

SEPTEMBER, 1933

RADIO RETAILING

INCLUDING
SERVICE
AND
INSTALLATION
SECTION

PERFORMANCE PROGRESS · PRESTIGE



Mallory engineering first made all-electric automobile radio practical through the Mallory-Elkon "B" Eliminator.

Then Mallory engineering perfected automotive radio by developing the Mallory-Elkon Self Rectifying Elkonode to give perfect reception in a self-contained, effective unit.

Performance—Progress—Prestige! Mallory engineering constantly contributes to the prestige of good radio sets through new developments.

This Fall, your customers will "reach for the joy of living" with thousands of Mallory equipped auto radio sets. Be sure you get your share of auto radio business—and be sure the sets you sell are Mallory equipped. Replacement parts are available. Ask your jobber.



← MALLORY BRINGS IT WITHIN THE REACH OF YOUR CUSTOMERS . . . and puts GREATER PROFITS within your grasp . . .

P. R. MALLORY & COMPANY, INC.

INDIANAPOLIS, INDIANA

DON'T GAMBLE—



↑
MODEL 755

8 tube advanced type AC superheterodyne circuit. *Shadowgraph Tuning* . . . automatic volume control . . . 8 inch dynamic speaker . . . dial calibrated in kilocycles . . . tuning range 1750 to 535. Cabinet is 6 legged console of graceful design. Front panel of butt walnut with Pilaster panels of butt walnut. Top arch of California maple burl. 40" high; 24 1/2" wide; 14" deep.

THIS fall you do not need to speculate on a new and untried line: The Zenith Challenger line "beat the gun" by three months.

Breaking all radio precedent, these new models were introduced in May. They have been tried in the crucible of the summer months . . . and they have knocked sales records sky high every place they have been shown during the year's dullest season.

You don't have to take the slightest chance. You can know beyond a shadow of a doubt that this top-quality, bottom-priced line will bring you sales and profits in a volume that has been a stranger since 1929.

Get in touch with your Zenith distributor at once, or write us.

ZENITH RADIO CORPORATION
3620 Iron Street • Chicago, Illinois

MODEL 705—6 →
tube advanced type AC superheterodyne circuit. Automatic volume control . . . Vernier Tuning . . . dynamic speaker . . . dial calibrated in kilocycles—tuning range 1750 to 535 . . . gets police calls! Cabinet has beautifully figured butt walnut front—genuine imported marquetry inlay with top border finished in maple burl—solid walnut top—fluted ends. 8 3/4" high; 15 1/4" wide; 6 3/4" deep.



← MODEL 706—A cabinet of modern design. 6 tube advanced type AC superheterodyne circuit. Automatic volume control . . . Vernier Tuning . . . dynamic speaker . . . dial calibrated in kilocycles—tuning range 1750 to 535 . . . gets police calls! The cabinet is of solid walnut with butt walnut panel. 8 1/2" high; 15 1/4" wide; 7 1/2" deep.

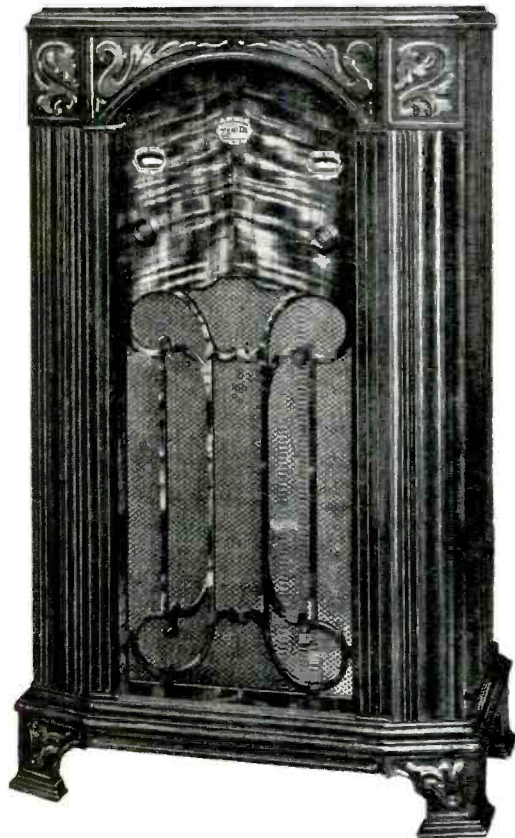
ZENITH

TRADE MARK REG

"YOUR CONCEPTION OF RADIO VALUES WILL BE COMPLETELY

RADIO RETAILING. Published monthly, price 25c. a copy. Subscription rates—United States, Mexico and Central and South American countries, \$2.00 a year. Canada, including duty, \$2.50 a year. All other countries, \$3.00 a year or 15 shillings. Entered as second-class matter April 10, 1925 at Post Office at New York, N. Y., under the Act of March 3rd, 1879. Printed in U. S. A. Cable address "McGrawhill, New York." Member of A.B.P. Member of A.B.C. Copyright 1933 by McGraw-Hill Publishing Co., Inc., 330 West 42d Street, New York, N. Y.

HERE ARE PROVED SALES



← **MODEL 750—FULL-SIZE CONSOLE**—6 tube advanced type AC superheterodyne circuit. *Shadowgraph Tuning* . . . automatic volume control . . . dynamic speaker . . . dial calibrated in kilocycles—tuning range 1750 to 535 . . . gets police calls! Never before has a Zenith console radio with *Shadowgraph Tuning* been sold at such a low price. Front panel of this console is of matched, mottled Australian laurel wood, with genuine wood carvings. 38" high; 13" deep; 22" wide.



→ **MODEL 760—Console** of modern design. 9 tube advanced type AC superheterodyne circuit. Automobile (dash-type) esutcheon including *Shadowgraph Tuning* . . . visual tone indicator . . . visual volume indicator . . . automatic volume control . . . twin 8" dynamic speakers. An exceptionally beautiful cabinet of modern design—top side panels are of California maple burl separated with genuine imported marquetry. 38½" high; 23½" wide; 23" deep.



→ **MODEL 707—6** tube advanced type AC superheterodyne circuit. Automatic volume control . . . Vernier Tuning . . . dynamic speaker . . . dial calibrated in kilocycles—tuning range 1750 to 535 . . . gets police calls! The cabinet is butt walnut in front and has "book-end" style construction. Border across the top and bottom of genuine imported marquetry. 8" high; 17" wide; 6¼" deep.



← **MODEL 711—6** tube advanced type AC superheterodyne circuit. *Shadowgraph Tuning* . . . automatic volume control . . . dynamic speaker . . . dial calibrated in kilocycles—tuning range 1750 to 535 . . . gets police calls! Entire cabinet of beautifully figured butt walnut . . . gold plated metal trimming inlay . . . border of genuine imported marquetry. 8¼" high; 10" wide; 6½" deep.



CHANGED WHEN YOU SEE THIS NEW ZENITH LINE!"



Why IT PAYS TO SELL Stromberg-Carlson Radios

Every dealer who undertakes the sale of a manufacturer's goods enters into something of a partnership with that manufacturer. Their interests become common. This is particularly true when the selling is direct from the factory to the dealer as it is with us.

This direct contact lets us work closely with our dealers and permits entire frankness between us. It is very helpful to both.

The fact that Stromberg-Carlson dealers make money is pretty generally known. They work with goods which bear a proper price and yield a reasonable margin for both of us.

We have kept up our high quality even through depression, and that is good for us both, too. Because *now*, people are wanting quality again.

There are still localities not conflicting with existing Stromberg-Carlson dealers where we could work to mutual advantage with a dealer of standing.

"There is nothing finer than a Stromberg-Carlson."

STROMBERG-CARLSON TELEPHONE MANUFACTURING COMPANY
ROCHESTER, NEW YORK



1894

Stromberg-Carlson



1933

MAKERS OF VOICE TRANSMISSION AND VOICE RECEPTION APPARATUS FOR MORE THAN THIRTY-FIVE YEARS

Mr. Distributor -



Audiola announces a new Fall line of home receivers, complete from \$17.95 to \$99.95. Outstanding values in quality receivers, popularly priced.

4 tube Compact	\$17.95
5 tube Compact	28.88
7 tube Console	69.95
8 tube Console	84.95
10 tube Console	99.95
7 tube Table Model	49.95
8 tube Table Model	68.95
10 tube Table Model	79.95
(Also farm sets)	

No suppressor—auto radios—

6 tube	\$59.95
7 tube	79.95

The 12 Year Record:

1. No Dumping. 2. No Financial Difficulties. 3. 80% of our Accounts with us 5 years or more. 4. Sound Engineering. 5. Consistently Fine Radios. 6. No mergers. 7. Generous Distributor Discounts. 8. Thorough Manufacturing. 9. No Stock Deals. 10. No Orphan Models. 11. Labor always paid fair wage rate. 12. A sound and Constructive Factor in the Radio Industry.

AUDIOLA RADIO COMPANY
430 S. GREEN ST. CHICAGO, ILLINOIS

MANUFACTURERS OF QUALITY RADIOS SINCE 1921



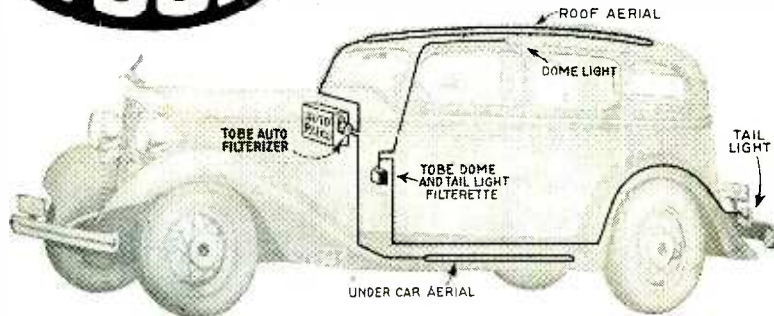
SEND NOW! If you are looking for a real line that has PERMANENCY, and want to tie up with a sound and progressive manufacturer, wire or write for illustrated bulletin showing our complete new line.

AUDIOLA
RADIO
KNOWN FOR ITS TONE

• EVERY AUTO RADIO OWNER
WILL DEMAND THIS NEW . . .

TOBE

FILTERIZER



FOR USE WITH EITHER ROOF OR UNDER CAR AERIAL

FOR THE
**AUTOMOBILE
RADIO**

REDUCES MOTOR NOISES — INCREASES SIGNAL STRENGTH
MAKES RADIO RECEPTION WHILE MOTORING FULLY ENJOYABLE
CONNECTS TO ANY AUTOMOBILE RADIO IN ANY MOTOR CAR
SIMPLE TO INSTALL



MODEL NO. 36

LIST PRICE \$4.95

DEALERS' NET—\$2.97

TOBE Auto Radio Filterizer Kit consists of:

- 1—Aerial Filterizer unit with 10 feet of filterized lead-in which greatly increases the signal strength and keeps motor noise off the lead-in. For any type of car aerial.
- 1—Dome light Filterette—inductive capacitive—which stops noise from getting to the aerial in the roof via the dome light wires. When the aerial is under the running board or the car chassis, this Filterette, when connected to tail light wires, stops noises from getting to the aerial via the tail light circuit. This Filterette will not dim dome or tail light.
- 1—Ammeter Filterette to stop noises present on low tension wires, and those caused by electric car heaters.

ORDER AN INITIAL
STOCK OF **TOBE**
AUTO RADIO FILTER-
IZER KITS AT ONCE
FROM YOUR LOCAL
DISTRIBUTOR.

STOCKED BY LEADING
DISTRIBUTORS
EVERYWHERE.

TOBE **AERIAL FILTERIZER SYSTEMS**
FOR ALL HOME RADIOS

WILL MAKE GOLDEN PROFITS FOR YOU. A new fertile field has been opened for the aggressive dealer and service man. TRAIN your salesmen and servicemen NOW to sell **TOBE** AERIAL FILTERIZERS.

Insist on the original GENUINE TOBE FILTERIZERS, manufactured by the leaders and recognized authorities on radio noise elimination. It's easier to SELL THE BEST.

MODEL 33 **TOBE**
AERIAL FILTERIZER

WHEN PROPERLY CONNECTED TO ANY HOME RADIO—eliminates from 50 to 90 per cent of all man-made static—increases signal strength—can be connected to operate any number of receivers from one aerial. Kit contains: 1—Aerial Filterizer Unit, 1—Receiver Filterizer Unit, 75-foot coil of Filterized lead-in wire.

LIST PRICE—\$5.45

Dealers' net—\$3.27



TOBE DEUTSCHMANN CORPORATION
FILTERETTE DIVISION CANTON, MASS.

Cash-in on



RADIO PROGRESS WEEK

with these
SALES and PROFIT
PACEMAKERS for 1933



the new
**STEWART
WARNER**
Dual Harmony
HARMONY TO THE EYE • HARMONY TO THE EAR
RADIOS

**DOUBLE VALUES . . GREAT RADIOS
CONCEALED IN FINE FURNITURE**

Here's just what women have been asking for—a radio that doesn't look like a radio. Here's today's double value—a high grade, up-to-the-minute radio set, PLUS a handsome and useful piece of furniture, both at one cost.

These furniture masterpieces, in which Stewart-Warner's latest developments in superheterodyne radios have been adroitly concealed, are offered in a Louis XV Bookcase, French Commode and Duncan Phyfe table models, priced as low as \$39.50. The superb bookcase model illustrated, is the top number of the line. Complete with twin dynamic speakers and latest 10-tube circuit, it is priced at only \$87.50.

**CONSOLES, WORLD-WIDE MIDGET AND
AUTOMOBILE RADIOS**

To enable dealers to cash-in on every possible prospect through a 100% sales appeal, Stewart-Warner offers a model for every taste and pocketbook. There's the newest type console; the new Magic Dial Round-the-World Radio—fascinating to operate—mysterious, thrilling—offering the last word in world-wide reception; and the new Stewart-Warner Companion Sets—personal miniature superheterodyne radios for everyone, in novel book form and in walnut cabinets. Also the new, power-

ful, compact, single unit Stewart-Warner Auto Radios, designed by Stewart-Warner automotive and radio engineers to give the "finest reception on the road."

FOR THE FACTS Mail This Coupon



Dual Harmony Duncan Phyfe Model

Book Model Companion Set

"Magic Dial" Radio for World-Wide Reception



New, Simplified Auto Radio

STEWART-WARNER CORPORATION

1826 Diversey Parkway, Chicago

Please send me full information on your new Radio Lines featuring Dual Harmony Models.

Name _____

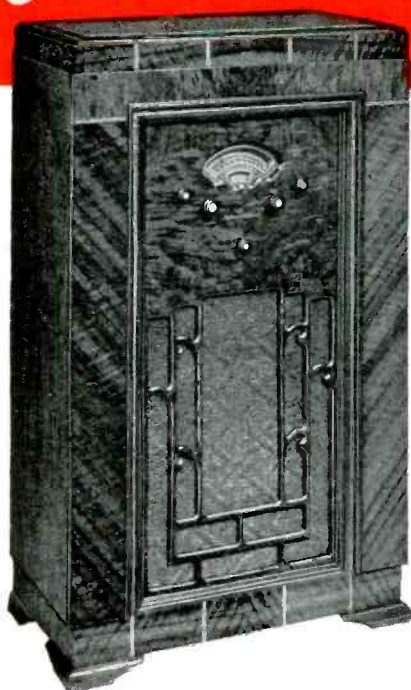
Address _____

City _____ State _____

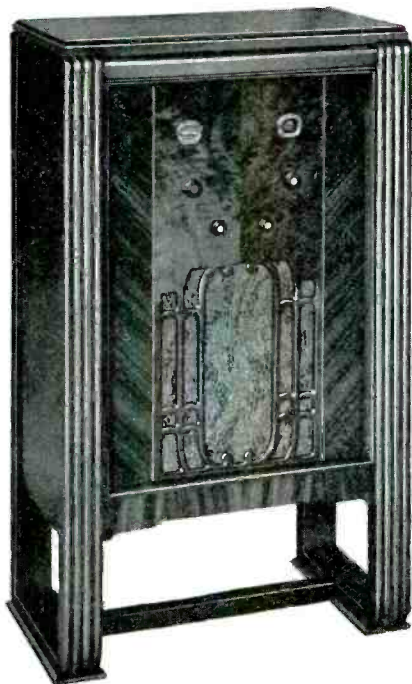
ATWATER KENT RADIO

Announces

**A ONE-WORD CODE
FOR RADIO DEALERS...**



MODEL 510. This truly beautiful console cabinet houses the same chassis as in Model 310, shown on opposite page. It's modernistic, yes—but only in the sense that it takes advantage of the national trend in design that has come from "A Century of Progress Exposition." It has "eye value" plus and sells itself the minute you place it on your floor. **\$99⁰⁰**



MODEL 667. Here is the latest 7-tube superheterodyne console. Tone control, automatic volume control. All broadcasting wave-lengths plus police and amateur channels. The popularity of this model is assured by the beautiful cabinet of artistic modern design. . . . **\$59⁵⁰**

THE TIME for "hanging on" is past. This Fall is a time to make money. And Atwater Kent dealers are going to do just that.

Here are eight of the new Atwater Kent Radios for 1934. "Eye value" in every model to the nth degree. And inside, every improvement and worthwhile new feature. Here is a line backed by years of Atwater Kent experience and reputation; built with Atwater Kent precision workmanship; and priced for PROFITS as well as sales.

ATWATER KENT MOTOR CAR RADIO IS AVAILABLE IN SEVERAL MODELS

THERE ARE TWO NEW MODELS OF THE ATWATER KENT BATTERY SET



MODEL 217. Latest 7-tube superheterodyne compact. Unusual distance, selectivity and sensitivity. Automatic volume control. Reaches all broadcasting wave-lengths plus police and amateur channels. **\$45⁰⁰**

MODEL 708. An 8-tube, full size, full performance combination broadcast and short-wave receiver. Tremendous power and sensitivity at every wave-length between 540 and 20,000 kilocycles. Designed to fit conveniently **\$59⁹⁰** cabinet shown.



ATWATER KENT

RADIO

PROFITS

Watch for the Atwater Kent advertising in the leading magazines and in newspapers. Ask your Atwater Kent distributor about the NEW billboard campaign. It's the kind of advertising that SELLS—for you.

Atwater Kent Radio for 1934 is the PROFIT line for every dealer who sells it.

*Rocky Mountain region and west—
prices slightly higher*

**ATWATER KENT
MANUFACTURING COMPANY**

*A. Atwater Kent, President
Philadelphia, Pa.*

*The prices given on these pages are
subject to change without notice*



MODEL 310. The truthful tone of this remarkable 10-tube receiver sets new standards in radio enjoyment. 4 gang condenser, automatic volume control, 4 point tone control, "shadow" tuning, silent tuning, police and amateur signals. Six-legged cabinet of interesting design and richly finished wood **\$89⁰⁰**



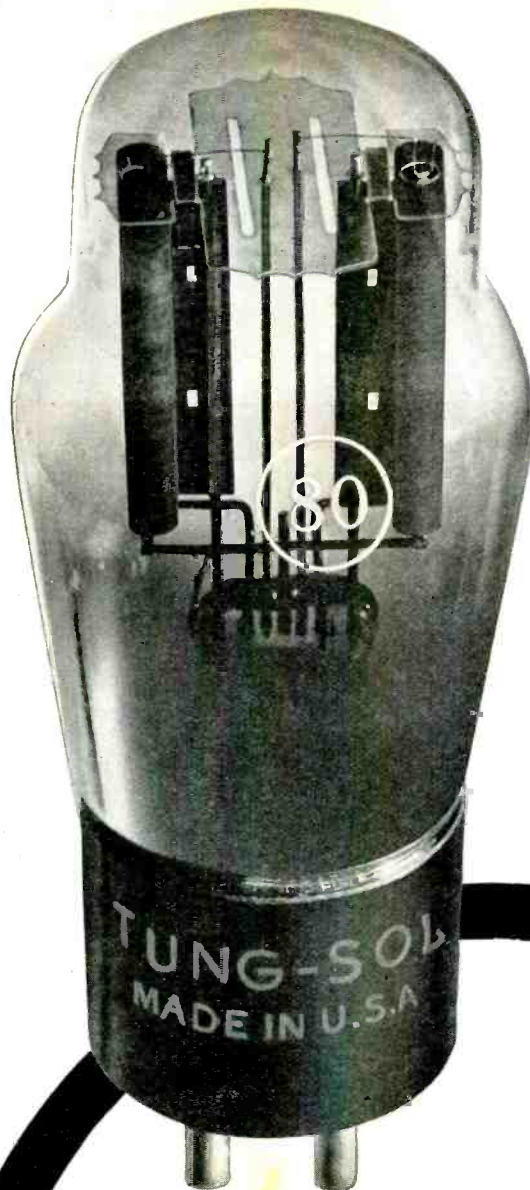
MODEL 711. The ultimate in radio receivers. 11-tube combination broadcast and short wave superheterodyne. 4 gang condenser, automatic volume control, 4 point tone control, silent tuning and "shadow" tuning, improved volume control, new Atwater Kent auditorium type speaker, all wave tuning from 540 to 23,000 kilocycles. Richly carved cabinet of matched and bleached woods, equally attractive with French doors open or shut. **\$150⁰⁰**



MODEL 165. Remarkable tone and great volume for so reasonably priced a set. 5 tubes, automatic volume control, police signals. Full-size speaker in this artistic small cabinet of beautifully figured walnut . . . **\$29⁰⁰**

MODEL 275. For those wanting the very latest in design there is this new, smart, modern small radio. 5-tube A. C. and D. C., only 8 1/2" high. Exceptional tone due to improved and larger speaker. This modern small radio is surprisingly low-priced at . . . **\$29⁹⁰**





When a Dealer gets the franchise for

TUNG-SOL RADIO TUBES he automatically puts himself in a position to carry a **COMPLETE STOCK** of all types of tubes at all times . . . Lost sales due to not having what the customer wants are eliminated . . . The Tung-Sol plan also does other definite things for the Tung-Sol dealer that no other sales plan does . . . Write today and find out about them! **TUNG-SOL RADIO TUBES Inc.**
Newark, N. J.

Atlanta Boston



Charlotte Chicago Cleveland Dallas Detroit Kansas City Los Angeles New York St. Paul

Form No. T-100



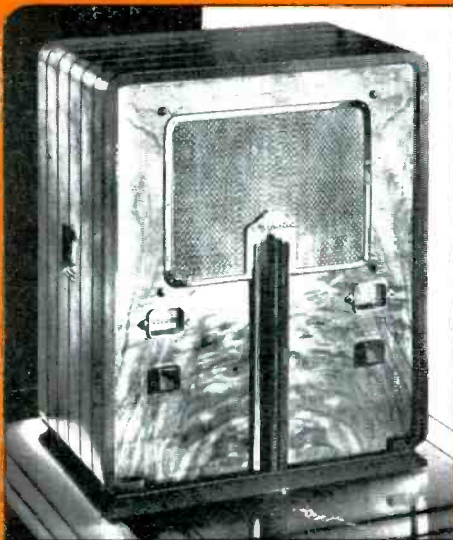
Majestic Royale

Majestic PRESENTS
FOR 1934

THE "SMART SET" OF RADIO

... revolutionized by Duo-Valve
Self-Shielded Tubes

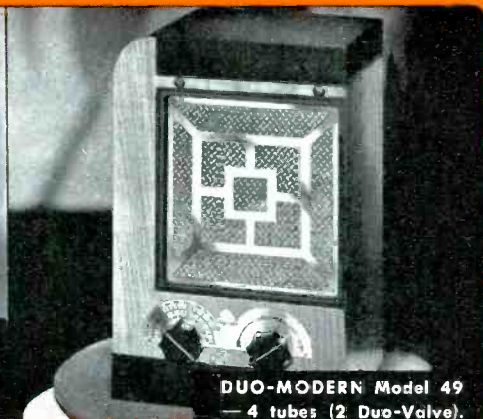




MASTER SIX Model 461—6 tubes (2 Duo-Valve). Matched butt walnut front; chromium grille. Tone control. A. V. C. Police calls. \$42.50



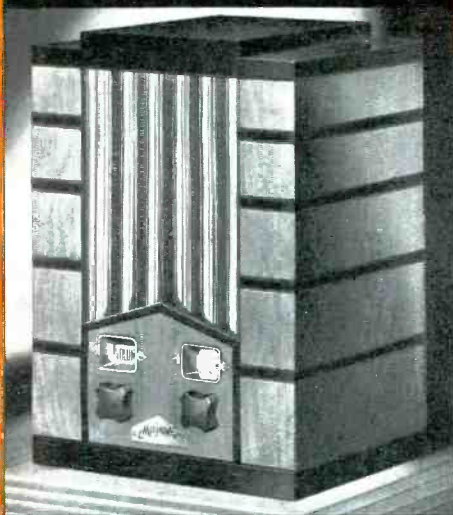
DUETTE Model 55—5 tubes (3 Duo-Valve). Lacewood; ebonyized top and bottom; aluminum grille. A. V. C. Police and short-wave to 4400 K. C. \$35.50



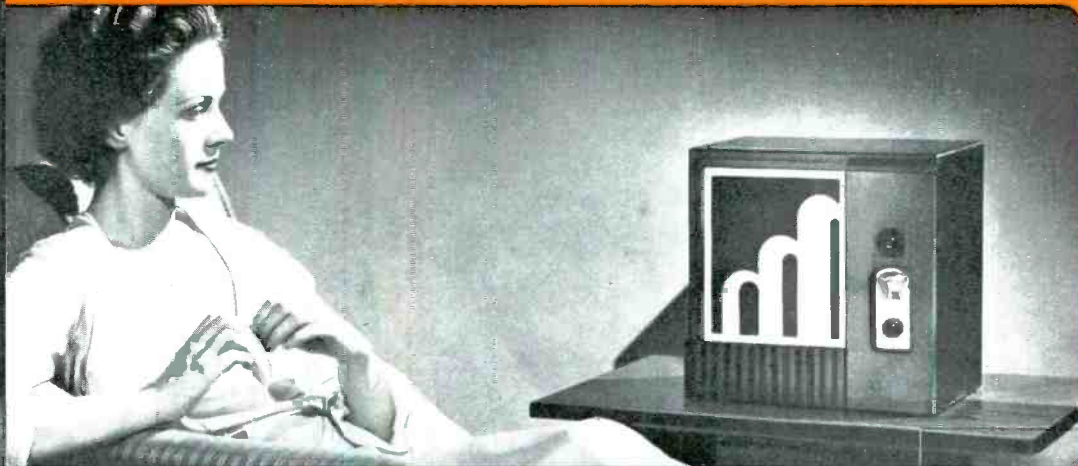
DUO-MODERN Model 49—4 tubes (2 Duo-Valve). Two-tone finish, natural and ebony; aluminum grille. Police and short-wave to 3500 K. C. \$24.95

Majestic

"SMART SET" APPEARANCE



STUDIO Model 59—5 tubes (3 Duo-Valve). Quarter-sliced birch; two-tone, natural and ebony; aluminum grille. A. V. C. Police and short-wave to 4400 K. C. \$37.50



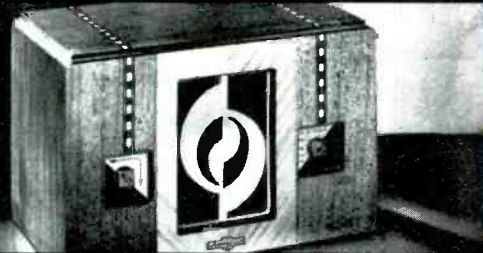
CENTURY SIX Model 463—6 tubes (2 Duo-Valve). Black walnut and lacewood paneling; chromium grille. Tone control. A. V. C. Police calls. \$42.50

Prices slightly higher in the West and Southwest

HERE they are—America's smartest radios! Handsome cabinet woods, hand rubbed—a genuine piano finish. . . . Distinctive design, keyed to the modern spirit that A Century of Progress has educated millions to look for—and demand!

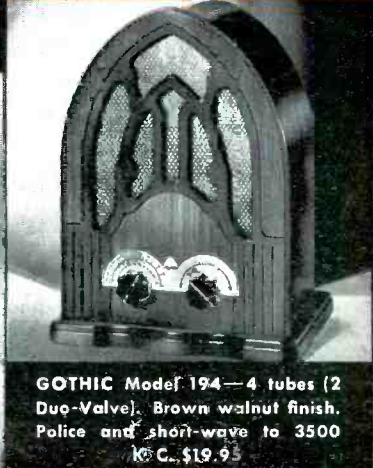
If you want to lead the sales parade, sell the Majestic "Smart Set." If you want to tag along, sell the out-of-style merchandise that some now offer as new. . . . Majestic advance bookings are the largest since 1929. That's the answer!

GOTHIC Model 196—6 tubes (2 Duo-Valve). Brown walnut finish. Tone control. A. V. C. Police calls. \$32.95



DE LUXE Model 411—6 tubes (1 Duo-Valve). 110-volt A. C.—D. C. portable. Self-contained aerial. Striped walnut, hawwood, and marquetry; aluminum grille. \$29.50

GOTHIC Model 195—5 tubes (3 Duo-Valve). Brown walnut finish. A. V. C. Police and short-wave to 4400 K. C. \$29.95



GOTHIC Model 194—4 tubes (2 Duo-Valve). Brown walnut finish. Police and short-wave to 3500 K. C. \$19.95



DUO-CHIEF Model 44—4 tubes (2 Duo-Valve). Walnut finish; aluminum grille. Police and short-wave to 3500 K. C. \$24.95

See The Saturday Evening Post, September 23 (out September 19), for the first of a series of Majestic "Smart Set" advertisements in leading national magazines!

RADIOGRAPH Model 599—5 tubes (3 Duo-Valve). Combination radio-phonograph. American walnut top and front panel. A. V. C. Police and short-wave to 4400 K. C.

