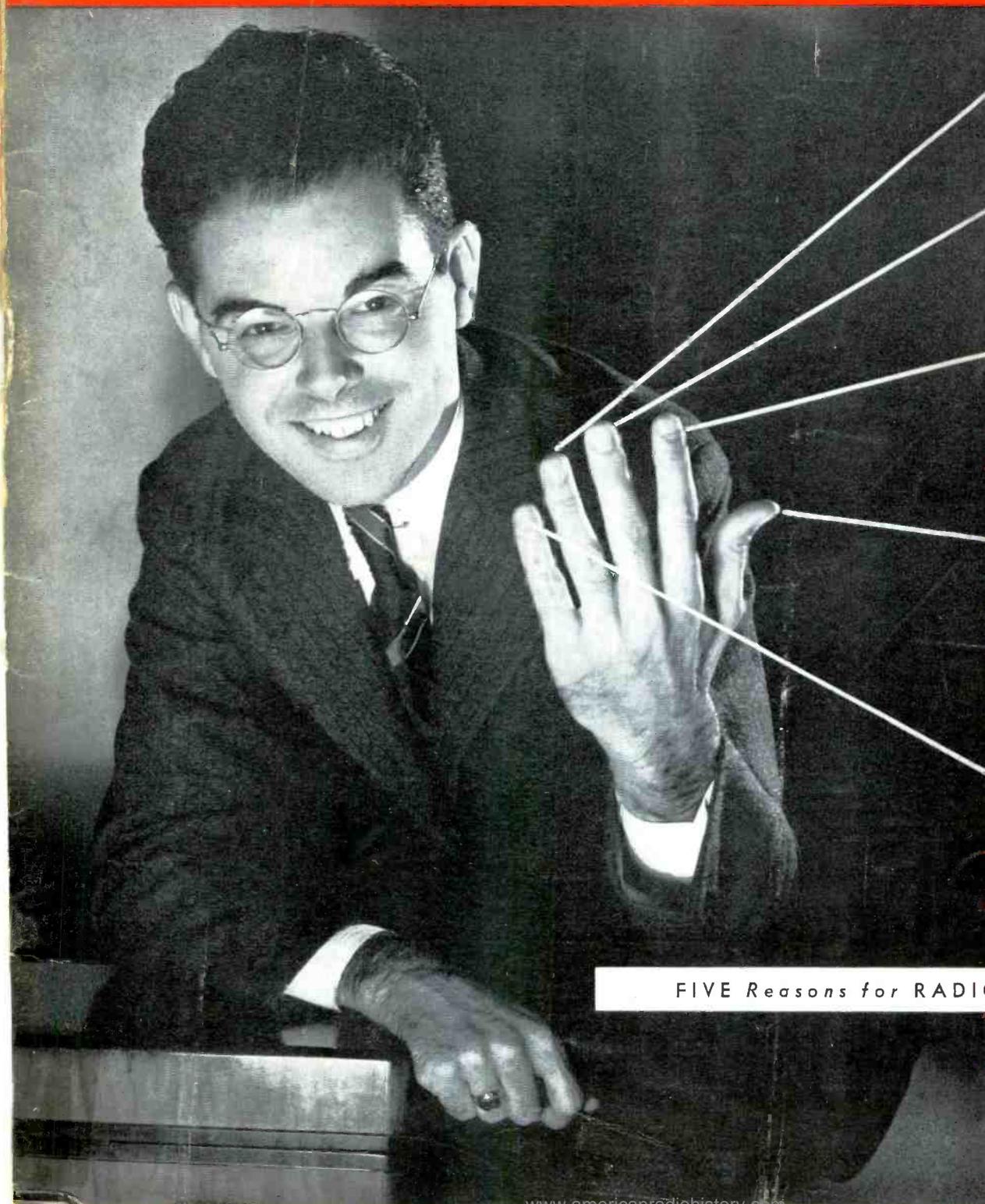


# RADIO *and* *Television* RETAILING

OCTOBER • 1939



- 1 COLD - WEATHER RESUMPTION OF LISTENING
- 2 EXTRA, ADDED ATTRACTION OF WAR NEWS
- 3 INDICATED HEAVY CHRISTMAS GIFT BUYING
- 4 GENERAL IMPROVEMENT THROUGHOUT BUSINESS
- 5 APPROACHING PRESIDENTIAL ELECTION YEAR

FIVE Reasons for RADIO Sales OPTIMISM

A  
McGRAW-HILL Publication  
Price 25c

# P. R. MALLORY & CO., Inc. MALLORY

## Replacement Condensers Have Captured the Country . . .

Thousands of service men from coast to coast have already found for themselves the time saving . . . profit building possibilities of these new Mallory Condensers.

Once again Mallory's policy of unstinting

investment in development work has been justified. Every condenser replacement need is adequately covered because the line has been built around an exhaustive study of millions of condensers now in use as original equipment.

### No Condenser Line gives you wider replacement possibilities

*For example*—with over 50 ratings to choose from . . . with common anode, common cathode and separate sections too . . . Mallory Tubular Condensers fill your every need and give the firm satisfactory answer to the problem of replacement for inexpensive compact receivers. Recognizing the universality of multiple separate section units

. . . they have been included in the line wherever size permits. Each condenser is attractive, neat, permanently marked and definitely sealed against humidity and moisture. Flexible six inch leads and exclusive mounting features make installation simple. Your Mallory-Yaxley distributor will give you immediate service. Put yourself in line for bigger profits. Order NOW!



**A**—Units of larger diameter supplied with self-contained feature for universal mounting . . . either vertical or horizontal. All leads at one end.

**B**—Supplied with simple adjustable strap for horizontal mounting. Insulated leads at both ends.

**C**—These are provided with bare wire leads at both ends. Because of their small size, no mounting feature is required.

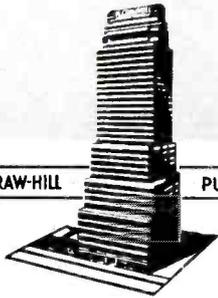
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**MALLORY**  
REPLACEMENT  
CONDENSERS . . . VIBRATORS

P. R. MALLORY & CO., Inc.  
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VOLUME CONTROLS

# RADIO

# and Television RETAILING



A McGRAW-HILL

PUBLICATION

OCTOBER 1939

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## McGRAW-HILL PUBLISHING COMPANY, INC.

JAMES H. MCGRAW  
Founder and Honorary Chairman

Publication Office  
99-129 North Broadway, Albany, N. Y.  
Editorial and Executive Offices  
330 West 42nd Street, New York, N. Y.

Cable Address: MCGRAWHILL, New York  
Member A.B.P. Member A.B.C.

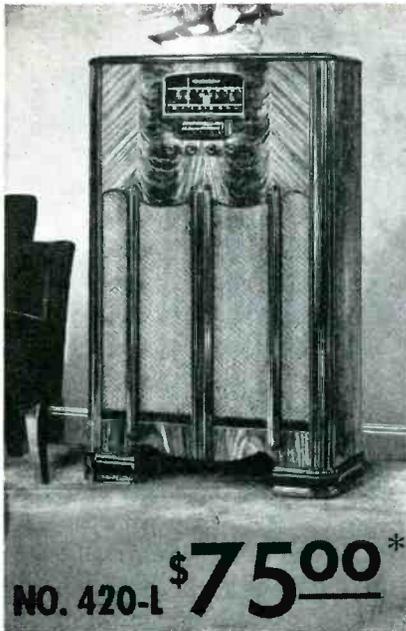
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RADIO and Television RETAILING, October, 1939.  
Vol. 24, No. 10. Published monthly, price 25c copy.  
Subscription rates—United States and possessions,  
Canada, Mexico and Central American countries,  
\$1. All other countries \$2 a year or twelve shillings.  
Printed in U. S. A. Entered as Second  
Class Matter, April 29, 1939, at Post Office,  
Albany, N. Y., under the Act of March 3, 1879.  
Cable address "McGrawhill, New York." Member  
of A.B.P. Member of A.B.C. Copyright 1939 by  
McGraw-Hill Publishing Co., Inc., 330 West 42d  
Street, New York, N. Y.

Branch Offices: 520 North Michigan Ave., Chicago;  
833 Mission St., San Francisco; Aldwych House,  
Aldwych, London, W. C. 2; Washington; Phila-  
delphia; Cleveland; Detroit; St. Louis; Boston;  
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SALES STATIC . . . The gas gauge in my car won't work.  
You must have installed the radio wrong!



NO. 420-L \$75<sup>00</sup>\*



NO. 430-M \$99<sup>95</sup>\*



NO. 420-PL \$139<sup>50</sup>\*

# Values Like These

MAKE POSSIBLE A RECORD LIKE THIS

Already Stromberg-Carlson boasts half again as many more dealers as last year! When a line attracts the trade to that extent, you can be sure it offers sensational profit possibilities. The answer is *values!* Values that create volume sales—in big units—at a real profit!

Just look at three of them: The full-featured No. 430-M Labyrinth radio with the patented Carpinchoe Leather Speaker for only \$99.95\*! The gorgeous Stromberg-Carlson No. 420-PL automatic radio-phonograph for only \$139.50\*! The big No. 420-L console with a chassis that's tops in performance for only \$75.00\*—the lowest priced console ever to bear the Stromberg-Carlson name! If you haven't already switched to radio's hottest line, send for full information today!

\*All prices f.o.b. Rochester, N. Y.  
Subject to change without notice.

Stromberg-Carlson Telephone Mfg. Co.  
249 Carlson Road, Rochester, N. Y.

**49%**  
**More Dealers**  
**ARE NOW SELLING**  
**STROMBERG-CARLSON**  
*-are you one of them?*

*There is nothing finer than a*

# Stromberg-Carlson

RUSSIA

# RAYTHEON TUBES

## HELP Correct THE MAP OF the World!

FINLAND

Unexplored

NORTH  
★  
POLE

Unexplored

CROCKER  
LAND

GREENLAND



C. J. MacGregor

**Receivers and Transmitters, Equipped with Raytheon Tubes, Play an Important Part in the Work of the MacGregor Arctic Expedition.'**

When Commander Peary returned from his unsuccessful dash to the North Pole in 1906, he reported the existence of an island that has since been indicated on all Arctic maps as Crocker Land.

But, when Capt. MacGregor led his scientific expedition into the Arctic, he flew over 100,000 square miles of Arctic territory without finding a sign of the so-called Crocker Land.

Thus the map of the world is changed—with the efficient assistance of RAYTHEON tubes. For Capt. MacGregor's Transmitters and Receivers, through which he maintained daily contact between airplane and base camp and with the U. S. Weather Bureau in Washington, D. C., were all equipped with dependable RAYTHEONS!

Where lives are at stake and cost is no factor you will invariably find RAYTHEONS!

And yet, you can give this same dependable service to your customers—without a penny more cost than the second best tube!

The new RAYTHEON price policy takes the sales resistance out of the tube replacement business and greatly increases your turnover without sacrificing the profits to which you are entitled.

Ask your RAYTHEON Jobber TODAY!

DOMINION  
OF CANADA



# RAYTHEON

NEWTON, MASS. • NEW YORK • CHICAGO • SAN FRANCISCO • ATLANTA

**"WORLD'S LARGEST EXCLUSIVE RADIO TUBE MANUFACTURERS"**

183

*Make the week of October 23rd*



**T**he national announcement of the Farnsworth line is the biggest news in radio for many years. Plan *now* to tie-up with this public announcement by making the week of October 23rd "*Farnsworth Week*" in your store!

**"THE GREATEST NAME IN TELEVISION IS THE  
NEWEST NAME IN RADIO"**

Millions of families will be reading this message in *The Saturday Evening Post* . . . the thrilling story of America's television genius, Philo T. Farnsworth. They will see sales-arousing pictures of beautiful Farnsworth consoles, combinations, table models, portables . . . created by Farnsworth television engineers . . . every model a really competitive value.

**FARNSWORTH PUTS REAL PROFIT INTO THE  
RADIO BUSINESS**

Thousands of orders are pouring in to the Farnsworth factories, because progressive dealers know a good deal and a good buy when they see one.

Low list prices meet all competition . . . yet are carefully figured to give **YOU** a longer margin of profit.

It is a *complete* non-conflicting line . . . every type of set for every type of customer. And every model has a "buy me" price tag on it.

**HOW TO CASH IN**—Here's the way to get every dollar of profit out of that sensational public announcement in the October 28th issue of *The Saturday Evening Post*.

- 1** See your Farnsworth distributor, get proofs of *The Saturday Evening Post* ad to put up in your windows on Monday morning, October 23rd—break the news in your neighborhood before the magazine reaches the stands. Let people know your store is headquarters for the great new Farnsworth Radio.
- 2** Display several proofs of the ad—they will help you sell.
- 3** Be sure your salesmen have plenty of Farnsworth literature to help them close more sales.
- 4** A representative line of Farnsworth Radios in your windows will be a real traffic stopper. And a special Farnsworth section on your floor will attract crowds to your radio department.
- 5** Increase the effectiveness of your own newspaper advertising by featuring the Farnsworth Radio *during this week of peak-point interest*.
- 6** See your Farnsworth distributor *now*. Let your "*Farnsworth Week*" make more money for you.

**FARNSWORTH TELEVISION & RADIO CORPORATION, FORT WAYNE AND MARION, INDIANA**

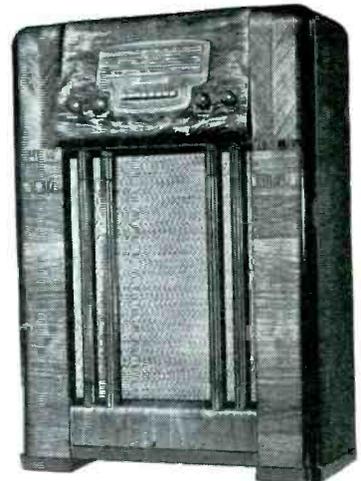
# WEEK

Capitalize on this smashing  
double-page announcement  
in The Saturday Evening Post



◀ Here's the knock-out, big-demand item of the season—radio-phonograph combination (AK-59). Note the richly grained woods in the beautifully proportioned cabinet. 7 tubes, 2 wave bands, automatic volume control, Built-In-Tenna, 5-station push-button tuning, 12-inch electro-dynamic speaker. Phonograph with Capehart automatic record changer. Television-sound connection. Your customers will sell themselves when they hear it and learn its unbelievably low price.

Just look at this super-value console (AC-70) illustrated here. ▶ Note the superbly figured, classically designed cabinet. 8 tubes, 3 wave bands, Flo-Lite dial, 6-station push-button tuning, built-in, rotatable loop antenna, automatic volume control, 12-inch electro-dynamic speaker, phonograph and television-sound connection. An outstanding Farnsworth value . . . at a list price that will "go to town" for you, and with a profit margin that really rings the cash register.





TUNG-SOL PUTS YOU  
IN THE

*Driver's Seat!*

Every dealer wants to run a profitable tube business FREE from cut price competition and merchandising schemes which push him around.

YOU CAN IF:

- You have a record as an established dealer maintaining standard prices for your own welfare.
- You can move an adequate tube stock three or four times a year.
- You know how to use sales helps and attractive displays to "step-up" sales.
- You are in a neighborhood free from interference with already established Tung-Sol Dealers.

*If you fill the bill you qualify for the Tung-Sol plan of protected profit—the plan which puts you in the driver's seat. AND . . . you secure an adequate supply of Tung-Sol Tubes without investment. Write today.*



TUNG-SOL LAMP WORKS INC.  
Dept. B Radio Tube Division

SALES OFFICES: Atlanta • Chicago • Dallas  
Denver • Detroit • Kansas City • Los Angeles  
New York  
General Offices: Newark, New Jersey

# ANOTHER Majestic SCOOP!

As Advertised in  
Saturday Evening Post, Oct. 28, 1939  
Collier's, Nov. 11, 1939



**LOW PRICE OF NEW  
1940  
Majestic  
RADIO  
AMAZED ME!**



**AMERICAN and FOREIGN  
RECEPTION! . . .  
With All These Features**

- TWO Wave-bands!—gets all standard U.S., foreign, ships and amateur broadcasts!
- Plays on AC or DC.
- Smart new styling; walnut or ivory plastic cabinet.
- Automatic Volume Control and Tone Control.
- A price that's lower than many sets that get American broadcasts only!

