.P.S	11-M	Yes	12EE	12	145AC	No	2	CR	EPB	Yes	7½	50&10:1	Yes	Yes	460
812K	175.00	CON	B.P.S	12-M	Yes	12EE	12	150AC	Yes	2	CR	EPB	Yes	7½	50&10:1	Yes	Yes	460
813K	200.00	CON	B.P.S	13-M	Yes	12EE	20	150AC	Yes	2	CR	EPB	Yes	10	50&10:1	Yes	Yes	460
816K	250.00	CON	B.P.S	16-M	Yes	12EE	30	200AC	Yes	2	CR	EPB	Yes	10	50&10:1	Yes	Yes	460
87Y	79.95	CON	B.P.S	7-M*	No	12PM	3	55AC-DC	No	1	No	No	No	5½	20:1	Yes	No	460
86E	89.95	ACR	B.P.S	6-M	No	12EE	4½	80AC	No	1	No	No	No	5½	20:1	Yes	No	460
U101	69.95	PC	B.S	5-G	No	8EE	4½	80AC	No	0	No	No	No	4½	12:1	Yes	No	460
U103	129.95	PCA	B.S	5-G	No	12EE	4½	100AC	No	0	No	No	No	4½	12:1	Yes	No	460
U105																		

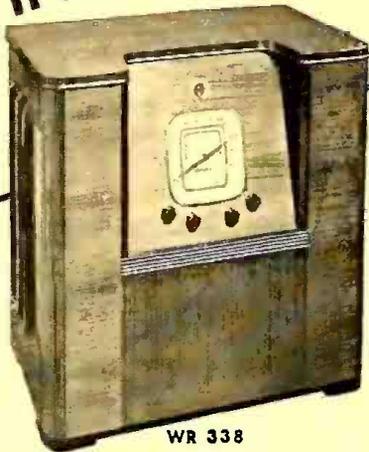
SALES FEATURES AND SPECIFICATIONS OF THE 1937-38 SETS