ROYALE Model 85—8 tubes (2 Duo-Valve). Matched butt walnut doors; figured walnut panel; marquetry inlays; ebonized top and base. Tone control. A. V. C. Class B output. Police calls. \$124.50 (liberal trade-in)

Majestic

"DUO-VALVE" PERFORMANCE

SAVOY Model 69—6 tubes (2 Duo-Valve). All-over walnut cabinet; top panel Carpathian burl elm; stump walnut center panel; cross-banded walnut side panels. Tone control. A. V. C. Police calls. \$87.50 (liberal trade-in allowance)

PLAZA Model 68—6 tubes (Duo-Valve). All-over walnut finish; matched butt walnut panel; lacewood overlay. Tone control. A. V. C. Police calls. \$72.50 (liberal trade-in allowance)

HYDE PARK Model 86—8 tubes (2 Duo-Valve). All-over walnut cabinet; top panel Carpathian burl elm; stump walnut center panel; cross-banded walnut side panels. Tone control. A. V. C. Class B output. Police calls. \$99.50 (liberal trade-in)

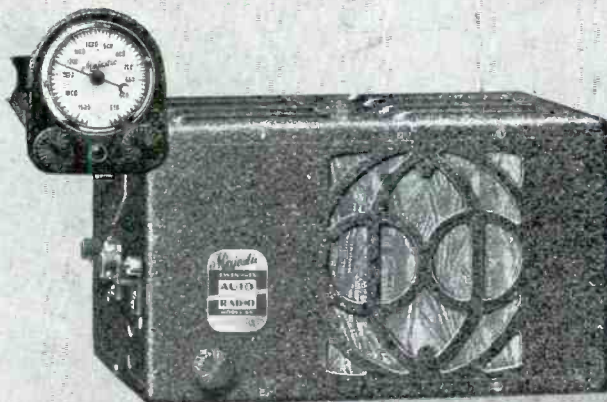
EVERY model a superheterodyne—with performance astonishingly stepped up by Majestic Duo-Valve Self-Shielded tubes! The equivalent of at least two extra tubes in every set! What a powerful exclusive feature to help Majestic dealers sell rings around ordinary sets! . . .

The line is complete, the price range is right. . . Majestic offers you the biggest opportunity in the radio field today.

GRIGSBY-GRUNOW CO., 5801 Dickens Avenue, Chicago

Prices slightly higher in the West and Southwest

TWIN SIX Auto Radio Model 66—6 tubes (2 Duo-Valve). Tone control; A. V. C.; booster switch. Dynamic speaker, eliminator, and chassis in one case. Airplane dial accurately calibrated in kilocycles. Non-glare illumination. Pilot light indicates when current is passing through receiver, and acts as warning signal that set is still in operation when station has signed off. \$52.50. Extension speaker, \$9.95



BARCLAY Model 67—6 tubes (2 Duo-Valve). Brown walnut finish; figured walnut center panel. Tone control. A. V. C. Police calls. \$77.50 (liberal trade-in allowance)



BEN BERNIE and All the Lads

A PERSONAL
MESSAGE FROM
THE OLD MAESTRO

"Listen, youse Guys and youse Gals! Ben Bernie (the Old Maestro) and All the Lads now make records exclusively for good old Columbia. Yowsah! I hope you'll like it!"

—Ben Bernie

Y O W S A H !

BEN BERNIE
—exclusively



And now it's Ben Bernie and his Blue Ribbon Casino lads who join the parade of exclusive Columbia record stars. Wait till you hear the Old Maestro's first Columbia hits . . . "Marching Along Together" (the NRA song); "We Won't Have to Sell the Farm"; "The Duke Is On a Bat Again"; and "Ain't It Marvelous"!

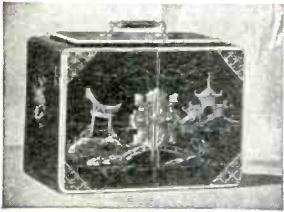
Ben Bernie belongs to the *new era* of *new artists* recently announced by Columbia. And so do Ted Lewis, George Olsen, Burns and Allen, Ethel Shutta, Clyde McCoy, Charlie Agnew, Mark Fisher, Paul Ash, Phil Harris, Fran Frey, and Gertrude Niessen.

There's money for dealers selling Columbia records. Ask the young folks — always buying the latest Royal Blue dance records! Ask the music-lovers, with libraries stocked with Masterworks*! *You* might as well be sharing in this profitable *extra* business.

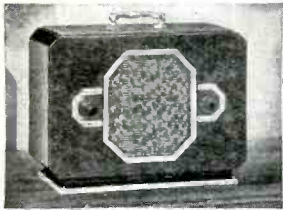
Columbia



*Five 5-Tube
Superheterodynes*



Model 321-AW



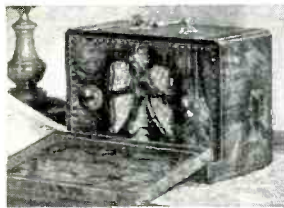
Model 33AW



Model 250-AW



Model 350-AW



Model 30-AW

*Radio's Greatest
Value*



Model 420

A Surprise!

An ingenious new and unique radio—Look for it at the Emerson booths at the National Electrical Exposition and in further trade paper announcements.

Emerson

PRESENTS A

"SUPER-12"

LINE FOR 1933-34

Ranging in List Price from
\$19.95 to \$49.95



You know the outstanding designs (frequently imitated) that have helped make EMERSON the Radio Leader of 1933. You know EMERSON's reputation for high quality merchandise and for "a fair deal to the dealer."

Now Emerson presents—for the most important Fall season in many years—TWELVE new models for every purse and purpose: AC-DC, Long-and-Short Wave, Compacts, Consolettes. The small pictures on this page give no adequate idea of the beauty of these new Emerson models. Be sure to see them at the Show—and watch for the Emerson broadside in the mails soon.

AT THE SHOW:

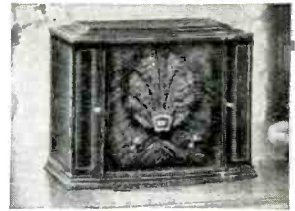
See EMERSON at the National Electrical Exposition
Madison Square Garden
Also at the Hotel Edison, New York

EMERSON

RADIO AND PHONOGRAPH CORPORATION

641 Sixth Avenue, New York, N. Y.

*Two 6-Tube
Superheterodynes*



Model 375



Model 40

*Two 7-Tube
Superheterodynes*

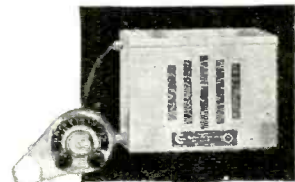


Model 755-M



Model 50-M

*Emerson Automobile
and Motorboat-Radio*

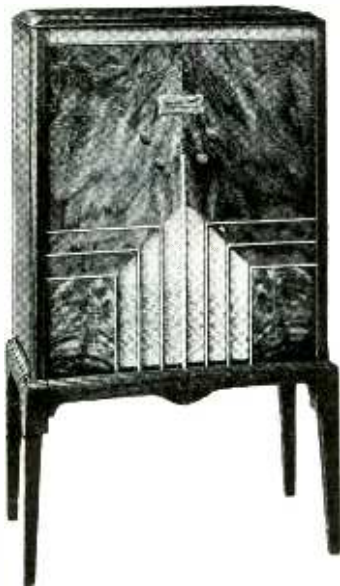


Model 678

NOW THE FIRST PUBLIC

the new 1934

VIBRO-



MODEL 370E—7 tube, 11 tube performance Dual Wave Vibro-Power superheterodyne Console. 540 to 1900 Kilocycles . . . **\$74.50**
MODEL 360E—7 tube, All Wave Vibro-Power superheterodyne Console. 540 to 20,000 Kilocycles **\$84.50**



MODEL 370M—7 tube, 11 tube performance Dual Wave Vibro-Power superheterodyne Console. 540 to 1900 Kilocycles . . . **\$78.50**
MODEL 360M—7 tube, All Wave Vibro-Power superheterodyne Console. 540 to 20,000 Kilocycles **\$88.50**



MODEL 370S—7 tube, 11 tube performance Dual Wave Vibro-Power superheterodyne Console. 540 to 1900 Kilocycles . . . **\$84.50**
MODEL 360S—7 tube, All Wave Vibro-Power superheterodyne Console. 540 to 20,000 Kilocycles **\$94.50**



MODEL 312G—12 tube Triple-Action Vibro-Power superheterodyne. Between-Station Silence, Continuous Type True-Pitch Tone Control **\$140**



MODEL 260R—10 tube Double Action All Wave Vibro-Power superheterodyne. Full-Band Automatic Volume Control, Silent Tuning, Quadri-Color Tuning Control **\$109**



MODEL 260C—Same chassis as Model 260R in Cabinet de luxe **\$115**
MODEL 312C—Same chassis as Model 312G in cabinet similar to above **\$130**

PREFERENCE RADIO LINE AMERICAN-BOSCH POWER RADIO

A. C.—D. C. sets . . . All Wave sets . . . Dual Wave sets . . . Console Models . . . Consolet Models . . . Personal Models . . . everything radio holds . . . from \$28.50 to \$140.00!

A HOUSEWIFE in Akron answered the doorbell. A young man showed her photographs of a wide variety of radio cabinets, asked her to pick her favorites.

A man in San Francisco was sitting on his porch. Along came a young man with a portfolio of radio sets and asked him his preference.

Repeat these incidents in New York . . . in Washington . . . in St. Louis . . . in several cities large and small from coast to coast . . . in thousands of interviews among men and women . . . and you have an idea of the intensive methods used to select the cabinets for Vibro-Power Radio for 1934 . . . the first *Public-Preference* radio line in the country.

What a wonderful deal for dealers! No more guesswork picking radio cabinets. No need now to be "stuck" with a line of cabinets that the public somehow won't take to. Here . . . in this new 1934 line of Vibro-Power Radio are cabinets you can be sure the public will buy . . . because they represent nearly 10,000 preferences of radio owners and prospects in every section of the country . . . in every walk of life . . . in every adult age group!

In Vibro-Power American-Bosch gives you something real to demonstrate to the radio prospect. Something he can hear. Something he can compare with his present radio—and find out what he is missing by comparison. Model 370T for example offers 11 tube performance . . . astoundingly better 11 tube performance than you have ever heard before. Yet the price is only \$52.50. *All Vibro-Power models reproduce faithfully the full range of program frequencies up to 5000 cycles as transmitted by the broadcasting station!*

With Vibro-Power engineering results . . . to talk about, shout about, demonstrate . . . with public-preference cabinets to display and offer . . . with prices lower than ever, performance and value considered . . . with NATIONAL ADVERTISING to create the demand . . . there isn't another line in all radio that promises you such profit-possibilities this season! *Write or wire for new descriptive broadside.*

UNITED AMERICAN BOSCH CORPORATION
SPRINGFIELD MASSACHUSETTS

Branches: New York Chicago Detroit

Licensed under patents and applications of R.C.A.

HAVE YOU HEARD THE NEWS ABOUT THE
NEW AMERICAN-BOSCH VIBRO-POWER
CAR RADIO—SEE THE NEXT PAGE.



MODEL 355—(Left for A. C.—D. C. Current) and **MODEL 350** (Right for A.C. Current)—5 tube, 8 tube performance Dual Wave, Vibro-Power superheterodyne Personal Radio. Portable. Size 11 3/4" wide x 7 7/8" high x 6 15/16" deep. Built-in antenna. Range 530 to 4200 Kilocycles (368 communication channels). Full automatic vol-



ume control; continuous type tone control; 3 gang condenser; 6 to 1 reduction for fine tuning. Illuminated 2 color calibrated dial; full floating coil large size dynamic speaker. Fire Underwriters' Laboratories Approval. R.M.A. seal. Solid brown tone, mahogany cabinet with genuine inlay, hand-rubbed piano finish and full wood back. **\$37.50**



MODEL 501—5 tube, 8 tube performance, Vibro-Power superheterodyne Personal Radio for A. C.—D. C. operation. Portable. Size: 10" wide x 7" high x 5" deep. Weight: less than 8 pounds. Built-in antenna; no ground needed; full Automatic Volume Control. Brings in Police calls. Rich wood cabinet with hand-rubbed piano-case finish and real marquetry inlay. **\$28.50**



MODEL 370T—7 tube, 11 tube performance Dual Wave Vibro-Power superheterodyne Consolet. 540 to 1900 Kilocycles. 3 gang condenser; continuous type tone control. Full automatic volume control. **\$52.50**



MODEL 360T—7 tube, All Wave Vibro-Power superheterodyne Consolet. 540 to 20,000 Kilocycles. 3 gang condenser; continuous type tone control. Full automatic volume control **\$62.50**

RADIO RETAILING

HOME ENTERTAINMENT MERCHANDISING

—O. H. CALDWELL, *Editor*—

RAY V. SUTLIFFE, *Managing Editor*
W. W. MACDONALD, *Technical Editor*
T. H. PURINTON, *Assistant Editor*

M. E. HERRING, *Publishing Director*
HARRY PHILLIPS, *Art Director*
P. WOOTON, *Washington*

The CODE



and Radio Selling

THE RADIO manufacturers are now working under the NRA Electrical Code. This necessary move was advantageous, all things considered. Under this Code (see page 28) the radio makers can draft their own Supplementary Radio Code, dealing with trade practices and other industry reforms, if they desire to do so. The costs of administration, as carried out by the National Electrical Manufacturers Association, will be pro-rated among all radio manufacturers, whether NEMA members or not. Thus code operation is now a reality and an expense that will have to be faced for the next 18 months or so, regardless of all other considerations.

But this does not mean that the many other necessary and useful functions of the Radio Manufacturers Association should be suspended during this coming period of trial and of rising costs. In fact a close organization and a well-knit industry understanding will be necessary now as never before. The radio manufacturers must stand together as a radio entity.

For the next five weeks the RMA has a

large promotional job to do in making the most of the Radio Prosperity Campaign and of Progress Week, October 2 to 7. If radio manufacturers have been harassed and distracted by rising wage scales, as NRA takes hold, now is the time to concentrate on selling; to turn the tables and to take advantage of the new buying markets that increased labor earnings all over the country have created. Furthermore, after the present campaign is over, there will be vital need for continuing effort to coordinate the far flung elements of radio and keep radio sales going ahead at top speed under the momentum which is being generated so successfully by the Radio Prosperity Campaign.

Radio needs to be organized for self protection and for market promotion. Whatever form such future organization takes, the identity of radio as a unique social force and social service must be kept before the American public. And the thousands of business men who distribute and retail radio must be served and protected by an organization which retains its own sympathetic and energetic freedom of action—to promote radio sales.

Campaign

THE SPECIAL PROGRAMS, scheduled for October 2-7, Radio Progress Week, are rapidly being whipped into shape. Columbia and NBC, whose feature program directors are working in close harmony with the Program Committee of the Radio Manufacturers Association, promise a series of gala events calculated to develop a lively interest in all that Radio is contributing to "The Joy of Living."

As we go to press it's yet too early to list, specifically, the titles, stations and hours. But it can be stated that the special announcements and the unique character of these broadcasts will aid the radio dealer in his efforts to sell quality reception. They will help him sell the prospect on the modern sales idea, that what he's buying, from now on, should be *entertainment*—not a cheap gadget of wood, metal and glass.

Here's a sample of the kind of spot announcements that will be used; that have been supplied to the program director of every station in the country:

"This is Radio Progress Week. This program is dedicated, by its sponsor, to the cause of better programs. Have you a modern set? Will it properly reproduce the new and splendid broadcasts which will flood the air this winter? Reach for the joy of living with radio. If your set is too small or of ordinary quality you are cheating yourself; you are missing that very thing to which you are entitled, for which you purchased a radio set—the genuine pleasure that comes only from hearing *true* tonal reproduction"

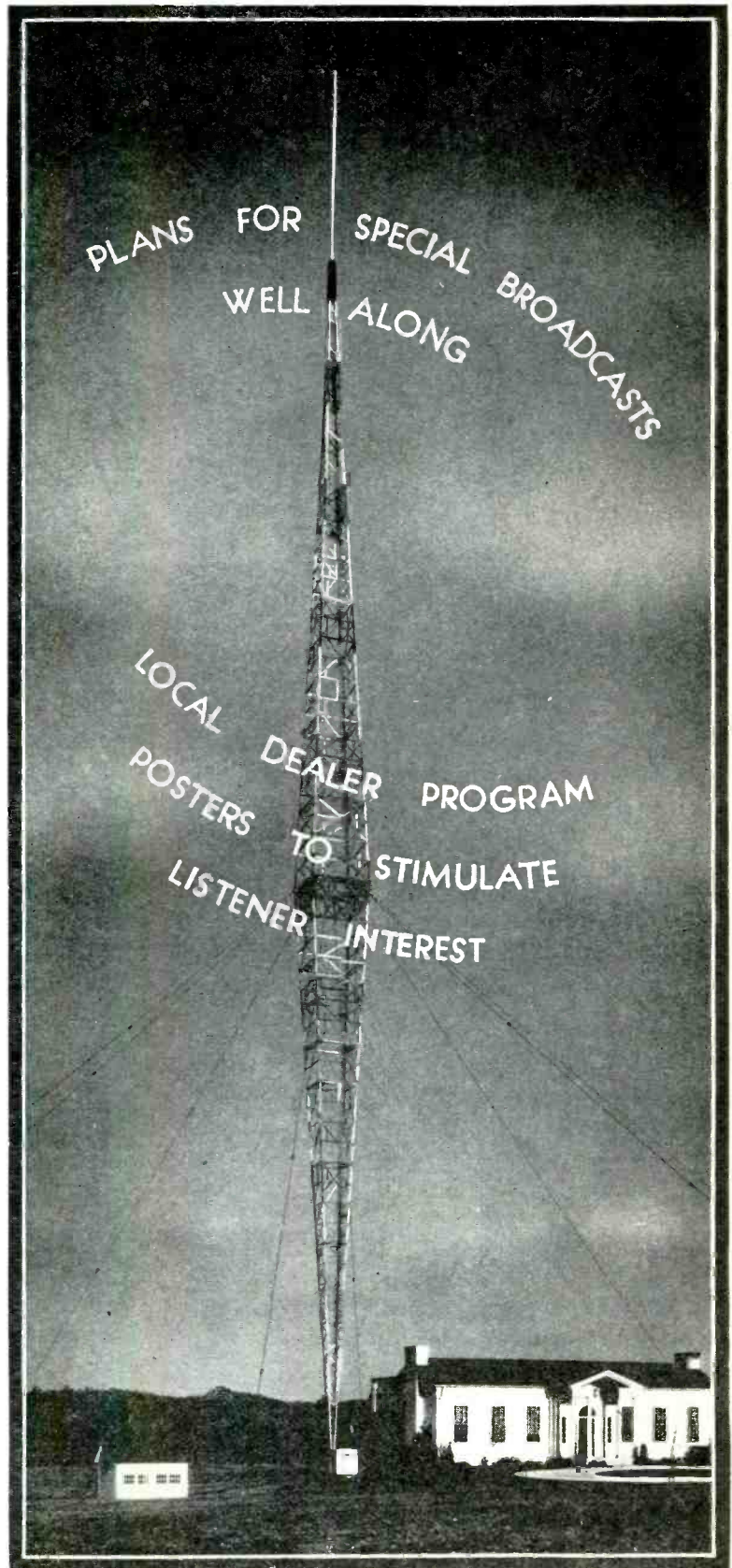
A PROGRAM POSTER

"Why don't the stations advertise their big feature programs in advance?"

Well, it's going to be done—and right where it will do the most good—at the point of sale; of listener contact . . . *through the radio dealer.*

It is planned to prepare, and to distribute to radio retailers through cooperating radio jobbers the latter part of this month, a large "circus style" poster sheet. This window sticker will "ballyhoo" the big time programs which will be the feature events of Radio Progress Week.

It is suggested that dealers not only display this poster prominently but that they reproduce it in large space local newspaper advertisements and also use this advance program news as a means of closing those last minute,



NEWS—

Boston . . . Detroit . . . Buffalo
Los Angeles and 100 Other
Trading Centers in Midst of
Aggressive "Prosperity" Drives
. . . Initial Reports from Field
Indicate Increased Sales



die hard, delayed decision, temporizing prospects.

Thus, for the first time, will the broadcasters recognize and cooperate with their logical "salesmen" and reach their mutual customer, the listener—selling the set owner and the prospect on *Radio*. Thus will they be able to use the proper sales approach and to stress the real reasons for placing one's self and family in a position, not only to "reach for," but to obtain this greatest contribution yet made to the "joy of living."

THE opening gun has been fired! The *first, All-Industry Radio Prosperity Campaign* is over the top and on its way to capture a large waiting market for better radio sets.

This campaign has "clicked" with dealers and jobbers the country over in a manner far beyond the hopes of its most optimistic sponsor. Enthusiasm is running high—and this fighting spirit is being translated into action, into definite selling stunts to cash in on our industry's new and popular slogan: "Reach for the Joy of Living—WITH RADIO!"

And, with the harrowing problems of the Code nearing solution, the manufacturers, too, are getting behind this movement—have settled down to the productive task of helping their dealers do a real and a new type of selling job.

Yes, the radio industry is finding itself, in this staging of a cooperative battle for business, with fresh vigor and intelligent supervision. For example:

AKRON—H. O. Smith organizing local trade. Ostraday of "Times-Press" offers free use of 500-seat hall. ALBANY—W. J. Zehner working with other distributors. Van Aernam offers power company store space for dealer shows. WGLC planning house-to-house canvass. APPLETON (Wis.)—F. J. Harriman "anxious to cooperate." ATLANTA—Mass meeting appoints G. R. Dendy chairman of campaign committee. Works with Herndon Thomas, I. M. Bame, W. D. V. Hopkins, Harry Lever, T. C. Dickson, B. B. Thomas.

BALTIMORE—John Elmer of WCBM heads drive. BIRMINGHAM—E. E. Forbes "glad to cooperate." BOSTON—Radio Wholesalers Club in active command. Held rousing meeting of 240 jobbers' salesmen, also monster Trade Show banquet attended by 700 dealers. Back-

ing campaign 100 per cent. George Cohen key man. BRIDGEPORT—Charles D'Elia organizing dealers. BUFFALO—Sam Vineberg of the Electrical League of Niagara Frontier reports successful mass meeting August 18. Trade plans special show last week of September. Fred Cutler pledges assistance of 100 N.R.I. Alumni.

CHARLESTON (S. C.)—W. C. Perry stirring things up. CHARLESTON (W. Va.)—S. H. Galperin at the helm. Stroud, of Monongahela, West Penn., may organize series of shows for dealers in nearby towns, donating floor space. CHARLOTTE (N. C.)—F. C. Linton "wants to help." CLEVELAND—Eldon D. Lewis of Ohio Radio Trade Association elected committee chairman at special get-together. R. H. Bechtol contacted four distributors prior to meeting. I.R.S.M. section assures cooperation. CHICAGO—Erstrom, of Radio Wholesaler's, heads campaign activities. Aided by Mason of RCA, Tay of Crosley, Herron of Philco, Whipple of Spartan, Howard of Zenith. I.R.S.M. pledges support. CINCINNATI—Stillwell of Electric Club active. CONNORSVILLE (Ind.)—Hamilton Radio using posters at local Fair.

DALLAS—Robert S. Van Cleve, Elliot Wilkinson, Adolph Marder and W. L. Cohn cooperating. DAYTON H. L. Burns says "Local trade will work together." DENVER—Colorado Radio Trades Association directing work, following meeting. Bakewell of Electrical League cooperating. DES MOINES—Schneiderhahn and Blish conferring. DETROIT—Seventeen distributors attended July 27 confab. DUBUQUE—C. J. Timmermann organizing his own dealers. DULUTH—A. J. Newman, committee chairman, promises action.

ELMIRA—D. T. Craver has drive booklets. ERIE (Pa.)—George B. Noll of Electrical League has arranged show late in September with 5 distributors, local dealers.

FARGO (N. D.)—H. Clinton is committee chairman, plans cooperative advertising. Fargo "Forum" writes New York Headquarters for mats. FLINT (Mich.)—Tom Mowat has details. FORT WAYNE—Spiegel, Protective Electric, called distributor meeting in early August.

GRAND RAPIDS—A. V. Hall urging trade to get aboard. GREAT FALLS (Mont.)—Carl A. Rahn writes for circulars. HARTFORD—Sam Ellovitz was elected drive leader by 45 distributors and dealers at meeting

called by F. E. Stern. HOUSTON—E. L. Crumpacher is handling details. D. H. Straus got the boys together. HUNTINGTON (W. Va.)—C. E. Van Zant talking to other local distributors.

INDIANAPOLIS—Electrical League staged meeting in early August and appointed campaign committee, according to Ted C. Brown.

KANSAS CITY—Electric and Radio Association pledging support. G. M. Weston has details.

LANCASTER (Pa.)—Lou Shenk has plan book. LITTLE ROCK—Gunn Distributing has plan book. LOS ANGELES—Radio show in September or early October by Radio & Music Trades Association will synchronize with campaign. LOUISVILLE—Tom Williams heads local committee. I.R.S.M. section will help.

MADISON (Wis.)—H. A. Johnson explaining idea to dealers. MARIETTA (O.)—J. R. Waters of Monongahela, W. Penn., says 15 Electrical Association members are ready to go. Show scheduled for October 2-7. Power Company donating space for cooperative displays. MEMPHIS—Interstate Hardware contacting dealers by mail. MIAMI—W. Ralph White's company already using "Reach for the Joy of Living" slogan and will try to organize dealers. MILWAUKEE—Activity under the wing of Wisconsin Radio, Refrigeration and Appliance Association. MINNEAPOLIS—H. H. Cory of Northwest Radio, Refrigeration and Appliance Association called meeting, at which F. M. Hutchinson was made head.

NASHVILLE—Wheless Gambill staged meeting. NEWARK—L. D. Gardner and B. J. Oppenheim offer services. NEW CASTLE (Pa.)—Elliott & Waddington, dealers, organized meeting of 46 others. Final plans to be made at September 6 get-together. NEW HAVEN—Connecticut Radio Wholesalers held special confab.

NEW ORLEANS—Radio Wholesalers of New Orleans selected C. C. Walther, W. A. Shuler, Paul Felder and J. Cristadora to stage citywide tie-in. This is one of the first cities to report campaign details. Mayor labelled September 1 "Radio Day for Orphans." Amusement Park donates four free rides, traction company and bus lines give free transportation, department stores and others donate 100 door prizes. Local broadcasters, newspapers instruct children to get tickets from radio stores. Dealers and distributors entertain 2 orphans apiece, League takes 25. Artists make personal appearances at park. Committee reports tremendous interest in stunt.

NEW YORK—Irving Sarnoff, committee chairman, planning final meeting September 12 or 17. NORRISTOWN (Pa.)—Dealer Kruckner writes for circulars.

PHILADELPHIA—Electrical Association holding special show October 2-7. Committee, E. B. Richards, S. K. Eaton, C. H. Masland. PITTSBURGH—L. Hommel heads special Electrical League committee. E. A. Hamburg, Wallace Russell, W. C. Kline, C. R. Rogers, R. M. Davis, will arrange dealer conclaves. H. Briggs, H. R. Eleyet, I. Hershorin, R. W. Lightner, L. H. Neiplin arrange publicity and ads. A. R. Loughborough, E. A. Hamburg, H. Goldstein, C. R. Rogers struggle with finance. William Irlam of Radio Servicemen's Association promises aid. PORTLAND (Me.)—Philip T. Brown is temporary campaign committee head. PROVIDENCE—H. E. Davison of Electric League plans early meeting. QUINCY (Ill.)—N. B. Gelty mailing circulars to all dealers.

READING—Bright & Company planning intensive

selling. RICHMOND (Va.)—H. R. Perkinson contacting other distributors. ROCHESTER—Electrical League met July 25 to formulate tie-in plans.

ST. LOUIS—Wm. P. Mackle of Radio Trades Association reports following committee: Sam Gross, H. B. Levy, Paul Talbot, S. Southworth, F. J. Prendergast. Local stations have been approached and pledge aid. SALT LAKE CITY—Mountain States Music & Radio Trade Association backing drive. SAN FRANCISCO—Pacific Radio Trades Association not only organizing cooperative effort locally but in 26 nearby towns, says George Curtiss, secretary. Pacific Gas & Electric will loan 60 display windows. SCRANTON—D. T. Lansing spreading the word to its dealers. SEATTLE—Sunset Electric active. SHREVEPORT—Shreveport Blow Pipe & Sheet Iron says local dealers will cooperate. SIOUX FALLS—Power City Radio calling dealer meeting at once. SPRINGFIELD (Mass.)—R. K. Handy has plan book. SPRINGFIELD (Ill.)—A. Turner is mailing dope to dealers.

TORONTO (Ohio)—Serviceman C. E. Smith has distributed home-made handbills about the special broadcasts to every one in town. UTICA—A. C. Strevater says: "Planning dealer meetings." WICHITA—R. M. Sutton calling distributors together. WILMINGTON—F. R. Goodring is chairman of local committee.

ABOUT THE DISTRIBUTION OF DISPLAY KITS— HOW TO GET ONE

Early in the planning of this Campaign it was realized that the dealer should not be asked to buy the striking posters, window trim stickers, price cards, consumer mailing pieces, etc., comprising the standard unit display kit. It was felt that each worthy dealer should receive this material free of charge. This policy placed the responsibility of planning the free distribution on the local jobber organizations, and the financial burden on the treasury of the Radio Manufacturers Association and on the individual set and tube makers.

The latter part of August, 7,500 display kits—the first press run—were allocated to RMA members, to be, in turn, shipped to the distributors requesting this material from their respective manufacturers.

As we go to press word is received that this initial supply has been exhausted, that it has gone to those lists of dealers, edited to avoid duplication, and allotted to those jobbers who have organized throughout the country to secure an orderly distribution of these display kits.

But it is not too late to get yours. Ask your jobber for one at once. He, in turn (if his local supply has been exhausted) will pass along this request to the manufacturer. A second printing may be ordered.

HERALDS WITH PROFOUND HOPE

"I heralded Radio Prosperity Campaign and Radio Progress Week with the most profound of hopes. I sight in the latter the greatest single opportunity that the industry has had in its history. I believe that the future of the radio business depends on increased profits to everyone connected with it. Conditions are now right to bring prices back where they belong. This must be a part of the picture. I am surely anxious to see the outcome of this cooperative sales movement. The entire industry must get behind it. We must have faith, hope and ambition."