**The Hottest 2-Wave-Band Set In The Industry . . .  
Backed By Smashing National Advertising!**

Here's just another example of why the experienced, shrewd merchandisers are saying: "Majestic's the line to ride hard!" Here's a set with flawless plastic design—exceptional tone—two wave bands covering standard U.S., foreign, ships, amateur—a price that astounds customers! There's a real profit in it for you—and Majestic is selling this set for you and selling it hard! Week after week Majestic ads in the Post, Life, Collier's and others are featuring hot numbers you can move, at a profit! Order 2-wave-band item (model 2D60) and other hot numbers now!

## MORE PROVEN HOT SELLERS



**PLASTIC BEAUTY WINNER**  
—A little beauty; in walnut or ivory, available with or without pushbutton tuning. 6-tube (including ballast) superheterodyne. No aerial; no ground; 538-1720 kc. Models 250I, 250W, 250MI and 250MW.



**Miniature Broadcasting Station**—Plays records through radio or own 4-tube phonograph oscillator amplifier: 4-inch electro-dynamic speaker, constant speed synchronous motor. No wires. Model 4PWO.



**Automatic Record-Changing 6-Tube Combination**—Plays 10-inch and 12-inch records inter-mixed; automatic start and stop. 2 bands: 538-1720 kc. and 6.8, 18.6 mc. No aerial, no ground; many other Majestic advancements. Model 2C60P.

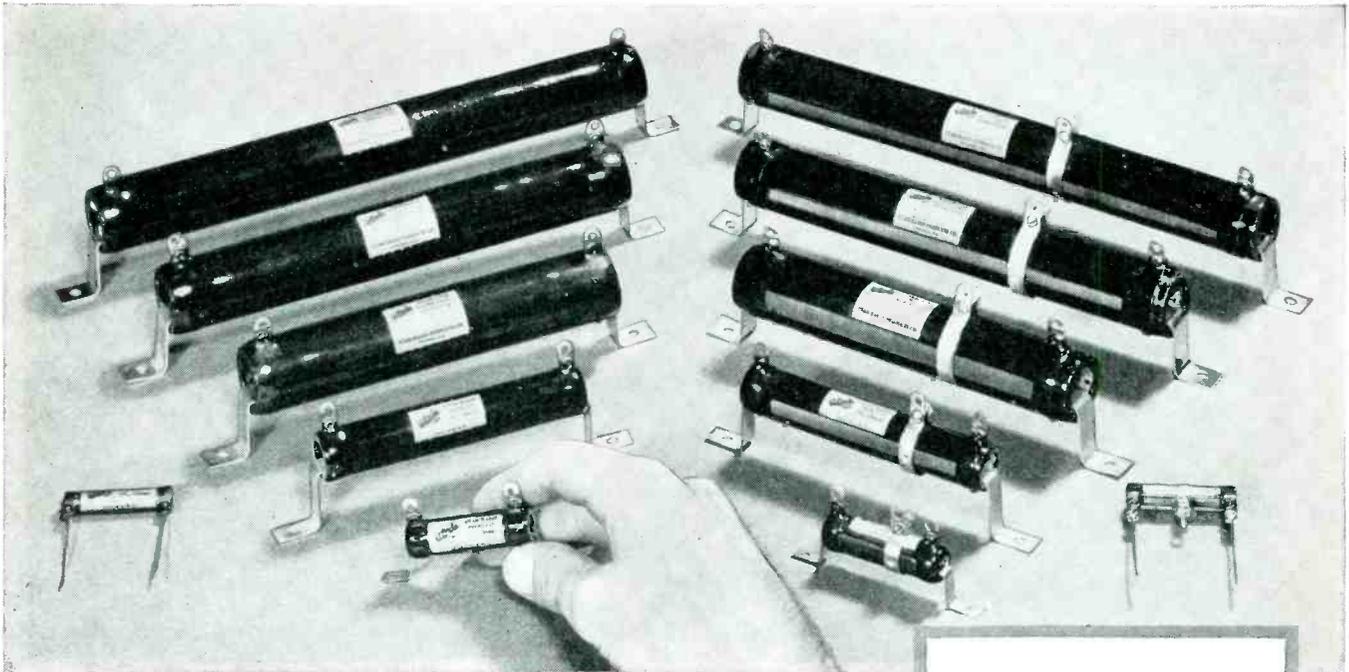
**Majestic**  
MIGHTY MONARCH OF THE AIR

Majestic Radio & Television Corp.,  
2604 W. 50th St., Chicago, Illinois.  
Cable Address: "Majestic, Chicago."

8 MILLION SATISFIED OWNERS OF OLD *Majestics* ARE RED-HOT PROSPECTS FOR NEW MAJESTICS

# UTAH-CARTER

## VITREOUS ENAMEL RESISTORS



### Backed by More than 10 years of Development Engineering and Precision Manufacturing

You get the benefit, with Utah wire wound resistors, of more than a decade of experience in the development of resistance units—starting with the first 10 and 20-Watt types made by the Carter Radio Company and followed by years of competent engineering which has kept abreast of all industry developments.

*Double protection* is provided by the two, separately fired, coats of porcelain enamel applied by the wet process. The hard, glassy enamel adheres permanently to the porcelain tube core, resistance wire and terminals. Dangers of corrosion from salt spray, moisture, acids and alkalis are avoided. The added strength eliminates the possibility of sharp tools piercing the coating. Utah terminals cannot tear loose, bending of soldering lugs will not break the wire. The junc-

tion of wire and terminal is silver-soldered for perfect conductivity.

Utah-Carter Vitreous Enamel Resistors are available in a full range of sizes and types, from 5 watts to 200 watts. The adjustable types have dependable accuracy of Utah fixed resistors. In the exposed area the wire is protected and securely anchored by the enamel which lies between the turns. The cadmium-plated steel adjustable terminal can be set at any desired value along the resistor and clamped in place. The wattage which may be safely dissipated at fractional settings is proportional to the effective length of the section being used.

Complete information is contained in the new 32-page Utah catalog. Write for your free copy today.

YOU CAN DEPEND ON THESE  
HIGH-VALUE UTAH-CARTER PARTS

VOLUME CONTROLS

Wire wound Type  
Improved Carbon Type

POTENTIOMETERS

RHEOSTATS

PLUGS

"T" and "L" PADS

LONG AND SHORT JACKS

IMPJACKS

JACK-SWITCHES

PUSH-BUTTON SWITCHES

D. C. RELAYS

**UTAH RADIO PRODUCTS CO.**

810 ORLEANS ST., CHICAGO, ILL.

CANADIAN SALES OFFICE:

414 BAY ST., TORONTO, CANADA

Cable Address: UTARADIO CHICAGO

# The RADIO MONTH

OCTOBER

1939

**All for One** D'Artagnan's famous slogan applies aptly to the current effort being made by the NAB and the RMA to increase and improve listening for the benefit of broadcasters and radio manufacturers and the distributors, the dealers and the public who lie between. Latest move on the part of broadcasters to recommend RSA and other good servicemen during spot announcements should prove especially effective.

**Constructive Step** Uniform distributor discounts on tubes, becoming effective as this issue goes to press, represent an important move in the right direction. In the words of one manufacturer's renewal tube sales manager: "It comes at a particularly fortunate time when general economic conditions are improving, when seasonal demand is great and when public use of radio is at its greatest peak in history."

**Bats and Boots** While war-talk is largely responsible for tremendous stimulation of listener interest the radio industry need not trade on this "mongering" for there are other broadcasts less fortuitous and nearly as effective upon which sales may be built. World's Series baseball, for example, glues many ears to speakers as we write. And, even as "America's National Game" tucks its horsehide sphere away in cold-storage, football breaks out its pig-skin.

**Perennial Problems** By-product of our last minute survey among key re-

tailers to determine September sales, current stocks and probable last quarter trends (reported elsewhere in this issue) was a flock of remarks not strictly down the alley of inquiry but interesting just the same. Some were perennials such as: "Set lists should include allowance for 10 per cent trade-in." "Department and chain stores and/or small operators without any conception of overhead are price-cutting." "There are too many models." A great many remembered our recent campaign for better sets and asked us to urge a return to r.f. stages and three-gang condensers. And there were some new wrinkles. One dealer, for example, suggested that we induce a clever attorney to work up a set rental plan, with payment in full in advance to simplify repossessions, avoid tax on contracts. Another thought distributors might exchange slow-moving models for hot numbers.

**So Far, So Good** We've had a lot of letters from dealers apparently "feeling their oats" and contemplating still heavier merchandise purchases in anticipation of a whirlwind finish for the year. They ask how retail set sales for the first three-quarters compare with 1938 and here's the dope: Units were up 18 per cent in January, 13 in February, 19 in March, 19 in April, 23 in May, 25 in June, 23 and 27 in July and August (estimated) and up 30 per cent in September over the same months last year.

**Sales Doublers** With dry batteries flooding the market in portables throughout the summer, it was inevitable that



**OUR COVER**—As the American family turns indoors for its entertainment, big-time programs resume to deliver the best there is right within the home. War news broadcasts make consistent listeners even of those few not ordinarily intrigued by the airwave bill-of-fare. Money with which to buy radio is everywhere flowing more freely from paymasters to pocketbooks. New set designs happily have just the right balance of novelty, usefulness and price-range needed to compete with conventional gifts. And, coming up after the holidays, is an entire year in which political campaigning will provide a long-lasting filip. *Never, in the history of the business, have more favorable factors combined to insure continued volume sales.*

we'd soon see testers designed to help dealers swell replacement battery sales. "English reading," understandable to the public and checking drycells under loads accurately simulating actual set drains, these should be swung into action when carryabouts come in to have their tubes checked.

**Young America Listens** The average American youth of 13 and 14 years of age listens to an average of 16 radio programs a week, and 80 per cent listen to both the commercial and main parts of the program, according to results of a survey just released by the newsmag "Young America." The study was conducted in cooperation with principals and teachers of 51 elementary and junior high schools in marketing areas which account for 55.2 per cent of the nation's retail sales. These kids should obviously have radios for their own rooms.

# ARVIN Radios



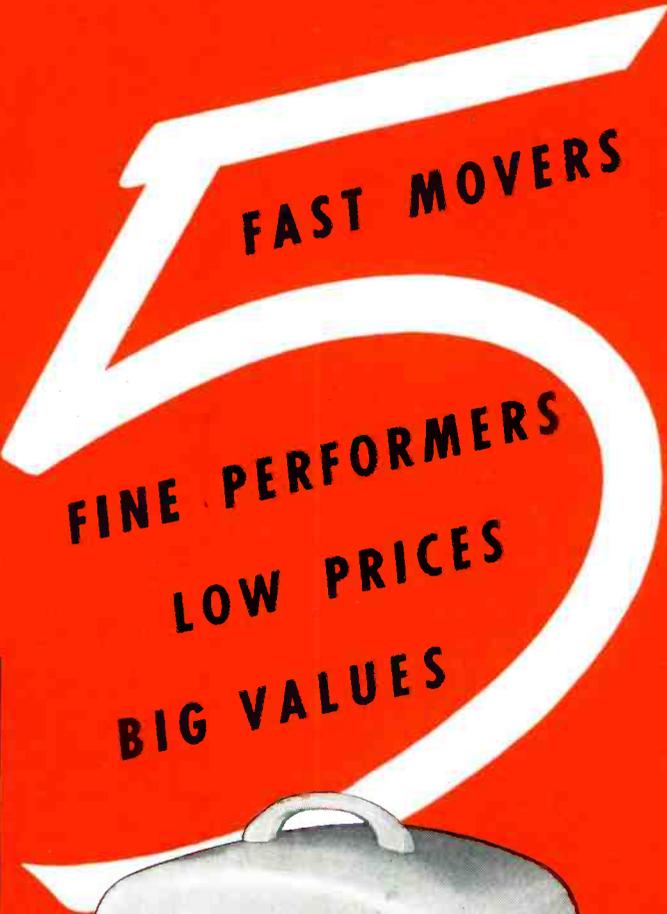
**MODEL 802 \$24.95**  
LIST

Battery-Electric Portable complete with batteries, built-in loop antenna and 5 working tubes. A sturdy, dependable portable for outdoor or indoor use. Operates on self-contained batteries or 110 volt AC or DC current. One set of batteries, furnished, provides 250 to 350 operating hours. Plenty of sales appeal in this set.



**MODEL 702 \$24.95**  
LIST

6-Tube AC-DC Superhet with push button and dial tuning. Beautiful walnut wood cabinet. Built-in loop antenna. High sensitivity and keen selectivity provide wide range performance. Permanent magnet 8-inch speaker for fine tone and voice reproduction. A radio value seldom seen at this price.



**MODEL 402A \$6.95**  
LIST

The Little Giant of radio land, with smart new styling and 3 tubes. Unbreakable cabinet. Choice of ivory or (walnut model 402). 20-foot antenna attached. Small enough to tuck away in luggage, powerful enough to do an almost unbelievable job. A rapid fire seller.



**MODEL 602A \$18.95**  
LIST

Six-Tube AC-DC Portable Superhet with built-in loop antenna and convenient carrying handle. Plastic cabinet in ivory or (walnut model 602 at \$16.95). Variable tone control. A powerful, fine-performing set.

All prices slightly higher Denver and West and extreme South



**MODEL 502 \$9.95**  
LIST

5-Tube AC-DC Superhet. Extremely sensitive and selective. Electro-dynamic speaker. Beautiful illuminated airplane dial. Choice of ivory or walnut finish. Unbreakable cabinet. 30-foot antenna attached. Small but mighty. Out-performs many radios that sell at twice its price.

**NEW 1940 MODELS—DEPENDABLE, BIG-VALUE SETS—FROM A REPUTABLE MAKER**

Four new Arvin Car Radios for 1940 meet every prospect desire. Two 5-tube single unit sets, offer easy under-instrument-panel installation—with direct control dial tuning, or dial and 4 push button automatic tuning. These powerful sets have almost unbelievable sensitivity and selectivity. And look at the amazingly low prices. All Arvin Car Radios have the famous Phantom Filter which boosts signal strength and clears reception.

**MODEL 510 with direct controls, disc-type dial tuning and 5 tubes. A startling radio value at this price.**  
**\$14.95**  
LIST



**MODEL 610**

Two other 1940 Arvin Car Radios give you the added sales appeal of matching panel controls and push button remote control tuning. Model 710, 5-tube chassis and 8" speaker with universal remote control, \$24.95 . . . with matching panel control, \$28.85. Model 810, deluxe with universal remote control, \$46.50 . . . with matching panel control, \$49.95.

**NOBLITT-SPARKS INDUSTRIES, Columbus, Indiana**

**MODEL 610 with push button and disc-type dial tuning and 5 tubes. A single unit "double-value" radio.**  
**\$17.95**  
LIST

# RADIO *and Television* RETAILING

OCTOBER, 1939



## Radio Rainmaker

**S**LICKEST publicity for portables seen since such readily dramatized sets came on the market is this eye-catching picture of a "radio rainmaker" given 24-inches of practically priceless space on page one of New York's powerful *Daily News*.