Model No.	List price	Cabinet style	Wavebands	No. of tubes	S. W. R. F. amp.	Sprk. size type	Watts audio power	Power Supply watts	Selectivity control	Tone controls	Visual tuning	Automatic tuning	Dial		AVC	Acoustical devices	I.F. Peak	Features
													Size	Ratio				
Sonora Electric Phonograph Co., Inc., 160 Varick St., New York, N. Y.—"Sonora"																		
PR202	\$64.95	PC-T	B.S	5-G	No	6EE	3½	51AC	No	1	No	No	No	5¼	18:1	Yes	Yes	456
PR400	74.95	PC-T	B.S	6-G*	No	6EE	3	43AC-DC	No	1	No	No	No	5¼	18:1	Yes	Yes	456
PR101	109.50	PC-ACR	B.S	5-G	No	10EE	3½	51AC	No	1	No	No	No	5¼	18:1	Yes	Yes	456
PR300	119.50	PC-ACR	B.S	6-G*	No	10EE	3	43AC-DC	No	1	No	No	No	5¼	18:1	Yes	Yes	456
PR202C	69.95	PC-PO	B.S	5-G	No	6EE	3½	51AC	No	1	No	No	No	5¼	18:1	Yes	Yes	456
PR400C	79.95	PC-PO	B.S	6-G*	No	6EE	3	43AC-DC	No	1	No	No	No	5¼	18:1	Yes	Yes	456
Sparks-Withington Co., Jackson, Mich.—"Sparton"																		
"Selectronne Instantaneous Tuning," "Symphonic Tone Expander," "Centralized Nerve Center," "Alto-Basso Tone Control," "Photochromatic Dial," "Viso Glo Tuning"																		
608,608B	NS	PO	B	6-O*	...	5EE	NS	50AC-DC	No	0	No	No	No	3¼x3½	NS	Yes	No	456
518	NS	VT	B.S	5-O	No	6EE	NS	60AC	No	1	No	No	No	5¼x5	NS	Yes	No	456
538	NS	FT	B.P.S	5-O	No	6EE	NS	60AC	No	1	No	No	No	6x5½	NS	Yes	No	456
558B,558C	NS	FT	B.S	5-O	No	6EE	NS	60AC	No	1	No	No	No	4x3	NS	Yes	No	456
628	NS	VT	B.P.S	6-O	No	8EE	NS	60AC	No	1	CR	No	No	6¼x5½	NS	Yes	No	456
568	\$49.95	CON	B.S	5-O	No	8EE	NS	60AC	No	1	No	No	No	5¼x5	NS	Yes	No	456
668	69.95	CON	B.P.S	6-O	No	10EE	NS	60AC	No	1	CR	No	No	6¼x5½	NS	Yes	Yes	456
678	79.95	CON	B.P.S	6-O	No	10EE	NS	60AC	No	1	CR	No	No	6¼x5½	NS	Yes	Yes	456
768	89.95	CON	B.P.S	7-O	Yes	10EE	NS	65AC	No	1	CR	No	No	7x6	NS	Yes	Yes	456
968	99.95	CON	B.P.S	9-O	Yes	10EE	NS	90AC	No	1	CR	No	No	7x6	NS	Yes	Yes	456
1068	119.50	CON	B.P.S	10-O	Yes	10EE	NS	85AC	No	1	CR	PB	Yes	7x6	NS	Yes	Yes	456
1078	130.00	CON	B.P.S	10-O	Yes	10EE	NS	85AC	No	1	CR	PB	Yes	7x6	NS	Yes	Yes	456
1268	159.50	CON	B.P.S	12-OG	Yes	12EE	NS	110AC	No	1	CR	PB	Yes	7x6	NS	Yes	Yes	456
1568	195.00	CON	B.P.S	15-OG	Yes	12EE	NS	155AC	No	1	CR	PB	Yes	7x6	NS	Yes	Yes	456
1288P	275.00	PC	B.P.S	12-OG	Yes	12EE	NS	110AC	No	1	CR	PB	Yes	7x6	NS	Yes	Yes	456