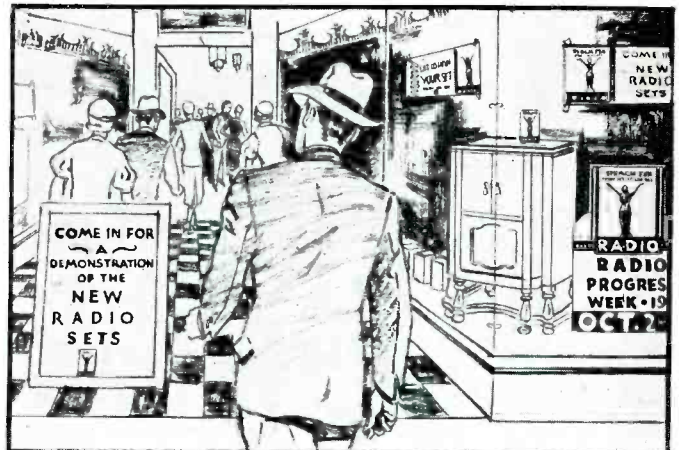
Lloyd Harder
Red Wing, Minn.

How to Stage Your Own One-Man Campaign

(If the local trade has organized a cooperative drive tie in with it, of course)



1. Secure RMA posters, circulars, model markers from your favorite distributor and—



4. Plaster your store and window with Campaign streamers and hold "open house," then—



2. Mail the circulars to your best prospects, with a personal letter if you like or—



5. Offer to demonstrate new sets out in homes during the special broadcasts, also—



3. Have your salesmen deliver them, urging people to re-equip for the special October broadcasts



6. Send your servicemen out to tell people about the broadcasts and get their sets, tubes ready

If you think you can swing a more ambitious program add your own ideas and go to it

“ G e m ü t l i



THE BEER REVOLUTION

Gives Radio Record Players a New Atmosphere

IN GERMAN MILWAUKEE, at the quaint Old Heidelberg restaurant, the spirit of good fellowship that surrounds beer found a refuge during the dry decade. Today the customs of this old world tavern appear to be setting a style for a whole series of new fashionables: beer, pretzels, dill pickles, rye bread, kalter aufschnitt, mellow music, all combining to create that untranslatable atmosphere, "Gemütlichkeit."

To Hugh W. Randall, of the J. B. Bradford Piano Company should go credit for injecting the strains of Viennese waltzes and student drinking songs into this glowing atmosphere. Mr. Randall saw that the radio record player, of all instruments, could best create the proper background. He lifted it out of its rôle as a nickel in the slot device. When Old Heidelberg opened, its first gay tune was his triumph.

Some 75 radio record players (Capelhart) have been placed by this veteran Milwaukee music house during this last year and a half. In the seven months of 1933 Mr. Randall has sold 25, thwarting the depression theory that luxuries were out.

"Although we capitalized on the change in public sentiment, the key to our selling has lain in preventing the

prospect from getting any preconceived ideas about the radio record player," said Mr. Randall. "It was all too easy for any one approached to wave his hand and say 'Oh, yes, we had a phonograph years ago. It is up in the attic now.' We virtually had to get the prospect into the store by telling him we had something new in music which he had not experienced before. We sat him down in a semi-darkened room and let the strains of music from our Capelhart room come wafting to him through the heavy portieres. While letting him hear first and see afterwards, we built up his curiosity and appreciation.

These are the steps in the Randall procedure of selling this instrument:

1. Sampling: Although it may seem odd to sample an \$800 product, nevertheless the store's early efforts had this idea behind it.

For instance, at the fashionable home wedding of Miss Beatrice Trostel to Frederick Weicker, the bride's parents regretted they had no pipe organ in their residence. Mr. Randall, hearing of it, rushed out an instrument which completely deceived the social register guests gathered for the event. Its hidden, lifelike pipe organ

check it”

tone playing the wedding march, the recessional and incidental music aroused a lively curiosity on the part of all present, which later was translated into sales activities.

Next, a Maypole dance given by the Milwaukee University school called for outdoor music, and again Mr. Randall was glad to supply it, to the surprise of the crowd that such volume and realism could be had. The equipping of the Herman Falk yacht, the “Seaforth,” one of the largest on the Great Lakes, again brought comment from Milwaukee papers. When Burton Holmes, the lecturer, was in the city, Mr. Randall supplied incidental music.

Realizing that possibly only 5 per cent of Milwaukee’s residents were prospects for an \$800 sale, Mr. Randall has directed his efforts to come in contact with those 5 per cent. Country clubs and athletic associations offered a good place to sample. Each sale made new contacts. Incidentally, comments Mr. Randall, key sales are valuable only when they are closely followed up.

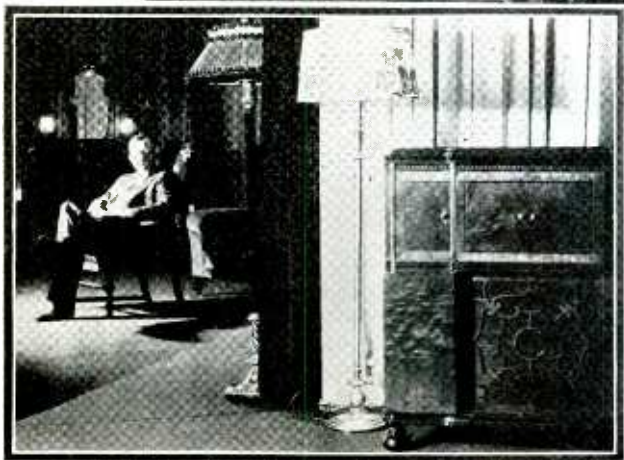
2. Outside calls: Mr. Randall has found it quite effective to call on prominent men at their places of business and request them to give a hearing to his mysterious new “something” in music. Following this per-

Hugh W. Randall . . . who has capitalized on the fashionableness of beer drinking



HOW AN \$800 ITEM IS SOLD

- ☞ Sampling at social occasions breaks the ice
- ☞ Dealer calls in person to invite prospects in for auditions
- ☞ Whets curiosity by saying it is “a new experience in music”
- ☞ Gives a “faraway” demonstration—the prospect hears before he sees
- ☞ Home demonstrations create a taste for non-tuned, hand picked programs



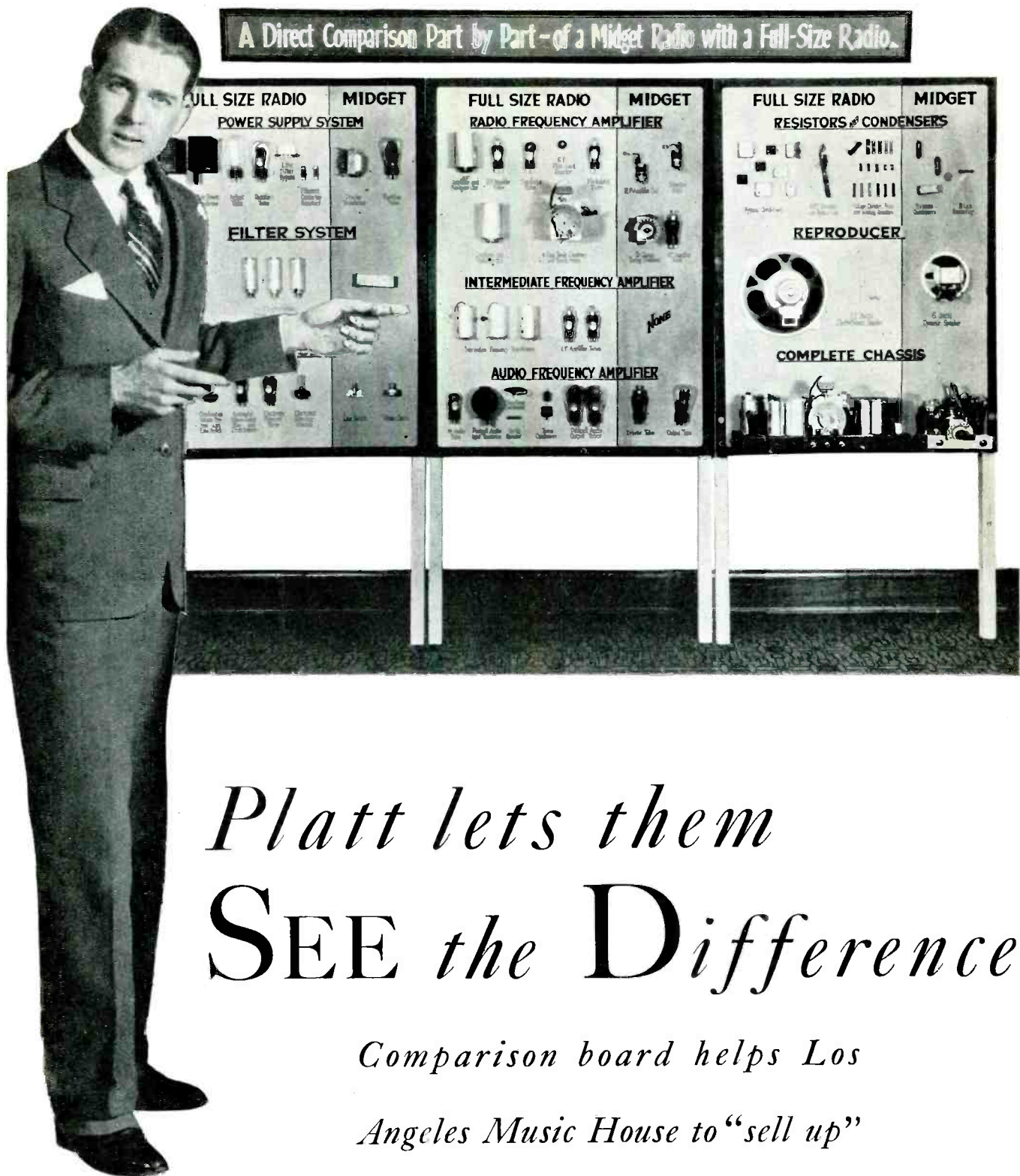
Let the prospect listen . . . at a distance. Keep the “phonograph” idea out of his mind

sonal contact, he has added personal letters till the prospects drop in.

3. The demonstration: Before the arrival of a prospect for a hearing, Bradford’s makes a great effort to find out that individual’s taste in music. Carefully selected records are stacked into the instrument that is to be shown. On his arrival the prospect is escorted upstairs into the tastefully decorated radio room. Seating his guest, Mr. Randall will disappear through the curtains and soon the strains of music are heard. All is done in subdued lighting, the prospect’s interest is attracted by music and nothing else. If the prospect mentions the word “phonograph” he is promptly given a demonstration with an old fashioned machine, in order to lay the ghost of that memory. One comparison hearing ends this argument always.

4. Home demonstrations: The instrument is sent out on trial for two days in the home, as was formerly the case with radio. The profit spread and high list price of

(Please turn to page 34)



Platt lets them
SEE *the Difference*

Comparison board helps Los Angeles Music House to "sell up"

OUR eyes tell us 85 per cent more than our ears. Things we *see* make a more vivid impression than those we *hear*. In advertising circles this is well known but to C. H. Mansfield, general sales manager of the Platt Music Company, Los Angeles, California, goes credit for its practical application to the important business of selling quality consoles to people who ask for midgets.

Mansfield had his servicemen break up a new 12-tube console and a popular 4-tube midget, contrasts the two

sets *part-by-part* on a 5 by 9 ft. display board executed by his advertising man. Comparison of parts makes the difference in construction strikingly obvious and helps justify higher console prices. "The board has been a wonderful help to our salesmen," says its originator, "and is more convincing than any number of spoken words. It is helping us raise our average sale and has measurably increased our dollar volume.

"Consoles are demonstrably better than midgets but not sufficiently so to induce uncritical prospects to pay

the difference. For some time we have felt that if we could actually *show* the customer the infinitely better quality of the console it would be much easier to 'sell up'. Merely turning the radios around and showing the rear of the chassis and speakers helped, but this was not enough. Our new parts display board fills the bill.

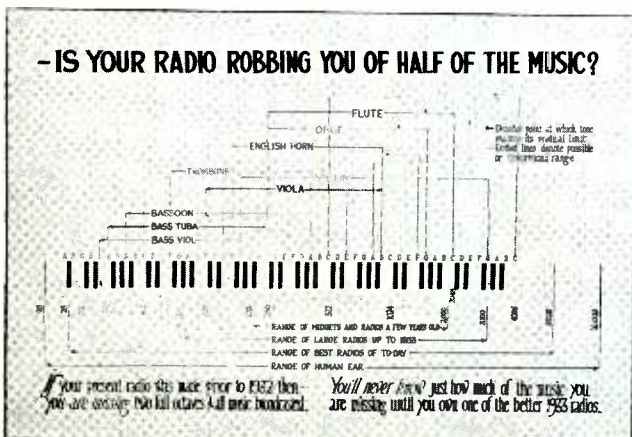
"The board is referred to whenever a salesman has difficulty in selling up. It is interesting to listen to prospects' exclamations of surprise when the construction of the two types is so clearly brought out. In addition to a feeling that the additional, oversized parts in the console *must* make a worthwhile difference they get the distinct impression that the larger set will last longer and require less service.

"We also have another large chart, showing the musical range of the console and midget. After showing prospects our parts display board we take them to the tone chart and point out the benefit of large transformers, better condensers, full-size speakers, etc. The tone chart also helps us encourage customers to trade in old sets which do not reproduce accurately over the full musical scale.

"We have used the two boards to advantage in our windows as well as on the sales floor. When they are so used we run ribbons from the parts to cards describing their function pasted on the inner surface of the glass. Please understand that we do not turn up our nose at midget business. We need all the sales we can get. But we do *not* want to sell midgets to people who can afford better and we do not wish to cheat our customers of the superlative entertainment that a quality receiver can give them by letting them think, as many do, that a midget radio is just as good as a larger set in all respects save cabinet.

"The times have never been more favorable for the sale of consoles. I am convinced of this. While it is true that there are still people who have no radio and can afford to buy only cheap equipment, and that there are many legitimate prospects for second sets of the midget variety the bulk of the retailer's business this fall must certainly be made up of sales to people who have old receivers. And there is only one reason why these people should buy new sets . . . to get *better* reception. How can they get it if they replace their existing radios, for the most part full-size models with large speakers, with the smallest, cheapest new sets money can buy?

"I believe that it will pay any dealer to make up a parts comparison chart such as ours and earnestly recommend it."



This four by nine ft. chart is a helpful companion-piece to the parts comparison board

Butcher's "Painless" Prospect List

INTERFERENCE DATA	
Name
Address
Do you have any bad radio interference?	
Yes	No
No Radio	
If you have interference, of what nature?	
Steady Buzz	Irregular Crackling
Is it bad enough to cut out all stations?	
Yes	No
When is interference the worst? Day	
Night	
What kind of Radio have you?	
How old?	Years
Is it performing satisfactory. Yes	
No	
When were the tubes tested last?	
Have you any electrical equipment that might cause Radio interference?	
Electric Washer?	No. Yes. Years
Electric Sweeper?	No. Yes. Years
Electric Refrigerator?	No. Yes. Years
What make?	
Any other electrical motors or such?	
Would you be willing to have any interfering electrical appliances checked or repaired for the good of your own or other Radio in the community? Yes No	
Thank You	
This survey conducted by W. B. Butcher Electric	

WORKING up a first-class mailing list—with a minimum of "pain" to the consumer—is a job worthy of any radio dealer's best effort. Such a job was accomplished last spring by W. B. Butcher of Wapakoneta, Ohio, who contacted most of the town's 6,000 homes.

"I sent two girls, one of them my office secretary, around with cards headed 'Interference Data.' (Shown above.) On these cards were spaces for the following information: Do you have bad radio interference? What nature—steady buzz or irregular crackling? Is it bad enough to cut out all stations? What time of day is it the worst? What kind of radio? How old? Condition of set? When were tubes tested last? Have you any electrical equipment that might cause radio interference? Electric washer? Electric sweeper? Electric refrigerator? Makes? Other electrical motors? Thus the girls were able to get a good list of names, giving us full data on appliances in each individual home.

"The question was then asked verbally: 'Would you be willing to have interfering appliances checked and repaired for the good of your own or other radios in the community?' In cases where interference was bad and where the prospect was willing to do something about it we sent out our repairman to make an inspection. Where only minor adjustments were made we did not charge. We took our pay in the form of information which will eventually lead to increased business.

"Often the repairman found trouble in an appliance which called for an extensive repair and we received considerable revenue from the performance of major repair jobs. We feel confident that the canvass will react to greater financial advantage beginning this month when our fall selling campaign starts."



“Nothing

This is S. J. Pensock's policy on new auto radios—A reputation for quality merchandise, well installed, has enabled his store to sell 71 since January

“THERE are two reasons why I have so far declined to sell auto radios under \$59.50. I see no necessity for featuring price while demand continues healthy and saturation remains low. And it is my feeling that complete consumer satisfaction, through the sale of merchandise of the highest possible quality, is the most important single factor in building up this new business.”

So says S. J. Pensock who, while by no means the largest retail radio outlet in Hazleton, Pennsylvania, is an acknowledged leader in the auto radio field. Since January, Pensock has sold only \$2,527 worth of household models. But in the same period he has moved 71 car sets, (Motorola and Philco) grossing \$4,402, installed and serviced 22 for other dealers at 75 cents an hour, getting full list for accessories and parts required. Ninety-four per cent of his automotive transactions are for cash.

How He Gets the Business

Thirty-one per cent of the store's auto radio business is obtained through old customers. When a set is installed the buyer is instructed to come back within three days for generator charging rate adjustment and leads are solicited at that time. Every satisfied user, Pensock points out, has several friends to whom car sets can be sold and is especially prone to brag about his new radio among them during the first flush of possession.

Twenty-nine per cent is the result of “street corner” demonstrations. The service car is equipped with a receiver which is left in operation whenever the car is parked. Circulars in a handy rack mounted above the windshield serve as “printed salesmen” when no one is at the wheel. Whenever the car is free and Pensock has time he drives it to a curbside point opposite a busy bank at the main downtown intersection, obtaining many leads here.

Eighteen per cent is brought in by small classified ads appearing in the daily papers. The line: “Bargains in slightly used auto radios” has been the most effective appeal, attracting more prospects than new equipment copy, and Pensock almost invariably manages to “sell up.” Display ads using manufacturers' cuts have been less effective.

Thirteen per cent results from follow-up of a neighborly automobile dealer's tips on new car buyers. Pensock does not believe in straight house-to-house solicitation but readily makes cold-turkey calls upon people who have just bought new cars. He is able to reciprocate by turning over to the car dealer the names of possible automobile prospects. Many people dodge buying a set when approached by telling Pensock that they will be in the market “as soon as they get their new car” and three DeSotos have been sold this year to just such prospects. Free service on the auto dealer's own radio also helps keep him interested.

Nine per cent of the business is attributed to normal store traffic and the interest aroused by curbside set installations.

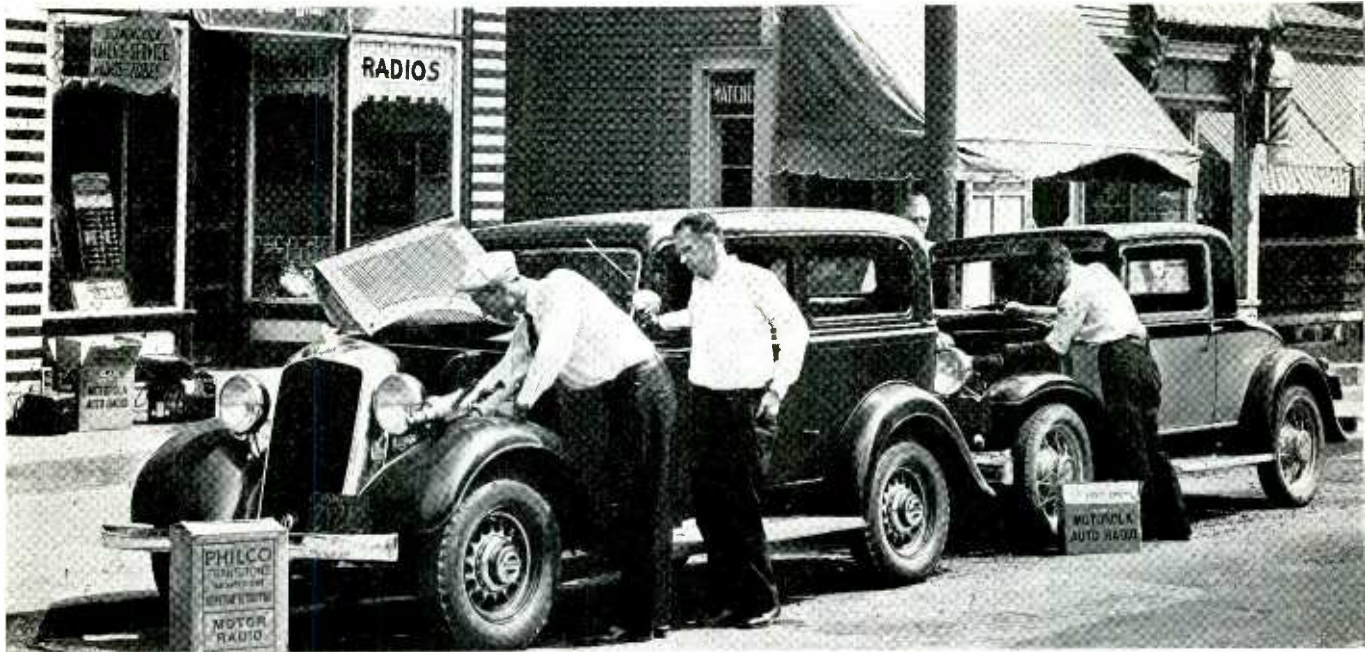
Auto radio is a “natural” for this small, sidestreet store as its sale involves the expenditure of effort rather than capital. Pensock makes up for his inability to spend money lavishly on display ads and high-pressure promotion by investing plenty of shoe-leather and gasoline instead. Those sets which are sold, therefore, net a nice profit, particularly in view of the store's ability to stick to the higher price brackets.

WHEN PROSPECTS ASK THIS QUESTION—

“Will suppression affect the performance of my car, reduce mileage?”

Tell them “No” says this dealer, who has made comparative tests and claims that it makes no noticeable difference if the installation is properly made, good equipment used.

Under \$59.⁵⁰”



Pensock has garage facilities but prefers to install at the curb where light is better and work attracts attention

Obviously, because the business expands within small, clannish circles of which old customers are the nucleus, it is essential that every installation give complete satisfaction. One displeased user cuts off the potential market formed by his relatives and friends almost beyond recovery.

Young as the auto radio business is, trade-ins have already started. Pensock has taken 12 electrified and 10 battery types in trade since the first of the year, allowing \$10 to \$25 for the former and from \$5 to \$12 for the latter. Battery types are taken only where the purchase price of the new receiver is sufficiently high to justify it and are rarely re-sold, parts being salvaged for repair work. Broken up, battery models eventually defray the major portion of the allowance made upon them. Electrified models are, on the other hand, re-sold to people who feel that they cannot afford to pay \$59.50.

Trade-in Business Already Starting

“These traded-in electrics have six tubes or more,” observes Pensock, “and when re-conditioned give better service, in my estimation, than the cheaper variety of modern receiver. Then too, people understand that they are not the last word and do not expect them to be just as good as anything on the market. This is extremely helpful to my business, as I can always go back to the buyers of used models and sell them better equipment when they have the money, whereas the purchaser of a new set, however cheap, is inclined to think he has been ‘gypped’ when the dealer insinuates that there is ‘something better.’”

“Sale of traded-in models to people who want low-priced merchandise not only permits me to sell good receivers to people who insist upon some credit for their

old equipment but leaves the way open to new business among the used set buyers. It has been my experience that few buyers of auto radio are long satisfied with anything but the best, even if they at first insist that an inexpensive set is good enough. Where I can’t sell a quality receiver at once I place a used set at cost plus a reasonable labor and materials charge on the installation, then follow up later to ‘trade-in the trade-in.’”

Gives Other Dealers a “Break”

Auto radio installation and service for other local outlets has helped pay Pensock’s overhead and is slowly but surely enhancing his prestige and increasing sales. A number of outlets not equipped to handle the rather specialized work connected with car sets went into the business when it started to boom. Pensock wisely installed and serviced for them at the lowest possible cost, bills rarely exceeding \$5, and his trouble-free work was sincerely appreciated. Now, several of these outlets have dropped auto radio for lines with which they are more familiar and inquiries are referred directly to him.

When requested by prospects relayed by downtown stores free demonstrations are made . . . in Pensock’s own car, never in their own. Potential buyers are driven out of the business area to a nearby residential district where reception conditions more nearly approximate those under which the sets are ultimately to be used. There they are permitted to drive and tune in. Installations have been made without cash in hand only in the case of three consistent customers who may almost be classified as “personal friends.”

“The one thing no new appliance can stand,” says Pensock, “is consumer dissatisfaction. I avoid it by sticking to quality sets, charging enough for them to make a good installation.”

Radio Manufacturers to Operate Under



Withdrawal of Elaborate RMA Code Deemed Advisable Because of Emergency Situation—Unanimously Approved by Board of Directors—NEMA Code Interpreted

ALL radio manufacturers, RMA members and also non-member makers of radio products, are now under the code of fair competition for the electrical manufacturing industry which was approved August 4, by President Roosevelt. The electrical code became effective for all radio manufacturers on August 18, and immediately operative following withdrawal by the Radio Manufacturers Association of its proposed code for the radio industry which had been submitted to the National Recovery Administration on July 29.

Withdrawal of the RMA code, by unanimous action August 17 of the RMA Industrial Recovery Committee and also the Association's Board of Directors, placed all radio manufacturers under the electrical industry code as approved by President Roosevelt, following submission and hearings by the National Electrical Manufacturers Association.

Many advantages to RMA members and, in fact, all radio manufacturers, follow withdrawal by the RMA of its proposed radio code and election to apply the electrical code to the radio industry.

Immediate, definite and permanent wage scales and working hours for employees as provided in the electrical code are secured for radio manufacturers. Also delay, controversy and expense, as well as public hearings over wages and working hours and other subjects, are all avoided by withdrawal of the proposed RMA code. The labor provisions, especially, of the electrical code are believed to be the best obtainable and probably better than might have been secured had the proposed RMA code gone to final hearing before the Government.

Adoption of the electrical code does not affect the RMA as an organization and no RMA member need join NEMA unless he desires. However, to provide effective administration of the code by NEMA and for radio manufacturers, committees of the two associations have begun negotiations for application of the code to radio manufacturers. All administration of the code necessarily will be under supervision of NEMA, as stipulated in the electrical code.

Swift and dramatic events in Washington during the week of August 13-19 in the emergencies confronting the radio industry resulted in this action of the RMA withdrawing its code and the unanimous decision of the RMA board of directors and Industrial Recovery Committee to make the electrical code immediately available and applicable to the radio manufacturing industry.

August 14, negotiations were begun with Deputy Administrator W. L. Allen. The NRA appointed J. Clarke Coit, of Chicago, past president of the RMA, as the official "industrial advisor" for the Government and the NRA, to assist Deputy Administrator Allen. The RMA was represented by Chairman W. Roy McCanne of the Association's code committee; Arthur T. Murray, of Springfield, chairman of the RMA Set Division; S. W. Muldowny of New York, chairman of the RMA Tube Division, and Paul B. Klugh of Chicago, all members of the RMA Code Committee. Others participating were President Fred D. Williams of the RMA; James M. Skinner, of Philadelphia; Bond Geddes, RMA general manager, and John W. Van Allen, general counsel of the association.

Objections of the Administration to certain provisions of the proposed RMA code and disagreement within the industry on other features finally resulted in unanimous decision, in the emergency, to withdraw the RMA code from the Administration and to make the electrical code immediately effective for all radio manufacturers. The Administration advised the RMA conferees that price-fixing in any form in any code was objectionable and exceptions also were taken to the proposed RMA plan for a weighted average "cost of production" for receiving sets and also the proposed trade agreements in the radio code for standard manufacturer-distributor-dealer contracts and uniform trade discounts.

The emergency action necessary prevented submission of this complex problem to RMA members and the industry prior to withdrawal of the RMA code. The code committee and directors were unable, as they desired, to have an immediate RMA membership and industry meeting. Therefore, under the authority previously conferred by the RMA membership, the decision was reached by the board of directors to withdraw the RMA code and have the entire radio industry operate under the electrical code. However, a general meeting of the radio industry, including RMA members and also non-members, is contemplated within a short time, possibly a fortnight, to give the industry full information.

Interpretation of the NEMA Code

The chief features of the approved code of the National Electrical Manufacturers Association, under which, it is expected, radio manufacturers will operate, are (1) Wage scales and hours similar to those provided in the

Electrical Code

original RMA code, i.e. 40 cents an hour, 36 hours a week and a minimum of \$15 a week; (2) The use of published price lists and discount sheets to eliminate cut price bidding and to stabilize the price structure; (3) The autonomous jurisdiction given each product group to carry out the general code and its supplementary code; (4) Provision for uniform accounting system; (5) Submission to the Government once a year of a statement of earnings, plant capacity, volume of sales in units and dollars, status of orders, stocks on hand, number of employees, wage rates, hours of work and such other data as the Board of Governors of The National Electrical Manufacturers Association may require.

Of special interest to the retail trade, as well as the set makers, are the following clauses:

IX. No employer shall sell or exchange any product of his manufacture at a price or upon such terms or conditions that will result in the customer paying for the goods received less than the cost to the seller, determined in accordance with the uniform and standard method of costing hereinabove prescribed, provided, however, that dropped lines, seconds, or inventories which must be converted into cash to meet emergency needs may be disposed of in such manner and on such terms and conditions as the supervisory agency may approve and as are necessary to move

such product into buyers' hands, and provided further that selling below cost in order to meet existing competition on products of equivalent design, character, quality or specification shall not be deemed a violation of this article if provision therefor is made in supplemental codes for any branch or subdivision of the industry, which may be hereafter prepared and duly approved by the administrator.

Apparently costs are based upon those at point of final sale, the consumer. This should tend to establish definite trade distribution channels and even indicates a basis of resale price control. Flexibility is granted in the exception clause covering dropped lines, etc. Note that an entire group (all set manufacturers, for example) must agree to these exception clauses, as well as the supervisor. Thus great care will be exercised in granting demands for such action which will apply to the entire group.

ARTICLE X affords an opportunity for a certain control of trade practices. Price lists and discount sheets are required and goods must be sold at these published values and not below them. Prices and discounts may be varied, but while in effect must fix all bids. Such prices and discounts must be made available for all competing concerns.