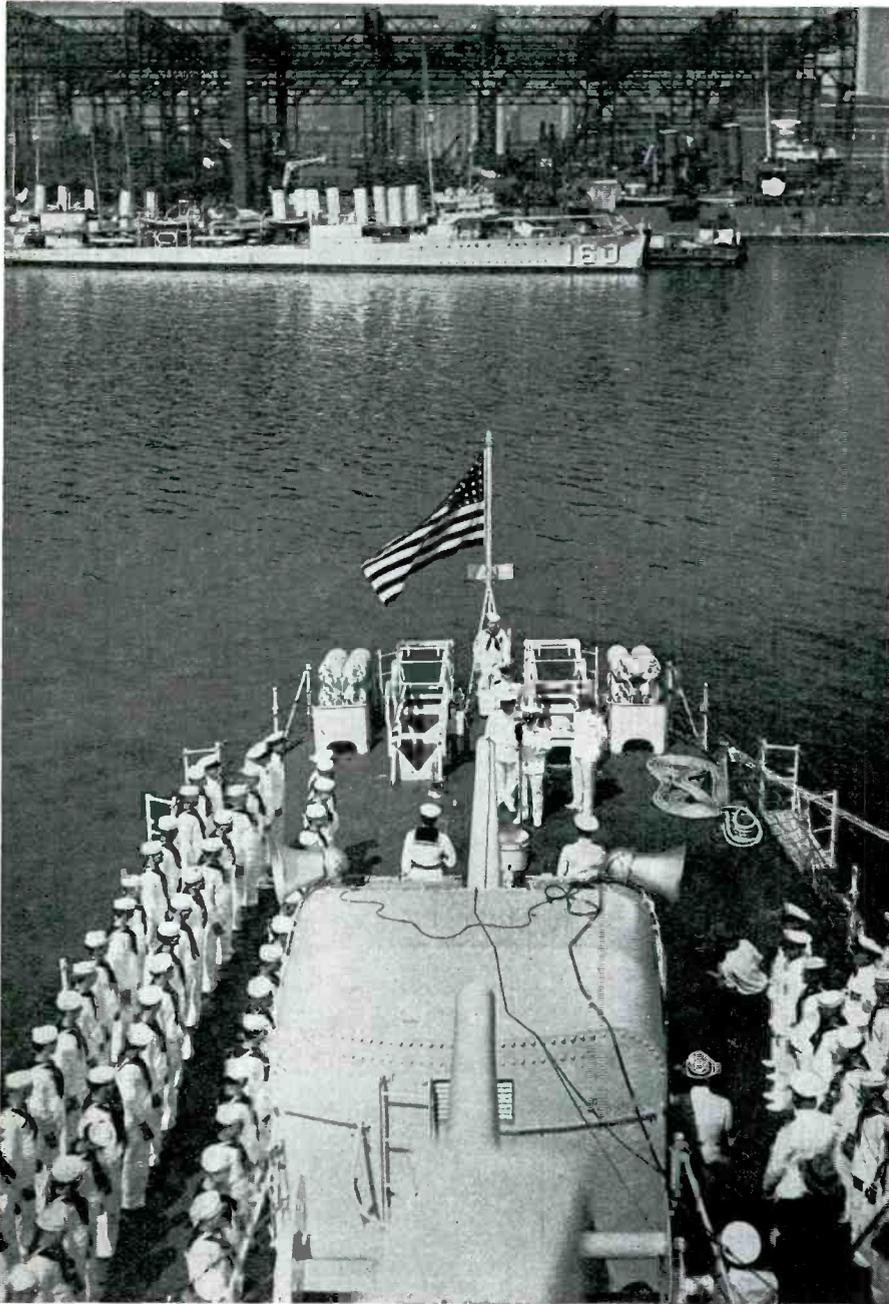
Valley Stream (Long Island) badly needed rain. A Dr. George Sykes obligingly attempted to induce it, seemed embarrassed when a crowd (including newspapermen)

happened along on the night of the noble experiment.

Hand effectively uplifted to the skies in supplication, the rainmaker set off firework-bombs ("Jolting" of heavily-saturated clouds with sound-waves was the first rainmaking method tried by man). He fired rockets ("Piercing" has long been practiced during such endeavors). Less usual was the use of microphone and public-address amplifier (If bombs were effective pressure

from a speaker might be more so). Least conventional of all was the rainmaker's use of five "Admiral" portables, all operating full-blast on different stations (Our informant, somewhat vague on this point, says he believes the efficacy of the radios revolves around the reasoning that all such devices "attract" static, static attracts storms, hence radios attract storms!)

Did it rain? Our informant was equally vague on *this* point.



### SOUND JOINS THE NAVY GETS NAME IN NEWS

Impressive dedication ceremonies aboard the \$8,000,000 U. S. destroyer "Hamann," just commissioned at the Brooklyn Navy Yard, were amplified via a portable mobile sound system for greater audibility on board and ashore. Atlas speakers (see photo at left) clamped atop the fighting craft's stern gun turret did this novel job

### MAPLE, MAPLE AND MAPLE

Rochester furniture stores featured maple furniture in September sales so Connie Zaenglein of Hickson's tied in by devoting his entire window to sets by Stromberg-Carlson made of this wood (right)





## MODEL HOME HAS TONGUE

New source of income for Birmingham's Dick Thomas (left) is the renting of portable sound systems to builders. Out of sight in the backyard, or hidden in a parked car, his voice describes model home features as prospects approach.

## MAKES UP TO MUSIC

Inspired by success in the kitchen, G-E engineers designed this bou-doir beauty cabinet de luxe, installed it at the New York World's Fair. Radio, right and center (photo below), is just one of its many "features for tomorrow"



## EVEN COWS LIKE IT

Portables have gone everywhere since their introduction, promoting all radio by the very novelty of their appearance in strange places. For sheer "shock value" this little Majestic's location (above) takes the cake



## BUTCHER, BAKER AND RADIOMAN

When tradesmen paraded in Spokane's Columbia Cavalcade celebration (left) serviceman Robert Hatch carried a set while Mrs. Hatch sported a giant Sylvania tube carton



# How the TRADE Stands

**A** RADIO boom is in progress, caused by the fortuitous combination of circumstances (see cover of this issue) simultaneously increasing listening to what may be an all-time peak and providing more public cash with which this urge may be indulged. This becomes evident as reports reach us from every quarter that manufacturers are working at capacity and are, in many instances, substantially back-ordered.

How sound is the boom? To what proportions may it develop? What is its probable duration? These are questions which ultimately depend upon movement of merchandise from retailer to consumer.

Facts and figures relative to the precise standing of the trade as we go to press appear in the following paragraphs, prepared October 6 after a last-minute checkup among

*By*  
**W. MacDONALD**

key accounts throughout the entire country. They indicate clearly that the boom is far more than mere "paper talk."

## *Important Last Quarter*

In the month of September, when a business upturn sharper than seasonal resumption of listening ordinarily produces became evident, retailers actually obtained 32 per cent more revenue from their service departments than in the same month just one year ago. This is now definitely known following our survey.

Considering the staple nature of the renewal tube business, it too achieved remarkable gains among retailers, dollar volume moving up an average of 14 per cent higher in September 1939 over September 1938. Less than 20 per cent of all dealers reporting failed to record substantial increases on both tube and service billings and half of these finished the month within a few per cent of last year's totals. (Newly announced tube distribution policies should further help this branch of the industry in the months ahead.)

Key dealers contacted had boosted unit set sales with surprising uniformity, the average increase being 30 per cent. Only 18 per cent of these dealers were "below" par and radical improvement of the picture for the others much more than offset such local losses. Dollar volume on sets was reported as up 13 per cent, an important factor from the retailer's financial viewpoint due to the major nature of this merchandise and its proportionate effect upon the average store's total revenue.

By-product of the checkup, inter-

esting but pointing less clearly to the future than indicated consumer interests to be discussed in later paragraphs, was development of a \$36 figure as the average September set sale. The same dealers reported practically this same figure in September of last year.

## *Stocks and Deliveries*

We asked dealers what their set inventory (exclusive of trade-ins) was on October 2. We found that they averaged 31 per cent heavier stocks but were in most instances "shy" of models moving fastest in today's market and in many cases hounding distributors for these. They were for the most part optimistic about moving all the models on hand, plus any "sweeteners" they could obtain before the holidays, due to a generally favorable market.

With the exception of distributors representing two or three factories having serious trouble with component part deliveries and the general tendency of most set distributors to run short on the fastest-moving models deliveries were holding up better than rumor had led us to believe prior to this checkup. Distributor deliveries as good as in September last year were reported by 47 per cent of all dealers. Faster deliveries were reported by 13 per cent. The remaining 40 per cent, reporting slow delivery service, said in most cases that delays involved "hot" models rather than complete lines.

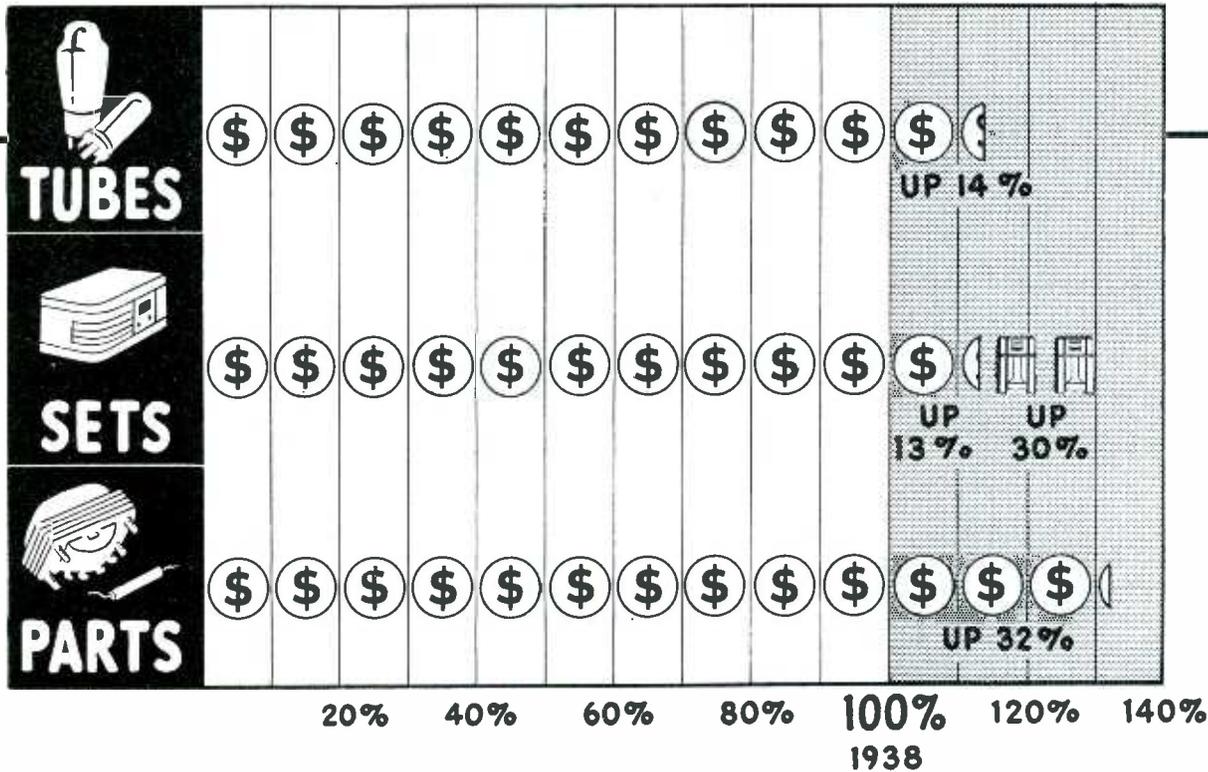
Precisely what models are subject to the most severe holdup at the moment cannot, naturally, be stated due to wide variation between lines. An inkling of the situation, admittedly broad, may however, be obtained by studying the box in these pages entitled "Types in Demand." Dealers told us what models were moving best in the closing days of September and the first week of October. We tabulated their replies and this box was the interest-

## TYPES IN DEMAND

Listed in order of consumer interest indicated by October 1 dealer reports

- 1 MEDIUM-PRICED TABLE MODELS**
- 2 MEDIUM-PRICED CONSOLES**
- 3 LOW-PRICED COMPACTS**
- 4 High-Priced Consoles**
- 5 Battery Portables**
- 6 Low-Priced Consoles**
- 7 Radio-Phonograph Consoles**

# SEPTEMBER SALES



Retail income from September set sales jumped 13% over 1938 as units moved 30% faster. Service "take" 32% greater during month. Tubes increased dollar volume 14%

ing result, leading us to believe that while the average sale was the same in September as it was at that time last year this average appeared due for a boost.

### Dealers Definitely Optimistic

When we find it necessary in the interests of strict accuracy to report trade optimism we try to prove it, taking the "curse" out of a word too freely used by the press. Radio retailers *are* optimistic not only about business likely to be obtained this month and just before Christmas but also in the entire year to follow after that. Fully 79 per cent of the key accounts contacted told us without equivocation that they were optimistic and gave reasons

why they anticipated good business.

Most frequently encountered reasons for trade optimism were:

(A) Improvement in public confidence regarding immediate and future earnings.

(B) General "loosening up" on the part of the buyer.

(C) More interest in better sets.

(D) Increased listening due to broadcast War news.

(E) Resuming interest in short-wave bands.

(F) Probability that rising prices would come and stimulation of people to purchase before they did.

(G) Rising farm product prices and good crops.

Not necessarily stated in order of frequency of occurrence in dealer

conversations, these reasons for retail optimism (there were many more of similar nature) all boil down to one encouraging fact:

The whole general tone of the radio business has improved immeasurably within the last 30 days and optimism is no less evident among retailers than in distributing and manufacturing circles . . . *at the all-important "point of ultimate sales."*

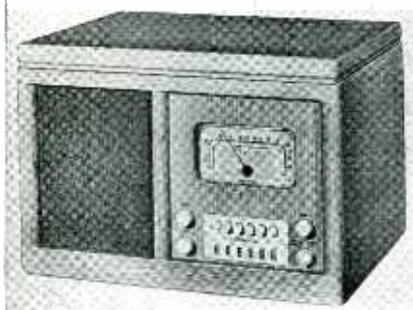
This is as it should be, for the combination of circumstances now aiding all business and mentioned at the very beginning of this report exerts a more direct and immediate influence upon radio sales than upon those of any other item purchased for use in the home.

Table-type radio-phonographs run with torch ignited by record-players. Two complete entertainment instruments in one, at amazingly low cost, set fast pace for Fall market



GENERAL ELECTRIC H638

## Compact Combinations are HOT!



MAGNAVOX 31B \$79.50



SENTINEL 204AT-CB \$39.95



MAJESTIC PIA50

**H**OTTEST merchandise on the market as the trade's balmy business season opens are table-type radio-phonograph combinations currently headlined by nearly every manufacturer and taking the public by storm.

There are excellent reasons for this pyramiding product popularity. Such combinations offer the buyer two full-fledged entertainment features that are beautifully tangible. They are certainly priced in tune with the times. The "ice" has already been broken for them by record-players. Their sheer novelty exerts terrific Christmas gift appeal.

There are also many advantages to the dealer in the promotion of such combinations beyond the mere volume to be achieved by their sale alone. They so obviously offer so much for the money that selling-up is made immeasurably easier. They automatically develop the market for repeat business in the form of record sales. They not only look sufficiently different from equipment in most homes to provide a really legitimate excuse for replacement but also may be sold as "second sets" to many people who want to play records as well as listen to the radio in their own rooms. And table-type combinations will inevitably pave the way as nothing else has done to date for still larger instruments of the same, "twin" type.

New table-type radio-phonograph combinations, while amazingly inexpensive when their double func-

tion is considered, are far from temporary toys.

Most of the new machines have self-starting motors, some with automatic stops, several working on d.c. as well as a.c. Even "rim-drive" turntables are seen.

Amplifiers are, in many cases, of special design superior for record reproduction to those normally satisfactory in a small, straight radio. Tone control and even automatic tone compensation is frequently included, noise filters reducing "surface scratch" are universally used and speakers are frequently better than those found in straight radios of equivalent size.

Lids, or covers of some kind, are invariably provided, greatly enhancing appearance and at the same time further masking surface noise. Practically all instruments featured, furthermore, play both 10 and 12-inch discs with their lids closed, this being accomplished either by making the cabinets large enough to permit such closure or slotting cabinet backs for the larger disc sizes where extreme compactness is considered advantageous.

Conveniences such as handy needle cups built-in. Crystal pickups normally used have the new tangential arms that insure accurate grooving of needles, which avoids "skipping," improves tone and reduces surface wear.