578	NS	ACR	B.S	5-O	No	NS	NS	60AC	No	1	No	No	No	5¼x5	NS	Yes	Yes	456
Stromberg-Carlson Telephone Mfg. Co., Inc., 100 Carlson Rd., Rochester, N. Y.—"Stromberg-Carlson"																		
126P	NS	PC	B.P.S	7-MG	Yes	10PM	3	79AC-DC	No	1	No	No	No	4	50:1	Yes	No	465
225H	\$55.00	FT	B.P.S	5-MO	No	6EE	1	50AC-DC	No	1	No	No	No	4	10:1	Yes	No	465
228H	68.00	FT	B.P.S	6-MO	No	8½EE	3	56AC	No	1	CR	No	No	4	10:1	Yes	No	465
228L	89.50	CON	B.P.S	6-MO	No	12EE	3	56AC	No	1	CR	No	No	4	10:1	Yes	No	465
229P	175.00	PC	B.P.S	8-MG	Yes	12EE	3	91AC	No	1	CR	No	No	4	50:1	Yes	No	465
230H	84.00	FT	B.P.S	7-MO	No	8½EE	3	65AC	No	1	CR	No	No	6¼x5¼	35:1	Yes	No	465
230L	115.00	CON	B.P.S	7-MO	No	12EE	3	65AC	No	1	CR	No	No	6¼x5¼	35:1	Yes	No	465
231F	145.00	F	B.P.S	7-MO	No	10½EE	3	65AC	No	1	CR	No	No	6¼x5¼	35:1	Yes	No	465
231P	199.50	PC	B.P.S	7-MO	No	12EE	3	86AC	No	1	CR	No	No	6¼x5¼	35:1	Yes	No	465
231R	135.00	ACR	B.P.S	7-MO	No	10½EE	3	86AC	No	1	CR	No	No	6¼x5¼	35:1	Yes	No	465
240H	117.00	FT	B.P.S	11-MO	Yes	8½EE	10	132AC	Yes	2	CR	No	No	6¼x5¼	35:1	Yes	No	465
240L	150.00	CON	B.P.S	11-MO	Yes	12EE	10	132AC	Yes	2	CR	No	No	6¼x5¼	35:1	Yes	No	465
240M	175.00	CON	B.P.S	11-MO	Yes	10½EE	10	132AC	Yes	2	CR	No	No	6¼x5¼	35:1	Yes	Yes	465
240P	255.00	PC	B.P.S	11-MO	Yes	10½EE	10	165AC	Yes	2	CR	No	No	6¼x5¼	35:1	Yes	Yes	465
240R	197.50	CON	B.P.S	11-MO	Yes	12EE	10	132AC	Yes	2	CR	No	No	6¼x5¼	35:1	Yes	No	465
240S	227.50	CON	B.P.S	11-MO	Yes	10½EE	10	132AC	Yes	2	CR	No	No	6¼x5¼	35:1	Yes	Yes	465
240W	227.50	CON	B.P.S	11-MO	Yes	10½EE	10	132AC	Yes	2	CR	No	No	6¼x5¼	35:1	Yes	Yes	465
250L	235.00	CON	B.P.S,U	13-MO	Yes	10½EE	20	165AC	Yes	2	CR	Yes	Yes	6¼x6¼	28:1	Yes	Yes	465
255L	250.00	CON	B.P.S,U	13-MO	Yes	10½EE	20	165AC	Yes	2	CR	Yes	Yes	9x6¾	28:1	Yes	Yes	465
260L	325.00	CON	B.P.S,U	16-MO	Yes	2-10½EE	30	175AC	Yes	2	CR	Yes	Yes	9x6¾	28:1	Yes	Yes	465
260P	750.00	PCA	B.P.S,U	16-MO	Yes	2-10½EE	30	240AC	Yes	2	CR	Yes	Yes	9x6¾	28:1	Yes	Yes	465
Troy Radio Mfg. Co., 1144 S. Olive St., Los Angeles, Calif.—"Troy"																		
4	\$14.95	FT	B	4-G	...	5EE	2½	35AC	No	0	No	No	No	2¼x3¼	1:1	No	No	TRF
55	19.95	FT	B	5-G	...	5EE	2½	40AC	No	0	No	No	No	2¼x3¼	4:1	No	No	465
55CC	24.50	FT	B	5-G	...	5EE	2½	40AC	No	0	No	No	No	2¼x3¼	4:1	No	No	465
57	23.95	FT	B	5-G	...	5½EE	2½	45AC	No	1	No	No	No	4x5	4:1	Yes	No	465