McKay-Warinner Builds a Public Address TRAILER

PUBLIC address amplifiers in automobiles are not new but the McKay-Warinner Radio Company introduces a new wrinkle—a P.A. trailer. 4 ft. wide by 6 ft. long by 4 ft. high, mounted on a set of heavy auto springs and "Ford" wheels, this unique sales accessory was constructed of rough lumber by a local garage for \$125. A universal joint shaft permits easy towing.

The trailer is equipped with a 110-volt, 60-cycle motor-generator driven by 6 series storage batteries. It has an "auditorium" amplifier obtained cheap from a theater, with turntable, two-button "mike" and two dynamic speakers. No radio is carried, a standard auto set installed in the towing car ahead serving instead. By means of a cable and plug the output of the radio may be fed to the trailer amplifier.

The advantages of the trailer are: 1. It may be dropped off at a busy street corner with its amplifier going full blast while the truck goes on about its business. 2. Its unusual appearance attracts considerable attention and is good publicity. (A new sign is being erected on the roof.) 3. There is plenty of room for amplifier and operator. 4. It cost considerably less than it would have to equip a separate car.

Several local merchants have hired the trailer from time to time for advertising work, paying \$25 for each 6-hour day. It was used to broadcast numerous public events last summer—good publicity for the radio dealer.



Trailer Better Than Truck for P.A.

An Ashland garage built this unique rig, for \$125, from specifications supplied by McKay & Warinner. A trailer has many advantages over a truck for public address work, according to this Kentucky firm.

Radio Prosperity CAMPAIGN Sales Ideas

"Can't Afford It"

TO THOSE who can afford a new set, who should buy one, but plead poverty, the following arguments will be helpful:

Stress the buying power of today's dollar. Last March it was worth 181 cents, compared to 100 cents in 1926. Even today it will buy far more than then. But this condition won't last much longer—therefore, BUY NOW.

From another angle—Higher prices are coming. It's economy to change your dollars into merchandise before it is too late to profit thereby. Save by buying.

It's better business to invest now in that needed new set than pay twice as much later. You must have radio—and quality reception will enhance your pleasure five-fold.

Put America "back to work"—by buying now, when such action is so vitally needed to give impetus to the success of the Recovery Act.

Cite the case of Mrs. Jones, "Who felt the same way as you do about it. But she finally bought a new receiver and, only the other day, came in here and told us how glad she was that she didn't put off her decision."

Putting Punch in Tube Sales Copy

Editor, *Radio Retailing*:

For years I have appreciated your articles in *Radio Retailing* and now I have some suggestions which should help other dealers sell tubes.

Most of the sales copy the dealer gets from the tube makers is not specific enough. For instance: "For Real Companionship Use 'Blank' Tubes," "Recommended

By the Leading Set Manufacturers," "Puts New Life in Your Set," "For Tonight's Big Program Use 'Green' Tubes."

In reality, if you have an old radio and listen to Eddie Cantor, Plump Smith, Rudy Vallee and others and you hear and understand their jokes and sings, you probably wouldn't take your tubes out and have them tested every 90 days. As long as the set sounds O.K., why spend money? But if the tube display material read more like the following the public would realize how important to good reception tubes really are:

Because a Radio Tube Lights Is No Sign It Is Good. It May be Dead and We Can Prove It.

Danger Ahead If You Use Cheap Bootleg Tubes.

Weak Tubes Are Like Weak Lungs—No Power.

A Shorted Tube In Your Set Can Cause Up to \$20 Damage to Your Set.

Nine out of every ten think that because a tube lights it is O.K. and you can't blame them because no one has told them any different. It is important that the dealer point out the danger—the costliness—of fooling around with cheap or worn-out tubes.

The only backing I have ever had that I will honestly say has sold a good many tubes is a paragraph out of a tube tester instruction book which reads as follows: "The overlapping portion of the WEAK and RENEW scale covers tubes which are definitely weak and on the ragged edge of being inoperative. The use of tubes reading RENEW will cripple the radio set and such tubes should be renewed immediately."

That paragraph has real sense and sells tubes and what the dealer needs is such paragraphs or statements from big companies.

August D'amico

MODERN RADIO SALES,
Milwaukee, Wis.

PROSPERITY MONTH WINDOW DISPLAYS . . .
Here's how a typical dealer uses the RMA posters



Handling

"Depression Delinquents"

DEPRESSION delinquents all fall into three categories, according to a radio dealer survey conducted for *Radio Retailing* by our Oklahoma City correspondent.

(a) No job or income at present.

(b) Still obsessed with the hording mania and fear to part with money.

(c) Can afford to pay but using depression as an excuse not to.

Radio Retailing, September, 1933

Classify your bad accounts under these causes and then apply the pressure to fit the case as follows:

(a) Types—The money is not there, hence it cannot be collected—but this customer's friendship should be retained. Therefore secure a signed acknowledgment of the debt, *dated and witnessed*, AT ONCE. Also get a long-term, interest-bearing, note if future prospects for collecting look fair. If it is a hopeless case, pull the set.

(b) Types—The majority of these are not deliberately delinquent. They're simply afraid. One credit manager in Oklahoma City solved the problem by gently pressing for a small payment on account. If forthcoming, and the pressure renewed in a few weeks, the debt will ultimately be cleared.

(c) Types—This third group demands little consideration but plenty of action. When the credit manager is convinced that the debtor can pay but won't institute suit at once. Bluffing will not work with these birds, who, themselves, are bluffing.



NEW SET PICTURES PLUS CAMPAIGN CIRCULARS
... Send your salesmen right into homes with these aids

Uses "Classified" for New Sets

PRESIDENT J. P. KAY, of the Kay Radio Co., Tulsa, Okla., advertises his *new* sets in the classified columns of the local papers, as well as his used stock.



TICKETS TO BROADCAST STUDIOS . . . Arrange for these with local stations and treat your best prospects

Finds that this department is more thoroughly read by people seriously intending to buy a new radio than some of the higher rate, display, positions.

Makes Advertising Pay

"I AM still enjoying a profitable volume of patronage largely because I have not reduced my advertising appropriation," declares *Radio Bill* Farwell, Alhambra, California. "Others have come and gone, due largely, I believe, to their failure to advertise consistently."

The secret of productive copy, according to Farwell, is to make it timely and individualistic. He usually ties

the thought of radio service to some news event or some popular radio program.

"Periodically, we ask every new customer why he came to us," says Farwell. "If it was due to our advertising we record in what medium he read our message. At the end of three weeks we tabulate the replies and thus get a good idea of what mediums are bringing results."

The Ten Tube Fallacy

A TEN-TUBE set is not necessarily better than one with seven. It may or may not be. Explain the matter this way:

There are sets on the market having many tubes which operate no better than other sets having fewer tubes. The prospective buyer should not be misled by a low price or the fancied advantage of a 10-tube set over a 7-tube set at the same price. In fact a very cheap set is never anything

but a very cheap set. If it has ten tubes there are merely more circuits to get out of whack.

What counts in a receiver is not the number of tubes, but the name of the manufacturer, the skill and honesty of his engineers and his national reputation for good radio merchandise.

What counts to the listener is performance. Let the listener not worry about the number of tubes. It is really easier to make a 10-tube set than a 5-tube set of equivalent characteristics.

Just because the set bears a low price is no sign it is a bargain; just because it has 10 tubes is no sign it will out-perform a well-designed and engineered 7-tube set. Talk quality, therefore, not quantity.

News of the Month

September, 1933

New York, N. Y.

GRUNOW MERGER WITH U. S. RADIO CONSUMMATED

A step, "destined to place in the hands of the dealers of America a complete, independent line of electrical household merchandise," has been consummated in the merger of the U. S. Radio and Television Corporation with the Grunow Corporation, of Chicago, according to William C. Grunow, president of the merged companies. The new organization will be known as the General Household Utilities Company.

The U. S. Radio and Television Corporation has an excellent plant, well developed along radio and television experimental lines. Both Mr. Grunow and Mr. Coit felt, after a series of conferences, that with Grunow refrigeration and the U. S. Radio, developed along the Grunow pattern, an organization could be formed that would resolve itself into a powerful merchandising factor. The result has been the formation of one big concern—the General Household Utilities Company. Already definite steps have been taken to offer the dealer a year-around business, the nucleus being the Grunow refrigerator and the new Grunow radio receiver.

Mr. Grunow, as mentioned, is president of General Household with Mr. Coit as chairman of the board. Vice-Presidents are H. C. Bonfig and A. C. Winnan; J. P.

Rogers is treasurer and R. R. Trimarco, secretary. All of these men have been intimately connected with either Mr. Grunow or Mr. Coit over a period of years.

General's Inaugural Convention was held at the Lake Shore Athletic Club, Chicago, September 11-12.

Special Awards to Five Majestic Distributors

Hamburg Brothers Win Silver Cup

An unexpected event at the Majestic banquet, Aug. 15, during its distributors' convention, was the award of a silver loving cup and four silver plaques to five Majestic jobbers in recognition of their outstanding achievements selling refrigerators during 1933.

The loving cup went to Hamburg Brothers, Pittsburg, while the four plaques were presented to Capital Electric Company, Atlanta; Majestic New York, Inc.; Radio Equipment Company, South Bend, Ind., and Stern and Company, of Hartford, Conn.

"Majestic," states LeRoi J. Williams, general manager of Grigsby-Grunow, "has just concluded its most successful distributor convention. In spite of price increases our representatives placed orders larger than for the last three years. Unfilled orders for immediate shipment are over 65,000 radio sets."

MAY RADIO CORP. WITHDRAWS FROM PHILCO FAMILY

Effective August 1, the May Radio & Television Corporation withdrew from the distribution of Philco radio and Philco products in the metropolitan, New York, district. This distribution has been taken over by the Philco Radio & Television Corp. of New York who have engaged almost intact the entire personnel of the May Corporation.

D. W. May, president of May Radio & Television Corp., leaves the radio business to engage in another business according to current reports. Thomas A. Kennally, manager of the Eastern Division of the United States for Philco, will continue to make his divisional headquarters in New York.



T. A. O'LOUGHLIN
General Manager,
Philco Radio & Tel.
Corp. of New York

The operation of the new Philco distributing corporation will be entirely in the hands of Thomas A. O'Loughlin, former vice-president of the May concern. Mr. O'Loughlin has been appointed general manager of the new company. Arthur P. L'Hommedieu, direct factory representative, remains in charge of the New York Branch.

Retailer sales in New York and the Bronx remain under the district supervision of H. R. Sheer; Brooklyn and Long Island under S. L. Capell; and New Jersey under E. C. Pullen.

The six-story building on Lafayette Street, New York City, formerly occupied exclusively by May, has been taken over by the new distributing agency, also the New Jersey sales office and warehouse.

Mr. O'Loughlin states that there will be no changes in the corps of salesmen now representing Philco in the metropolitan district.

Tatro Entertains Jobbers

The L. Tatro Products Corporation, Decorah, Iowa, entertained, and instructed over 70 distributors of its 32-volt radio sets August 7-8. Special Pullmans brought the Easterners and Southerners to the state of the tall corn. In addition to a viewing of the new models the program included an old time Iowa corn roast.

Buffalo Ties in with Elaborate Campaign Plans and Radio Show



The Radio Distributors' Division of the Electrical League of the Niagara Frontier has organized to do a big local job in the "Rebuild Prosperity" campaign. One of the features will be a Radio Show to be held in Buffalo Sept. 24-30. All jobbers have agreed to support it with extensive publicity. H. P. Fillmore, manager of the New York Talking Machine Company, Buffalo, is chairman of this activity. Above is a picture of the dealer meeting held August 18, at which time Earl Whitehorse outlined the September program of intensive selling and organized the local trade.

Roy Davey American Bosch Radio Sales Manager

The United American Bosch Corporation announces the appointment of Roy Davey as Radio Sales Manager. This action, August 1, follows the resignation of George Stackman who enters the jobbing business as part owner of Waterhouse, Lester, Scovel Company, San Francisco.

Mr. Davey has been with Bosch for thirteen years, having handled its advertising and sales plans since the Corporation pioneered in the radio business. He will continue to direct the advertising and Sales Promotion activities of this concern.

Mr. Davey expects to make announcements as regards his company's new and extensive sales plans in the near future.



ROY DAVEY
Radio Sales Mgr.,
United Amer. Bosch

National Union Offers New Auto Radio Service Manual

National Union Radio Corporation, New York, announces that it is prepared to distribute its first "Official Automobile Radio Service Manual." This book was produced in response to demand for data incorporating installation and service information on all principal motor car receivers. Here is an orderly arrangement of vital facts pertaining to installation, servicing, noise suppression and proper aerial hook-up. Available to the trade as one of National's regular equipment offers.

Raytheon's Exhibit at the Fair



In the Travel and Transport Building, Century of Progress Exposition, the Raytheon Company is showing continuous movies, from the center of the large tube, of the process and complete manufacture of tubes in its plant in Newton, Mass.



TELEVISION At the last meeting of IRE a group of about 50 engineers and experimenters formed the National Television Association. Primary purpose: expansion of Washington's "experimental transmission licenses only" to permit commercial exploitation. It'll probably be a long, slow pull.

S-W EXHIBIT Logan-Gregg Hardware Company staged a right smart Stewart-Warner trade show exhibit in Pittsburgh last month. Ran two days, well attended.

TWO TO DULUTH Chicago's two merger boys, Bill Grunow and J. Clarke Coit, now the General Household Utilities Company, have landed Kelley-How-Thomson Company to distribute Grunow (Carrene) refrigerators, U. S. Radio sets and what have you in northern Minnesota, North Dakota and Northern Wisconsin. Kelley "and How" headquarter in Duluth.

THORDARSON The New York office of the Thordarson Electric Mfg. Co., transformers, is now located at 202 East 44th Street. Ben Aplin is in charge.

VICTOR RECORD BOOK The ninth edition of the book, "What We Hear in Music," has just come off the press for the RCA-Victor Company. Anne Shaw Faulkner, its editor, features 1228 Victor records as illustrative material. It's considered a standard reference treatise on music appreciation.

ZENITH EXPANDS Ray Erlandson, former S M for the Automobile Radio Division of Grigsby-Grunow, and his assistant I. L. Kelsey, have taken similar positions with the Zenith Radio Corporation. Already have set up a new department, for selling to car makers. Zenith executives state that they have been encouraged to enter aggressively into the special production of AR sets for automobile manufacturers.

SHURE MOVES After Sept. 1, Shure Brothers, microphones and related equipment, will occupy larger quarters at 215 West Huron Street, Chicago.

PARTS DISTRIBUTORS There's a new one out in Grand Rapids, Michigan, the Radio Equipment Company, of 710 Jefferson Ave., S. E. John F. McCue, Martin V. Eddy and Marshall T. Ball are "the works."

TUBES Vice-President Bohner of Tung-Sol reports that he has received a lot of letters asking how the wholesaler's recently submitted code, recommending that there be no consignment of radio merchandise, affects his company's policy. It doesn't. The submitted code does not include tubes.

To S. W. Muldowney, chairman of the RMA tube committee and National Union bigwig is attributed the statement that development of new tube types has definitely let down, that the introduction of 8 and 9 prong types is remote. NU, incidentally, reports a better July than any single month in the company's history, despite the 10c. per tube rise in lists.

Arcturus has increased employee earnings 5%, shortened working hours, now flies the NRA flag.

Hygrade Sylvania increased its employees over 1,400 between June 17 and August 12. Plants working at capacity.

PROMOTED Fansteel Products, Inc., North Chicago, has appointed Carl Howard as sales manager of its battery charger division—"necessary because of the growing popularity of our automotive battery charger."

CROSLEY BOOM Five hundred and sixty-one persons have been added to the payrolls of the Crosley Radio Corporation since August 1, states Powel Crosley, Jr. This increase of 39 per cent during the past 25 days brings the total number of persons now employed by the Crosley corporation to 1,988.

As evidence of a marked increase in buying on the part of the public, the Crosley company at this time last year was manufacturing approximately 250 sets daily as compared with its current production of nearly 2,000.

SETS AND REFRIGERATORS—Majestic shipped 29,777 radios and refrigerators in July. Refrigerator shipments exceeded those leaving the plant during July, 1932, by 7 to 1, radio shipments doubled.

McCULLA Under date of Sept. 2 the McCulla Mfg. Company writes: "We are the successors to the National Pfanstiehl Radio Corporation, Waukegan, Illinois."

McCulla starts its new line with four models, from a four-tuber, at \$18.95, a five tube set at \$22.50, another at \$29.95, to a special short wave receiver, for fans, to sell for \$59.50.

SUMMER SALES UP Marked improvement in summer sales of radio compared to last year are shown by a Treasury report just issued. Internal revenue collections for July, '33, of the five per cent tax was \$191,075 according to Washington. This compares to excise collections of but \$32,848 from June 20 to July 31 in 1932.

NEW TRANSFORMER CONCERN Word comes that I. A. Mitchell, design engineer, S. L. Baraf, sales director, and L. Goldstone, production manager, have withdrawn from the Kenyon Transformer Co. and organized the United Transformer Corporation, at 264 Canal Street, New York.

ALSO IRSM CODE

Service Men to Propose National Licensing System

The Institute of Radio Service Men, according to last minute advice from Chicago, are going ahead with the preparation of a Code proposing, among other things, the national licensing of qualified radio service men through the facilities of the Federal Radio Inspectors of the nine radio zones. It is suggested that servicers proceed at once to organize local groups for the promotion of the ethical standards of their profession and to be in a position to quickly tie in with whatever national movement may result through the efforts of the Institute. For further information communicate with the Institute of Radio Service Men, 510 North Dearborn Street, Chicago, Illinois.

Parts Jobbers Organize

To Submit Supplementary Code

Walter C. Braun, Radolek Company, Chicago, was elected president of the recently organized National Association of Radio Parts and Accessories Distributors at a meeting held July 31 at the Sherman Hotel, Chicago. The immediate purpose of this association will be the formulation of a Code of Fair Practices for the parts jobbers. Rec Munger, of Lew Bonn, Inc., St. Paul, is vice-president; M. W. Berns, Federated Purchasers, New York, treasurer and K. A. Hathaway, who is the executive secretary of the Institute of Radio Service Men, will function as secretary.

In the light of recent developments the parts and accessories distributors now contemplate submitting a "coordinated code," according to an officer of this newly formed organization. "within the limitations of the general provisions of the National Electrical Manufacturers Association approved code."



WALTER C. BRAUN
President of the
National Assoc. of
Radio Parts and
Accessories
Distributors

Nine Tubes Cover 75 Per Cent of All Replacement Sales States Sylvania

To assist dealers in ordering and maintaining tube stocks Hygrade Sylvania has made a statistical study of the replacement demand. It finds that nine tube types will take care of 75 per cent of the replacement demand and that 15 types account for the next 15 per cent of all requirements. The balance, 10 per cent, extends down into a miscellaneous collection of over 45 slow moving types. "Thus, even the small dealer should maintain generous supplies of the 'Class A' tubes and a reasonable stock of

'Class B' states Paul Ellison, advertising manager for Sylvania.

Following is the Group A classification: 01A, Amplifier and Detector; 24A, AC Screen Grid Amplifier; 26, AC Amplifier; 27, AV Amplifier and Detector; 35, Variable Mu Tetrode; 45, Power Amplifier; 47, Power Pentode; 71A, Power Amplifier and 80, Full Wave Rectifier.

Majestic Publishes New Auto Radio Installation Manual

With the growth in popularity of automobile radio, come various problems in installation which are not easy to solve without aid. To make every point clear to installation men, Majestic's Service Department has just made available the Majestic Auto Radio Installation Manual.

It's author states: "You will note that we not only technically describe the receiver itself, but give information pertaining to the source of motor interference, the methods of suppressing it, and the correct manner and position of installing the receiver. We also present a detailed list of approximately 56 cars of different makes."

RADIO SHOWS

New York	Sept. 20-30
<i>National Electrical Exposition Madison Square Garden Radio and Electrical Exhibits</i>	
Minneapolis	Sept. 25-30
<i>Twelfth Annual Radio & Electrical Show, Municipal Auditorium</i>	
Buffalo	Sept. 24-30
New York	Oct. 2-4
<i>"Rebuild Prosperity" Convention of the Institute of Radio Service Men, Hotel Pennsylvania</i>	
Columbus	Oct. 2-6
<i>Eighth Annual Radio and Electrical Exposition</i>	
Kansas City	Oct. 2-7
<i>Electric and Radio Show</i>	
Milwaukee	Oct. 2-7
<i>Tenth Annual Radio, Refrigeration and Electrical Show Milwaukee Auditorium</i>	
Philadelphia	Oct. 2-7
<i>Electrical and Radio Show Municipal Convention Hall</i>	
St. Louis	Oct. 2-7
<i>Southeastern Radio Show</i>	

TOBE Wholesale Radio Service, Inc., states that it has been appointed eastern headquarters for Tobe Deutschmann noise suppression equipment.

WILL DILLON Has been appointed by the Waco Sales & Distributing Company to represent it in New York City and surrounding territories.

AN ALL-ELECTRIC EXPOSITION

*Madison Square Garden Show,
New York, Opens Sept. 20*

With 80 per cent of all available space already booked and with an assured distribution of thousands of admittance tickets, the success of the National Electrical Exposition, sponsored by the Electrical Association of New York, Inc., is assured.

While radio products and startling demonstrations of the wonders of radio's accomplishments, will be headline features, no branch of the domestic application of electricity has been neglected.

Thus, for example, air conditioning, whose popularity during the past year has grown amazingly, will, for the first time, receive adequate treatment. All methods of cooling, purifying and humidifying air will be demonstrated.

Three full years of scientific and commercial progress in electrical fields will be shown. During the eleven days of the Exposition many of the headliner stars of the air will transfer their usually unseen performances to the two crystal studios in the Garden.

Radio Program Annual

The dealer who makes a point of "selling the radio programs" will find it worth while to keep on hand the Radio Program Annual and General Reference Book compiled by the Pierre Key Publishing Corp., 119 W. 57th St., New York City. The book serves as a key to the identification of radio personalities and programs, station power, and operating time. Radio stations of the world, radio organizations, and general radio reference material will also be found in its 450 pages, bound in library buckram. Price, \$7.50, postpaid.

"Gemutlichkeit"

(Continued from page 23)

the de luxe instrument make it both feasible and good strategy to do this. When out on trial the customer is shown how some extra wiring and additional loud speakers will permit this instrument to be enjoyed all over the house. Faulty acoustics can be corrected, and generally \$100 worth of additional equipment is sold.

Leading sources of sales have been private homes, social organizations, country clubs, restaurants, tea gardens, hotels and the like. Of late the beer taverns have come to the foreground. Cemeteries and undertakers both eager for atmospheric effects, have been steady buyers. In demonstrating to undertakers, a subdued form of presentation has been found to be most effective.

To a world that wants to chose its own music and set its own atmosphere, Hugh Randall has made his appeal. In Milwaukee they say that music is necessary to "gemutlichkeit"—and it appears that what has made Milwaukee famous is sweeping that sentiment across the country.

Mace-Ryer Sells

2,000 TUBES a Month

THE radio department of the Mace-Ryer Company, Kansas City, sells an average of 2,000 tubes per month. Eighty per cent of these sales are made by three service men, 50 per cent of which are made on regular service calls and the balance on leads promoted by newspaper and direct mail advertising.

"For the past year," sales manager C. C. Jones observes, "promotional stunts have failed to bring tube prospects into the store. Apparently price alone will attract enough people to justify the advertising expense, but we prefer not to cut prices."

Consequently the company turned to its service men. But the mere installation of tubes did not improve the performance of sets sufficiently to satisfy the average customer. There were many complaints, necessitating expensive call-backs. The company solved this problem by balancing the set to peak performance with an oscillator.

The present procedure—whether the prospect comes as the result of a regular service call or from special advertising of a free \$1.50 service call—is to clean the chassis, check ground and aerial, put in needed tubes and balance the set up to peak performance. The servicer then asks the customer if he wants to keep the tubes. While he uses a sales talk built around improved performance, he makes no effort to high pressure.

Of the two forms of advertising used for tube leads, direct mail only has been analyzed for results. Two

types of post cards are mailed out. The first is of the "return" type, with space for the prospect to name the date he wants the service man to call. On this the company has received 30 per cent returns. The second is a postcard asking the prospect to telephone when he wants the free service call. This has brought 10 per cent returns. To insure action on the part of the prospect, the offer is made for a limited period of time.

Experience so far has shown that the service men will sell tubes to fifty per cent of the prospects secured through the "courtesy call" direct mailings, and that each sale will average \$7.50. Service men make an average of 20 calls a day, and each secures at least one new radio prospect, which he turns over to the sales department.

Service men are experienced in sales as well as service. Because they have been with the company several years, the straight salary basis of compensation can be used. They are required to dress neatly in business suits. Three times a week they meet with Mr. Jones to discuss complaints and the best method of avoiding the cause of them.

The service department, operating solely on calls at \$1.50 and taking care of free service on new sales, was a liability. Under the present combination sales and service plan, the department has shown the company a profit, and so successful has the method been that tube sales are increasing as the result of word-of-mouth recommendation.

Business Ethics in SERVICING *By J. P. Kennedy*

PROBLEM NO. 1—The Loose Wire

"I'LL be right over, Mr. Miller. Thank you."

It was the first service call in two days for Joe Shank's radio shop. As Joe prepared for the trip, he glanced at his service record card. Mr. Miller had A-1 credit, lived in a fine home in a good neighborhood, had a Kennedy Model 210, 1929 eight-tube neutrodyne that cost \$176. His one and only service call in the four years of service from that set had netted Joe the profit on one type '80 tube and the price of the trip.

Arriving at the set, the trouble was apparent at once. Joe's keen eyes spotted the red wire from the speaker field pulled out of its jack in the back of the set. Instinctively Joe knew that if he inserted that wire in its proper position and made the set play at once, especially with Mr. Miller standing there, and then asked for the usual dollar service call, he would probably irritate the customer and lose his business in the future. Instead, out came the analyzer. Slipping out the aerial wire, Joe inserted the speaker field cord and turned on the set. Aside from the faint hum all these old 210 models had due to using only 15 mfd. in the filter circuit, the voltages, tubes, and circuits and all tested perfect. Joe made

some rapid mental calculations, a new 24-mfd. condenser would clear the hum, then a tone control would help, and flexible pig-tail connections to points on the rotor-shaft of the variable condenser would sharpen the tuning.

With a perfectly straight face, Joe looked up at his customer, "You've got several things here that need attention, the set needs a complete overhauling that will cost you \$9."

What is wrong with Joe's tactics? What would you do under the same circumstance? "Radio Retailing" wants your frank opinion and will publish the best replies.

Here is my interpretation of the proper—the ethical—handling of such a situation:

Answer—It was all right for Joe to silently test the entire set, the customer is entitled to a complete test on a standard service call. After the test it was wrong for Joe to imply that the work he suggested was necessary to make the set play. He should make the set perform, then point out the improvements new filter condenser, tone controls, etc., would make. A successful service business can only be built on an honest foundation.

TUBE TIDINGS

September, 1933

E.T. Cunningham, Inc.—RCA Radiotron Co., Inc.

Camden, N. J.

Radiotron-Cunningham Special Offer

Bargain Net Prices on Straight-side 01As, 27s and 45s Boost Dealer Profit

An attractive offer recently announced by the RCA Radiotron and Cunningham tube companies makes it possible for dealers to make even larger profits on certain types of these standard fast-moving brands.

As long as the supply lasts and subject to withdrawal, Radiotron and Cunningham distributors are offering the following special net prices: 01As, 27c each; 27c, 32c; and 45c, 34c. *These are straight side types.* All future production of these types by Radiotron-Cunningham will be in the dome type bulb.

THE ELECTRICAL CHARACTERISTICS OF THESE TYPES ARE UNCHANGED. Tubes purchased at the special net prices are subject to the companies' regular adjustment policy.

In accordance with the manufacturer's suggested dealer price protection policy, distributors will protect dealers on all straight-side tubes of these types purchased during the three weeks prior to the announcement of the special net prices. List prices remain unchanged.

G. K. Throckmorton, General Manager,



issued the following statement relative to the Special Offer:

"During three years of declining prices retail merchants necessarily adopted a cautious day-to-day buying policy to minimize inventory losses and to be able quickly to give customers the benefit of lower prices.

"Now the price trend is upward. The radio tube manufacturer operating under the NEMA Code has increased his direct labor costs substantially. Material prices have advanced and will continue to advance. These factors will undoubtedly raise average tube billing prices as much as 20%.

"The dealer's buying policy should now be to increase inventories to delay an advance in prices to his customers. Competitive dealers may be expected to do this.

"In sympathy with the administration policy we will not advance prices until our operations require it, but we can give our trade no assurance on present prices. We reserve the right to advance prices.

"Standard, well-accepted merchandise such as Cunningham and Radiotron tubes are a good profitable 'buy' today. Protect yourself and your customers by ordering today from your jobber."

RCA RADIOTRON CO. INC., OPERATES UNDER FLAG OF BLUE EAGLE



WE DO OUR PART

Tube Companies Move Sales Headquarters

General sales offices of RCA Radiotron Co., Inc., and E. T. Cunningham, Inc., formerly located at Harrison, N. J., have been transferred to Camden, N. J., for merchandising convenience, according to a letter from C. R. King, General Sales Manager.

The following departmental heads, together with their staffs, are now in their handsome new quarters:

C. R. King, General Sales Manager.

T. F. Joyce, Sales Promotion Manager.

W. H. Thompson, Eastern Division Manager.

F. B. Waneslow, District Manager, formerly in Philadelphia.

All other activities of RCA Radiotron

Co., Inc., manufacturer of radio tubes, is operating under The National Electrical Manufacturers Association code, E. T. Cunningham, President, announced. This also covers E. T. Cunningham, Inc.

The Radiotron Company employs several thousand persons in its factories, laboratories and offices at Harrison, and offices and warehouses throughout the country.

To the limit of its ability this company has always attempted to bolster purchasing power by maintaining a wage scale consistent with its position of leadership in the radio tube field, Mr. Cunningham said. He declared he was heartily in agreement with the President's recovery program and welcomed the opportunity to enroll RCA Radiotron Co., Inc., under the banner of the Blue Eagle.

Co., Inc., and E. T. Cunningham remain unchanged. The various warehouses and district sales offices continue to handle shipments and sales matters in their respective territories.