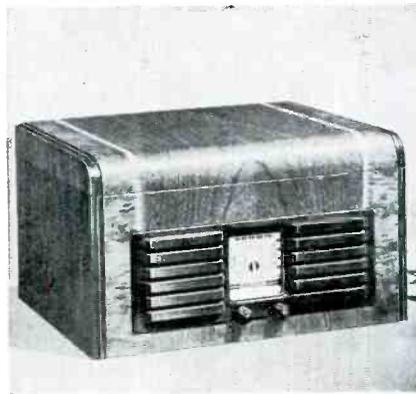
Regular modern radio features are, of course, taken for granted.

Here is the kind of stuff with which sales records are made!

## Typical New Models Catching Public Fancy as Christmas Nears



**RCA VICTOR** U-12 \$59.95 f.o.b.



**PHILCO** 502 \$35



**FARNSWORTH** AK-17



**ADMIRAL** 159-5L \$32.95



**STROMBERG-CARLSON** 411-PT \$69.50 f.o.b.



**STEWART-WARNER** OI-5D9 \$34.95



**MOTOROLA** 61F \$44.95



**FADA** PL50 \$29.95



**EMERSON** CV289 \$32.95



**SONORA** TNE-60 \$37.95



**WESTINGHOUSE** WR-470



**ARVIN** 88 \$39.95

# RADIO

and the many associated entertainment items



# A SOUTHERN

DO NOT SEAL UNLESS MARKED PERSONAL

INTER-OFFICE ENVELOPE

REPORT to the MANAGEMENT

*Confidential*

DEPT. OF OFFICE FLOOR NAME

DEPT. OF OFFICE

Write Name

Inserting New Name.

**EDITOR'S NOTE:** Rarely do department store executives divulge their thinking, especially to the trade press. This has created a "blind spot" of considerable magnitude in the field of our industry's vision for the group annually turns in volume which bulks large in itself and, what is more important, its policies have a very definite influence upon those of competing specialty dealers.

The accompanying text is therefore considered uniquely interesting and informative in that it comprises an actual memorandum to a large store's management by this firm's own radio, music and home appliance department buyer. It was written and submitted, along with conclusions and recommendations for 1940 selling, following close study and shrewd analysis of merchandising methods practiced by similar outlets in other cities.

We have merely removed all means of identification at the request of its well-known and cooperatively-inclined author.

to frequently accept new merchandizing ideas rapidly.

The department was on the fifth floor, together with housewares. In stock were four makes of refrigerators, three radio brands, two washer lines. They also sold gas and electric ranges. Total department volume runs about \$150,000 per year. Refrigeration sales hit between 300 and 400 units in that period.

Spot displays were significantly allotted to refrigeration on the street floor. Three men were on the floor all the time. Terms on radio and refrigeration were "nothing down, thirty months to pay, 6 per cent carrying charge," which is much like our own plan. Refrigerator commissions ranged between 6 and 15 per cent. Service on most products was handled by distributors. In the case of larger radios it "leased" at \$2.50 per set. Gas ranges were moving well in the electrical equipment department. Electric ranges were moving more slowly, attributed to high installation costs. A considerable stock of traded-in refrigerators was noted.

I was told that small dealers had been using the department's displays as a showroom in lieu of stocking the merchandise themselves, later cutting prices.

This store was just getting ready to enter the record and piano fields again in a big way.

**STORE 2**—This store was part of a large chain. It reported sales at \$80,000 last year on refrigerators, \$37,000 (90 per cent gas) on ranges, \$34,000 on washers and ironers and \$26,000 on radio.

The appliance department had large floor space of its own among house-furnishings on the 5th and, in addition, appliance displays were again spotted on the main floor. Stock was well kept but trade was noticeably of a poorer type than that of the first store visited.

Featured on the floor were two makes

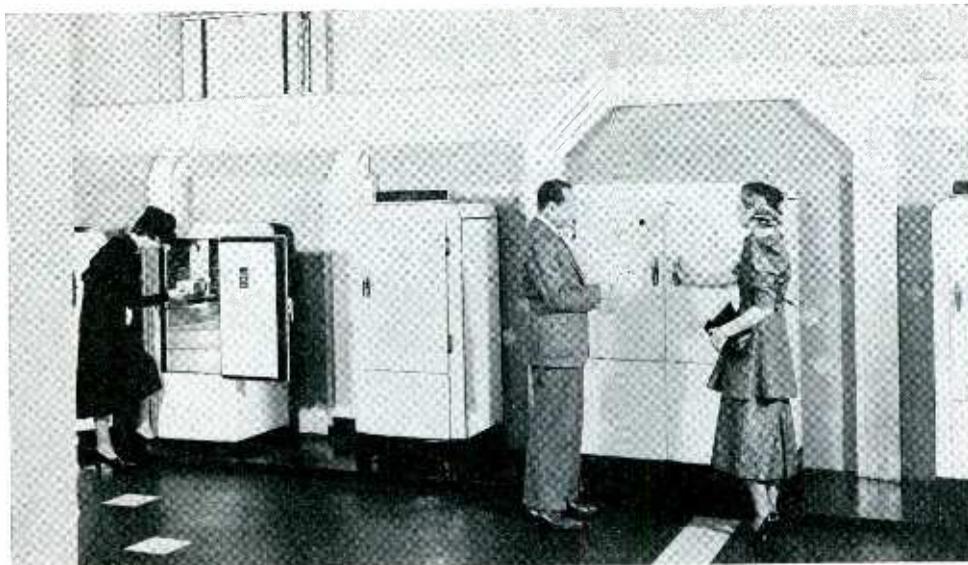
**M**EMO: I returned Sunday night after visiting radio-music-appliance buyers of department stores in northern cities with the express purpose of studying their merchandising methods and incorporating the best ideas in our own policies for next year.

Three cities were included in the trip to provide a suitably broad picture. Thirteen stores whose policies were reputed to be progres-

sive were covered by my contacts. I describe their activities in the following paragraphs and append definite conclusions considered important to our store.

### City of 500,000

**STORE 1**—This is a "prestige" type of operation. I was greatly impressed by its appearance as a whole but do not feel that the appliance department looked better than ours despite its greater size and location in a market which is said



## REFRIGERATION

and other major home appliances

# Buyer Looks at the NORTH

of refrigerators. They had a two year old model on sale the day I was there and had sold sixteen boxes. The local utility sells both gas and electricity and pushes gas; therefore, gas ranges sell best.

Has eight salesmen, four on the floor 50 per cent of the time. Commissions are from 6 to 12 per cent, with a drawing account of \$35 a week. They also have an outside crew of two men who work on a 10 to 12 per cent commission basis. Washers obtain important volume here.

The radio department is in another building adjoining the main store. Does a very good record business, having a record girl and four booths. Trade-ins are similar to ours. Radio has one salesman on the floor and carries four or five of the popular lines. Store carries about twice as many sets in stock as we do and has a number of "fold" makes which they got stuck with. Salary paid to man on the floor is 5 per cent with \$25 a week drawing account.

All service, except radio service (done by the store itself) is handled by distributors.

Buyer reports that there is terrific competition from the small dealer, a problem with which they have not been able to cope.

**STORE 3**—A house doing \$4,000,000 to \$5,000,000 a year. They also have spot displays placed on the main floor and the electrical department is on the fifth floor.

The principal lines of radios were carried. One refrigerator was stocked exclusively. They also carry gas ranges and do a good job on them, selling no electrics. Have six salesmen on the floor and their terms are, like most other stores in the town, nothing down and then up to thirty months to pay with 6 per cent carrying charges.

They sell 300 or 400 refrigerators a

year. Most of the sales are consummated on the floor. Commissions range from 5 to 10 per cent, depending upon the size of the unit sale. Appliance service is handled through distribution and radio service is leased out.

Biggest problem reported is the little dealer chiseling on the prices of all appliances.

### City of 1,000,000

**STORE 4**—Refrigerator and washer department is on the sixth floor with housewares. Furniture is in another building across the street from the main store. Carries four lines of washers, three refrigerators.

Had no results with model kitchens so took their display out. Formerly carried an "off brand" refrigerator and lost a lot of money on the deal so are not carrying any more off-brands. Store has two salesmen on the floor and one outside. They sell on terms of \$5 down and 5 per cent carrying charges. Will do about \$150,000 a year on refrigerators and washers. Manager complained that small dealer policies were ruining his business. They are attempting to establish a Blue Book under the Fair Trade Law. This plan seems to be prevalent in all cities visited. Distributors handle the service on refrigerators and ranges.

In radio department they have seventeen booths for records and six record girls. They have all the popular lines of radios but much of their volume is done on records and radio-phono combination. They are interested largely in combination business and may discontinue straight radios.

Trade-ins on radios are based on 10 per cent, which is also the custom in the south. In this department 6 per cent commissions are paid and it will do about \$150,000 or \$200,000 this year. They have their own service department of three men. The department is lo-

cated in the annex building across the street from the main store.

Store also has an outstanding piano department, located in the annex.

**STORE 5**—A very large and busy store, highly promotional, displays like a typical bargain store and is ideally located. Piano and radio departments are on the fourth floor.

They have just taken on records, have eight booths and are doing well with them. Chairs are placed around in various sections along with lounges and lamps which give a homelike atmosphere. Their piano and radio department is a very progressive one and they carry twelve lines of radios. Piano salesmen work at from 5 to 7 per cent commissions and they have three men on the floor who sell partly on and partly out. Five radio salesmen on the floor, paid on a 5 per cent commission basis. Radio service leased. The phono-combination is considered a life saver.

Sixth floor has housewares and refrigerators. They have a tremendous home laundry department with a number of demonstrators. Do about \$250,000 on gas ranges and washers and \$300,000 on refrigerators. Store has four or five lines of refrigerators and four or five lines of washers. Does a fair volume on electric ranges.

Most of their volume last year was done on prior year models of refrigerators. They have four refrigerator salesmen, all on the floor, whom they pay 5 per cent, and seven washer salesmen whom they pay from 7 to 8 per cent commissions. The firm keeps one man in the refrigerator service department and, incidentally, that department made a profit last year doing outside service.

The trade-in problem is an acute one and they hope that the Blue Book and Fair Trade Law will stabilize this con-

(Continued on page 53)

# WAR *Revitalizes* SHORTWAVES

Most Consistently Received Stations In or Near European Arena

**W**AR in Europe has re-vitalized shortwave tuning as a saleable radio feature.

Many listeners whose chief interest at the moment is news about the manoeuvring of armies and navies and diplomats can't get enough of it from American stations and newspapers, turn to broadcasts direct from foreign countries for more. Additional thousands would become shortwave-fans overnight if they had suitable receiving equipment and knew how to use it.

The public appetite for war news seems insatiable.

### ***Test Your Propaganda***

Shortwave transmissions from Europe are admittedly "slanted" to influence world opinion.

Some government censors, fully aware that apparently complete coverage of events lends programs convincing plausibility, cleverly "blow up" items favorable to their cause, include but "play down" others. More obvious censorship omits unfavorable news entirely. In either case discerning Americans, forewarned, are rapidly learning to weigh what they hear. Propaganda, recognized as such, becomes news in itself to people who can read between the lines.

Quick tests recommended by experienced commentators accustomed to "separating the wheat from the chaff" include the following:

1. *Note the "date line" or city from which war news emanates.* (Decide in your own mind what interest the country of origin might have in playing the item up, or down, and give it proportionate credence).

2. *Watch closely for the source to which the news is credited.* (Check particularly whether reports come from American, other neutral, "benevolently neutral" or belligerent-controlled news-gathering syndicates. Be especially chary of believing too fully reports preceded by the words "It is learned from a

Location	Station	Megacycles
LONDON .....	GSF	15.14
	GSD	11.75
	GSC	9.58
	GSB	9.51
BERLIN .....	DJD	11.77
PARIS .....	TPB11	11.88
	TPA4	11.71
ROME .....	2RO	11.81
	IRF	9.83
EINDHOVEN (Neth.) .....	PCJ	9.59
MADRID .....	EAQ	9.86
BUDAPEST .....	HAT4	9.12
PRAGUE .....	OLR4A	15.23

usually reliable authority" or, "It is unofficially reported").

3. *Look elsewhere for verification of important news.* (Denial or suppression of an item by a country to which it might be detrimental does not necessarily prove the item false. On the other hand acknowledgement, no matter how minimized, usually indicates that there is some "fire" as well as "smoke").

People who most intelligently supplement war news heard over American stations and read in American newspapers by listening direct to foreign stations obtain the clearest insight into probable developments by noting not so much *what* European announcers say as *how* they say it, carefully considering what those in certain countries do *not* say at all.

### ***Wielding the Needle***

Shortwaves have been catapulted back into the headlines, an event upon which the industry can and should quickly capitalize.

Included in many sets for several years, shortwave tuning has admittedly been little used of late by the purchasing public. Virtually

wasted as a sales feature and provided largely through force of habit held over from the days when it's novelty built business, shortwave tuning was dormant principally because foreign programs had not been of sufficient interest to justify toleration of noise and fading more severe than in the regular broadcast band.

Now the programs transmitted from Europe *are* of major interest, placing in the hands of the radio industry another "hypodermic" which, properly wielded, can bring a long-idle sales weapon back to life.

Several methods by which the "needle" may be effectively wielded have already occurred to the East Coast trade. (Noted in manufacturer and distributor-sponsored ads appearing in daily papers as we go to press are the first concrete steps in this direction):

(a) *Through window display, broadcast, newspaper and direct-mail advertising the trade can call to the attention of people whose sets won't receive it, the new and unique importance of shortwave broadcasting.* (Most really old sets still resisting replacement lack the short-

*(Continued on page 68)*

# You Need **PROFIT DEPENDABILITY**

You get it with Sylvania Radio Tubes because Sylvania prices assure you maximum profit on every sale. Check around the trade. See for yourself how profit-minded retailers have stepped up their businesses by featuring these world-famous tubes.



## **Plus Product Dependability**

A complete staff of Sylvania engineers keep Sylvania Tubes at the top of the list—in quality, in proved up-to-the-minute developments, in styling, in dependability! And Sylvania backs you up by guaranteeing every tube you sell—in writing!



## **Plus Company Dependability**

Sylvania's 37 years' experience, its modern plants capable of producing 120,000 tubes a day and its sales in 124 countries of the world prove Sylvania's dependability. (Pictured is the Sylvania radio tube plant at Salem, Mass. Other plants are at Emporium and St. Marys, Pa.)



Thousands of successful dealers all over the country are featuring Sylvania's because the Hygrade Sylvania Corporation gives

them "all three"—company dependability, product dependability, profit dependability. Sylvania's proposition is worth looking into.

*Hygrade Sylvania Corp., Emporium, Pa. Also makers of Hygrade Lamp Bulbs*

# **SELL SYLVANIA**

**SET-TESTED RADIO TUBES**

**" D E P E N D A B L E A L L W A Y S "**



KAY KYSER  
Columbia Popular



BENNY GOODMAN  
Columbia Popular

## Record Buyers . . . Record Dealers



EDDY DUCHIN  
Columbia Popular

# HAIL COLUMBIA!



HORACE HEIDT  
Columbia Popular



RAY NOBLE  
Columbia Popular

Tremendous response  
to New **QUALITY**  
Popular Record at **50¢**



MATTY MALNECK  
Columbia Popular



DUKE ELLINGTON  
Columbia Popular

Day after day, the praise pours in! Day after day, dealers report ever-increasing demands! Because Columbia's new Popular Records fill a long-felt need—a quality record at a popular price.

stay clear and true through countless playings, they order again and again!

### Dealers' Profits Soar!

As sales volume piles up, profits pile up, too. And dealers everywhere announce that sales volumes are even exceeding expectations. It's natural! People are quick to recognize such amazing value, and satisfied customers make for faster and greater turnover. Shrewd, progressive dealers are stocking more and more Columbia Popular Records. Join them—push these records—*cash in with Columbia!*



GENE KRUPA  
Columbia Popular



JACK TEAGARDEN  
Columbia Popular

### Instant Success with Customers!

People tried these records eagerly—bought them enthusiastically—and spread the good news around. For here was the latest music—played by their favorite artists—recorded smoothly, delightfully, realistically—at a price they were more than willing to pay! And when people find that these recordings



HARRY JAMES  
Columbia Popular



RAYMOND SCOTT  
Columbia Popular

### Acclaim from lovers of the finest in music!

The new COLUMBIA BLUE LABEL RECORDS, heartily endorsed by master musicians, are winning swift and wide recognition by the most critical music lovers. World renowned artists, plus the most modern recording methods, bring ever-increasing pleasure to buyers—and ever-mounting sales to dealers!