57PC	49.50	PC-T	B	5-G	...	5½EE	2½	75AC	No	1	No	No	No	4x5	4:1	Yes	No	465
57PC-CC	54.50	PC-T	B	5-G	...	5½EE	2½	75AC	No	1	No	No	No	4x5	4:1	Yes	No	465
675W	28.50	FT	B.S	6-G	No	5½EE	2½	45AC	No	1	CR	No	No	4x5	4:1	Yes	No	465
79	32.50	FT	B.P.S	7-G*	No	6EE	2½	45AC	No	1	CR	No	No	4x5	4:1	Yes	No	465
95	44.50	FT	B.P.S	9-MO*	No	6½EE	3	60AC	No	1	CR	No	No	1½	8:1	Yes	No	465
100	32.50	FT	B	5-G	...	5½EE	2½	45AC	No	1	No	TD	No	5¼	5:1	Yes	No	465
157PC	74.50	PC	B	5-G	...	8EE	2½	55AC	No	1	No	No	No	4x5	4:1	Yes	No	465
951P	114.50	PC	B.P.S	9-MO*	No	12EE	3	75AC	No	1	CR	No	No	1½	8:1	Yes	No	465
179	39.95	FT	B.P.S	7-G*	No	6EE	1½	45AC-DC	No	1	CR	No	No	4x5	4:1	Yes	No	465
79-6110	39.95	FF	B	6-OG	...	6PM	2	50AC (& 6 Volts)	Nq	1	No	No	No	4x5	4:1	Yes	No	465
All table models except 4, 55, 55CC available in consoles.																		
Ultramar Mfg. Corp., 1160 Howe St., Chicago, Ill.—"Ultramar"																		
306	NS	FT	B.P.S	6-OG*	No	6½EE	2	AC-DC	No	0	No	No	No	4¼x8	10:1	Yes	No	465
316	NS	FT	B.P.W	6-OG*	No	6½EE	2	AC-DC	No	0	No	No	No	4¼x8	10:1	Yes	No	465
325	NS	FT	B.P.S	5-OG	No	6½EE	4	AC	No	0	No	No	No	4¼x8	10:1	Yes	No	465
335	NS	FT	B.P.W	5-OG	No	6½EE	4	AC	No	0	No	No	No	4¼x8	10:1	Yes	No	465
307	NS	T-CON	B.P.S	8-O	Yes	8½EE	7	AC	No	1	CR	No	No	8	30:1	Yes	No	465
317	NS	T-CON	B.S,W	8-O	Yes	8½EE	7	AC	No	1	CR	No	No	8	30:1	Yes	No	465
309	NS	T-CON	B.P.S	9-OG*	Yes	8½EE	4	AC-DC	No	1	CR	No	No	8	30:1	Yes	No	465
319	NS	T-CON	B.S,W	9-OG*	Yes	8½EE	4	AC-DC	No	1	CR	No	No	8	30:1	Yes	No	465
159	NS	T-CON	B.P.S,U	9-O*	Yes	8½EE	7	AC	Yes	1	CR	N.	No	8	30:1	Yes	No	465
306	NS	T-CON	B.P.S	7-OM	No	8EE	6	AC	No	1	CR	No	No	8	30:1	Yes	No	465
316	NS	T-CON	B.S,W	7-OM	No	8EE	6	AC	No	1	CR	No	No	8	30:1	Yes	No	465
Warwick Mfg. Co., 1700 W. Washington Blvd., Chicago, Ill.																		
518	NS	NS	B.S	5-G	No	NS	1	50AC	No	0	No	No	No	NS	NS	Yes	No	456
601	NS	NS	B.P.S	6-G	No	NS	3	75AC	No	1	CR	No	No	NS	NS	Yes	No	456
613	NS	NS	B.S	6-G	No	NS	1	50AC	No	1	CR	N.	No	NS	NS	Yes	No	456
633	NS	NS	B.P.S	6-G	No	NS	1	50AC	No	1	CR	No	No	NS	NS	Yes	No	456
701	NS	NS	B.P.S	7-G	No	NS	3	75AC	No	1	CR	No	No	NS	NS	Yes	No	456
741	NS	NS	B.S	7-G	No	NS	2	60AC	No	1	CR	No	No	NS	NS	Yes	No	456
871	NS	NS	B.P.S	8-G	No	NS	6	85AC	No	1	CR	No	No	NS	NS	Yes	No	456
517	NS	NS	B.P	5-G	No	NS	1	50AC	No	0	No	No						