Dealers from all the Western Empire attending the Market Week Show in San Francisco last month commented favorably on the outstanding display of the Leo H. Meyberg Company, radio distributors. The feature of the display was a straight-forward merchandising story featuring RCA Radiotrons.

World's Fair Exhibit Provides Selling Lesson

Evidences of the popularity of RCA Hall at the World's Fair are the highly complimentary newspaper reviews and the many letters received by the home offices of the various RCA subsidiaries.

"I would like also to compliment you and your company on the splendid exhibit that you have at the World's Fair. To me it was one of the best exhibits there," concludes a letter from Henry F. Morrison, Morrison Radio Shop of Ashtabula, O.

THEY COME, THEY LINGER

Statistics show that more than one-third of all Fair visitors reach the RCA exhibit, an unusually high percentage for an individual display. Attendants in RCA Hall remark that not only do the people come but that they tend to linger. They stand in awestruck wonder before the Cathode-Ray Oscillograph, which actually pictures the workings of a radio set. They are fascinated by the tube assembly line, where the mechanical hands of the automatic machine vie in dexterity with the human hands of the girl operators.

For every business man who deals with the public—and what retail merchant does not—there is a lesson to be learned from the tremendous success of RCA Hall. That success was achieved simply by the application of an old merchandising principle.

It would seem that the exhibits alone, dealing as they do with one of science's great achievements, would have been enough to attract and hold the public. Why that expensive crimson carpet on the floor? Why was the magnificent Color-Organ placed to face the entrance? It was because the designers of the exhibit knew that they had to offer their "customers" what the customers wanted and furthermore had to make it easy and pleasant for them to get it.

MAKE IT EASY . . .

Most visitors to the Hall are physically and mentally tired when they arrive. They have walked miles, seen sights, heard confused noises. As they enter RCA Hall, they are welcomed by the Color-Organ. The ear is soothed by the soft strains of the organ; the eye is relaxed by the slowly-changing pastel colors, which blend with the music to produce a new sort of harmony. At the same time, the deep pile of the rug gives solace to tired feet. Here is rest, here is comfort, here is a fascinating display. Let's stay a while. And they do.

The formula for the success of the exhibit, translated for commercial use, is: "Give the public the merchandise it wants, and make it easy and pleasant for the public to buy it."

So That's Why

That it is easier for his factories to make good tubes than mediocre tubes was the startling statement made recently to a group of visitors by Bob Shannon, Factory Manager for the Cunningham-Radiotron tube works.

"Paradoxical as this may seem, it is true," elaborated Mr. Shannon. "In the usual factory there is continual friction over the engineers' demand for quality and the production department's demand for low production costs. Not so here.

"Years ago we learned that by setting our limits of tolerance very close we forced ourselves to be careful, to try harder, to develop new means of staying within the limits. With broad limits we would have become careless, relaxed our search for improved methods.

"As we narrowed our limits we found we had a larger percentage of perfect tubes. Consequently, production costs were lower. Quality pays in manufacturing as well as in selling."

Beware of Costly Bargains, Says Southern Dealer

Many a dealer who uses money and ingenuity to attract new customers only to learn that they do not come back a second time might find the answer to his problem in the kind of tubes used in his service work, according to the story told by Earl Geier, radio service man of 8215 Zimple Street, New Orleans, to a Cunningham-Radiotron representative.



EARL GEIER

"You don't catch me falling for any of these 'bargain' propositions on unknown tubes," said Mr. Geier. "Every time I am tempted to try to make a few cents extra profit something happens to cure me.

SO SORE HE WOULDN'T COMPLAIN

"Last week a fellow brought a set in here. Before telling me what he wanted he asked what kind of tubes I used and I just pointed to my Radiotron sign. His set had three different makes of tubes in it besides a couple of the original equipment. He explained that just a few weeks ago he had had some other service man work on the set and had not noticed the kinds of tubes he put in until the set went haywire again. The other service man had guaranteed his job, but this customer was so sore about the non-standard tubes that he would not even go back to complain about it.

"Once in a while a Radiotron goes bad, but then the customer knows that you have done your best; put some other tubes in the set and the customer is likely to blame you instead of the tube. The seeming extra profit is phoney. It isn't worth it."

Tests Prove Merit of C-R Fall Plans, Says Joyce

Reports from Camden indicate that enthusiasm is running high these days in the sales headquarters of the Radiotron-Cunningham tube companies.

"No plan a manufacturer can concoct to help his dealers can do more than help sell the merchandise for the dealer," said T. F. Joyce, Manager of the department. "The manufacturer can, and should, make available to the dealer the merchandising talent and the sales aids that it would be beyond the means of the individual dealer to create and produce for himself.

"Furthermore, the manufacturer can develop and test out sound selling plans for the dealer to use, thus avoiding costly experiment for the dealer. Prime essentials of such plans are that they be simple in application and that they create sales opportunities for the dealer. After that it is up to the sales ability of the dealer.

"About our Fall Plan: avoiding superlatives, just let me say that we think it is good. We have tried it out and it works. It creates sales opportunities for sets, service, and tubes. It is a plan designed to make owners critical of the performance of their radio sets. It will be announced shortly."

6F7 Announced

The 6F7, a triode-pentode with 6.31 volt heater, has recently been announced by Radiotron and Cunningham.

This latest development of the great R-C tube laboratories combines in one bulb a triode unit and an i-f pentode unit and may be used with each unit performing separate functions in radio receivers designed for its characteristics. Deliveries to the trade were scheduled to start about Sept. 1. The list price is \$1.80.

A TESTIMONIAL FROM THE HEART

W. J. Y. Shenectoday
General store
New York
sir
i am gide for hunter man wot
come at dis place lac-des ille for
hunting deer dese hunter man bring
it wif him machine for heer you
spik from far place i lissen wif
his saturday nite also tuesday nite
i heer song bout my ole modder
dats long tam i dont see my modder
an i ting dats dame fine song
also i heer oder song i dont rly
de nam tuesday nite storie for
de small boy and girl bout make
de star shine for dem if dey is good
boy and girl hunter man luff lak
hell an tole me ax you how we
make some moon shine
i heer you spik jus de same lak
your at me place i ting you have
good machine i lissen more
nex wick
thank you and much abblig
Gide Canille Power
Chemin P.O. Quebec Canada

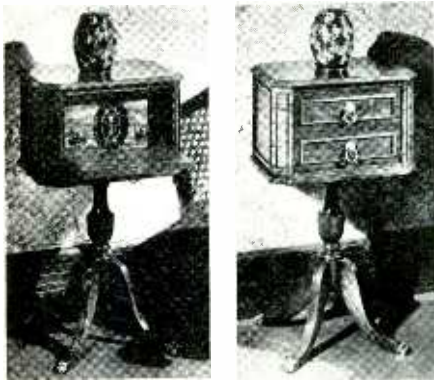
There are testimonials and testimonials.

Queens have recommended face lotions; football players have recommended cigarettes; girl athletes have recommended automobiles.

But seldom, if ever, does a product receive as sincere and touching a tribute as the one shown at the right.

The original of the letter, neatly framed, hangs in the private office of E. T. Cunningham, president of E. T. Cunningham, Inc., and RCA Radiotron Co., Inc.

NEW MERCHANDISE

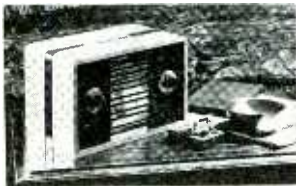


Lyric Model SU5 Duncan Phyfe

Lyric Line

Smart modernistic radios, showing the World's Fair influence, are announced by the Rudolph Wurlitzer Mfg. Co., N. Tonawanda, N. Y., for the 1933-34 season. Furniture models, as well, are included. Prices range from \$18.75 to \$119.50.

With the four tube chassis (6A7, 43, 6B7, 25Z5) there are: Model C4L, metal bronze lacquer finish; C4L1, modernistic, walnut and birdseye maple; M4L, rosewood and zebrawood, ultra-modern cabinet; M4L1,



Lyric Model P-5-L

ebony finish, buffed aluminum grille bars, ultra-modern; and SA46, open face console.

With five tube a.c.-d.c. chassis (6A7, 75, 78, 43, 12Z3) Lyric offers: Model P5L, trunk case design, sprayed cork finish (indestructible), carrying handle; SU5L, short wave and broadcast bands, jack for remote speaker hook up, semi-modern; U5L1, short-wave and broadcast, Sheraton cabinet; SU5, Duncan Phyfe table, shortwave and broadcast, mahogany finish, jack for remote speaker hook up; and SU5QA, Queen Anne design table in mahogany or walnut. With five tubes for straight a.c. operation there is Model SA5L using 2A6, 2A7, 2A5, 58, 280. Period design midget.

The rest of the line consists of Model SW88, a modernistic shortwave, 8 tube



Lyric Model M-4-L1

midget; SW89, an 8 tube, duo wave console; SA99, 9 tube console; SA120, 12 tube console, Class A prime output; SA133, channel control superhet employing 9 circuits, two speakers.

A remote speaker in a Sheraton design table, self-excited field, relay to turn speaker on when plugged into chassis, drawer above speaker and compartments on each side of speaker is offered. Operates with SU5L and U5L1 sets.

There is also an improved Simplex coin-operated automatic photograph, holding ten records. \$550.—*Radio Retailing*, September, 1933.

Emerson Radio Line

Three models, the forerunners of the 1934 line, were announced recently by the Emerson Radio & Phonograph Corp., 641 Sixth Ave., New York City.

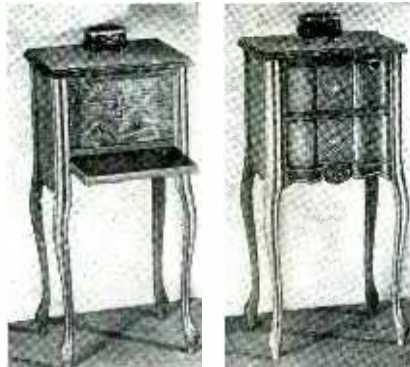
Quite out of the ordinary is Model 321AW in a Chinese lacquer cabinet, finished in ebony and gold. The metal hinges and handle are of Oriental design. It is an a.c.-d.c. set, short and long wave, to operate



Emerson Model 321 AW

on 110-120 volts, as well as 220 v. Short-wave feature brings in signals down to 75 meters. The tubes used are 2-73, 77, 43, 25Z5. \$35.

Model 40, a.c.-d.c., is a furniture piece—a graceful console table designed along French



Emerson Model 40 Console

Provincial lines. Top, front and legs are solid walnut, light finish. Takes 3-78, 6B7, 43, 25Z5. \$44.50.

Model 350AW, short and long wave, has the same chassis as Model 321AW. Comes in a carved chest cabinet. When in use the doors fold back and disappear in the sides of the cabinet. \$35.—*Radio Retailing*, September, 1933.



Majestic Model 55

Majestic Series

Specifications of the 1934 Majestic line of the Grigsby-Grunow Co., 5801 Dickens Ave., Chicago, are as follows:

Models 194, 195 and 196 are Gothic midgets with 4, 5 and 6 tube chassis, respectively.

Models 55, Duette, and 59, Studio, modernistic in line. 5 tubes.

Models 461, Master Six, and 463, Century Six, are 6 tube midgets.

Model 67, Barclay, a console, uses 6 tubes.

Model 68, Plaza, 6 tubes, comes in a cabinet of the "solid" type, that is built down to the floor. Model 69, Savoy, 6 tubes, and Model 86, Hyde Park, 8 tubes, are also of the same type.

Model 85, Royale, employs 3 tubes. A console.

Model 599, Radiograph, is a 5 tube radio-phonograph combination in a table cabinet.

The tube line-ups are: 4 tube sets: 6A7S, 6F7S, 41, 6Z5; 5 tube sets: 6A7S, 6B7S, 6F7S, 42, 80; 6 tube sets: 2-58S, 2A7S, 55S, 2A5, 80; 8 tube sets: 2-58S, 2A7S, 55S, 56, 53, 2S, 80. All models receive police calls.—*Radio Retailing*, September, 1933.



Majestic Model 85

Westinghouse Refrigerators

Nine models are included in the new Master series of electric refrigerators of the Westinghouse Elec. & Mfg. Co., East Pittsburgh, Pa. The prices begin at \$99.50 f.o.b. Several new refinements in design are included.

Westinghouse also announces an increase in the price on previous models effective immediately. Price increases range from \$10 on the BL45 to \$75 on the AP200. Model BL43 remains at \$99.50 f.o.b.—*Radio Retailing*, September, 1933.

Solar Condensers

Solar Manufacturing Corp., 599 Broadway, New York City has just issued a new booklet covering its complete line of condensers of all types.—*Radio Retailing*, September, 1933.

Ward-Leonard Voltage Regulators

For operating 110 volt receivers on voltages encountered in foreign countries, notably 220 to 250 volts, the Ward-Leonard Co., Mount Vernon, N. Y., is making a complete line of voltage regulators. The units can be fitted for use with either American or European receptacles. The European receptacles are round pronged and the American receptacles are parallel pronged.

They are made in special designs for set manufacturers and can also be supplied in a number of standard types for dealer use as accessories.

This company also makes a new sliding contact tubular rheostat (Laboratory type) designed for the accurate control of currents up to 25 amps. Three sizes, 8, 16 and 20 in. lengths, cover a very wide range of resistance values.—*Radio Retailing*, September, 1933.

American Bosch Radios

After a survey of what the owner desires in a radio cabinet, the United American Bosch Corp., Springfield, Mass., announces its 1934 line.

Model 360S, 7 tubes with 9 tube performance, is an all-wave console, covering 540 to 20,000 kc. \$94.50. With the same chassis there are also Model 360E, the illustrated modernistic console, \$84.50;



American Bosch Models 370E and 360E

360M, moderne cabinet with tinted maple burner corners and inlay of white metal, \$88.50; 360T, a table model, or as Bosch designates it, a console, \$62.50.

The same cabinets with 7 tube chassis, 11 tube performance, are known as Models 370S, \$84.50; 370T, \$52.50; 370M, \$78.50 and 370E, \$74.50. The wave length range includes 540 to 1900 and shortwave 1900 to 6200 kc.

Model 355, 5 tubes, 8 tube performance, is a dual wave Personal radio for a.c.-d.c. operation. Range 530-4200 kc. \$37.50. Also for straight a.c. operation as Model 350, \$37.50.

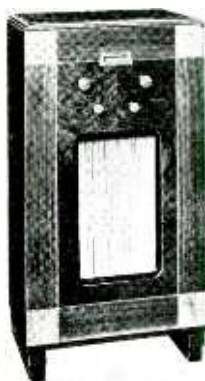
Model 501, 5 tube table set, 8 tube performance, for a.c.-d.c., is \$28.50. Receives police calls.

Model 260C is a 10 tube job, all wave. It has dual speakers in a tone blending chamber. Electric tuning. \$115.

Model 260T, same specifications, but in a highboy is \$109.

Model 312G has 12 tubes, automatic between station silence, volume control using duo-diode system, electric tuning, dual speakers. \$140.

A five tube motor car set with 9 tube performance, listing at \$39.95, has been placed on the market by the United American Bosch Corp., Springfield, Mass. It is a single unit set measuring $9\frac{1}{2} \times 8\frac{1}{2} \times 7\frac{1}{2}$ in. with a.v.c. and noiseless, tubeless B-battery eliminator.—*Radio Retailing*, September, 1933.

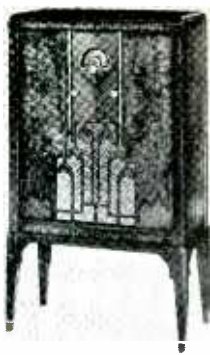


American Bosch Models 360M and 370M

Ohmite "Wirewatt"

A new radio resisting unit, the "Wirewatt," is announced by the Ohmite Mfg. Co., 636 N. Albany Ave., Chicago. It is a wire-wound unit having a one watt rating. The size is the same as the ordinary one watt composition unit and may be used both in original equipment and for replacement work where the resistance value is not over 25,000 ohms.—*Radio Retailing*, September, 1933.

Radio Retailing, September, 1933



Fada Model 132

Fada Radios

Using the RU chassis (F6A7, F77, F6D6, F37, F43, and F25Z5) two new models have been announced by Fada Radio & Electric Corp., Long Island City, N. Y.

Model 132 is modernistic in design and of the open face type. The dimensions are 39 $\frac{1}{2}$ in. high by 22 in. deep. \$59.50.

Model 131, also an open face console, but of period design, is \$54.50.

Both sets have a.v.c., tone control, and static modifier, a self-contained 20 ft. flexible cord antenna attached to the receiver, and are equipped with a phonograph jack.—*Radio Retailing*, September, 1933.



Fada Model 131

G-H Paper Wound Condenser

Girard-Hopkins, 1437 23d Ave., Oakland, Calif., has just released a new line of paper wound condensers, made of linen tissue and aluminum foil, thoroughly sealed, and intended to replace electrolytic condensers in any job. They are tested on 1000 volts and have no current leakage.

Mountings and dimensions are exact duplicates of electrolytic condensers in both cardboard and can, and carry the same list values.

This firm has also revised its standard line of condensers which have been improved. Units are smaller and completely sealed in cellophane and Halowax for protection against moisture absorption and resulting leakage. A revision to lower prices has also been made.—*Radio Retailing*, September, 1933.



PROGRESS WEEK—OCTOBER 2-7

Atwater Kent Receivers

Two modernistic consoles, a regulation console and two table models have been brought out by the Atwater Kent Mfg. Co., Philadelphia, Pa., for the fall season.

Model 217 has 7 tubes (55, 3-58, 56, 2A5, 80) and tunes to 3200 kc. It is a "Compact" model. \$45.

Model 387 is a battery operated Compact employing 7 tubes (2-34, 32, 3-30, 1A6). The speaker is a permanent magnet dynamic. Can be operated on either a 2 volt air cell or on regular 2 volt wet storage battery. Battery requirements: 3-45 volt B's, 1-7 $\frac{1}{2}$ volt C, 1-4 $\frac{1}{2}$ volt C,—one



Atwater Kent Model 510

45 volt B battery less than last year's complement. \$45, less batteries.

Model 510 is housed in a modernistic cabinet. The tube line-up is: 2-2A5, 4-56, 3-58, 80. This set has a.v.c., 4 point tone control, visual and silent tuning, and covers up to 3200 kc. \$99.

Model 667 is a smaller moderne line console with the same chassis as Model 217. Covers up to 3200 kc. \$59.50.

Model 711 is an 11 tube job (5-58, 55, 2-56, 2-2A3, 5Z3). Uses Class A type audio amplification in 1st and 2nd audio stages and power output stage. Incorporates 10 tuned circuits, a.v.c., silent and shadow tuning, compensated tuning mechanism, and tunes to 3200 kc. In T cabinet, \$150; R cabinet, \$135; J cabinet, \$125.—*Radio Retailing*, September, 1933.



Atwater Kent Model 667

Acratone Amplifier

A Class A prime 15-watt amplifier employing 2A3 tubes in push-pull in the last stage has been placed on the market by Federated Purchaser, Inc., 23 Park Place, New York City. A maximum gain of 88.6 decibels is attained at 1,000 cycles.

It employs a universal input transformer which matches a single or double button microphone and a 200, 500 or 5,000 ohm phonograph pick up. The maximum power of 15 watts obtainable is sufficient to handle a crowd of up to 5,000 people energizing as many as 10 dynamic speakers.

The net price to dealers and service men is \$24.50, less tubes.—*Radio Retailing*, September, 1933.

39



Clarion Model 471

Clarion Sets

Five, six, eight and ten tube receivers as well as battery sets make up the new Clarion line of the Transformer Corp. of America, 2309 S. Keeler Ave., Chicago. Cabinets lean toward the new modern trend and neon tuning has been added.

Model 480 console uses 10 tubes and tunes to 3500 kc. It has quiet a.v.c., and variable noise control.

Model 490 takes 8 tubes. Covers 540-3500 kc. Cabinet is conservatively modern in line.

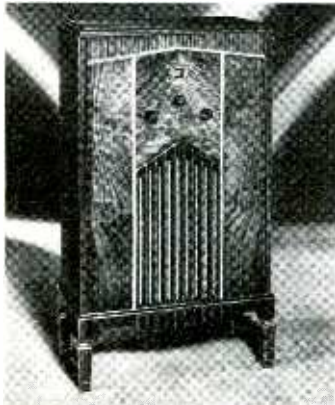
Model 472 is a 6 tube console. Covers up to 3500 kc.

Model 423 is a 5 tube a.c.-d.c. superhet with built-in antenna. Receives police calls, 1800 to 5400 kc.

Model 500, battery operated, uses 8 tubes in a superhet circuit. Class B output, a.v.c., battery regulator tube.

Model 471 is a 6 tube moderne midget, 540-3000 kc. self-contained antenna.

Model 470, 6 tube Gothic midget, has self-contained antenna, 540-3000 kc.—*Radio Retailing*, September, 1933.



Clarion Model 490

Arvin Auto Radio

A new 6-tube unit auto radio listing at \$49.50 has been brought out by Noblitt-



Sparks Industries, Inc., Columbus, Ind. It is designated as the 20-B Standard model, rounding out Arvin's previous line.

The set is only slightly larger than the Arvin hot water car heater and features compactness and ease of installation. A metal plate with stabilizing bracket bolts on the dash affords a rigid mounting, and the set can be slipped on and off quickly.

Model 20-B is an all-electric superheterodyne with a.v.c. and two-point tone control.—*Radio Retailing*, September, 1933.

Crosley Receivers

In addition to the very complete line of 20 radio sets recently announced, Crosley has brought 6 battery models and two-piece radio, consisting of remote speaker and table model.

There are two five tube battery models, designed for 2 v. air cell battery or regular 6 v. storage battery connected for 2 volts. The Gothic midget is \$23; the low-boy, \$36. With 8 tubes, Class B amplification, the midget is \$39.95, the console,



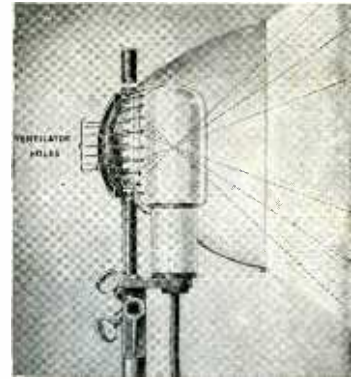
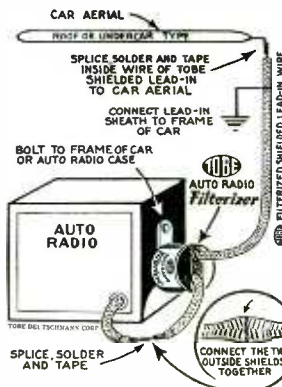
Crosley Repose, Jr. Set and Remote Speaker

\$49.95. For 32 v. d.c. operation, two all-electric models are offered, each using 5 tubes and Synchronode power unit. Midget, \$39.95; console, \$49.95.

The new remote speaker is the Repose Jr., for use in conjunction with the Repose Jr. midget set. The speaker comes in a small lowboy cabinet. Price, complete, \$39.95.—*Radio Retailing*, September, 1933.

Filterizer Kit for Cars

The Tobe Deutschmann Corp., Canton, Mass., has just announced a "Filterizer" kit for cars equipped with radio. The kit, which lists at \$4.95, consists of an antenna impedance-matching unit with 10 ft. of shielded lead-in, an inductive-capacitive "Filterette" which stops noise from reaching the aerial from the dome-light and an ammeter "Filterette." The kit, it is claimed, reduces motor noise and increases signal strength. Dome-light and ammeter units are not shown in the illustration.—*Radio Retailing*, September, 1933.



Solite Floodlights

As an accessory to taking home movies at night or indoors, a floodlight, known as the "Solite," has been brought out by the Solite Sales Co., 1373 Sixth Ave., New York City.

These floodlights have many other uses, such as lighting window displays, show-rooms, etc. They have a parabolic aluminum reflector which redirects (over a 90 degree angle) all the light falling on it. The price, less bulb, is \$7.50.

Many kinds of brackets and mountings are available making possible many combinations.—*Radio Retailing*, September, 1933.

Eby Products

H. H. Eby Mfg. Co., Inc., 21st and Hunting Park Ave., Philadelphia, Pa., announces its new line of "33" wafer type sockets for use where there is a minimum of space.

Eby also makes multi-polar rotary switches, one to six poles, single or double throw.

This company's newly released utility adapters are available in both "wired" and "unwired" types. May be had with 4, 5, 6 and 7 prongs.

The Model 733 universal analyzer adapter in combination with a multi-range meter



performs all the functions of the modern analyzer tube tester and is not restricted to any circuit or tube limitations. It is arranged for point to point tests, circuit break-in tests and for checking voltage or current to any element or for short circuits between elements of tubes having up to seven base prongs and cap contacts. Any new tubes with additional prongs, elements, internal connections or special arrangements can be provided for.—*Radio Retailing*, September, 1933.

Ignition Filter

C. M. Sherwood & Co., 80 Seventh St., Long Island City, N. Y., has introduced an ignition filter which, made entirely of copper wire, has less than 100 ohms resistance, and does not interfere with the ignition current supply to the spark-plugs as do other types of suppressors with resistances running up to 40,000 ohms. Use of the new filter is thus promised to prevent weakened spark, loss of power, reduced speed, production of carbon, sluggish acceleration, increased gasoline consumption and sticky valves.—*Radio Retailing*, September, 1933.

AGAIN OBSOLESCENCE TAKES IT ON THE CHIN!

Announcing A New Weston TUBE CHECKER



NO LONGER is there any need for worrying about tube checker obsolescence. Again Weston has supplied the solution; providing a design with 18 sockets, 11 of which are wired to test all of the present tubes, some 90 in number. The remaining 7 sockets are spares, and can be quickly wired in to test some fifty-odd additional tubes, when and if these tubes appear on the market.

Weston Model 674 Tube Checker is an "English Reading" tester—and is outstanding in its simplicity of operation. All reference to or knowledge of tube characteristics is avoided. The operator simply follows the few concise steps indicated on the tube limit chart and correct indication is obtained in minimum time.

Moreover, by means of the cathode leakage button the testing of all cathode type tubes for leakage between cathode and heater is readily accomplished—and in the same socket used for regular tests on the tube. Independent checking of the second plate in all double plate tubes also is accomplished simply by throwing a toggle switch.

And there are many more outstanding features—a few of them listed on the right. They will explain why Weston Model 674 is the outstanding value in tube checkers today. The coupon will bring descriptive circular RA. Weston Electrical Instrument Corporation, 581 Frelinghuysen Avenue, Newark, New Jersey.

OUTSTANDING FEATURES:

1. *Attractive appearance—harmoniously finished in three tones of brown.*
2. *"English Reading". Excellent readability.*
3. *Simplicity of operation—no calculations necessary.*
4. *Lowest obsolescence factor.*
5. *Tests second plates, all tubes—diodes, duplex and rectifier.*
6. *Tests cathode leakage by simply pushing a button.*
7. *Individual standard replaceable sockets.*
8. *Line voltage adjustment.*
9. *No adapters required.*



WESTON

Radio Instruments

Also, the new Weston Model 673 Tube Checker. Combines attractive appearance, good testing ability, and low price. . . . Send coupon for descriptive bulletin.

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Please send circular RA containing full information on Model 674 Tube Checker and other radio instruments.

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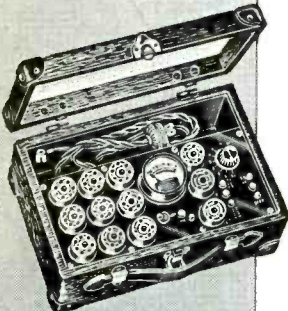
*because of
Greater Flexibility
...Economy... and
Ruggedness...*



**No. 710
READRITE TESTER**



**No. 550
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OSCILLATOR**



**No. 410
TUBE TESTER**

NOW is the time to cash in on the widespread public interest that is being aroused by the sensational Radio Prosperity Campaign. And you, as a Radio Service Engineer, can cash in best by using the Readrite testers shown here. They will make money for you and save you money! You can afford to standardize on Readrite instruments. They are popularly priced. They enable you to make more calls at less cost per call . . . they make it easy for you to meet every servicing requirement . . . they withstand the hardest kind of use and abuse . . . they insure that your equipment dollar stretches much farther.

No. 710 READRITE TESTER

This all-purpose tester fills every need of both the expert service man and the beginner. It is designed for the testing of new and old radios. Equipped with a practical selector switch for checking all parts of tube circuits by connecting to the set sockets. Selection for testing voltage of plate, grid, cathode, suppressor grid and screen grid is quickly and accurately done. Plate current, filament volts, line and power supply volts, resistance and continuity are measured. Battery is used for continuity testing of transformers, chokes, etc. Handles most advanced circuits and newest tubes.

The No. 711 Readrite Tester is the same as the No. 710 except that it is equipped with the new Triplett D'Arsonval Volt-ohmmeter, which has 1000 ohms per volt resistance. The readings are 0-15-60-300-600---0 to 300,000 ohms. Ohmmeter reading is secured with the 4½ volt battery, which is furnished.

No. 550 READRITE OSCILLATOR

This signal generator furnishes a modulated signal of constant frequency for the alignment of all modern radios. It is used to align r. f. transformers, check oscillator stage, compare gain in tubes and determine the sensitivity of a receiver.

No. 410 TUBE TESTER

Used for checking new and old tubes in receiving sets. Simply designed, compactly constructed, this tester is ideal for both outside work and for counter use. A push button provides two-plate current readings for determining the conductance and worth of a tube. For those wanting a longer-scale instrument, the Model 416 Tester, with a Triplett D'Arsonval Flush Mounted Meter is offered. This instrument does not have illuminated dial, but in other respects is the same as the No. 410.

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**READRITE
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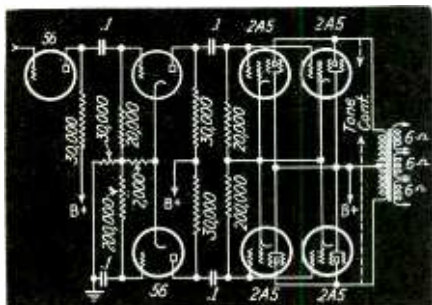


CIRCUITS of the MONTH

Resistance-Coupled Double Push-Pull

Capehart's new model 400B instruments are equipped with 7 tube, three stage a.f. amplifiers receiving plate power from paralleled 5Z3 rectifiers. Of particular interest to the technician is the phase changing method used between the first a.f. 56 and second a.f. push-pull 56's to permit resistance coupling.