TEDDY WILSON  
Columbia Popular



MARTHA RAYE  
Columbia Popular

COLUMBIA RECORDING CORPORATION  
Manufacturers of Columbia, Brunswick and Vocalion Records  
Bridgeport, Connecticut—Hollywood, California



ELLA LOGAN  
Columbia Popular

# COLUMBIA RECORDS

THE LATEST . . . AT ITS BEST THROUGH COUNTLESS PLAYINGS

# Record Sells RECORDS

**D**EALER DEAN LOVE of Alton, Illinois, has originated a sales promotion plan likely to be widely copied by retailers everywhere following publication of these exclusive details. Beauty of the plan is the fact that it is not only ideally suited to the building of record sales but also lends itself to the promotion of record-players, combinations and home-recording devices.

Love, in his own shop, records a sales message on a 10-inch disc costing 75 cents. (He plans to make ten a year.) Talking along much as if he actually faced the prospect, this dealer plugs new recordings, record-players, combinations and a machine suitable for making similar recordings in the average home. The "spiel" is cleverly sandwiched in between musical numbers rendered gratis by a popular Alton swing band and by the choral club of nearby Shurtleff College whose members are widely known locally.

Its label deliberately left blank, the recording is sandwiched within an album of the latest regular recordings. Love takes the entire package, leaves it overnight on demonstration in the home of someone considered a Grade-A prospect, avoids mentioning his own homebrewed disc. If the prospect has no record-player Love loans one.

Interviewed to check the effectiveness of the plan as reported by this dealer, one woman said she was much intrigued by the disc with the blank label, listened to the same salestalk twice for the first time in her life as a result. Another knew one of the members of the choral club, played the disc over and over. Still another said she was startled to hear on the record the voice of the canvasser who had just left, later asked him to demonstrate a home recorder. All three had purchased albums, seemed excellent prospects for other merchandise.

Love purposely leaves homes immediately after planting his albums, avoids remaining while his own disc

1

**RECORDS SALES MESSAGE** — Dealer Dean Love cuts his voice on a 10-inch disc, plugging latest record releases, platter-players, combinations and other radio specialties, sandwiches in music by a local swing band to sweeten this advertising

2

**PLANTS DISC IN HOMES** — Label mysteriously blank, the disc is insidiously sandwiched within an album package containing new recordings left in homes on demonstration. If the prospect has no record-player Love loans one

3

**GETS BY-PRODUCT BUSINESS** — He says the homebrewed selling disc in his absence builds record business at lowest cost of any promotional plan yet tried, moves record-players rapidly and is beginning to pull inquiries for home recorders



is played to heighten dramatic effect. He thinks that many prospects enjoy listening to the local talent performances privately, get more of a kick out of it this way.

Recorded sales talks are frequently changed. The idea was first employed to move wireless record-players and so built new

record business. Combinations were plugged heavily in a later recording. Most recent focal point has been home recording instruments. Useful byproduct of the novel plan is a marked improvement in the technique and delivery of salesmen, who for the first time now regularly hear themselves in action.

# Selling *Fall and Winter* SOUND

**O**PPORTUNITIES for additional profits are available to progressive radio and sound dealers in a position to offer sound rentals and permanent installations during the closing months of this year. For with fall and winter sport, amusement and dramatic activity in the offing, this field receives an influx of new business of an important seasonal nature.

Then, too, 1940 amplifiers, speakers, microphones and accessories offer the customer more features in the form of quality, advanced engineering and dependability than has heretofore been available and in the majority of cases at lower cost.

### **Ripe For Modernization**

Amplifiers are featuring more inputs for microphones than previously available and even the lower-priced and smaller-powered amplifiers have provision for the use of two or more microphones. New amplifiers also have extended

high fidelity range, rendering more natural reproduction.

Microphones have been improved, especially higher frequency ranges. Equipment has been further streamlined to fit into any surroundings. New apparatus has been engineered to take more punishment and consequently give better protection against breakdown.

Modernization work is also extremely profitable and with the many new accessories on the market, can be tackled from several angles.

Speakers, after prolonged outdoor use, are rarely in original factory condition and can often be replaced with new units for better coverage, fidelity and tone. Additional microphones as well as speakers can be sold where needed. The prospect in this case is frequently in an agreeable mood for the simple reason that he knows the value of sound equipment by fact of actual use during the summer and is easily

convinced that he will have to keep in step with his contemporaries, no matter what business he is in.

### **Business Moves Indoors**

Taverns will again go inside for the winter. Many have had outdoor installations now not particularly suited to their needs. Consequently, they are in the market for a new system. Many such establishments took small units outdoors, overloaded them, and such systems may not be in perfect operating condition.

In practically every case, all of the aforementioned users are in need of new tubes and a general check-up of their apparatus.

Many churches will soon stage dramatic presentations. These can be amplified in practically every case. After the program, dancing is usually the order and recorded music can be offered. With these two inducements—the amplification of the program and the dancing

## 3 NOVEL APPLICATIONS



LOS ANGELES STATION—Union Terminal has an elaborate system (RCA) which provides public-address facilities, recorded music and radio programs for waiting passengers



COURTESY CRUSADER — Shell Oil helps police departments call traffic violations forcibly to attention of the public with this sound-equipped (Lafayette) coupe



### 1940 EQUIPMENT HIGHLIGHTS:

Extended amplifier fidelity range

Accent on trouble-free construction

Appearance that fits more jobs

More flexible input circuits

Better microphone and pickup response

Speakers with more efficient coverage

Greater choice of power supply

**By**

**ROBERT S. NASH**

later—a double barrelled sales gun is in your hands.

Schools also have something additional to offer. PTA meetings, school plays, various social get-togethers, all call for sound. A wide-awake sound man, if he analyzes just what is going on and how it is to be held, can fit himself into the Fall picture.

Roller-skating rinks, basketball games and indoor swimming meets will spring up during the winter and are sound prospects. The skating rinks, especially, use a large number of phonograph records and the radio dealer and soundman who features

records is in a position to sell them, as well as service equipment and make improvements where needed.

#### **Stores Good Prospects**

Do not wait until Thanksgiving as a signal for the promotion of the winter use of sound equipment in department stores and other shops for holiday spirit. Many can be sold on the idea of using an automatic record changer and playing appropriate selections to tie in with the yuletide season.

The extended use of such equipment last year overcomes much sales resistance. While many concerns will not be interested in buying the equipment outright, it can be rented to them at a profit over the five-week holiday season this year.

It is a good idea to try and sell an entire business block on the plan of contributing to a speaker system that will play yuletide music over the entire block during the holiday season. By pro-rating the cost and operating the system from a central point the cost is evenly distributed over the entire area and is much lower than if one or two presented this feature.

Likewise, by the use of a general system of this type, much confusion is overcome.

#### **Three Outdoor Specials**

Outdoor ice-skating rinks will open soon.

Football, both collegiate and high school as well as Sunday profes-

sional football and soccer games in many sections of the country, offers sound dealers a profit source. Contracts based on a quantity use of the equipment over the entire season are generally consummated in this line.

While higher powered equipment is necessary in this case, the charges are in proportion and schools and promoters are willing to pay because they cannot take their equipment from schools and other places due to the limited power coverage.

Elections are approaching and the opportunity is offered for pre-election campaigning. Politicians as a rule are poor pay, however, and the experienced soundman has learned that he will be better off if he insists on payment upon completion of the sound installation.

Sound trucks will form an important part of ballyhoo for the various candidates for the forthcoming elections. It is not necessary to have an elaborate truck. An automobile will do, with about a thirty-watt system operating from the car battery. It is a good precaution in this case to carry a spare battery along because of the drain on the car battery at night.

#### **War News Tuners**

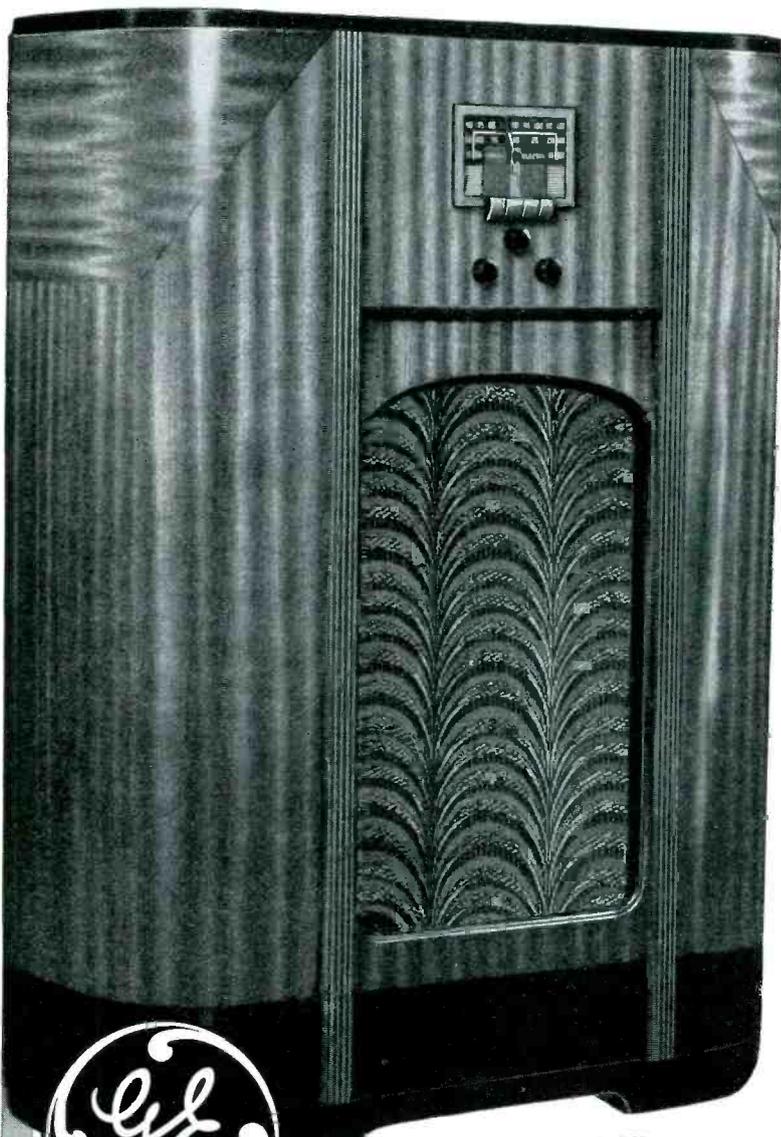
The current European war offers far-sighted soundmen the opportunity to tie in with local motion picture theatres in presenting war news via radio tuners. Many stations have news broadcasts which hit at a time between feature pictures. By running a radio broadcast through the P.A. system in the theatre the news can be presented when there is a break in the motion-picture program.

The theatres in nearly every case welcome this additional box-office appeal as do the radio stations for the publicity given them in the theatre.



**NORWEGIAN FOLKLORE** — Oslo engineers travel around the United States recording (Fairchild) Norwegian folklore here for broadcasting back in the old country

# THE MOST TALKED-ABOUT LOW-PRICED CONSOLE IN RADIO



## G-E MODEL H-625 CONSOLE

HERE it is! The pace-maker of 1940—the fastest stepping, low-priced console in the industry.

Don't overlook this number. It's *made right*—with plus-value features. And it's *priced right*—to help you round-up volume business.

Just look at these specifications!

*G-E MODEL H-625* • BUILT-IN BEAM-A-SCOPE • 12-INCH DYNAPOWER SPEAKER • AUTOMATIC FEATHERTOUCH TUNING KEYS • DE LUXE DIAL • TONE MONITOR CIRCUIT • SIX TUBES • TWO BANDS—550-1,600 and 5,700 to 18,300 K.C. • AUTOMATIC VOLUME CONTROL.

Get in touch with your G-E Radio Distributor right away. You can't find better value than this—*anywhere.*



*The Radio with the Big*

**PLUS  
VALUE**  
SEE IT! . . . HEAR IT! . . . COMPARE!

Radio and Television Department, Bridgeport, Connecticut

**GENERAL  ELECTRIC**

# New TUBE PRICE Policies

**T**O jobbers from five tube manufacturers late in September and early this month went letters (others are momentarily expected) likely to materially improve the complexion of renewal equipment distribution practices and profits. Made effective between October 2 and 9 were important pricing and distributor discount policies similar to plans individually adopted earlier in a few instances but not before virtually standardized throughout the industry.

Varying little in essential content, these communications informed distributors that all tube types had been re-classified into 8 list price groups (60¢, 70¢, 80¢, \$1, \$1.25, \$1.60, \$2.10 and \$2.70). They said re-grouping involved reductions in price to the ultimate consumer that should aid sales. They told jobbers that uniform factory discounts would hereafter apply on all tubes regardless of type. Jobber net was indicated to be higher on a majority of types and lower on some, with the "weighted average" (based on normal movement of complete lines) insuring overall distributor profit unchanged.

Secondary object of two letters was to disparage bonuses while a third commented in general terms on the subject of "deals."

The letters did not suggest to distributors what re-sale tube discounts to dealers or servicemen should be. Re-sale discounts were left entirely to the discretion of distributors.

## **Now Up to Jobbers**

While it is known that most tube manufacturers have long been working on plans designed to secure some sounder relationship between actual tube manufacturing costs (type by type) and retail lists, matters were admittedly brought to a head this month by a growing clamor from distributors for uniform discount schedules which would permit more accurate determination of wholesale costs.

Manufacturers adopting new schedules and advising distributors of this fact by our press time (contacted just before "deadline" in

person, by telephone or wire) stated without exception that the adopted plans could undoubtedly render the tube business more profitable to many engaged in it if properly "followed through" by all concerned. Mental reservation in some minds, inferred in the cold type of one blanket letter to distributors, revolves around the question: "Now that tube distributors have our simplified list price structures and uniform discount schedules enabling them to accurately determine costs, will they establish and adhere to uniform mark-up in their own relations with the retail trade?"

Interviewed manufacturers went out of their way to state that re-sale

at the instant of any radical policy change, should be exhausted within three months at the outside.

## **Will Get Fair Trial**

Perhaps not a "cure-all" for all ills from which the tube business (whose character is extremely complex and ramifications extensive) may suffer, most manufacturers contacted believe the new policies worthy of a full and fair trial and all indications at the moment are that they will get one.

Precisely how long such policy will remain unaltered in every detail cannot with safety be predicted even though the setup appears designed for a long pull. Much will

**Jobber discounts made uniform. Middleman costs on some types higher but "weighted average" profit margin remains unchanged. Lists generally lower. Dealer net left to distributor discretion.**

prices, left flexible in the hands of jobbers, puts the next move squarely up to that group.

Somewhat complicated was the establishment of workable re-sale schedules by the fact that jobbers hold some stocks of tubes purchased at lower prices before new schedules became effective. And between the time letters announcing the new schedule were mailed and the date upon which they became effective jobbers were in some instances given a specific opportunity to "get under the wire" with orders. One factory, adopting a new schedule October 2 extended its tide-over "period of grace" several days beyond this date to protect its distributors.

No figures are obtainable at this writing regarding the extent to which distributors "bought in" but it is the opinion of most manufacturers that such stocks, considered inevitable by this highly competitive branch of the business

depend upon distributor re-sale policies and the effect of these upon their own and their factory's competitive standing. Nor can long-term continuation of newly established prices on all tube types be completely counted upon in view of rising raw material costs even though no increase is contemplated by any manufacturer as new list price schedule cards for dealer use go in the mails. (Changes within three months are considered unlikely).

New schedules, we are told, do not by any means insure earning increases for the tube manufacturers involved.