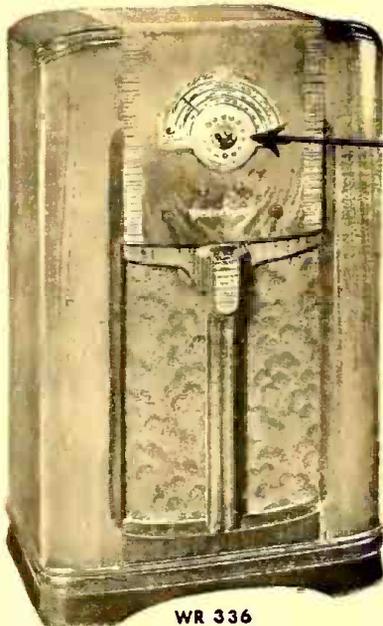
— A DETAILED BUYING GUIDE OF ALL AMERICAN RECEIVERS

Model No.	List price	Cabinet style	Wavebands	No. of tubes	S. W. R. F. amp.	Spkr. size type	Watts audio power	Power Supply watts	Selectivity control	Tone controls	Visual tuning	Automatic tuning	Dial		AVC	Acous-tical devices	I. F. Peak	Features
													AFC	Size Ratio				
Western Auto Supply Co.—Continued.																		
D702	16.95	T	B	5-G	...	6EE	1½	60AC	No	0	No	No	No	2½	1:1	Yes	No	456
D703	22.95	T	B,S ₁	6-G*	No	6EE	2	65AC-DC	No	0	No	No	No	2½	1:1	Yes	No	456
D707	9.95	T	B	5-G*	...	5EE	1	60AC-DC	No	0	No	No	No	2½	1:1	Yes	No	TRF
D724	29.95	T	B,P,S	8-G	Yes	6EE	3½	80AC	Yes	1	CR	No	No	5	30:1	Yes	No	456
D725	22.95	T	B,P,S	6-G	Yes	6EE	3	85AC	Yes	1	No	No	No	6	30:1	Yes	No	456
D726	16.95	T	B,S ₁	5-G	No	6EE	2½	65AC	Yes	1	No	No	No	5	20:1	Yes	No	456
Westinghouse Radio, Merchandise Headquarters, 150 Varick St., New York, N. Y.—"Westinghouse"																		
WR116	NS	FT	B,P,S	7-MG*	No	6EE	1	AC-DC	No	1	No	No	No	NS	NS	Yes	No	465
WR120	NS	PO	B,P ₁	6-O*	No	5EE	2	AC-DC	No	0	No	No	No	NS	NS	Yes	No	455
WR217	NS	FT	B,P ₁	5-G	No	6EE	2½	AC	No	1	No	No	No	NS	NS	Yes	No	456
WR222	NS	FT	B,P ₁	5-OM	No	6EE	2½	AC	No	1	No	No	No	NS	NS	Yes	No	455
WR224	NS	FT	B,S	5-OM	No	6EE	3	AC	No	1	No	No	No	NS	NS	Yes	No	455
WR226	NS	FT	B,P,S	7-MO	No	6EE	4	AC	No	1	CR	No	No	NS	NS	Yes	No	455
WR228	NS	FT	B,P,S	7-MO	BC only	8EE	6	AC	No	1	CR	No	No	NS	NS	Yes	No	455
WR31	NS	CON	B,P,S	6-MG	No	14EE	3	AC	No	1	No	No	No	NS	NS	Yes	No	465
WR316	NS	CON	B,P,S	7-MG	No	14EE	1	AC-DC	No	1	No	No	No	NS	NS	Yes	No	465
WR326	NS	CON	B,P,S	7-MO	No	12EE	4	AC	No	1	CR	No	No	NS	NS	Yes	No	455
WR328	NS	CON	B,P,S	8-MO	BC only	12EE	6	AC	No	1	CR	No	No	NS	NS	Yes	No	455
WR330	NS	CON	B,P,S	10-MO	Yes	12EE	8	AC	No	1	CR	No	No	NS	NS	Yes	No	455
WR332	NS	CON	B,P,S	10-MO	Yes	12EE	8	AC	No	1	CR	PB	No	NS	NS	Yes	No	455
WR334	NS	CON	B,P,S	12-MO	Yes	12EE	10	AC	Yes	2	CR	No	Yes	NS	NS	Yes	No	455
WR336	NS	CON	B,P,S	12-MO	Yes	12EE	10	AC	Yes	2	CR	PB	Yes	NS	NS	Yes	No	455
WR338	NS	ACR	B,P,S	7-MO	No	10EE	4	AC	No	1	CR	No	No	NS	NS	Yes	No	455
Wilcox-Gay Corp., Charlotte, Mich.—"Wilcox-Gay"																		