A.f. voltage appears across the 30,000 ohm resistor in the plate circuit of the first 56. Passing through the .1 mfd. coupling condenser it also appears across the 20,000 ohm and 30,000 ohm input load resistors connected in series from grid to ground. The mid-point between these two resistors is connected to the cathodes (through a 2,000 ohm biasing

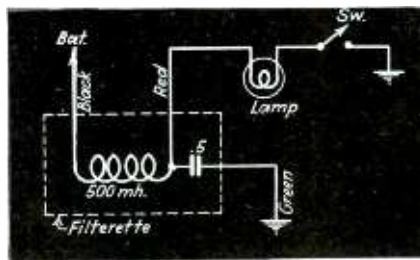


resistor) and it is readily seen that the upper 56 therefore functions as in any resistance coupled amplifier, the 20,000 ohm resistor forming its input load.

The grounded end of the 30,000 ohm resistor is at high a.f. potential with reference to the center or mid-tap. A.f., reversed in phase with respect to the grid of the upper 56, is thus fed to the grid of the lower tube through a .1 mfd. condenser included in the circuit to prevent direct grounding. The 200,000 ohm resistor is simply a path for d.c. bias to the lower tube.

Inductive-Capacitive Dome Light Filter

An interesting dome or tail light filter unit is included in Tobe Deutschmann's new "Filterette" kit (see page 40) for suppression of ignition interference in

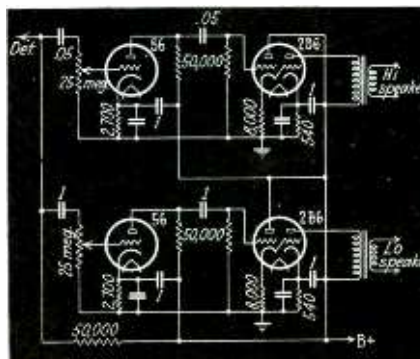


cars. The filter consists of a 500 mh. inductance to be connected in series with the light circuit and a non-inductive, .5 mfd. condenser to be connected across the lamp and switch. Dimming of the lamp is negligible due to the extremely low resistance of the coil.

The filter prevents passage of ignition noise to top antennas via dome light wiring and is conveniently mounted behind the dash. Or, where an under-car antenna is used it may be applied to the tail-lamp and mounted at the base of the steering column as close as possible to the lighting switch.

Duo-Channel A. F. Amplifier

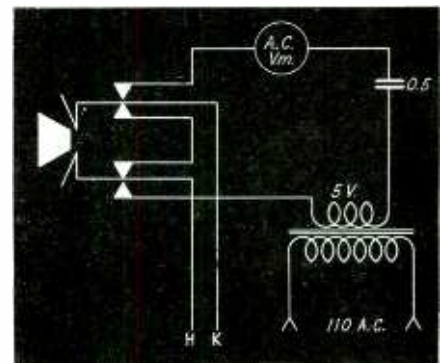
Lincoln's latest receiver embodies two innovations, a duo-channel a.f. amplifier and 2B6 triple-twin power tubes. (RR33Jul) A.f. from the second detector is fed simultaneously to two separate amplifiers. One of these favors frequencies above 1,000 cycles because its .05 coupling condensers offer greater impedance to lows and because the associated speaker is more efficient in the upper region. The other, equipped with 1 mfd. coupling condensers and a large



dynamic, performs best on bass notes. Input to each amplifier may be controlled by varying the arms of 25 meg-ohm volume control resistors comprising first audio stage input load. A.f. level below, or above 1,000 cycles may thus be raised or lowered at the will of the operator.

Cathode-Heater Leakage Test

Supreme's new Master AAA-1 instrument substitutes actual measurement of cathode-heater leakage for the more usual short-test. High-resistance shorts between the two tube elements, which do not show up under the simpler test, are



readily checked. The basic circuit is shown. Five volts a.c. is applied to the suspected tube through a .5 mfd. condenser and sensitive voltmeter.

55 As Meter Rectifier, A. F. Oscillator and Modulator

Wireless Egert's model 310 serviceman's signal generator (built-in powerpack not shown) introduces several circuit applications of the 55 duo-diode triode which will be new to most "Circuits of the Month" readers.

A 56 is used in a simple r.f. oscillator circuit, the grid coil being tapped for operation at broadcast or intermediate (110-500 kc.) frequencies. (Harmonics of the r.f. oscillator are audible down to 10 meters.) Intensity of the generated r.f.

REPLACEMENT EXACT DUPLICATE TRANSFORMERS

For **GREATER CONVENIENCE** and **ASSURED PROFITS** *in today's service job*

THE servicing job of today is much more exacting than ever before. Today your set owner wants more than a tube-checking . . . he wants you to look the set over . . . tell him why the programs aren't coming in the way they used to . . . give him a price and then fix it, once and for all.

At the same time your job is easier, if you go at it right. Today you have fine portable instruments to help you in your first examination. And above all, you have dependable replacement parts with which to work.



This is particularly true when it is necessary for you to replace a defective or burned out transformer.

For, realizing what the needs of the service man were going to be in the way of replacement transformers. STANCOR EXACT-DUPLICATE Replacement Transformers began to be made and carried in stock for your convenience by a nation-wide organization of distributors. Today these distributors stock STANCOR EXACT-DUPLICATE Replacement transformers for practically every make and model of radio sold during the past five or six years. And if an authorized STANCOR distributor happens to be out of the one you want, we have it in stock so that you



can have it as quickly as it would take you time to hunt around and find an unsatisfactory substitute.

STANCOR EXACT-DUPLICATE Replacement Transformers make your profit sure. You don't have to guess about their likeness to the electrical characteristics of the one you took out . . . they are identical to the original in every electrical and physical detail . . . there is no re-wiring or re-drilling to be done in their installation. When your customer looks at the finished job and recognizes the same kind of transformer replaced as was taken out, he knows you know your business, and pays your bill with good grace.

STANCOR EXACT-DUPLICATE Replacement Transformers are actually better than the originals in many instances. Many of the originals were torn down in our laboratories. The defective unit was compared with the chassis requirements . . . then it was reproduced so the same thing couldn't happen again.



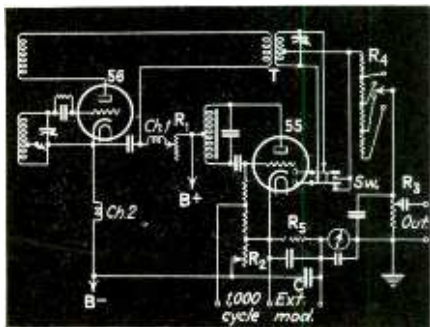
STANCOR EXACT-DUPLICATE Replacement Transformer Catalogs and Supplements covering also Stancor Audios, Chokes, Class "B" and Filament Transformers are distributed by authorized STANCOR distributors all over the United States, Canada and our Island possessions. If you do not know who he is in your locality, write or wire for your copies of these helps to today's servicing jobs.

STANDARD TRANSFORMER CORPORATION
852 BLACKHAWK STREET
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signal may be individually controlled by varying plate voltage at R_1 . The triode portion of a 55 is used in a simple a.f. oscillator circuit, fix-tuned to 1,000 cycles. Amplitude of the generated a.f. signal may be controlled by varying grid bias at R_2 . (1,000 cycles a.f. is made available for external use by tapping the 55 grid leak circuit.)

The diodes of the 55 have two important and unusual functions. They rectify any a.c. signal, either r.f. or a.f., applied to them and operate the d.c. output intensity meter. And they "mix" a.f. generated by the triode portion of the 55 and r.f. generated by the 56 in the output circuit with which they are associated when a modulated signal is required.

The development of d.c. in the diode circuit for operation of the meter is readily understood. R.f. output of the 56 is applied in push-pull to the diode plates through transformer T . Rectification takes place between the diode plates and cathode, d.c.



flowing through the meter via resistors R_3 , R_2 and R_4 and returning to the center-tap of T .

The "mixing" function of the diodes is somewhat more complicated. A.f. appearing in the cathode circuit of the 55 triode oscillator is applied to the diode circuit through condenser C and flows in the output load circuit together with r.f. generated by the 56. Modulation may be said to occur in the diode circuit. (The signal generator may be modulated with audio frequencies other than 1,000 cycles by applying these across the diode load resistor R_5 . A strong external signal such as would be generated by a good beat frequency oscillator is desirable for this purpose.) Up to 50 per cent modulation of the 56 may be obtained by properly adjusting the output of the r.f. and a.f. oscillators by means of their individual controls. Or, an unmodulated signal may be obtained by increasing R_2 to the point where the a.f. oscillator ceases to function.

It is also possible to use the device as a straight a.f. oscillator, cutting out the 56. This is done by depressing switch $Sw.$, which opens the secondary circuit of transformer T . It will be noted that when this is done the diode plates of the 55 are connected in parallel and provide half-wave rectification of the a.f. signal to run the d.c. meter. A pure sine wave, or distorted a.f. signal variable from 1 to 5 volts is available. Calibrated attenuation functions just as it does when the r.f. oscillator is in operation.

In addition to the individual control of r.f. and a.f. oscillator intensities by means of R_1 and R_2 it is also possible to attenuate the final output, irrespective of its character, by means of calibrated resistor R_3 . R_4 serves to keep the meter on scale.

The instrument has its own a.c. power-pack, which uses a 56 as the rectifier.

"TRICKS of the TRADE"

LYRIC S8, K69. Weak signals. Look for shorted 5 mfd. condenser in screen grid circuit.

STEWART-WARNER 112. Noise after standard suppression has been installed. Shield tone control and pilot leads from tuning head to chassis with metal braid, grounding at head. Bond shield of antenna lead to metal case of chassis.

GE 40. Noise after standard suppression has been installed. Ground rubber-mounted triangular plate of tuning control sheath to side of chassis.

ZENITH 50, 52. Loss of sensitivity at one end of dial. Remove can from condenser gang, remove screws holding stators in place at each end, place lock-washer under these and tighten. When screws loosen re-aligning only unbalances set at other end of dial.

FADA. Slipping dial on early models having separate driving drum. Loosen setscrews and give drum half-turn. This brings unused portion into play. If drum is worn all around remove and file down on one end of bushing. This permits it to slip farther into drive unit and cures trouble.

VICTOR R35. Weak, distorted reception. Examine resistor R_{14} mounted on filter-capacitor block between terminals 6 and 7. Correct value is 70,000 ohms.

BRUNSWICK 15. Intermittent reception. Check bypass condenser just behind 45's against back wall of chassis, down inside.

RCA 50, 55, 59. Poor volume, no dx. Remove a.v.c. 27. If volume immediately improves disconnect .1 mfd. condenser in power pack fastened to one end of 1 meg. resistor and usually wired with blue lead. Connect new condenser from this point to ground. For temporary repair simply omit condenser.

CROSLEY 156. Failure to oscillate, regardless of volume control or regeneration control setting. Remove regeneration condenser and bend plates away from each other.

A-K 55. Dead, or almost inaudible. Check detector coupling resistor, which frequently fails. Replace with 25,000 ohm unit. Value not critical.

MAJESTIC 90, 92. No signal. Check variable resistor located on end of condenser gang. Many sets work better when resistors are removed and loose wire carried to ground.

A-K 40, 42. Weak reception. May often be pepped up by replacing detector resistor, which is of glass, grid-leak type, with a variable unit taken from an old B-eliminator.

SERVICEMEN. Thanks for the "flowers" about this column, all you men who have written in. Shoot in good material and we will expand it, paying for accepted material of course.

PHILCO PHONO-COMB. Hum not traceable to poor tubes or defective parts. Ground frame of motor to set chassis.

BOSCH 48. Noisy tuning. Clean wipers on variable condensers and don't overlook the one hidden under the mounting of the variometer which turns with the rotors.

CROSLEY 53, 54, 57. Noise and distortion, sounding like defective speaker. Look for trouble in coupling condenser between detector plate and 45 grid. Replace with unit which will withstand 300 volts.

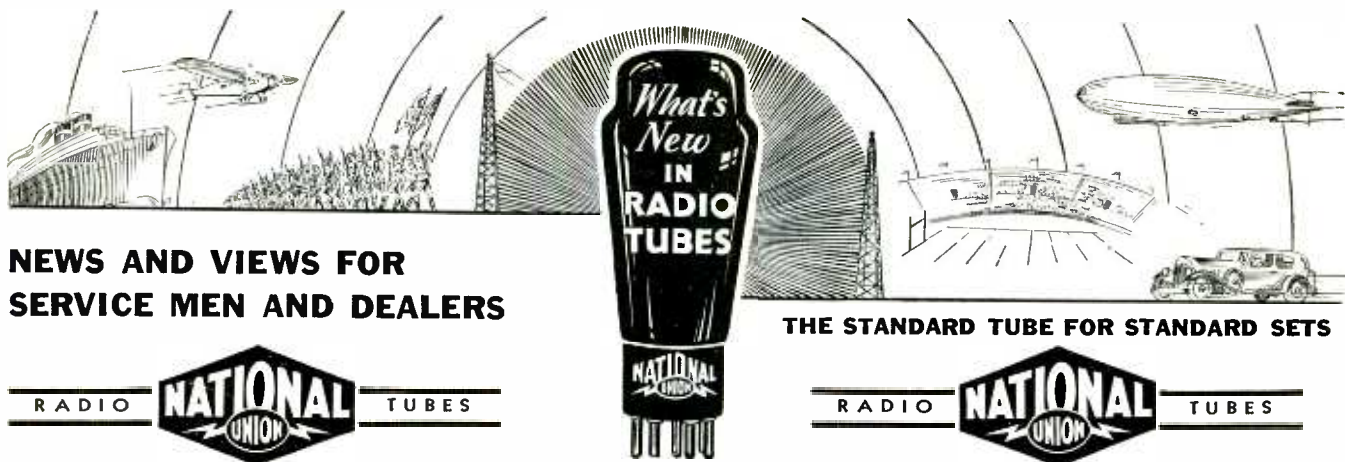
RADIOLA 41 AC. Microphonic howl and low audio howl. May be caused by open by-pass condenser across secondary of first a.f. transformer.

US RADIO 48. Oscillation. Check by-pass condensers and also detector r.f. choke located beneath chassis in right rear corner when looking from front. Men report difficulty in re-aligning this model as it oscillates when condenser gang cover is removed. Rotate the cover plate half way around, after it is removed and then place it on top of the chassis so that the tube shield plates are placed between control grid leads of screen grid tubes, at the same time moving it back far enough to leave the condenser gang uncovered.

AUDIOLA 7330. Oscillation. Graphite from tuning gear works under the condenser gang wipers. When replacing wipers, after cleaning, pressure is critical. They should be tight enough for good contact but not so much so that friction is excessive.

1933 FORD. To get suppression at coil remove the three screws and terminal nut and take the coil off. Pull out the carbon brush and spring, saving the spring and discarding the brush. Make a suppressor from a 40,000 ohm one watt carbon resistor of good quality by cutting it to the same length as the old brush. Clean off paint and file recess in one end to accommodate the spring and re-assemble the coil, using the suppressor as a brush. 40,000 ohms is recommended as the resistance is reduced by cutting and filing.

SPARTON 79A, 109, 110, 930. Oscillation "growl" while tubes are heating when using 485's in r.f. stages. Place quick-heaters in first and second r.f. sockets and detector socket, using slow heaters in third, fourth and fifth. If only one quick heater is used place it in the detector socket. If more than three are available place them in third, fourth and fifth.



ULTRA VIOLET LAMPS PERFECTED BY DR. E. A. LEDERER OF NATIONAL UNION

Special Installations Seen As Money Makers for Service Men

Chief Engineer, Dr. E. A. Lederer of National Union has developed a constant source of vital ultra violet wave lengths in the new Lederer Ultra Violet lamp types D-30 and X-30 announced this month by National Vita Lite Corporation affiliated with National Union Radio Corporation.

These lamps are the crowning achievement of two generations of scientists. Work on the Lederer lamps was started in Vienna, Austria about 1910 by Dr. Anton Lederer, father of National Union's Dr. E. A. Lederer. The developmental work was picked up by Dr. E. A. Lederer at the time of his father's death in 1932. With a background of experience with Westinghouse in vacuum tube and lamp engineering, dating back to 1921, the son was well equipped to carry through the father's work. Applying his highly specialized modern radio knowledge against the background of his father's hundreds of experiments, Dr. E. A. Lederer produced two types of lamps approaching the ideal for ultra violet wave production. Both lamps are the same in basic construction, the difference being in the kind of glass used in the bulb.

The Lederer D-30 is a medium fast tanning lamp and the X-30 a fast tanning lamp. They operate at low voltage and therefore, require the Lederer Type T-30 Transformer to permit use on 110 volt 60 cycle alternating house current.

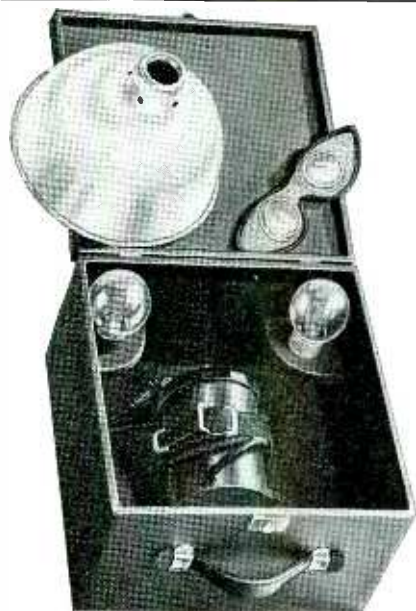
The Ultra Violet waves are produced when a rare gas with which the lamps are filled comes in contact with mercury vapor created by heat from the two electrodes in the bulb.

The Lederer lamps are safe and as easy to operate as an ordinary house bulb.

The illustration shows a complete kit consisting of a carrying case, one Type T-30 Transformer, one Type D-30 medium fast lamp, one Type X-30 fast tanning lamp, a reflector and a pair of goggles. The individual parts can be purchased separately. With a few necessary parts the service man can make special home installation at a minimum cost.

Every service man should investigate as a possible source of additional revenue.

Further details will be supplied upon request addressed to National Vita Lite Corporation, 400 Madison Avenue, New York, N. Y.



Lederer UltraViolet Lamp Kit

• TUBE PITS* •

SPARTON 410. Type 45 power tubes may be substituted for the 183's by rewiring the output stage filaments in series, including a half-ohm resistor in the circuit.

TEMPLE 8-60, 8-80, 8-90. Hm. Poorly matched 45's is usually the cause.

Most radios using two '71 type power tubes in push-pull audio may be changed over so that they use two '45 types merely by connecting the filaments in series. Where only one '71 is used it may be changed to a '45 by connecting the filament of the new tube in parallel with the 2.5 volt winding. In some cases it will be necessary to use a center tap resistor across the filament leads and a C bias resistor of about 700 ohms. The Sparton 931 series using two '81 Cardon tubes may be changed over to '45 types by connecting filaments in series without further alteration.

Old Radiolas may be modernized by replacing the 171A with a 245. Obtain the filament supply from the 227 filament winding or through a resistor. C bias takes care of itself while plate voltage is raised by putting another 2 mfd. condenser across the rectifier output. Watch the bleeder resistor when trying this stunt. If it overheats replace it with a huskier one.

*Courtesy Radio Retailing

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Voltage Divider Design

How to lay out a resistance network for desired output voltages, establish proper bleeder current and figure wattage requirements

By the ENGINEERING DEPARTMENT

Ohmitic Manufacturing Company

THE information given in this article is offered because there seems to be a real need for a universal method of calculating the resistance and wattage of voltage divider sections. Most of the calculations concerning electrical networks such as voltage dividers are based upon two fundamental laws of electricity, known as Kirchoff's First and Second Laws for Conducting Networks. Throughout the illustrations used in this article it will be assumed that there is no change in the charge on any part of the network, which assumption is strictly true in the case of the direct currents we have to deal with.

Kirchoff's First Law for Conducting Networks states that the total current coming up to any junction point is always equal to the total current leaving that point. Or, considering a current leaving the point as a negative entering current, the statement can be made that the algebraic sum of all currents entering any junction point is always zero, providing that these currents are all direct currents. This is illustrated in Figure 1 where I_1 must equal I_2 plus I_3 . Or, conversely, I_1 plus I_2 plus I_3 will equal zero.

The next point to be considered is that when a current flows through a circuit having resistance, a certain voltage drop occurs. This is analogous to the drop in pressure when water is forced through a pipe. The pressure (voltage) at the far end is equal to the pressure at the entering end minus the loss in pressure in the pipe. This electrical drop in voltage is equal to the resistance of the circuit multiplied by the current flowing through the circuit ($I \times R$), which leads up to Kirchoff's Second Law for Conducting Networks. This law states that the difference in electrical potential between any two points in a circuit has at any instant one and only one value, which value is equal to the algebraic sum of the potential drops in any path from one point to the other. Any network of conductors such as is shown in Figure 2, no matter how complex, may always be considered as made up of individual junction points and connecting lines. If the voltages and currents in this network are actually in the directions indicated by the arrows, and a point is imagined to move from A to C through the branches AB and BC, the voltage of the moving point will increase by an amount equal to E_1 as the point moves through the electromotive force E_1 and will decrease by an amount equal to $I_1 R_1$ as the point moves through the resistance r_1 , will decrease by the amount E_2 as the point moves through the electromotive force E_2 , and will increase by the amount $I_2 R_2$ as the point moves through r_2 . The resultant decrease or drop

in electrical potential from A to C is then $V_{ac} = -E_1$ plus $I_1 R_1$ plus E_2 minus $I_2 R_2$.

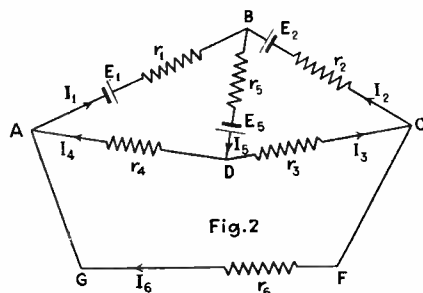
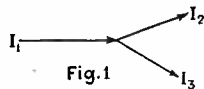
If a point moves through the branches AD and DC, the drop in potential from A to C is then

$$V_{ac} = -I_1 R_1 \text{ plus } I_3 R_3,$$

and similarly for any other path from A to C. These laws are of the utmost importance when designing voltage dividers as the dividers and their connecting circuits are really conducting networks.

Determining Resistor Values

The first step in the design is to draw a rough sketch showing the number of sections or voltages needed. In the sketch in Figure 3, the section R_1 is the bleeder resistor through which the bleeder current

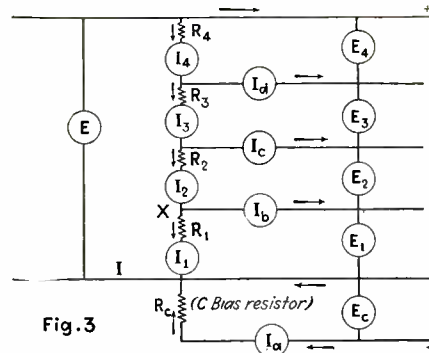


completes its path through the divider from the positive side of the power supply. The object of closing the circuit through the bleeder resistor is to bring about a more stable condition in the divider system. The current I_1 must be chosen so as to satisfy existing conditions both in the set and power pack. Factors governing these conditions may be found among the following:

1. Current needed for satisfactory operation of speaker field.
2. Current needed to cause a stabilizing load on the rectifying tube.
3. Current demand which will allow proper output voltage on power tube. For a required output voltage, the total current demand should not be in excess of that indicated on the voltage-current curve which is furnished by the manufacturer of the tube.

4. The total current (I) must be equal to the sum of $I_a, I_b, I_c, I_d \dots$ etc., depending upon the number of sections in the divider. This must be true as the sum of all the currents entering and leaving point x equals zero (Kirchoff's Law).

In calculating the resistance and wattage of the various sections of a divider, the



following procedure is perhaps the simplest. First, the sketch is drawn as shown; be sure that the proper number of taps are shown according to the number of voltages needed. Then mark on the sketch the required voltages in their proper places. The known voltages should be shown in place of $E_c, E_1, E_2, E_3, E_4, \dots$. Check the voltages to make sure that their sum total will equal E . Then mark down the known currents and label them. Choose I_1 as instructed above so that it will carry out all the necessary conditions in the set and speaker. Next calculate I_2, I_3, I_4, \dots as follows:

$$I_2 \text{ equals } I_1 \text{ plus } I_b$$

$$I_3 \text{ equals } I_2 \text{ plus } I_c$$

$$I_4 \text{ equals } I_3 \text{ plus } I_d$$

This is also in accordance with Kirchoff's Law. We have also learned from these laws that the voltage drop in any conductor is equal to the resistance of the conductor multiplied by the current flowing through the conductor, or in symbolic form.

Voltage drop (E) equals I times R or

$$R \text{ equals } E \text{ divided by } I$$

The resistance value of each section may thus be calculated and the same procedure followed for each section; the resistance so found is marked on the sketch.

Wattage Calculations

The next step is to calculate the wattage of each section. This is done by using the wattage formula, wattage equals voltage across the resistor multiplied by current through it, or

$$\text{Wattage equals } E \text{ times } R, \text{ thus}$$

$$\text{Wattage } (R_c) \text{ equals } E_c \times I_a$$

$$\text{Wattage } (R_1) \text{ equals } E_1 \times I_1$$

$$\text{Wattage } (R_2) \text{ equals } E_2 \times I_2$$

$$\text{Wattage } (R_3) \text{ equals } E_3 \times I_3$$

$$\text{Wattage } (R_4) \text{ equals } E_4 \times I_4$$

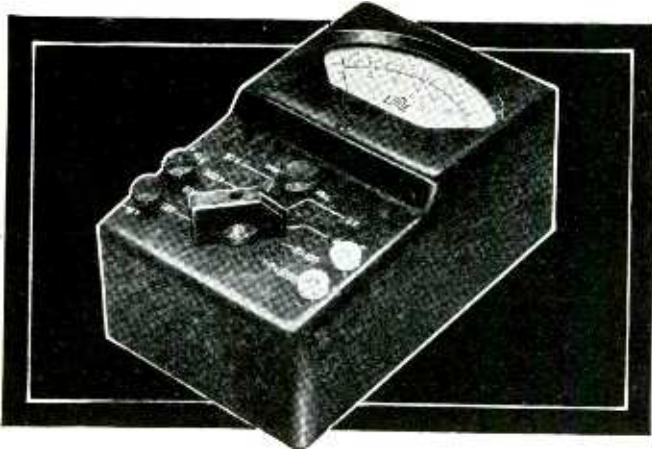
This now gives us both the resistance and wattage of each section of the divider and it is possible to calculate the required size.

Most resistors are figured on a basis which allows each square inch of outside surface area to dissipate seven watts when the resistor is used in the open air, or where there is a free circulation of air around the unit. If the unit is partially enclosed it should not be allowed to dissipate over three watts per square inch, and if totally enclosed as in a radio set chassis, it should not dissipate over $1\frac{1}{2}$ to 2 watts per square inch. Thus, if we find that the total wattage of the various sections is 33 watts, and we know that the unit is to be totally enclosed, a surface of approximately 22 square inches will be needed.

Typical Design Example

The following example will illustrate the methods used to calculate the various

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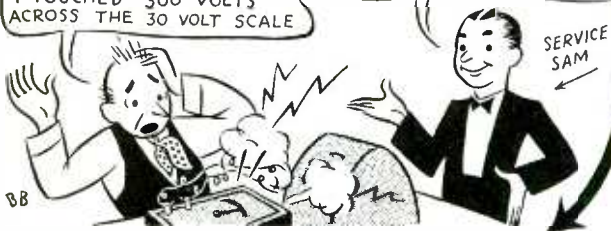
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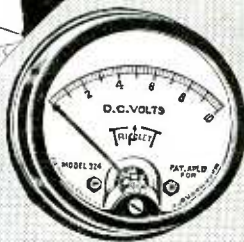
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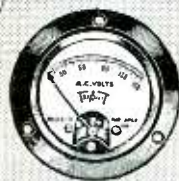
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"Carborite" does not deteriorate with age, assuring freedom from changes in resistance value. Electro-bonded leads never loosen or corrode.



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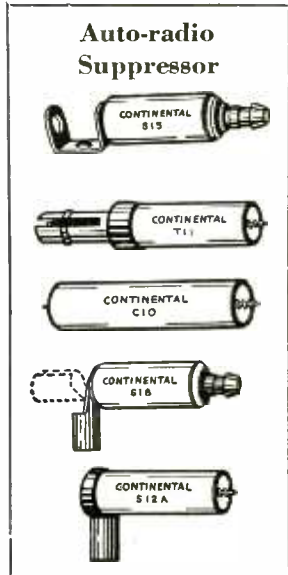
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replaced can shield, or connects to the B plus lead in the case of an r.f. stage.

With a weak signal accurately tuned in pull the lead through the eyelet slowly, unwinding the coil. Clip each foot of wire out of the circuit. In r.f. stages the B plus lead winds up and has to be unwound after each clip. Continue unwinding until the signal reaches maximum on high and low wavelengths. In the case of an antenna coil selectivity increases as the coil grows smaller, while sensitivity goes down. Strike a satisfactory balance between the two. Do not use an output meter as it will "kick around" too much.

In the case of broken or charred tubular-wound coils duplication of windings can be so accurately performed that it is rarely necessary to re-align. Unsolder the leads of the coil and unwind, measuring the exact length of wire. Replace with wire of same gauge, having the same insulation. Old battery type super i.f. coils, or dynamic field coils, form a good supply of wire for emergency use.

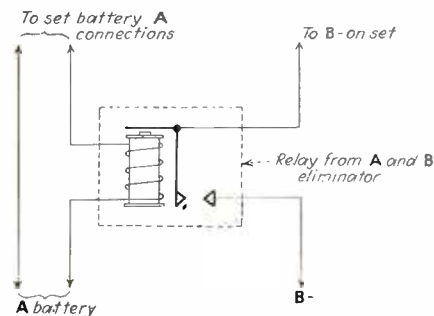
The winding must start from corresponding lug on the tube and be exactly the same distance from the edge as the original winding. It must be tight, and wound in the same direction. If windings are in layers insulate with a layer of celluloid or two layers of linen writing paper.