Depending upon the prices and practices of each manufacturer before the new schedule, some stand to "take" slightly more and others slightly less and in neither case are tube factories apt to grow inordinately rich while moving in this direction vociferously urged by the trade.

# ELECTION Tie-In

**R**IGHT after the primaries, just a year ago, the cooperative Bureau of Radio and Electrical Appliances of San Diego County (California) conducted an effective promotional drive capitalizing on election interest, later reporting through manager J. Clark Chambelain that the effort was largely responsible for a 28 per cent radio sales increase in the area over a comparable '37 October-November period and provided a mailing list of better-than-average prospects for subsequent Christmas selling.

Ambitious and broad enough to warrant duplication by cooperative groups elsewhere yet sufficiently simple in principle to be readily modified, "scaled down" and adopted by individual dealers in small towns, the plan revolved around the conviction that (1) stimulation of interest in broadcast programs automatically increases interest in receiving equipment, that (2) most people like to express their opinions about public services such as broadcasting and readily do so if this is made easy and that, (3) response would be greatest if the public opportunity to vote tied in with current events uppermost in the average consumer's mind at the moment.

### Aided Entire Industry

The group prepared 10,000 "ballots" such as the one illustrated on this page (Public interest later required the printing of an additional 8,000), placed most of these in the hands of retailers stocking and selling radio equipment or rendering repair service. Four fifteen-minute broadcasts publicizing the ballots, plus twenty spot announcements over the air by local stations aided the trade to induce consumers to return filled-in ballots to stores for tabulation. A full-page newspaper ad further swelled response and 1,009 ballots were eventually received.

### Prospect Preferences Spotlighted

Analysis of filled-in ballots indi-

**PEOPLE LIKE TO VOTE** — San Diego dealers made it easy for 18,000 to air their opinions, counted 1,009 returned ballots like this. Timely stunt stirred up public discussion of broadcasting in general and receivers in particular, brought people to stores for blanks, spotlighted obsolete sets

cated the receptiveness of the voter toward radio and the relative importance attached to the device in each home. Detailed discussion of the many ways in which the information so obtained was used to advantage by the several branches of the radio business involved is considered unnecessary here as duplication of the plan would naturally involve modifications. One specific question asked, however, is significant. It read: "Do you have trouble separating stations on your radio"? Here, probably, is the most effective single question that could be asked if the desire is to determine how many sets are obsolete and fully 44 per cent answered that they did have such trouble.

Generally useful when phrasing radio advertisements and perfecting direct sales solicitations was the knowledge (gleaned from ballots) that: (a) Musical programs were

## PROGRESSIVE RADIO PARTY

### BALLOT

Please mark your ballot carefully on as many items as you have decided opinions. Be sure to make any additional comments on the space at the bottom of the ballot. State frankly any criticism or approval of modern radio programs.

Do you believe that RADIO NEWS BROADCASTS are impartial?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	Does the constant repetition of NEW POPULAR MELODIES irritate you?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
Do you think that the prevalent type of CHILDREN'S PROGRAM is harmful?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	Do you think there should be FEWER RADIO STATIONS in a given territory?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
Do you object to fairly long COMMERCIALS when they are informative or educational?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	Do you have trouble SEPARATING STATIONS on your radio?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
Do you feel that the average POLITICAL TALK gives you an opportunity for judging a candidate or problem?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	What stations INTERFERE most with your enjoyment of radio?	MEX.	
Express your preference in types of programs by using numbers 1, 2, 3, etc.	<input type="checkbox"/> Musical <input type="checkbox"/> Dramatic <input type="checkbox"/> News <input type="checkbox"/> News flashes <input type="checkbox"/> Educational Talks <input type="checkbox"/> Sports Broadcasts <input type="checkbox"/> Comedy Skits <input type="checkbox"/> News Commentators <input type="checkbox"/> Big Name Programs		Do you think there is TOO MUCH of any of the following types of programs? check if any.	<input type="checkbox"/> Political <input type="checkbox"/> News Broadcasts <input type="checkbox"/> Jazz Orchestras <input type="checkbox"/> Symphonic <input type="checkbox"/> Blood Curdlers <input type="checkbox"/> Comedy Skits <input type="checkbox"/> Drama <input type="checkbox"/> Mixed Programs	
Express your preference in manner of putting over radio advertising.	<input type="checkbox"/> (a) Straight commercials at beginning and end of program <input type="checkbox"/> (b) Commercials in a lighter vein scattered through the program <input type="checkbox"/> (c) Simple announcement of who is sponsoring the program		REMARKS:		

My RADIO IS NOT WORKING JUST RIGHT SO DO NOT LISTEN AS OFTEN AS WE USED TO. MAY GET A NEW ONE FOR CHRISTMAS

John Doe  
470 MAIN ST.

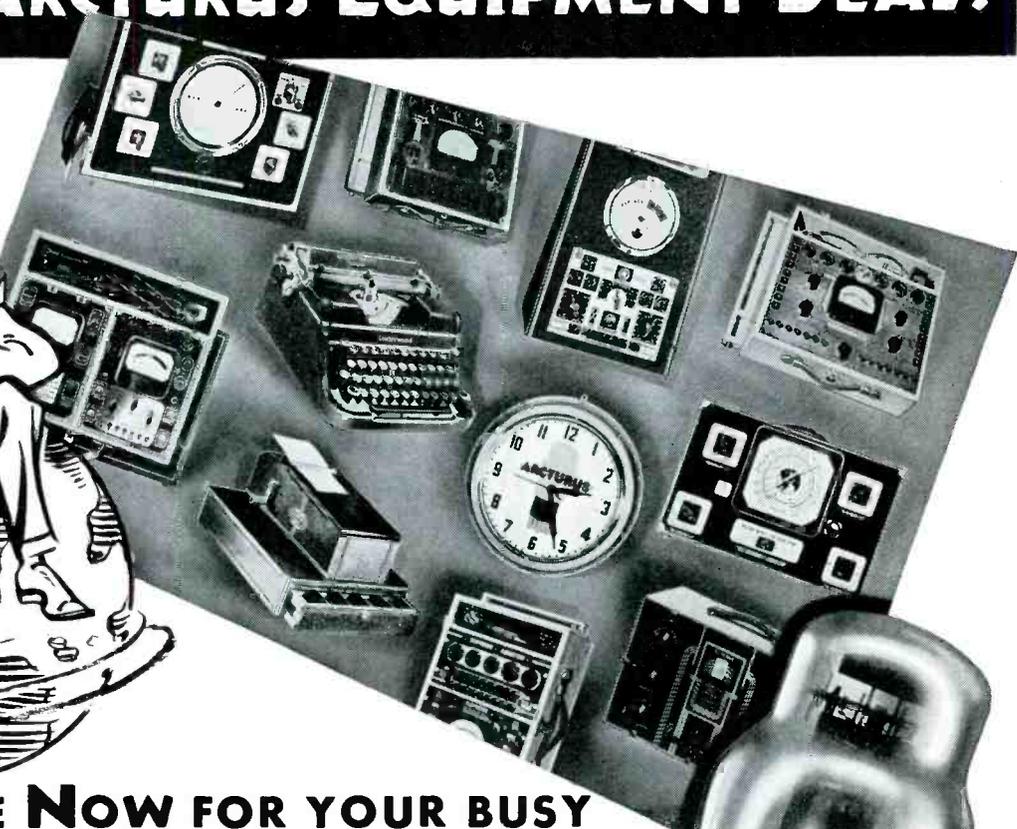
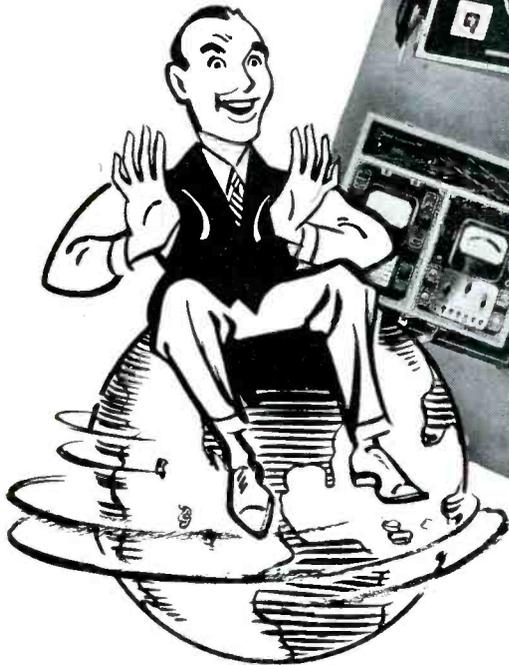
preferred by 33 per cent of those voting. (b) News flashes took second place with 20 per cent (It would be materially higher today due to interest in European affairs, of course). (c) Another 11 per cent favored news commentators and other types of programs stretched on down the line.

### Excellent Christmas Build-Up

Dealers tied in closely with the plan, in addition to distributing and collecting ballots within their stores, by running straight sales copy in the newspaper near the keynote advertisement sponsored by the Bureau, requesting that their own programs (where such were customarily used) over local broadcast stations be spotted near the Bureau's announcements and publicizing the balloting in the course of regular direct-mail promotion.

Prospect lists compiled from ballots subsequently proved of great value to salesmen contacting to secure their share of important Christmas gift business.

# You'll be "SITTIN' on TOP of the WORLD" with the ARCTURUS EQUIPMENT DEAL!



## MODERNIZE NOW FOR YOUR BUSY SEASON... The EASY ARCTURUS WAY!

One sure way to make a good season even better is to equip your store and shop with all the modern facilities to handle business speedily and efficiently. The Arcturus Equipment Deal enables you to obtain this equipment practically Free—it's an easy common-sense Plan to help you do more business at a greater profit!

**ARCTURUS MEANS BUSINESS . . . for YOU!**  
Never has any tube manufacturer put such a fair, profitable Deal within easy reach of every serviceman and dealer! No other Equipment Deal has enabled you to get Immediate Delivery of the units you select, with such Low Down Payments! Seldom has there been available such a wide variety of high-quality equipment—including all the newest models of famous makes! Tube requirements, too, are lower.

### NO "EQUIPMENT TAX" ON TUBES!

With the ARCTURUS DEAL, you still pay only Standard Prices—less standard discounts—for Arcturus Tubes. Arcturus dealers are not forced to pay a premium to participate in Radio's fairest Equipment Deal.

### SELL QUALITY—Earn Extra Profits

The Arcturus line is complete—you can supply any needed replacement. High-standard Arcturus engineering is your guarantee that every Arcturus Tube you sell will deliver long, dependable, trouble-free performance. Thus, Arcturus quality helps you build a firm foundation of customer confidence—at the same time the Arcturus Equipment Deal earns your regular profit, *Plus* a substantial *EXTRA PROFIT* in the form of valuable store and shop equipment! Get the complete facts about this liberal Deal—then "Go Arcturus" for Extra Profits! Mail the coupon today!



Arcturus  
Radio Tube  
Co., Newark,  
New Jersey.

Gentlemen:  
Send complete details of the Arcturus Equipment Deal and my copy of the Arcturus Dealer Helps Folder.

- I am a Dealer.
- I am a Serviceman.

# ARCTURUS

## THE *Extra Profit* TUBE LINE

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

My Jobber is \_\_\_\_\_

(OFFER GOOD IN U. S. A. ONLY)

R-24

## MITCHELL



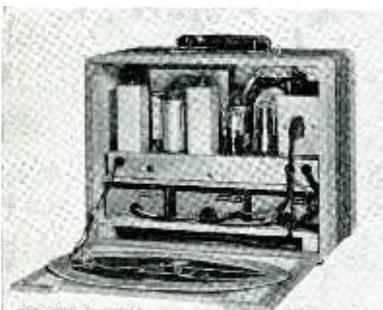
**LULLABY BED LAMP**—Combination lamp and radio in streamlined bakelite cabinet. Designed for maximum eye comfort and ease of operation. Built-in Air Magnet eliminating aerial or ground; 5 tube superhet; tunes broadcast band and police channel. Available in ivory or walnut; \$19.95 list. Mitchell Mfg. Co., 1550 Dayton St., Chicago, Ill.

## EMERSON



**MODEL DJ310**—Compact portable battery-electric 6-tube superheterodyne; large permanent magnet dynamic speaker; built-in loop antenna; available in pigskin fabrikoid, in blue with ivory trim, in ivory with brown trim; list \$24.95 complete with batteries; comfortable leather handle. Emerson Radio & Phonograph Corp., 111 Eighth Ave., New York.

## ANDREA

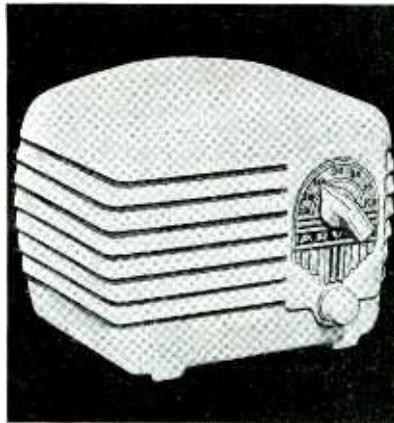


**PORTABLE**—An a.c.-d.c. battery carry-about with noval cabinet designed particularly to show the consumer the workings of the set in conjunction with the new "Look Under The Hood" campaign. Provides 260 milliwatts of audio power; weight 19 lbs. complete with batteries; built-in loop; measures 13 x 9 3/4 x 7 3/4 inches. Andrea Radio Corp., Woodside, L. I., N. Y.

## ARVIN



**PORTABLE**—Model 802 operates on self-contained batteries or electric current; 250 to 350 hours operation on one set of batteries; 5 tubes and built-in antenna; band coverage from 540 to 1750 kc., provides a separate compartment for electric cord when not in use; measures 12 3/8 wide, 10 3/4 high, 6 3/8 inches deep. Covering is airplane luggage cloth, with heavy-gauge sewn leather handle; list \$24.95.



**MODEL 402**—Unbreakable one-piece cabinet with duo-tone bronzed embossed dial; small enough to tuck away in over-night luggage; 2 watts output; 30 watts drain; 4-inch electro-dynamic speaker; two gang tuning condenser; band coverage from 540 to 1750 kc., 20-foot antenna attached; comes in walnut finish. Price \$6.95. Noblitt Sparks Industries, Inc., Columbus, Ind.

## DETROLA

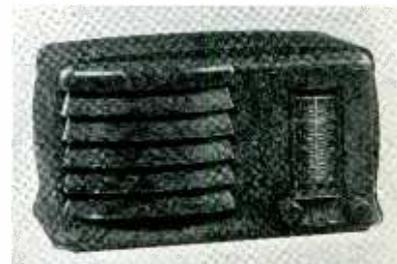
**MODEL No. 3051**—Rectangular shaped table-type receiver; 7-tube a.c.-d.c. superheterodyne; 540-1720, 2300-6250 kc. No aerial or ground required; 6 pushbutton synchromatic tuning; covers standard broadcasts, amateur, police, aviation and 6 megacycle foreign; electro dynamic speaker; encased in beautiful walnut cabinet with convenient carrying handle; list \$29.50.

# Preview of



**MODEL No. 318**—Console phono-combination set with automatic record changer; plays ten 10" or 12" records at one loading; 3 band, 540-16,000 k.c. Covers standard, amateur, police, aviation, American and foreign broadcasts; 3-gang condenser; electro dynamic speaker; built to receive television sound; cabinet of walnut veneer; list \$79.50. Detrola Corp., Beard & Chaffield Avenue, Detroit, Mich.

## AUTOMATIC



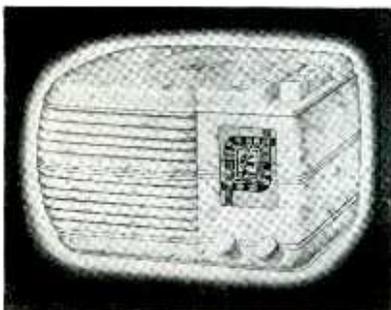
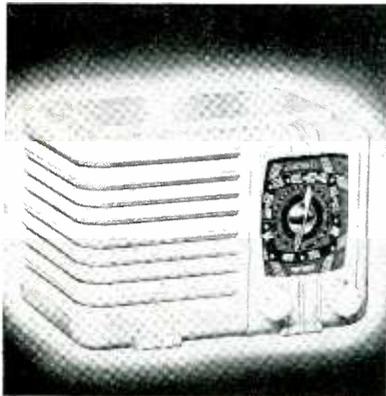
**MODEL 402**—Table-type, brown plastic cabinet with 5-tube superheterodyne circuit; thermometer dial with vernier tuning; broadcast band from 1600 to 550 kc.; measures 10 inches wide, 4 1/2 inches high, and 6 inches deep; net weight 5 lbs. 5 ozs.