A29	\$32.50	VT	NS	NS	No	6½EE	NS	AC-DC	No	1	No	No	No	NS	NS	Yes	No	175
A30	24.95	Wall	NS	NS	No	5EE	NS	AC	No	1	No	No	No	NS	NS	Yes	No	456
A31	24.95	VT	NS	NS	No	5EE	NS	AC	No	1	No	No	No	NS	NS	Yes	No	456
A32	26.95	FT	NS	NS	No	5EE	NS	AC	No	1	No	No	No	NS	NS	Yes	No	175
A33	32.50	FT	NS	NS	No	5EE	NS	AC	No	1	No	TD	No	NS	NS	Yes	No	175
A34	39.95	FT	NS	NS	No	6½EE	NS	AC	No	1	No	TD	No	NS	NS	Yes	No	175
A35	49.95	FT	NS	NS	Yes	8EE	NS	AC	No	1	No	TD	Yes	NS	NS	Yes	No	456
A36	59.95	ACR	NS	NS	Yes	8EE	NS	AC	No	1	No	TD	Yes	NS	NS	Yes	No	456
A37	69.95	CON	NS	NS	Yes	12EE	NS	AC	No	1	No	TD	Yes	NS	NS	Yes	No	456
A38	119.95	CON	NS	NS	Yes	12EE	NS	AC	No	1	No	TD	Yes	NS	NS	Yes	Yes	456
Zenith Radio Corp., 6001 Dickens Ave., Chicago, Ill.—"Zenith"																		
5R216	\$19.95	T	B	5-O	...	5EE	3½	50AC	No	0	No	No	No	4½	8:1	Yes	No	456
5R226	25.95	CON	B	5-O	...	5EE	3½	50AC	No	0	No	No	No	4½	8:1	Yes	No	456
5R236	29.95	ACR	B	5-O	...	5EE	3½	50AC	No	0	No	No	No	4½	8:1	Yes	No	456
5S218	32.95	T	B,S	5-O	No	5EE	4½	65AC	No	1	No	No	No	4½	8:1	Yes	No	456
5S220	34.95	T	B,S	5-O	No	5EE	4½	65AC	No	1	No	No	No	4½	8:1	Yes	No	456
5S228	29.95	T	B,S	5-O	No	5EE	4½	65AC	No	1	No	No	No	4½	8:1	Yes	No	456
5S237	39.95	ACR	B,S	5-O	No	6EE	4½	65AC	No	1	No	No	No	4½	8:1	Yes	No	456
5S250	49.95	CON	B,S	5-O	No	8EE	4½	55AC	No	1	No	No	No	4½	8:1	Yes	No	456
5S252	59.95	CON	B,S	5-O	No	10EE	4½	65AC	No	1	No	No	No	4½	8:1	Yes	No	456
6S222	39.95	T	B,P,S	6-O	No	6EE	4½	65AC	No	1	No	No	No	6	36:1	Yes	No	466
6S223	49.95	T	B,P,S	6-O	No	6EE	4½	65AC	No	1	No	No	No	6	36:1	Yes	No	456
6S229	39.95	T	B,P,S	6-O	No	6EE	4½	65AC	No	1	No	No	No	6	36:1	Yes	No	456
6S203	99.95	PC	B,P,S	6-O	No	8EE	4½	65AC	No	1	No	No	No	6	36:1	Yes	No	456
6S239	49.95	ACR	B,P,S	6-O	No	6EE	4½	65AC	No	1	No	No	No	6	36:1	Yes	No	456
6S241	79.95	Ba	B,P,S	6-O	No	8EE	4½	65AC	No	1	No	No	No	6	36:1	Yes	No	456
6S254	69.95	CON	B,P,S	6-O	No	8EE	4½	65AC	No	1	No	No	No	7½	36:1	Yes	No	456
6S256	79.95	CON	B,P,S	6-O	No	10EE	4½	65AC	No	1	No	No	No	7½	36:1	Yes	No	456
7S232	74.95	T	B,P,S	7-O	No	8EE	4½	75AC	No	1	CR	No	No	7½	120:1	Yes	No	456
7S240	89.95	ACR	B,P,S	7-O	No	8EE	4½	75AC	No	1	CR	No	No	7½	120:1	Yes	No	456