B Battery Relay

By W. D. Rasmussen

Customers out here in the farm belt frequently complain that their B batteries are short-lived. I find that complaints usually come from people who have sets like the AK 67 and certain Sparton models using a potentiometer volume control in shunt with a section of the batteries for r.f. plate or screen voltage variation. Although drain through the potentiometer is only about 2 ma. this apparently prevents the batteries from recuperating.

The trouble may be remedied by placing a relay of the type used in old A and B



battery eliminators in the B circuit, actuating it with filament or heater current as shown in the diagram. This also prevents discharge of the batteries in the event that leaky condensers develop.

Holding Chassis Upright

By Frank R. Rouch

I do a lot of work on Sparton models from one to four years old. The r.f. tuner of many models, when removed from the cabinet, has the annoying habit of falling

over due to the projection of two bolts from its under side.

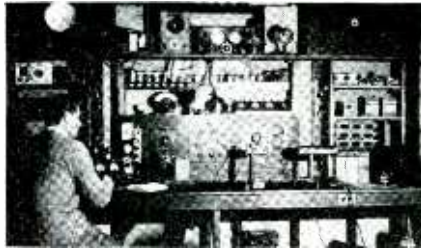
These bolts can be accommodated by drilling holes in the bench but this damages a smooth top. I place the chassis on a piece of grating such as is used to cover cold air ducts in homes where hot air furnaces are used to solve this difficulty.

Curing Noise in Car Secondary Circuits

By S. V. Boone

After you have tried all the usual tests for ignition noise, and these fail to clear it up, test all secondary circuits, which includes the spark-plug and coil leads. I have often found that the terminals on the plug wires are just clamped and do not make positive contact. Solder them, especially the one on the coil lead if arcing occurs.

Try turning the coil itself half way around and re-mounting.



EVEN PHOTO-ELECTRIC CELLS
—Eric F. Wybrow of Los Angeles has a new shop layout that tests everything in radio

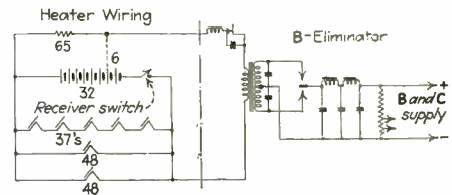
Converting Battery Sets to 32-Volt D.C. "All-Electric" Operation

By M. Chernow

In the past year I have converted 71 battery receivers to 32-volt, d.c. "all-electric" operation for customers in Connecticut, Massachusetts and New York. 53 were of the old, 5-volt variety, the remainder relatively new 6.3 volt tube models. All were re-equipped with 37's in r.f. and detector sockets and with the new 30 volt heater 48's in power output stages. Auto-radio B-eliminators (see "High D.C. Voltage from a 6-Volt Storage Battery, RR27Nov) supplied plate power.

Regular a.c. to d.c. conversion principles (RR38Sept) were employed. All filaments with the exception of the output stage, were wired in series and type 38's placed in these sockets through the medium of adapters. The 48's were connected across the string of 37's as shown in the accompanying diagram. Conversion was particularly easy where only five 37's were required as the 32-volt battery operated these nicely without the use of external resistors.

Where it was convenient to tap the 32-volt battery system this was done to operate the plate supply eliminator, this connection being shown by the dotted line in the diagram. Where tapping was not



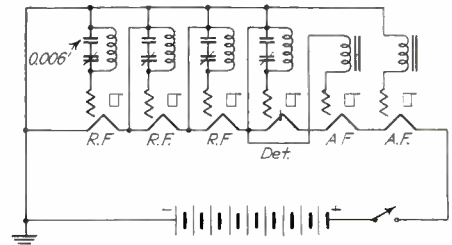
convenient a 65 ohm series resistor introduced the necessary voltage drop.

Bias procedure varies with individual receivers and for this reason no standard plan which will apply to all sets can be outlined. The following explanation of basic methods will, however, provide a foundation upon which experienced men can build: When heaters are connected in series a drop equivalent to the heater voltage of each tube appears across their respective terminals. Fortunately, the type 37 requires —6 volts bias and this is precisely the drop appearing across its heater terminals. So we simply connect the cathode of each tube to the proper heater terminal of the preceding tube to secure the required bias.

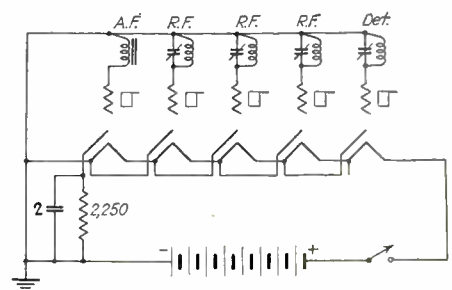
The most negative heater in the entire string is normally that of the first a.f. tube. Obviously, this tube must be biased in some other manner. We do it by falling back on the familiar cathode resistor, in most cases using a by-passed 2,250 ohm unit which provides —9 volts bias where 135 volts is available for the plate. The B-eliminator has ample output to supply not only this first audio bias but also —22 for the final output stage.

Other than re-wiring the filament circuit no wiring changes in the converted receivers are necessary. Bias arrangements are made by simply connecting external leads from the cathode terminals of the socket adapters used to the proper heater terminals, above the baseboard.

Although the use of the new 6.3 volt



tubes is advised, due to their superior performance, it is possible to convert old battery receivers without scrapping the original 5 volt tubes. Even 71A's may be retained with fair results. Due, however, to the fact that all grid-returns go to a common ground connection in the original circuit the tubes will be variously biased if the filaments are merely re-connected in series and no other wiring changes made. The thing to do is to break each individual



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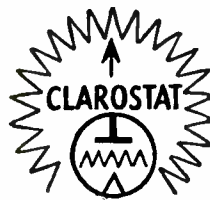
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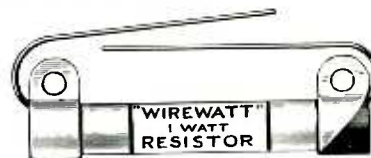
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PRESENTS THE



WHAT IS THE WIREWATT? It is a new one watt, wire-wound resistor designed for both original equipment and to replace composition units below 30,000 ohms.

WHAT ARE ITS ADVANTAGES? The WIREWATT, being wire-wound has no voltage or temperature characteristics; it is absolutely quiet under all conditions. There are no surplus or rejected WIREWATTS on the market as there are composition units—the name WIREWATT is a guarantee of quality.

IS IT INDUCTIVE? Tests run by independent radio engineers show that the inductive effect of the WIREWATTS is so slight that it may be disregarded in practically all broadcast receiver circuits.

IS IT EXPENSIVE? Believe it or not, the WIREWATT sells at the same price as standard composition units.

WHERE CAN I GET MORE INFORMATION? Use the coupon for full details and a sample resistor.

OHMITE

MANUFACTURING COMPANY
641 N. Albany Ave., Chicago, Ill.

Please send me details and sample of the WIREWATT.
(Coupon must be completely filled out)

NAME.....
ADDRESS.....
CITY.....STATE.....
JOBBER'S NAME.....

grid-return lead running to the common rotor of the gang condenser and insert a .006 (or larger) fixed condenser to permit passage of r.f. currents, thereafter handling bias problems individually for each tube.

"Dummy" Chassis Aids Auto-Radio Installer

By S. J. Pensock

In our auto-radio installation work we use boxes made of light wood, having the exact overall dimensions of the Philco and Motorola chassis when "trying" for the best mounting position. Holes drilled in these boxes serve as templates for drills. We have also drilled several large holes in the boxes to serve as finger-grips. These "dummies" are much easier to handle than the chassis themselves and save time and knuckles.

When mounting suppressors we use a lead-pencil with a rounded eraser to put on the small nuts at the spark-plugs. Then they are tightened with pliers.

Suppression of Distributor Noise

By J. P. Kennedy

When noise creeps into an auto-radio installation after standard suppression is carefully completed and the aerial shorted to ground for test purposes it is usually emanating from the distributor. Adjustment of the breaker points helps but sometimes reduces the speed of the car too.

Try winding 75 turns of number 26 enameled wire on a tubular 20 mfd. electrolytic condenser (25 volt type), connecting the choke in series with the lead between the primary of the spark coil and the distributor and connecting the condenser from the distributor side of this choke to the car frame. Mount the filter on the distributor itself by bolting it to a double layer of fibre. (The extra layer insulates the bolt heads.)

Make sure that the electrolytic is properly polarized. In some cases 200 turns of number 24 dcc on a ½ inch spool about 2 inches long, without the condenser, cures the trouble. Tape it well all over to avoid shorts.

Removing Metal Particles from Speakers and Pickups

By R. F. Lambert

Rattling and blasting of dynamic speakers and pickups is frequently caused by the presence of small iron particles. In speakers these collect in the air gap between the moving coil and the field magnet and become magnetized. They may be removed by disconnecting the field supply and passing a thin piece of non-magnetized iron around the air gap. A sharp pointed instrument should be used to remove particles from pickups.

This method is more effective than compressed air. Be careful not to damage delicate coils.

Radio Retailing, September, 1933

Treating Sets for Marine Use

By W. T. Golson

Moisture plays hob with both a.c. and battery receivers on shipboard. Standard receivers may be treated for marine use, avoiding much service trouble by treating parts affected by moisture and dampness before installation.

I remove audio transformers, chokes (both r.f. and a.f.), electrolytic and paper condensers from chassis intended for marine use and give them two coats of Marine Spar Varnish. Three coats of white or orange shellac serves the same purpose.

Magnetic speakers should have their coils so treated.

Reactivating Tungar Bulbs

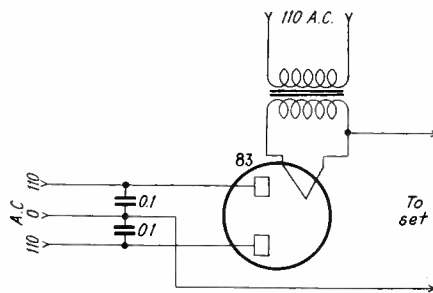
By Edwin W. Holscher

Many of the Tungar bulbs used in chargers can be reactivated. Apply 110 a.c. to the two battery leads of the charger through a 40-watt lamp for an instant. Flash the bulb several times. If this fails, try a larger lamp and apply voltage for longer periods. Application of flashing voltage for more than a few instants will, however, probably destroy the filament.

220 A.C. to 110 D.C.

Ralph L. Bowers

My company distributes radios in Nebraska, where several towns still use d.c. This makes it difficult for us to test sets destined for these towns in the shop, where a.c. only is available. I have solved the problem by feeding 220 a.c. to an 83, the



tube supplying about 90 volts d.c. under load and sufficient current to operate the average d.c. receiver.

The tube is lighted with a filament transformer connected to 110 a.c. Radio frequency interference generated within it is suppressed by connecting a .1 mfd. condenser from each "hot" 220 lead to the center, or neutral leg.

Locating Voice-Coil Breaks

By Boris S. Naimark

To locate the break in an open dynamic speaker voice-coil, disconnect the speaker from the set and instead connect the voice-

coil leads across the 110-volt a.c. line in series with a 100-watt lamp.

Shake the speaker gently so that the broken wire makes and breaks contact. A spark will result and enable you to positively locate the break.

AK 60 Alignment

By Laurence Terry

The AK 60 presents a serious alignment problem due to the necessity of keeping the condenser gang shield in place when doing the work. The factory recommends the use of a special, drilled shield but there is another way of doing the job which is applicable to most belted condenser gang systems, requiring no special equipment.

Remove the control knobs and take off the outer front panel. This exposes the belt-pulley system. Loosen the setscrews holding the condenser at the left and move it enough to the right to permit removal of belt and pulley. Now, with a fine-toothed hacksaw slot the end of the shaft through the exact center, about ⅛ in. deep. Replace the pulley and reset for proper belt tension but do not tighten the setscrews. Slot remaining condenser shafts, with the exception of the one operated directly by the dial, in a similar manner.

With the top shield removed, set the dial to maximum and turn all condenser rotors to full mesh. Tighten one setscrew on each pulley sufficiently to hold temporarily and replace the shield. Now, set the dial to zero, turn on a strong 1,500 kc. oscillator and tune the set for maximum response. Loosen one pulley and with a parallel-bladed screwdriver (wedge-shaped blades are not desirable as they have a tendency to push rotors out of place) adjust for maximum volume and tighten enough to hold. Repeat for remaining driven condensers. Reduce the oscillator signal intensity to give, say, half-reading on an output meter, and repeat with fine adjustments, using the saw-slots. Tighten all setscrews and return chassis to case.

Bone Neutralizing Tool

By Joseph E. Soos

Composition screw drivers used to adjust trimmer condensers become dull rather quickly. An ordinary bone knitting-needle about ¼ in. in diameter, ground down to the proper edge, will hold its shape excellently, does not break easily and is long enough to reach into difficult positions.

Locating Noisy Coils

By H. C. Tucker

I work in low country where dampness frequently causes electrolysis in both r.f. and a.f. coils. Analyzers do not show up such trouble until it reaches the final stages, although it causes noisy reception right from the beginning.

Connect a 45 volt B battery, phones and well-insulated test-prods in series with suspected coils and listen. Reverse the coil and listen again. This test unfailingly shows up the trouble.

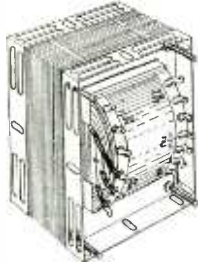
KENYON

PRODUCTS

Only KENYON TRANSFORMERS

5

**now service over
95% of Standard Sets!**



Yes, precisely so. With these 5-types in stock you can service practically any standard set—efficiently, economically, satisfactorily, profitably. Big inventory investment no longer required. Nor much storage space. Our transformer replacement chart tells you which of the 5 types to use for any standard receiver.

KENYON Replacement Transformers have novel mounting bracket (see left sketch). Any mounting and wide range of mounting hole spacings. Transformer voltage data marked on lugs, eliminating errors. After soldering connections to set, insulating covers slip over ends (see right sketch). Live contacts covered. Neatest appearance. A real servicing job. A substantial profit for you.

And the KENYON line also includes audio transformers and chokes and flush type power transformers for radio set repairs and new assemblies. Likewise laboratory and transmitter components.



Send for Catalog containing transformer replacement chart and covering entire line of KENYON Transformers and other iron core devices.



KENYON TRANSFORMER CO., Inc.
122-124 Cypress Ave. - - - - New York

Thorough-breds in the Radio Tube Field



Ken-Rad Radio Tubes are built to the highest standard of performance, of the finest materials available. They must meet the most rigid requirements of quality so as to give you and your customers dependable, long-lived performance. Ken-Rad's vigorous merchandising methods make profits for Ken-Rad dealers.

Ken-Rad Radio Tubes

DEPENDABLE LONG LIFE

The Ken-Rad Corporation, Inc., Owensboro, Ky.
Division of the Ken-Rad Tube and Lamp Corporation



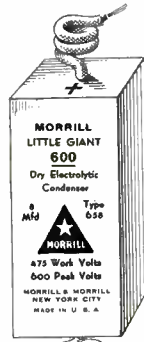
WHY

Complicate your
Condenser stocks
when **ONLY**
5 MORRILL
LITTLE GIANT 600
DRY ELECTROLYTICS
handle practically **ANY**
REPLACEMENT JOB

● Service Kit Contains:
2 EACH OF
1, 2, 4, 6, 8 mfd.
600 peak volt
475 work volt
dry electrolytics

- Compact
- Rugged
- Convenient
- Economical
- Minimum Inventory

USED WHERE QUALITY COUNTS



MADE
IN
USA

CLIP
THE
COUPON



MORRILL & MORRILL, 30 Church St., N. Y. C.

Please send me details on your new inventory-saving proposition.

Check
Service () Name.....
Jobber () Address.....
Dealer () My Jobber's Name.....
Address.....

Next Month~ SPECIFICATIONS

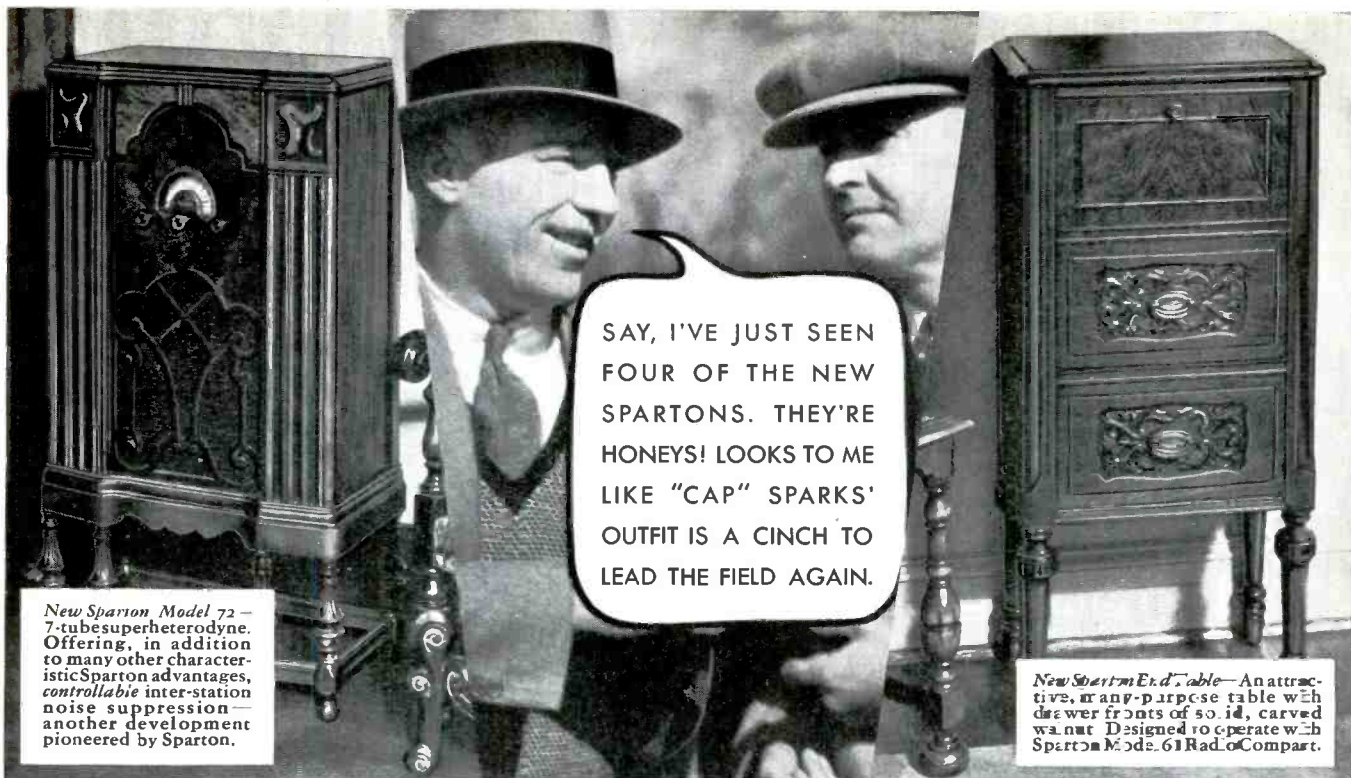
An annual feature of unusual interest appears in the next—October—issue of *Radio Retailing*. This is the listing of specifications of all radio receivers—home, auto, radio-phonograph, short-wave. Arranged alphabetically by manufacturers, the listing will give complete specifications on each receiver—specifications that will aid distributors and dealers, as well as service men, not only in purchasing, but in repairing and in re-tubing receivers.

Containing as it will complete specifications on the 1933-1934 receivers, the October Specifications Number of *Radio Retailing* will have a life of almost a year. It will be referred to time and time again. Naturally, then, those manufacturers of sets, tubes, parts and accessories who are shrewd enough to include their advertisements in the October issue of *Radio Retailing* will make an investment in selling helps that will bear much profitable fruit.

Advertising forms for the October Specifications Number close on September 30th.

Radio Retailing

1st in editorial service
1st in number of subscribers
1st in advertising volume



New Sparton Model 72—7-tube superheterodyne. Offering, in addition to many other characteristic Sparton advantages, controllable inter-station noise suppression—another development pioneered by Sparton.

New Sparton Ext. d. table—An attractive, all-purpose table with drawer fronts of solid, carved walnut. Designed to operate with Sparton Model 61 Radio Compact.



New Sparton Book Stana—A beautiful piece of furniture that will fit many places in the home. Designed to operate with Sparton Model 61 Radio Compact.

New Sparton Model 7-B—6-tube superheterodyne in a handsome Queen Anne chest of drawers. Band spread of 1750 to 540 permits reception of many police calls.

THE four distinguished sets shown above are only *part* of the good news from Sparton. You will find the same beauty and value in other models of the exceptionally well-balanced radio line just announced. See them all . . . hear them all . . . and get the story of the remarkable engineering

developments behind their sensationally improved performance. Your Sparton distributor will gladly demonstrate.

THE SPARKS-WITHINGTON CO.
 JACKSON (Established 1900) MICHIGAN
 SPARTON OF CANADA, LIMITED
 London, Ontario (855)



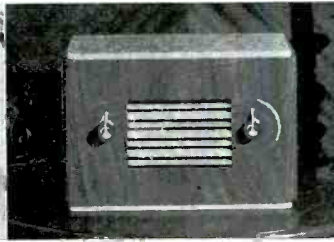
ALL - FEATURE
SPARTON RADIO

★ WURLITZER LYRIC

The Year's Biggest Opportunity



Model C-4-L-4 Tubes



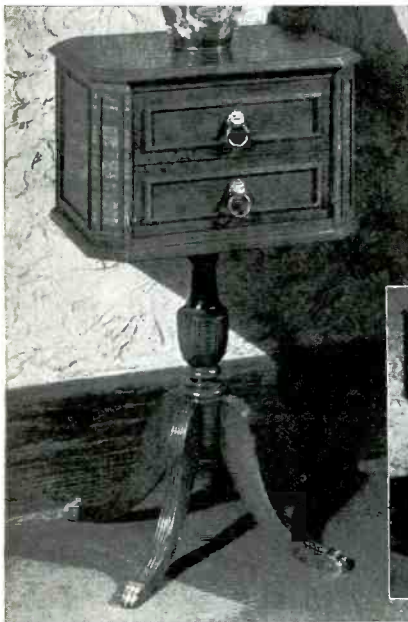
Model C-4-L1-4 Tubes



Model M-4-L-4 Tubes



Model M-4-L1-4 Tubes



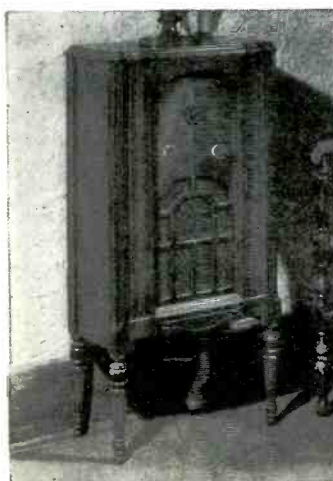
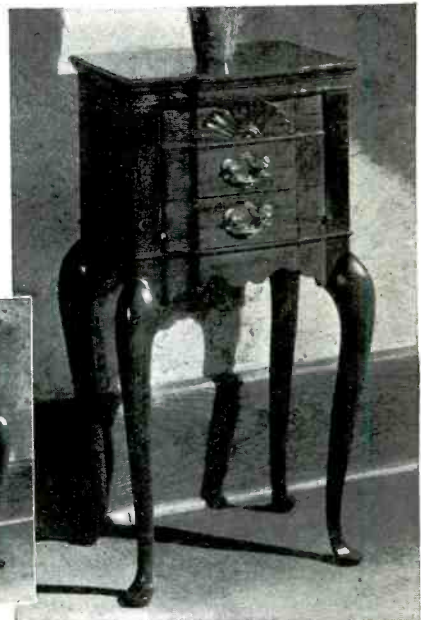
Made with all the care and painstaking attention to detail that go into the mighty Wurlitzer Organs, it's no wonder that 1934 Wurlitzer Lyric Radios—from the smallest compacts to the largest console models—have a rich, true, life-like tone which reproduces that of the artist or instrument with absolute fidelity.



Model SU-5
(Duncan Phyfe)
5 Tubes—Universal
AC-DC



Model SU-5
(Queen Ann)
5 Tubes—Universal
AC-DC



Model SA-46-4 Tubes



Model SW-89-8 Tubes



Model SA-99-9 Tubes



Model SA-120-12 Tubes

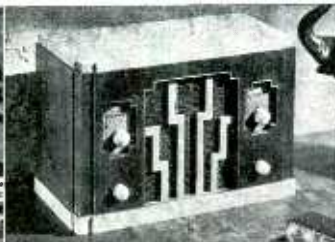
1934 RADIOS ★

for Distributors and Dealers!

● Don't delay!—If you're a live distributor or dealer, looking for a live line. . . send for complete information, prices and profit story on the Wurlitzer Lyric 1934 Radios. Wurlitzer Lyric Radios have what it takes to make sales!



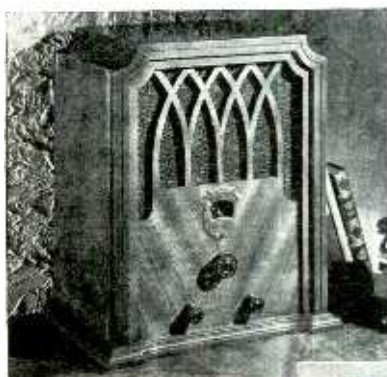
Model P5-L—5 Tubes
Universal AC-DC and Auto Set



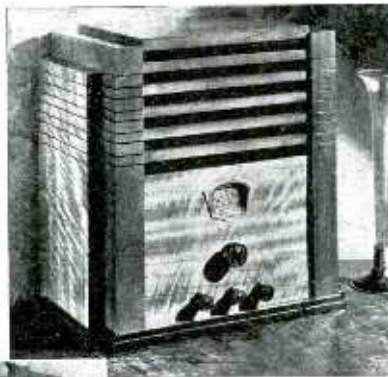
Model SU-5-L—5 Tubes
(Universal AC-DC Set)



Model U-5-L1—5 Tubes
(Universal AC-DC Set)



Model SA-5-L—5 Tubes



Model SW-88—8 Tubes
(Short Wave Set)

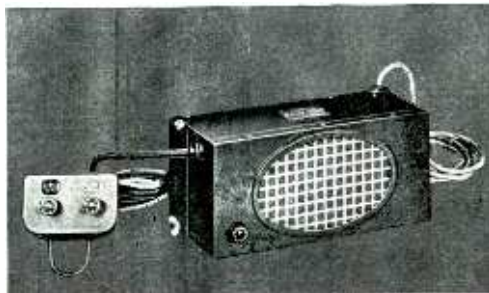


Model RS-2
Remote Speaker Cabinet

A-60 Lyric Cruiser Auto Radio
6 Tubes



Model SA-133—13 Tubes
(Channel Control)



Remarkably sensitive, selective, true-toned superheterodyne circuits with automatic volume control and dynamic speaker . . . by Wurlitzer Engineers. Unusual "eye appeal"—through smart, modern cabinets created by Russell Wright . . . internationally renowned designer, and built by Wurlitzer craftsmen.

Every feature today's buyers' are looking for.

Table models; portable A-C-DC models; an unbeatable auto radio; two beautiful furniture models; short wave combinations; a remote speaker combination; and a complete line of consoles—4 tube to the sensational 13 tube SA-133. A set for every home, every pocketbook. Radios that reach new heights in beauty . . . tone . . . and smooth, satisfying performance.

There's money in them for distributors and dealers . . . and lasting satisfaction for the user. Write, wire, or use the coupon.

The RUDOLPH WURLITZER MANUFACTURING CO.
North Tonawanda, New York

Please send complete information on your 1934 Radio Line.

- Distributor
- Dealer

Name

Address

City

RCA VICTOR

for this *FALL*



The tide has turned. Business is on the up and up again. And RCA Victor is going to be way out in front this Fall. Here's the line-up:

- 1 In the popular table model radios, RCA Victor is placing on the market a new, absolutely unbeatable line.
 - 2 In console radios... RCA Victor promises a revelation that will astound you—a series complete in every detail.
 - 3 Records are coming back. That's a fact. And to meet this new demand RCA Victor is presenting a line of popular price and de luxe radio phonographs that are unsurpassed for beauty, performance and price!
- Get on the bandwagon with RCA*



Go places with RCA

HAS *Big Plans*

Watch for them... they spell extra money for you!

4 Backing up these instruments will be the largest Fall advertising campaign ever staged by RCA Victor. Newspapers, magazines and big time broadcasting in a continuous, dominating, sales producing program. Every prospect in the country will see the new RCA Victor story, not once, but many times.

5 And last—a strong sales promotion plan that will suit every dealer—a world of bright, sparkling material that will help in closing the sale!

Victor! Get in touch with your distributor now.

RCA Victor Co., Inc.

"RADIO HEADQUARTERS"

Camden, New Jersey

A Radio Corporation of America Subsidiary



VICTOR *this* **FALL!**

G-E Radio Show Boat* ...comin' to town!



* With a "Howdy" to
Maxwell House Show Boat

with a complete display of the New G-E Radio Line for 1933-34

DON'T place any orders till the G-E Radio Show Boat ties up at your wharf. It's due any day now.

Inspect its cargo, and you'll decide to tie up with G-E and ride along with G-E to greater sales and profits.

For you'll see in these new G-E sets many new features of appeal—features that will prompt the public

to discard old sets—features that will bring old customers and new into your store to hear, marvel and buy.

To trade and public alike, G-E, since the infancy of radio, has always stood for Great Expectations . . . and Glorious Exploits.

This year is no exception.