# New Products



**CONSOLE**—Model 480 attractive two-toned walnut cabinet with slide dial tuning; 6-tube superheterodyne circuit; covers broadcast and short wave bands from 1550 to 550 kc. and 43 to 130 meters. Measures 38 inches high, 23 inches wide, and 10 inches deep; net weight 24 lbs. Automatic Radio Mfg. Co., Inc., 122 Brookline Ave., Boston, Mass.

## SENTINEL



**TABLE MODEL 194UTI**—Ultra-modern ivory colored bakelite cabinet with 5-tubes; a.c.-d.c. superhet. Operates without ground or aerial; provision for external antenna; tunes 535 to 1730 k.c., output 2.2 watts from 4 inch PM. dynamic speaker; automatic volume control. Height 5¼ inches, width 8½ inches, depth 5 inches. List \$12.95.

**MODEL 195ULTO**—Streamed bakelite cabinet with pushbutton tuning; 5-tubes; a.c.-d.c. superhet; built-in loop aerial with provision for exterior antenna and ground; automatic volume control; 5 inch PM. dynamic speaker; comes in onyx color; 10½" wide, 7" high, 7¼" deep; list \$17.95. Sentinel Radio Corp., 2020 Ridge Ave., Evanston, Ill.

## MAJESTIC



**MODEL 3C90**—Pushbutton console in modern cabinet featuring a new method of automatic bass compensation and automatic volume expansion. Slide rule type dial; tuning indicator; 12 pushbuttons. Majestic Radio and Television Corp., 2600 W. 50 St., Chicago, Ill.

## ANSLEY



**DYNAPHONE**—Model D-10 table type phono combination uses 8 tube chassis. Housed in highly finished wood cabinet \$84.50 list. Record cabinet model RC-1 is a companion piece with six compartments for records and albums, lists at \$19.50. Ansley Radio Corp., 4377 Bronx Blvd, New York, N. Y.

## FARNSWORTH



**PHONO-COMBINATION**—Model AK-59; 7 tube superhet with built-in antenna; 2 wave bands; push buttons for 5 stations; 12 inch electrodynamic speaker; tone control; Caphart record changer; provision for television; height 34¾; width 32¼, depth 16¼ inches.



**MODEL AT-50**—A 7 tube superhet with sliderule dial; 2 bands; treble and bass tone control; built-in antenna; push buttons; 5 inch electrodynamic speaker; beam power output; phono and television. Farnsworth Television and Radio Corp., Ft. Wayne, Indiana.

## LAFAYETTE



**MODEL S50**—This portable radio features a permanent magnet loudspeaker, approximately 200-hr. service from one set of batteries; built-in loop antenna; covers a complete band of standard broadcasts plus police calls to 1775 k.c. Encased in a realistic simulation of alligator hide with comfortable carrying handle; 12¼ inches long, 7½ inches wide and 5½ inches deep. Radio Wire Television Inc., 100 Sixth Ave., New York.

# RCA VICTOR SALES are WAY AHEAD IN 1939!



**56.2%** Increase in Distributors' Sales to  
Dealers for First 8 Months

**93.3%** Increase in Distributors' Sales to  
Dealers in First Two Weeks Sept.

## STRONG PROOF OF

1. The High Standards of Quality of RCA Victor Products
2. Tremendous Consumer Acceptance and Demand
3. Strong Dealer Cooperation
4. The Success of RCA Victor's New Merchandising Policy

**IT PAYS TO GO**

**"RCA ALL THE WAY"**



**RCA Victor**

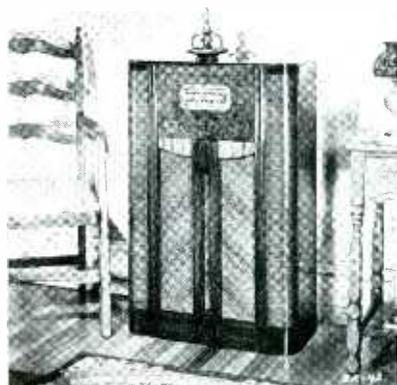
RCA MANUFACTURING CO.,  
INC., CAMDEN, N. J.  
A SERVICE OF THE RADIO  
CORPORATION OF AMERICA

**FOR FINER RADIO PERFORMANCE — RCA VICTOR RADIO TUBES!...**

## RCA



TABLE MODEL T-62—Distinctive style cabinet of walnut with zebra wood; new grille cloth opening with rounded top and bottom rails finished in rosewood; covers American and foreign broadcasts; plug-in connection for television and victrola; built-in antenna; measures 10 $\frac{1}{8}$ " high, 19" wide, 9" deep.



CONSOLE MODEL BK-42—Superheterodyne battery receiver using 6 tuned circuits, one i.f. stage and magnetite core i.f. transformer. Has Economy Blinker signal light to insure against needless battery drain; may be converted to a.c. house current; sturdy cabinet of two-tone heart walnut veneer, trimmed with zebra wood; measures 37 $\frac{1}{4}$ " high, 24" wide, 11 $\frac{1}{8}$ " deep. RCA Mfg. Co., Camden, N. J.

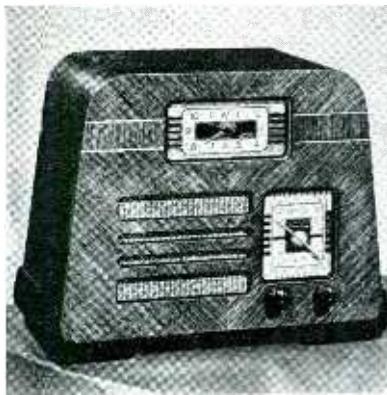
## PHILCO



MODEL 170-CS—Chairside model in handsome walnut cabinet with smooth rolling casters. Built-in Super Aerial; controls located on top with ample room for table lamp; six tubes; six button electric tuning; also dial tuning. Covers standard broadcasts and state and city police calls; provision for television.

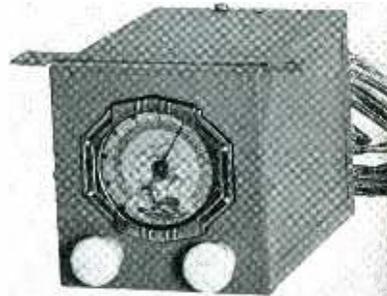
MODEL PT69—New table type model with built-in loop aerial; chassis encased in oddly shaped two tone Walnut cabinet. Contains a self-start-

ing Sessions Electric Clock; receives standard broadcasts and police calls. Philco Radio and Television Corp., Phila., Pa.



## ABC

ULTRA HIGH CONVERTER—Model 510 short wave converter permitting standard car radios to receive signals in the 5-10 meter bands. Uses an 1852 converter and 6J5 oscillator; price \$24.95 list. A B C Radio Laboratories, 3334 N. New York Ave., Indianapolis, Ind.



# Free GIFT MERCHANDISE or SHOP EQUIPMENT from National Union

## RICH WARM 100% WOOL BLANKETS



• These warm, long wear blankets are first quality 100% virgin wool, beautifully bound with satin. Available in a variety of modern colors. Size 72" x 84" Dealer Deposit, \$4.00. Retail value \$11.00.

## FAMOUS MARLIN SHOT GUNS



• Marlin's great Over & Under Shotgun available in 12-16-20 gauges and .410 bore. A perfectly balanced, easy handling gun, strongly built. Positive automatic safety . . . Approximate weight, 12-gauge, 7 $\frac{1}{2}$  lbs., 16 and 20-gauge, 6 $\frac{1}{4}$  lbs., .410 bore, 5 $\frac{3}{4}$  lbs. Dealer Deposit...\$22.50. Retail value \$39.90.

## ELGIN WATCHES



Retail Value...\$37.50

• Ladies ELGIN DE LUXE wristwatch, semi-baguette, 17 jewels, 10 K gold filled case. OR man's CRUSADER 8/0 size, 17 jewels, 10 K natural gold filled case. Dealer Deposit...\$11.00.

## ROGERS SILVERWARE



Retail Value...\$60.00

• 87-piece service for 8 persons in Good Housekeeping approved tarnish proof, fine wood chest. Encore design. Made and guaranteed by Simeon L. & Geo. H. Rogers Co., famous Oneida silversmiths. Dealer Deposit.\$12.00.

## IT PAYS TO HANDLE NATIONAL UNION Radio Tubes and Condensers



### SERVICE DEALERS!

Do you want to increase your volume, give better satisfaction to your customers, protect yourself from cut price competition...THEN WHY NOT WORK WITH N. U....All our policies and sales promotions are aimed to build up you and your business.

National Union offers a complete line of all (320) types of tubes. Quality is the finest that research skill and engineering can produce; backed by the most liberal replacement policy in the industry. The choice of leading service engineers everywhere . . . they've got to be good!

### CERAMITE CONDENSERS

The only mid-get electrolytic encased in ceramic insulation. Can't short when jammed in tight places. Competitively priced. Available in all popular capacities and voltages.



NOTICE!  
There is no truth to the rumor that National Union is going to discontinue premiums. A movement is on foot to try to persuade your jobber to discontinue giving you equipment with your tube purchases. National Union's plan is benefiting thousands of service dealers. Tell your distributor—"We want National Union offers continued."

RR-1039

Ask Your Jobber or Write NATIONAL UNION RADIO CORP.  
57 State Street, Newark, N. J.

# DEALERS PREFER TO SELL PHILCO!

Reasons given by dealers in a national survey

1. Greatest Public Acceptance
2. **Most Widely Advertised**
3. Greatest Improvements
4. Lowest Service
5. Most Complete Line
6. Easiest to Sell
7. Greatest Market
8. Finest Performance
9. More Satisfied Customers
10. Fastest Selling Line
11. Better Parts Service
12. Greater Sales Appeal
13. Sound Factory Policies
14. Most for the Money

We like Philco best because of its well-deserved reputation and uninterrupted consumer advertising.

THE BUESCHER'S CO., Cleveland, Ohio.

We give Philco sets the utmost sales effort because Philco backs us up with continuous year-round advertising to the consumer.

HAUSCHILD MUSIC CO., Victoria, Texas.

The Philco line is so well known and highly advertised that the public demands it.

MARCONI BROS. INC., New York, N. Y.

The all-year consumer advertising of Philco makes it profitable and preferable for us to push this line.

NOESKE RADIO & APPLIANCE CO., Freeport, Ill.

We prefer to sell Philco because they have built prestige by building good radios backed by good year-round advertising.

T. R. BANKS RADIO SERVICE, Charlotte, N. C.

We regard Philco for 1940 and Philco's great advertising campaign to the consumer as the main essentials of a profitable dealer business in radio.

PARK SLOPE TALKING MACHINE SHOP, INC., Brooklyn, N. Y.

Philco's continuous advertising to the consumer is one of the main reasons why we always push Philco sets.

CANDIOTO PIANO CO., Lexington, Kentucky.

Our preference goes to Philco for many reasons, among which is the 12-month advertising to the consumer -- a big factor in selling at retail.

NEWMARK & LEWIS, INC., Hempstead, N. Y.

# "Most Widely Advertised"

## One of 14 Reasons Why

**"The biggest selling and advertising factor in the industry," say dealers everywhere. A national survey shows Year-Round Advertising is the most powerful factor in overwhelming dealer preference.**

Dealers everywhere, in every type of market, list Philco's powerful, year-round advertising as one of the 14 reasons for Philco's sales leadership. In an impartial nationwide survey, one after another speaks of Philco's commanding advertising support, the greatest in the industry, as one of the most powerful of the factors that make Philco the most salable, most profitable line in the radio field.

Yes, throughout its 10 years of leadership, Philco has recognized its obligation to promote business for Philco dealers. The job has never been left to you alone . . . Philco has always done its part in national advertising, local advertising and hard-hitting promotions to *sell radio* and to drive customers into the dealer's store. The current, highly successful "Philco Anniversary Specials" promotion is an example of Philco's continuous promotional activity in behalf of Philco dealers.

And so in every other factor that goes to make up a complete, profitable merchandise and sales picture. Read the list made up from the comments of America's radio dealers, large and small. If you want the answer to Philco leadership, *there it is* . . . broken down into its 14 basic points!

For 1940, again, your No. 1 profit opportunity lies with Philco. The hottest line in its history . . . new, exclusive inventions . . . keyed to public demand in design, performance and price. And a *complete* line, from table models to radio-phonographs that gives you the sell-up opportunity you need to make money in radio.

*For turnover, for volume, for profit . . . concentrate on Philco!*

# Philco All Year 'Round for Profits All

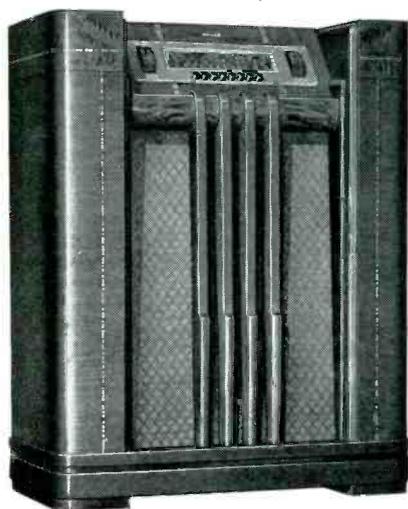
# Widely Advertised"

Dealers Look to Philco for Radio's Biggest Profits

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preference for

# PHILCO

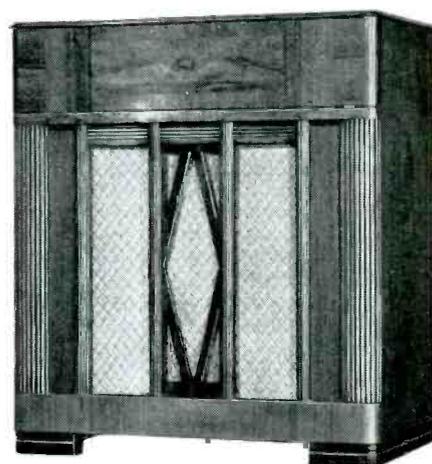
Sell Up! Today, more than ever, Philco Sell-Up models give you your best opportunity to Boost Your Profits



**PHILCO 195XX** One of a great variety of lovely console models styled to suit every purse and preference. 10 tubes, Built-in Super Aerial System, American and Foreign reception, Electric Push-Button Tuning. Every feature the *quality* buyer wants!



**PHILCO 215RX with Wireless Remote Control** The perfect "sell-up" model in the higher price brackets. 12 tubes, American and Foreign reception, Built-in Super Aerial System—*plus* Wireless Remote Control of favorite stations . . . all at a new low price!



**PHILCO 508 Radio-Phonograph** One of a complete selection of beautiful, super-performing radio-phonographs. Automatic Record Changer for 12 records. Doubled sound output for finer recorded tone. American and Foreign radio reception, Electric Push-Button Tuning, Built-in Super Aerial System. Another Philco profit-maker.

Every 1940 Philco Is Built to Receive TELEVISION SOUND . . . the Wireless Way!