7S242	99.95	ACR	B,P,S	7-O	No	8EE	4½	75AC	No	1	CR	No	No	7½	120:1	Yes	No	456
7S258	89.95	CON	B,P,S	7-O	No	10EE	4½	75AC	No	1	CR	No	No	7½	12:1	Yes	No	456
7S260	99.95	CON	B,P,S	7-O	No	12EE	4½	75AC	No	1	CR	No	No	7½	120:1	Yes	Yes	456
7S261	109.95	CON	B,P,S	7-O	No	12EE	4½	75AC	No	1	CR	No	No	7½	120:1	Yes	Yes	456
9S232	89.95	T	B,P,S	9-O	NS	8EE	4½	75AC	No	1	CR	Yes	No	7½	120:1	Yes	No	456
9S242	109.95	ACR	B,P,S	9-O	NS	10EE	4½	75AC	No	1	CR	Yes	No	7½	120:1	Yes	No	456
9S244	99.95	ACR	B,P,S	9-O	NS	10EE	4½	75AC	No	1	CR	Yes	No	7½	120:1	Yes	Yes	456
9S262	99.95	CON	B,P,S	9-O	NS	12EE	4½	75AC	No	1	CR	Yes	No	7½	120:1	Yes	Yes	456
9S263	119.95	CON	B,P,S	9-O	NS	12EE	4½	75AC	No	1	CR	Yes	No	7½	120:1	Yes	Yes	456
9S264	124.95	CON	B,P,S	9-O	NS	12EE	4½	75AC	No	1	CR	Yes	No	7½	120:1	Yes	Yes	456
9S204	159.95	PC	B,P,S	9-O	NS	12EE	4½	75AC	No	1	CR	Yes	No	7½	120:1	Yes	Yes	456
12S232	99.95	T	B,P,S	12-O	NS	8EE	15	110AC	No	1	CR	Yes	No	7½	120:1	Yes	No	456
12S245	149.95	ACR	B,P,S	12-O	NS	12EE	15	110AC	No	1	CR	Yes	No	7½	120:1	Yes	No	456
12S205	350.00	PC	B,P,S	12-O	NS	12EE	15	110AC	No	1	CR	Yes	No	7½	120:1	Yes	Yes	456
12S265	139.95	CON	B,P,S	12-O	NS	12EE	15	110AC	No	1	CR	Yes	No	7½	120:1	Yes	Yes	456
12S266	159.95	CON	B,P,S	12-O	NS	12EE	15	110AC	No	1	CR	Yes	No	7½	120:1	Yes	Yes	456
12S267	169.95	CON	B,P,S	12-O	NS	12EE	15	110AC	No	1	CR	Yes	No	7½	120:1	Yes	Yes	456
12S268	159.95	CON	B,P,S	12-O	NS	12EE	15	110AC	No	1	CR	Yes	No	7½	120:1	Yes	Yes	456
15U246	185.00	ACR	B,P,S,U	15-O	NS	12EE	30	160AC	No	1	CR	Yes	No	7½	120:1	Yes	No	456
15U269	185.00	CON	B,P,S,U	15-O	NS	12EE	30	160AC	No	1	CR	Yes	No	7½	120:1	Yes	Yes	456
15U270	225.00	CON	B,P,S,U	15-O	NS	12&6EE	30	160AC	No	1	CR	Yes	No	7½	120:1	Yes	Yes	456
15U271	235.00	CON	B,P,S,U	15-O	NS	12&6EE	30	160AC	No	1	CR	Yes	No	7½	120:1	Yes	Yes	456
15U272	315.00	CON	B,P,S,U	15-O	NS	12EE	30	160AC	No	1	CR	Yes	No	7½	120:1	Yes	No	456
15U273	325.00	CON	B,P,S,U	15-O	NS	12EE	30	160AC	No	1	CR	Yes	No	7½	120:1	Yes	No	456
6D219	29.95	T	B,S	6-O*	No	5EE	1½	5AC-DC	No	1	No	No	No	4½	8:1	Yes	No	456
6D221	34.95	T	B,S	6-O*	No	5EE	1½	55AC-DC	No	1	No	No	No	4½	8:1	Yes	No	456
7D222	49.95	T	B,P,S	7-O*	No	6EE	1½	55AC-DC	No	1	No							