For G-E, the pioneer and the

leader, has developed and perfected, for 1933-34, radio receivers and cabinets unmistakably new and different. Built with that precision and care for which G-E ever has been famous. *General Electric Company, Section R-449, Merchandise Department, Bridgeport, Conn.*

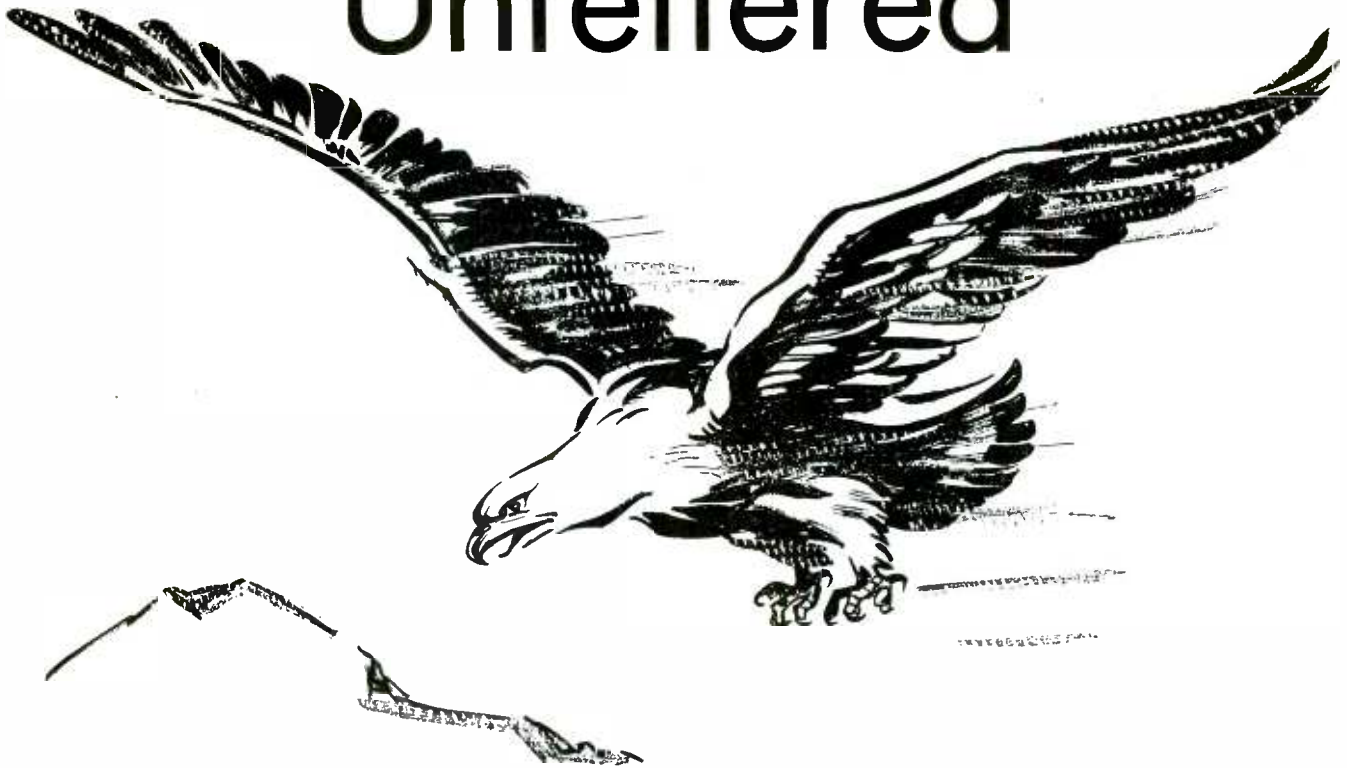


GENERAL



ELECTRIC RADIO

Unfettered



LOST MOTION and indirection are serious handicaps to success in the manufacture of precision products. Nothing slows the wheels like red tape!

The Hygrade Sylvania Corporation is unfettered by any such retarding influences. The men who own the major portion of its stock are all active in the management. They put the reputation and success of their company above all else.

A direct result has been stability. Even through the depression years, Hygrade Sylvania's credit rating has always been AaA1!

In engineering, too, this company has remained free from blind acceptance of usual practice. Witness its searching experimental work in the development of the efficient 6.3 volt tubes and the accomplishments of its Circuit Laboratory for some of the leading set manufacturers.

Sound merchandising and sales policies in jobber-dealer business make Sylvania tubes a worthwhile profit-producing line.

A letter puts you under no obligation. Write for further details. Hygrade Sylvania Corporation, Emporium, Penna.

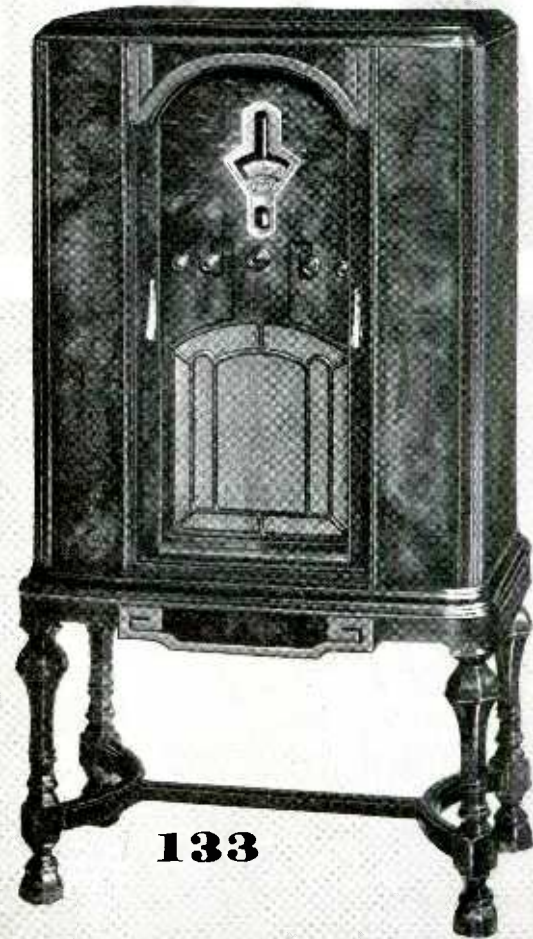


Sylvania

REGISTERED U. S. PAT. OFF.



THE SET-TESTED RADIO TUBE

**133****141****132**

LEADERSHIP

always maintains its place

Prosperity *highs* or depression *lows* have never changed our steadfast purpose.

Ever building to a standard, rather than to a price. FADA still keeps pace with the times.

As our New Deal offering, we present a line that will out-perform anything in its price field and we challenge any set at any price to match the new line for beauty of appearance or perfection of performance.

Three selections from the extensive Fada line.

MODEL 132—6 tube set—two dual function performing tubes—reproduction of an 8 tube set. Moderne design open face console, walnut and rosewood veneers in combination with satin chromium. 22½x11x39¼.

MODEL 133—10 tube De Luxe sliding door console finely figured walnut. 42¼x24½x14½. Uses Flashograph.

MODEL 141—6 tube—Table type Moderne. Finish satin ebony—walnut inlaid with chromium. 7½" high 7¾" wide 10½" long. **FEATURES:** Eight tube performance with six tubes. Full superheterodyne circuit. Long and short wave band. Automatic volume control. Tone control and static modifier. Improved tuning dial. Ten kilocycle selectivity. Phono-jack. Cushioned electro dynamic speaker. **TUBES USED:** F-6-A-7, F-77, F-6-D-6, F-37, F-42, F-80.

FADA

Radio

FADA RADIO AND ELECTRIC CORPORATION, LONG ISLAND CITY, N. Y.

A New DEWALD Product!



“The BIG Little Set”

ULTRA SENSITIVE SUPER-HETERODYNE
 AUTOMATIC VOLUME CONTROL
 ANTI-BLAST TUNING
 ILLUMINATED VERNIER DRIVE DIAL
 SHORT & BROADCAST WAVES COVERING AMATEUR, AIR-PLANE AND POLICE BANDS



ULTRA SENSITIVE SUPER-HETERODYNE
 AUTOMATIC VOLUME CONTROL
 ANTI-BLAST TUNING
 ILLUMINATED VERNIER DRIVE DIAL
 SHORT & BROADCAST WAVES COVERING AMATEUR, AIR-PLANE AND POLICE BANDS

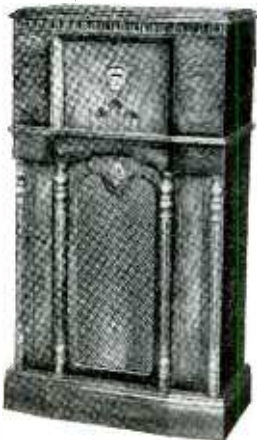
TONE CONTROL
 TWO POSITION WAVE CHANGE SWITCH
 UNIVERSAL DUAL CURRENT NEW TYPE TUBES
 FULL TONED DYNAMIC SPEAKER
 BUILT-IN ANTENNA

\$34.50

With Big Sales Points Built Into Every Part!



MODEL 550
 For Sure Sales. One of the "New Deal" line. Built to outclass its field—priced to sell. Five tube superheterodyne. Extreme sensitivity and hairline tuning. Full range dynamic speaker. Dual current. **\$29.95.**



MODEL 604
 Six tube superheterodyne, AC—DC, with tone control and ultra sensitivity—low power consumption. For sheer beauty and tonal quality this is the sales leader for your quality customers. Acoustically correct. Organ type console. Rich walnut paneling. **\$49.50.**

You can always depend upon DeWald for something new—to supply you with constantly and radically improved sets which step right out and build sales for you.

Here it is—the beautiful new DeWald Model 580. Just check over its outstanding sales features. That's the kind of stuff that talks, that builds business! The unusually attractive cabinet is an exclusive DeWald design—developed by a noted designer.

See Our Exhibit at Booth 264
 National Electrical Exposition
 Madison Square Garden

Products of

PIERCE-AIRO, INC.
 520 6th Ave., N.Y.C.



DE LUXE MODEL 551
 Operates on AC or DC.—A handsome burl walnut cabinet with ultra built-in performance. Extremely versatile—sells to a wide range of customers. **\$29.95.**



MODEL 61
 The "Motortone" is a complete six-tube set that stands out alone among car radios. Improved dynamic speaker. Hairline tuning. Extreme sensitivity. Good reception any place—no need to sit under a broadcasting station. Easily installed. Compact and sturdy. **\$49.50.**

Ask About the New Air-Cell Farm Set With All-Electric Performance

PACEMAKER IN RADIO FOR OVER TWELVE YEARS

McGraw-Hill expands its Washington Service

Epoch-making news is coming out of Washington. The newspapers are full of it. Headline-writers dramatize it. Editors comment on it. Cartoonists play with it.

But the business man wants to know what it means to him, to his employees, and to his stockholders. He wants to know how the National Recovery Act is going to affect business. He wants to know what "Industry Control" will do to prices and wages and competition. The reports and comments in his favorite daily are not sufficient. He must look elsewhere for information, interpretation and expert opinion on matters of such far-reaching economic importance.

This is where the business paper fits into the picture. McGraw-Hill Publications, individually and collectively, have long been serving business. They are not limited in man-power or facilities to the editorial staff of any one publication. The combined staffs of 21 different McGraw-Hill publications are continuously contacting nearly every major industry and trade.

This industry contact is augmented by special correspondents assigned to the seat of national recovery activities. McGraw-Hill has maintained

a Washington Bureau for many years to keep its readers apprised of National developments. Paul Wooton, veteran Washington correspondent, has reported the national news for McGraw-Hill papers since 1917. With him in recent years have been associated Carter Field and Irvin D. Foos. To this eminent Washington staff has now been added the full time service of Wallace Thompson, editor of Ingenieria Internacional. In New York, Edward P. Warner, editor of Aviation and former Assistant Secretary of the Navy, has been assigned the task of editorial direction and coordination of effort in matters relating to the National Recovery Act. Another McGraw-Hill representative, O. Fred Rost, has been assigned to devote his entire time to the various trade associations which have suddenly been lifted to a position of heretofore undreamed-of responsibility.

McGraw-Hill is thus serving its readers with the most prompt and valuable business news service it has ever been its privilege to offer. This service is reflected in the news and editorial columns of the various publications.



PAUL WOOTON

Taught school and did newspaper work in Mexico. With New Orleans Times-Picayune since 1911. Washington correspondent in 1914. McGraw-Hill Washington correspondent since 1917. Associated with many activities of the corps of correspondents in Washington. President of Overseas Writers and two terms chairman Board of Governors of National Press Club. Has covered various assignments for McGraw-Hill Publications in Europe.



CARTER FIELD

McGraw-Hill correspondent and feature writer for Bell Syndicate since 1929. Former Washington correspondent of the New York Herald-Tribune and its predecessor the New York Tribune from 1915-1929. Former President National Press Club. Member of the National Press, Gridiron and Metropolitan Clubs.



WALLACE THOMPSON

Chief editor of Ingenieria Internacional and author of books on industrial relations with Latin America. A member of the original staff of the United States Daily as expert on foreign affairs, later of trade and industry. Newspaper experience in Paris and Mexico City. Member Century, Explorers, National Arts, Cosmos and National Press Clubs. Fellow of the Royal Geographical Society.



IRVIN D. FOOS

Business paper correspondent in Washington since 1920. A member of the Washington staff of McGraw-Hill since 1929 and also Transportation Editor of BUSINESS WEEK. Active in organization of Business Paper Correspondents Committee in Washington. Member National Press Club.



O. FRED ROST

Marketing Editor of BUSINESS WEEK. Since 1928 director surveys of distribution, McGraw-Hill Publishing Co. For 19 years active in national trade associations of important industries as member or observer. Author of books and articles on the practical mechanics of business and cooperative effort in business. Received McGraw Award, electrical industry, 1927.

McGraw-Hill Publishing Company, Inc.

330 W. 42nd Street, New York

FLERON AERIAL ACCESSORIES



Radio Receptacles; Handy Taps; Lightning Arresters; Aerial Outfits; Wire for Aerial Lead-In and Ground; Masts; Ground Clamps; Screw Eyes; Aerial Tighteners; All sizes Porcelain and Glass Insulators; Lead-In Strips; Auto Aerials and Aerial Eliminators.
Complete Line from One Source. *Catalog R-653 free.*

M. M. FLERON & SON, INC. TRENTON, N. J.

"I Love a Parade"

—that was the title of a popular song some years ago. But the philosophy behind the song is still sound. Buyers appreciate the opportunity of witnessing a parade of sellers and their wares. It's a quick, convenient way of reviewing what the market has to offer.

Each issue of *Radio Retailing* is a parade before an audience of 20,000—your prospects and your customers, Mr. Manufacturer. Your advertisement is *you* in that parade—a parade expected each month by 20,000 spectators who pay a subscription price for the privilege of watching the parade. . . . Are you in the parade?

Radio Retailing

As Mae West Would Say:

"Come up and see us sometime"—at the National Electrical and Radio Exposition in the Madison Square Garden, New York City, from September 20th to 30th. You'll find *Radio Retailing*, *Electronics* and the other McGraw-Hill publications in booth 202 on the Exposition Floor, where they keep the lions and tigers during the circus. Members of our staff will be in attendance and will be glad to meet our subscribers and advertisers.

Incidentally, we're quite tickled that our editor, O. H. Caldwell, will preside at the New York ceremonies when Franklin D. Roosevelt, from the White House in Washington, opens up the Exposition with the new electronic pen.

Radio Retailing
a McGraw-Hill publication

330 West 42nd Street,
New York, N. Y.

Member ABC-ABP



SENSATIONAL New
• 1933 L. TATRO •
32 VOLT All Electric

SELL THIS RADIO TO THE FARM MARKET...

It's Profitable!

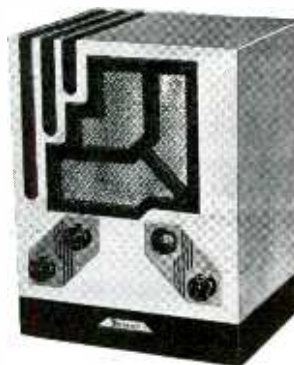
L. Tatro dealers are making sales and making money—they are cashing in on L. Tatro consumer acceptance among all Farm Light Plant Owners. National advertising campaign reaches prospects in *your* community. Write today for details of L. Tatro Dealers Franchise.

L. TATRO PRODUCTS CORPORATION
Dept. RR, DECORAH, IOWA

The Second Ace in a NEW DEAL . . .



. . . by **HALSON**



SALES FEATURES

- Modern cabinet with two-tone metal dials
- 5-tube Super uses newest tubes. New circuit gives big set performance
- Real short-wave with instantaneous short - wave switch
- Sufficient output, etc.
- Rich tone

This receiver is the Number 2 pioneer sales value of the NEW DEAL HALSON line. This line is styled and engineered to provide quick sales response and dealer profit. The complete line will be announced shortly to tie in with National Radio Progress Week in October.

Write NOW for details of the NEW HALSON FRANCHISE in your territory.

SPECIALISTS IN PRIVATE BRAND MERCHANDISE
Licensed by RCA Hazeltine, Latour patents.

Halson Radio Manufacturing Corp.

45-51 Lispenard Street, New York City
Cable address "Halsonadio"

SEARCHLIGHT SECTION

EMPLOYMENT and BUSINESS OPPORTUNITIES—SURPLUS STOCKS—DISCONTINUED MODELS

UNDISPLAYED—RATE PER WORD:
Positions Wanted, 5 cents a word, minimum \$1.00 an insertion, payable in advance.
(See ¶ on Box Numbers.)

Positions Vacant and all other classifications, 10 cents a word, minimum charge \$2.00.

Proposals, 40 cents a line an insertion.

INFORMATION:

Box Numbers in care of our New York, Chicago and San Francisco offices count 10 words additional in undisplayed ads. Replies forwarded without extra charge. Discount of 10% if one payment is made in advance for four consecutive insertions of undisplayed ads (not including proposals).

DISPLAYED—RATE PER INCH:

1 inch.....\$7.50
2 to 3 inches..... 7.25 an inch
4 to 7 inches..... 7.00 an inch
Rates for larger spaces, or yearly rates, on request.
An advertising inch is measured vertically on one column, 3 columns—30 inches—to a page. Radio Retailing

REPRESENTATION AVAILABLE

Sales Representation Available
Two high type conscientious salesmen associated with excellent following and acquaintance hardware, electrical, automotive and radio trade, jobber, dealer, dept. store and chain stores, Illinois, Wisconsin, Indiana, desire good line to represent. Aggressive co-operation and highest type representation assured. RA-180, Radio Retailing, 520 No. Michigan Ave., Chicago, Ill.

REPRESENTATIVES WANTED

Manufacturers Sales Representatives
Wanted to represent manufacturer of a high grade line of Microphone Stands and Quartz Crystal Holders. Those with contacts in the public address and transmitting line preferred. Write stating territory covered. Eastern Coil Co., 56 Christopher Ave., Brooklyn, New York.

RADIO DEALERS and SERVICEMEN:

We offer you a Service that has a national reputation for its Completeness, Speed and Reliability.

INVESTIGATE IT!

Send today for your copy of our big, new catalog—THE 1933 PROFIT GUIDE, the most complete index to Radio Replacement Parts, Repair Materials, Specialties and Public Address Equipment ever published! It features:

6,000 Radio Items

embracing practically everything needed for the servicing of any standard Receiver.

Dependable Quality,

goods that will really stand up when put to the test of actual service.

Lowest Wholesale Prices

ever quoted, quality of merchandise considered.

Overnight Service

within 500 miles of Chicago, proportionately swift service for those outside this zone.

The RADOLEK Co.
603 West Randolph Street, Chicago

Gentlemen:—I am a Dealer Serviceman
Please send the New Radolek Profit Guide immediately and put me on your mailing list to receive your literature regularly.

Name
Address
City State

Please attach coupon to your letterhead or enclose your business card. We sell only to the trade.

SPECIAL NOTICE

To the Radio Industry

Advertising in connection with legitimate offers of surplus stocks and discontinued models of radio merchandise is acceptable in this section of "Radio Retailing."

Extreme care will be exercised by the publishers to prevent the use of advertising in the Searchlight Section to encourage price cutting on current models of merchandise or equipment. Nor will advertising which invites violation of the dealer's contract with the manufacturer be acceptable.

All merchandise offered in the Searchlight Section must be accurately and fully described and must be available on order.

DEALERS and SERVICE MEN

Genuine Grebe factory made parts in stock for all model Grebe receivers manufactured prior to 1933. Power transformers for sets using from 4 to 12 tubes. Also audio transformers and filter chokes. Write for descriptive data and parts price list.

GREBE RADIO SALES & SERVICE CO.
137-28 Jamaica Ave., Jamaica, N. Y.
(Owner former Gen. Fact. Mgr. of
A. H. Grebe & Co., Inc.)

ATTENTION! DEALERS, JOBBERS

DE LUXE RANGE BURNERS, \$7.50

Complete. Approved and 5-year guaranteed. Write at once for protected territory.

LAFAYETTE OIL BURNER CO.
28-30 Portland St., Boston, Mass.
Dept. D. SALESMEN WANTED

RADIO BUYERS' GUIDE

~ talk about
Wholesale Discounts
even a Manufacturer
couldn't beat these.

prices
average 50%
LESS
than shown in our
1933 CATALOGUE

Rush my FREE copy to—

Name
Address
City State

The AIREX Co., Inc. 78 Cortlandt St.,
New York City

There is a

Searchlight Section

in each McGraw-Hill
paper:

American Machinist
Aviation
Bus Transportation
Chemical and
Metallurgical Engineering
Coal Age
Construction Methods
Electrical Merchandising
Electrical World
Electronics
Engineering News-Record
Engineering and Mining Journal
Factory Management and
Maintenance
Food Industries
Metal and Mineral Markets
Power
Product Engineering
Radio Retailing
Textile World
Transit Journal

For advertising rates and
other information on any
or all of these publications,
address

Departmental Advertising Staff

McGraw-Hill Publications
330 W. 42d St., New York City

OFFERING *the finest facilities to aid you in making Sales at a PROFIT*

As one of the pioneer radio mail order houses, Federated is constantly thinking in terms of improving its service to its customers.

In line with this policy, and in order to further protect its customers, Federated has established a precedent in quoting list prices in its new "Sound Equipment and Public Address Book." These prices are subject to a uniform discount to accredited members of the radio industry.

In addition Federated is offering a new pamphlet on "How to Overcome Radio Noises". This valuable contribution represents a new type of service pioneered by Federated which should go a long way toward building good will through better service to your customers.



The coupon below will facilitate your sending for these two new Federated Sales and Service Helps.

This complete booklet on **PUBLIC ADDRESS and SOUND EQUIPMENT** — is the only one of its kind containing a complete listing of sound equipment

Here is a radical departure from the familiar form of mail order catalog. It contains not only a complete listing of sound equipment but is the first book of its kind designed solely to aid in solving your problem of direct client solicitation. It should be your most valuable tool in building up public ad-

dress and sound equipment sales. It is well illustrated, concise yet complete. Prices quoted are LIST PRICES which may be shown to your customers. Confidential information pertaining to discounts will be given to accredited members of the trade only. Ask for your copy by sending in the coupon below.

"Secure these valuable books from our nearest branch by just mentioning **RADIO RETAILING.**"

Federated Purchaser, Inc

PHILADELPHIA, PA.
2909 N. BROAD ST.

JAMAICA, L.I.N.Y.
92-26 MERRICK ROAD

BRONX, N.Y.
534 E. FORDHAM RD.

NEWARK, N.J.
273 CENTRAL AVE.

ATLANTA, GA.
631 SPRING ST. N.W.

PITTSBURG, PA.
343 BLVD. of the ALLIES

CHICAGO, ILL.
1331 S. MICHIGAN AV.

NEW YORK CITY
25 PARK PLACE



"How to overcome Auto Radio Noises"

Once again Federated pioneers a new service. This Pamphlet, written by Auto Radio Specialists for service men and auto radio dealers, is a valuable service manual.

It is a compilation of the results of a contest recently conducted to make a study of Auto Radio troubles. It lists most of the new wrinkles and short cuts discovered by the contestants.

You are interested in how to overcome auto radio noises. This Pamphlet tells how. Think what it will mean to you in eliminating unnecessary service calls, and what a tremendous help it will be in rendering better service to your customers.

It covers in detail all makes of auto radio sets for all makes of cars. Your request for a copy, on the coupon below, will have prompt attention.

FILL IN AND MAIL THIS COUPON!

FEDERATED PURCHASER, INC.
23-25 Park Place, New York City.

Gentlemen:

Without obligation send me a copy of your:

- "Public Address and Sound Equipment"
- "How to Overcome Auto Radio Noises"

(Check booklet desired)

We think your idea of quoting list prices is (is not) a step in the right direction. We would (would not) like to see this done in your next catalog.

Name

Address

City State

Company

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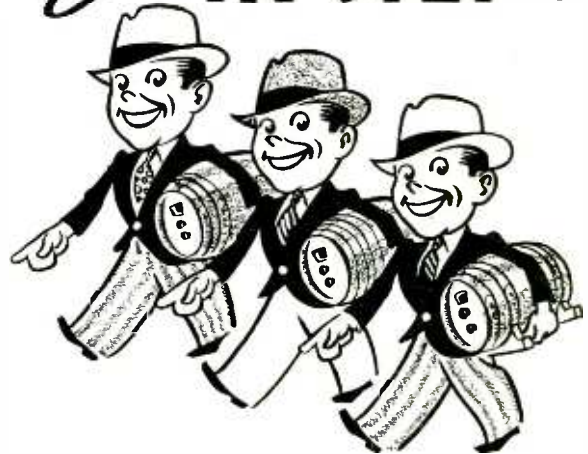
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Get IN STEP!



GET a slice of the large profits others are making selling these sensational new RADIO KEGS.

RADIO KEG has been on the market long enough to demonstrate that it *sells* and *sells fast*. This profit making radio is a five tube superheterodyne set and 6½ inch dynamic speaker mounted in a beautifully finished genuine quartersawed white oak keg measuring 10 inches high and 12 inches long. AC-DC—Automatic volume control—Wide reception—Tone qualities unsurpassed—A man's radio in every respect.

DOES IT SELL? Ask any jobber or dealer handling RADIO KEG (we'll be glad to give you names)—he'll tell you that his sales have been doubled—tripled time and time again.



PATENT APPLIED FOR

Radio Keg

TRADE MARK

RADIO KEG is *built to sell now!* It's the only radio with that popular appeal. A live wire line for live wire distributors and dealers who are looking for immediate profits.

Get in step with the others—let us tell you what they are doing with it—where and how they are selling RADIO KEG. It costs you nothing to investigate—so don't pass up this opportunity.

TODAY—Wire or write factory direct or see nearest RADIO KEG distributor.

(Licensed under patents of R C A)

it sells!

R.K. RADIO LABORATORIES, Inc
6300-14 Northwest Highway
CHICAGO, ILL.



RADIO prices are going up. Value-standards are changing. Under conditions such as these, people tend to turn to

the name that, in the past, has stood for sound, dependable value. Throughout the years Crosley has built just such a name. Today, as always, the name Crosley means "the most for your radio dollar."

Take any Crosley radio set. Compare it with any other set in the same price range. Compare them performance for performance, tube for tube, feature for feature, looks for looks, price for price. Let the sets speak for themselves—and you'll realize, as never before, the reason for Crosley's reputation . . . a reputation that now is of greater importance to you, as a dealer, than at any other time. Crosley values are the beacon that guides the radio-buying public today.

THE CROSLLEY RADIO CORPORATION

POWEL CROSLLEY JR., *President*

Home of "the Nation's Station"—WLW

CINCINNATI

WHATEVER HAPPENS . . . YOU'RE THERE WITH A CROSLLEY

CROSLLEY RADIO

R ARLEN
734 ELM ST
ANTIGO WISC

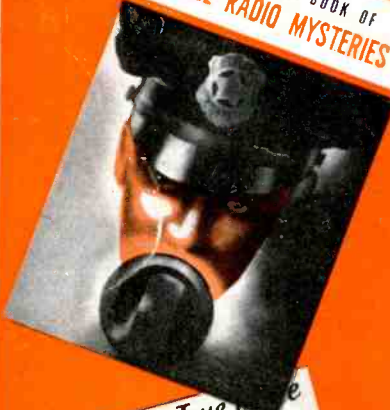
WORLD'S SERIES
BROADCAST



Keep your set fit
BUY RAYTHEON

THINGS
TO HELP
YOU SELL

THE RAYTHEON BOOK OF
POLICE RADIO MYSTERIES



Release the True
of your Radio Set

4 PILLAR CONSTRUCTION

Defies Jolts
and Jars
Improves
Reception of
every set

RAYTHEON

RAYTHEON

SETTING THE PACE

RAYTHEON TUBES — 4-pillar Construction — have made radio history. Each month of 1933 has established a higher sales record. Dealers, jobbers and set manufacturers have bought them in larger and larger quantities.

This pace will be maintained, even accelerated. Over \$3,000,000 has been expended to develop and promote consumer and trade acceptance. Intensive engineering and research activities, plus fair price competition, aggressive sales and clean distribution methods, will keep Raytheon Tubes among the leaders in sales volume and profits. Raytheon quality — precise processing and selected raw materials — means satisfied consumers. All radio tubes are not alike; Raytheon Tubes are different. They alone have the patented 4-pillar Construction — manufactured by Raytheon, a pioneer in the radio tube industry.

The pace will be maintained by original ideas in display material and advertising — window trims that bring customers into stores and that get service men into set owners' homes. Newspaper and trade advertising starts in September in tune with R.M.A.'s Prosperity Campaign. Raytheon Tubes are an integral part of it and Radio Progress Week.

Dealer helps are ready. One of them, the "Raytheon Book of Police Radio Mysteries" — for consumer distribution — gives promise of building greater consumer interest than the popular Radio Star booklet. The window and counter displays and streamers are colorful and attractive. Raytheon 4-pillar Tubes protect dealers' and jobbers' profits. Dealers should write their jobbers and jobbers should write the nearest Raytheon office for details on Raytheon's Pace-setting Campaign.

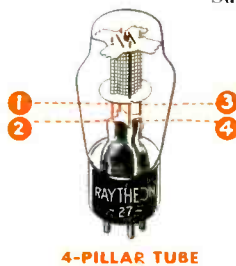
RAYTHEON PRODUCTION CORPORATION

30 East 42nd St.
New York City

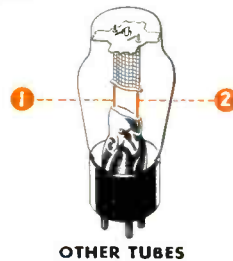
55 Chapel Street
Newton, Mass.

445 Lake Shore Drive
Chicago

555 Howard Street
San Francisco



4-PILLAR TUBE



OTHER TUBES

RAYTHEON

4-PILLAR RADIO TUBES