THE Westinghouse PARADE IS ON THE WAY . . .



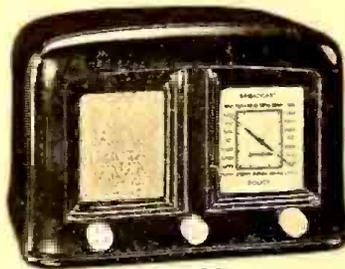
WR 338



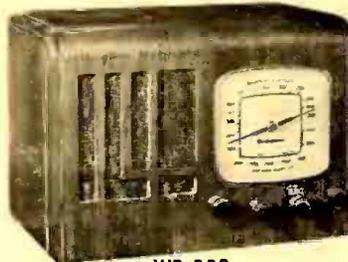
WR 336



WR 224



WR 120



WR 222



WR 328

Leaders in

1. PRICE
2. STYLE

3. TONE
4. FEATURES

5. PRECISION

Be on the lookout for the new Westinghouse 5 point selling plan, and the new Westinghouse line of precision sets. When you see them, you'll agree that you can make money with Westinghouse.



4 steps ahead in the feature of the year

Automatic tuning that logs 14 stations—that is tested the equivalent of 10 years of service without adjustment, that you can demonstrate by touching the key and letting the radio do the rest.

Westinghouse

PRECISION Radio

TAILOR-MADE TO FIT ALL PRICE BRACKETS



GENERAL ELECTRIC

RADIO

A complete line of

SUPER
VALUES



ONLY THE NEW
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TONE MONITOR
— the greatest ad-
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quality ever built
into a radio.

MODEL F-665 6 TUBES 2 BANDS
Tone Monitor . . . Louver Dial . . . 540 to 1720 kc.,
2400 to 7000 kc. . . 8-inch Speaker . . . 5 Watts Output.

PACKED with
MORE EYE APPEAL
MORE QUALITY
MORE PERFORMANCE

WATCH FOR YOUR G-E RADIO
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See the entire new G-E Radio line. Get all the facts
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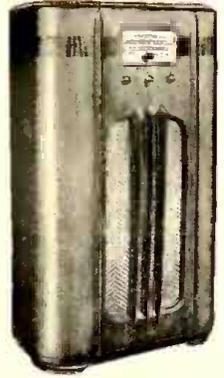
MODEL F-86
8 TUBES 3 BANDS
Tone Monitor . . .
Louver Dial . . . 540
to 18,000 kc. . . 12-
inch Speaker . . . 5
Watts Output.



MODEL F-75
7 TUBES 3 BANDS
Tone Monitor . . .
Louver Dial . . . 540
to 18,000 kc. . . 12-
inch Speaker . . . 5
Watts Output.



MODEL F-66
6 TUBES 2 BANDS
Tone Monitor . . .
Louver Dial . . . 540
to 1720 kc., 2400 to 7000
kc. . . 12-inch Speaker
. . . 5 Watts Output.



MODEL F-65
6 TUBES 2 BANDS
Tone Monitor . . .
Louver Dial . . . 540
to 1720 kc., 2400 to 7000
kc. . . 8-inch Speaker
. . . 5 Watts Output.



MODEL F-70
7 TUBES 3 BANDS
Tone Monitor . . .
Louver Dial . . . 540
to 18,000 kc. . . 8-inch
Speaker . . . 5 Watts
Output.



MODEL F-81
8 TUBES
3 BANDS
Tone Monitor . . .
Louver Dial . . .
540 to 18,000 kc.
. . . 8-inch Speaker
. . . 5 Watts
Output.



MODEL E-52
5 TUBES 2 BANDS
Sliding-rule Dial. 540
to 4000 kc. . . 6½-
inch Speaker . . . 2.5
Watts Output.



MODEL F-63
6 TUBES 2 BANDS
Tone Monitor . . .
Louver Dial . . . 540
to 1720 kc., 2400 to 7000
kc. . . 6½-inch Speaker
. . . 5 Watts Output.



MODEL F-53
5 TUBES 2 BANDS
Edge-lighted Sliding-
rule Dial . . . 540 to
4000 kc. . . 6½-inch
Speaker . . . 2.5 Watts
Output.

ANNOUNCING

Motorola

HOME RADIO

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IT'S DIFFERENT

IT'S BETTER



MOTOROLA MODEL 12-Y-1—
A deluxe 12-tube, 3-band, superheterodyne with 20-Push Button Automatic Electric Tuning, the Talking Dial, Acoustic Amplification that insures power without distortion, Acoustic Phasing which provides two more octaves of true bass note response, Illuminated Easy Reading Band Selector, and Super-Selective Automatic Frequency Control . . . featuring the "Acoustinotor" Control System which embodies Hi-Lite Control, Fidelity Control and Sensitivity Control. *The finest radio money can buy—it's the top of Motorola's New Home Radio Line.*

MOTOROLA provides 18 new models ranging down from the 12-Y-1 to the 5-tube, 3-gong, 2-band Table Model. The line includes a unique Phonograph-Radio Combination, distinctive End Table, AC-DC and Form models. Quality features such as 3-gong condensers in all AC models—the Talking Dial with Individual Band Fringing, Illuminated Easy Reading Band Selector and Centr dial tuning in all models from the 6-tube Table Model up. A distinctive line with highly competitive prices that provide radio dealers with complete coverage in all price brackets at a minimum investment.

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