## ONLY PHILCO gives you ALL 3

The Philco Built-in Super Aerial System, found only in the 1940 Philco, is more than a mere built-in aerial. It is a combination of 5 important features: 1, a specially shielded, direction Loop Antenna; 2, the Costly R. F. Stage; 3, Newly Invented Loktal Tubes. And, in foreign reception models; 4, a *second* built-in Short-Wave Antenna; 5, the triple-power No. 1232 Television Tube. Together, this *complete system* gives you:

- 1. "PLUG IN AND PLAY" CONVENIENCE** No aerial or ground wires to install. Plug in anywhere and play.
- 2. NEW PURITY OF TONE** Greater freedom from power line noises and man-made static. More enjoyable reception, even in noisy locations.
- 3. SUPER-POWER** Even gets *foreign* reception without an outside aerial. *Amazing performance!*

# Year 'Round

HOME RADIO • AUTO RADIO • TELEVISION • PHONOGRAPHS • RADIO TUBES  
PARTS • REFRIGERATORS • AIR CONDITIONERS • DRY BATTERIES

## GAROD



MODEL 551—Small table-type receiver with 5-tube superheterodyne; piano pushbutton tuning; with four color combinations of contrasting louvres and tuning keys; square shaped dial.

MODEL 373 P22—Console phonograph combination; 7-tube receiver for a.c. and d.c., automatic record changer; entire cabinet made of striped walnut; open and close cover. Garod Radio Corp., 115 Fourth Ave., New York.



## MOTOROLA



CONSOLE—Model 72C "Prize Package" set designed to fill the consumer's demand for standard broadcast and shortwave news broadcasts. Equipped with 7 tubes; 10 inch speaker; 6 push-buttons; push-pull audio system; Aero-Vane loop antenna; provision for phono and television; price \$59.95. Galvin Mfg. Co., 4543 Augusta Blvd., Chicago, Ill.

## WITH SERVICE ON THE MOVE: YOU *and* a SIMPSON TESTER *can go places!*

WHEN servicing jobs were scarce, you may have hesitated to "treat" yourself to some much-needed Simpson Testing Equipment. But now it's a different story. With service again on the march, Simpson speed, convenience and accuracy can put dollars right into your pocket.

A few of the "hit numbers" of today's Simpson line are illustrated here. Notice the wide range of requirements they cover—and the better way they cover them. Men who know testers have acclaimed Simpson equipment the first real advance in ten years of instrument building—and the proof of this is as close as your jobber!

See the Simpson line today and you will decide to put it to work tomorrow. You and Simpson Testing Equipment can form a mighty profitable partnership right now.

SIMPSON ELECTRIC CO., 5204 Kinzie Street, Chicago

# SIMPSON

INSTRUMENTS THAT STAY ACCURATE

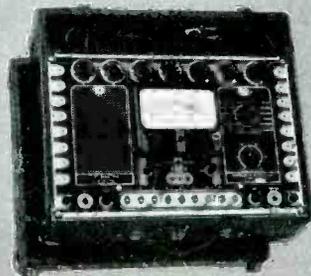


**MODEL 260**  
• The new high sensitivity set tester for television and radio servicing. At 20,000 ohms per volt this instrument is far more sensitive than any other in its price range. Six voltage ranges, both A.C. and D.C. Resistance ranges from 1/2 ohm to 10 megohms. Current readings from 1 microamp to 500 milliamps. Your Price... **\$27.50**  
(Similar model, No. 215, with 5,000 ohms per volt at \$22.85.)

### MODEL 440 "TEST MASTER"

Tests All Tubes—Tests All Circuits

**Filament Voltage 1.5-120 Volts**  
Has screen fluorescence and angle test; hot cathode-leakage neon test; "high sensitivity" neon short check; "good" and "bad" scale, and "noise test." Has six A.C. and D.C. voltage ranges; three resistance ranges; four milliamperage ranges; six Decibel ranges. Your price... **\$59.00**



### MODEL 325 GIANT TUBE TESTER

Tests All Tubes—Filament Voltage 1.5 to 120 Volts

• Has handsome, illuminated red, green and black scale on a silver etched dial with full 9-inch meter. Checks each element separately; shorts on dual-sensitivity neon tube. Has jack for noise test. Convenient drawer contains neat tube charts. Meter is reversible for horizontal use. Wings available for rack mounting. Your price... **\$34.50**



### MODEL 320 GIANT SET TESTER

• First set tester with giant (9-inch scale) illuminated dial meter—first with 50 ranges which include nine voltage ranges both A.C. and D.C.; six milliamperage ranges; five resistance ranges; four capacity ranges; seven Decibel ranges. Test leads, insulated for 5,000 volts furnished with each tester. Entirely A.C. operated—no batteries needed. Wings are available for rack mounting. Your Price... **\$37.50**

## BRUNSWICK



PHONO-COMBINATION—Model A-320 automatically plays eight 10 and 12 inch records; straight a.c. motor, self starting; crystal pick-up; latest designed tone arm. 7-tube superheterodyne with built-in antenna; automatic push button and volume control; push-pull output; provision for television; 18th century all mahogany cabinet, bleached and hand rubbed finish; bottom drawer for built-in record compartment; list price \$199.50, slightly higher in far west. Brunswick Radio Corp., 206 Lexington Ave., New York.

## WESTINGHOUSE



TRIPLET PORTABLE—May be used on a.c., d.c., or contained batteries. Handy compact dial assembly with 6 to 1 ratio vernier drive, off-on flag indicator tells when set is operating. Finished in light blue and gray airplane cloth with thin red stripe. Westinghouse Radio Headquarters, 150 Varick St., New York, N. Y.

# THERE'S A LOT OF NICE BUSINESS

in the G-E TREASURE ISLAND DISPLAY

**T**HIS is the biggest year yet for G-E Radios. You know that! And to get your full share of the business, you'll most certainly want G-E's eye-filling, sales-making, Treasure Island Display.

Look at it! It stands almost man-high. And by actual test holds on its 6 sq. feet of space, more merchandise than can be crowded on 15 sq. feet of counter. Think what that means in display opportunities. And that's not all!

The G-E Treasure Island is handsome. It has a substantial air that draws people. Put it in the center of the store and see it dominate. Put it at the head of an aisle and watch customers gather round. Use it for both display and serve-yourself purposes. Fill it with G-E table and portable radios. Add a smart grouping of General Electric home appliances, and so tie in with the big story General Electric is stressing nationally. . .

**It's Easy to Stay Young  
ELECTRICALLY!**



## The Early Christmas Shopper is Doing Her Stuff

Already women are making Christmas lists. Get this early holiday business—and the season's wedding gift business, too. Stock your Treasure Island with G-E clocks, mixers, irons, grills, toasters, coffee makers, waffle irons. Order your display today. Ask your G-E dealer for details—or write direct to General Electric, Room 1111, 570 Lexington Avenue, New York.



# GENERAL ELECTRIC

**SERVICEMEN WHO  
KNOW—PREFER**

**Readrite**  
TESTERS **RANGER** METERS

**MODEL 432-A**



● Model 432-A is the outstanding tube tester value for tubes of today and tomorrow. Has RED • DOT Lifetime Guaranteed Triplett Instrument with Two Highest Quality Sapphire Jewel Bearings. . . . Sockets for All Tubes . . . Filament Voltages from 1 to 110—a Safeguard Against Obsolescence . . . Separate Line Control Meter . . . Neon Shorts Test . . . Etched Panel of Outstanding New Design . . . Approved RMA Circuit. . . .

This tube tester checks Loctals, Single Ends, Bantam Jr., Gaseous

with  
**RED • DOT**  
Lifetime  
Guaranteed Instrument

**\$17.85** Net

Rectifier, the New High Voltage Series (including 117Z6G) and others recently announced. Also has Bal- last Tube Continuity Test. Direct Reading GOOD-BAD Meter Scale. Will not deactivate 1.4 volt or other type tubes. Furnished in Rich Black Leatherette Covered Portable Case —Professional in Appearance.



**MODEL 739**

For More  
Information Write  
Section 1020  
College Dr.

**POCKET VOLT-OHM-  
MILLIAMMETER**

. . . With Selector Switch . . . Molded Case  
. . . RED • DOT Guaranteed 3-Inch Meter  
with 2 Genuine Sapphire Jewel Bearings.  
AC and DC Volts 0-15-150-750-1500; DC MA.  
0-1.5-15-150; High and Low Ohms scales . . .  
Dealer Net . . . \$9.90

**READRITE METER WORKS**

BLUFFTON, OHIO

**SHORT WAVE CONVERTER FOR CAR RADIO**



**ULTRA HIGH  
FREQUENCY**

Model 510—Converter for police and amateur work. Covers the 5 and 10 Meter Bands. Tunable with variable condenser. Very sensitive. List price \$24.95

Can be attached to any car radio. Has on and off switch. Does not affect reception on standard broadcast bands.

Model 600—Covers 49 to 16 meter bands. Designed for reception of American and foreign short wave broadcast. Distance range 5000 to 10,000 miles. List price \$24.95

**FOR USE OF POLICE AND OTHER LAW ENFORCEMENT OFFICERS**

Model 100-A—Police converter with single metal tube and triple tuning condensers. Covers 1500 to 2600 kc. List price \$12.50

Model 200—Police converter with variable condenser and illuminated dial. Covers 1500 to 5500 kc. List price \$17.95

Model 500—Police converter with two metal tubes, variable condenser, and illuminated dial. Very sensitive. Exceptional distance range. List price \$21.95. WITH AEROPLANE DIAL \$23.95

Model 800—Police converter with two metal tubes and triple tuning condensers. Covers 1500 to 2600 kc. Exceptional distance range. List price \$15.95

Jobbers and Dealers wanted

**A B C RADIO LABORATORIES**

3334 N. New Jersey Street

Indianapolis, Indiana

**WILCOX-GAY**



**PORTABLE RECORDIO**—Model A-71 record maker and record player. Complete, ready to make records which can be immediately played back on the unit or any phonograph. Comes in an airplane cloth covered case 7½" x 15" x 15½"; lists at \$67.50 which includes microphone. Wilcox-Gay Corp., Charlotte, Mich.

**SPRAGUE**



**INTERFERENCE LOCATOR**—Battery operated supersensitive receiver complete with loudspeaker, self-contained loop, fishpole antenna, output meter, and phone jack. Ideal for tracking down all types of man-made radio interference. Sprague Products Co., North Adams, Mass.

**SIMPSON**



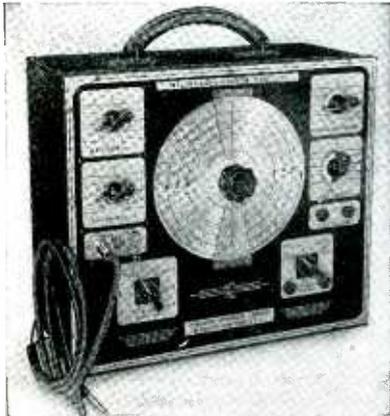
**GIANT TESTER**—Model 325 tube tester with large rectangular 9 inch meter indirectly illuminated by two 6 volt bulbs. Complete range of filament voltages from 1.5 to 120 volts. Tests loctal, single-end, bantam, midjets, ballasts, gaseous rectifiers and Christmas tree bulbs. Individual toggles test each element separately. Line adjustment, short and leakage tests, headphone jack for noise tests. Simpson Elec. Co., 5216 Kinzie St., Chicago, Ill.

## TRANSDUCER



**BULLET MIKE**—Model TR-56 sensitive dynamic mike. Black bakelite case; Alnico magnet; chrome plated swivel yoke; with 3 prong connector. Price \$39.50 list; on-off switch \$4.00 list; volume or tone control \$4.00 list. Transducer Corp., 42 W. 48th St., New York, N. Y.

## PRECISION



**SIGNAL GENERATOR**—Model E-200 features the exclusive a.v.c. substitution method for simplified accurate receiver alignment. Six band tuning from 110 kc. to 72 mc.; direct reading 400 cycle sine-wave oscillator; modulation percentage control for 0-100 percent modulation. Precision Apparatus Co., 647 Kent Ave., Brooklyn, N. Y.

## GEM



**FACE-LITE SHAVER**—Features shaving head that close-shaves all beards; built in light illuminates face as shaver progresses; starting switch and radio interference suppressor. Housed in rugged attractive case; price \$15.75. American Safety Razor Corp., Brooklyn, N. Y.

**THEY'RE HERE!**

NO SHORTED TURNS

AUTOMATIC OVERLOAD INDICATOR

RUN COOLER THAN ANY OTHER RESISTORS

FULL WATTAGE RATINGS

DOUBLY INSULATED

# SPRAGUE KOOLOHM RESISTORS

*The Biggest Improvement in Wire Wounds in 20 Years*

Note the above exclusive features of Sprague Koolohm Resistors—and they're not all! The 9 points of outstanding Koolohm superiority also include:

- Non-inductive resistors—zero inductance at 50 mc. and distributed capacity of only 2 mmfd.
- Resistance value remains constant whether exposed to moisture or heat. No "swimming" of turns—no shorted resistance values.
- Larger wire size for every value.
- Every bit of wire insulated before winding with a new resistance coating—further protected by a dark brown ceramic outer shell. The only truly insulated wire wounds on the market.

No cements or brittle enamels on Koolohms! Koolohm wire insulation allows units to be layer wound with larger wire. Values are guaranteed accurate to 5% or better, and remain constant. Now available in 5-watt fixed types; 10-watt fixed; 10-watt non-inductive and 10-watt adjustable. Sold at ordinary resistor prices. The greatest resistors buys on the market. *Your jobber has them!*

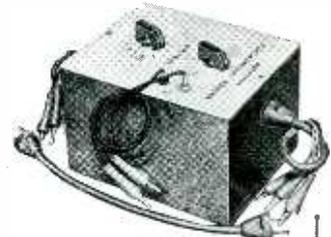
## CASH IN ON INTERFERENCE ELIMINATION



Now—it is made easy for you to build new business in a growing, non-competitive field! For years, Sprague engineers have been developing practical methods for eliminating man-made radio noise from every type of electrical appliance. The Sprague

Manual of Radio Interference just off the press is the result. Tells you what to do and exactly how to do it. Easy to understand—indispensable in your work. 24 pages—fully illustrated—more than 50 diagrams. Only 25c net from Sprague jobbers or direct from us.

● Shown here are the new Sprague Master Radio Interference Analyzer and the new Sprague Interference Locator. Low in price—easy to use—fully practical. Write for details on the complete Sprague Interference Elimination Plan.



# SPRAGUE

**"SCOTCH" CONDENSERS**

**ATOMS MIGHTIEST MIDGETS OF ALL**

## SAVE TIME—MONEY—SPACE

It's not only Scotch money-saving instinct—it's good business that leads more servicemen to use more Sprague Atoms than any other midget dry electrolytics on the market today. Atoms are smaller—more dependable—made in more single and dual capacities—have lower leakage—withstand higher surges—are absolutely protected against blow-ups. Use 'em anywhere. Atoms stand the gaff!

**SPRAGUE PRODUCTS COMPANY**  
North Adams, Mass.

HERE'S WHERE THE  
*Big Profit*  
IS IN "SOUND"



READ ABOUT THIS FOOL-PROOF SALES PLAN THAT HANDS THE SOUND BUSINESS — AND THE PROFIT — BACK TO THE SOUND DISTRIBUTOR LOCK, STOCK AND BARREL!

**T**HE men making the Big Money in Public Address today are members of the nation-wide, fast growing Clarion Institute of Sound Engineers. For C.I.S.E. represents an air-tight merchandising plan that assures profits to Sound distributors who qualify.

*If you can qualify*

as a member of C.I.S.E., you enjoy factory purchasing power; exclusive territory; free P.A. engineering and consultation service; prepared national advertising and local sales promotion; furnished leads—a complete merchandising set-up, making the sale of "Sound" practically a profession, and you the authorized C.I.S.E. representative in your area.

*What to do*

Mail the coupon today. It is your application for membership in the C.I.S.E. It will bring you full details of this sensational BIG profit-opportunity that costs you nothing. Does it work? Last year C.I.S.E. members increased Sound sales 500 per cent! Act at once—remember, only one C.I.S.E. representative to a territory. Send this coupon today!

**CLARION INSTITUTE  
OF SOUND ENGINEERS**  
69 Wooster Street  
New York

Clarion Institute of Sound Engineers  
69 Wooster St., New York City RR-1039  
Please send us immediately complete information concerning the C.I.S.E. money-making plan, together with my application form. I understand that this obligates us in no way whatever.

Name.....  
Address.....  
City..... State.....

## TELEVISIO



V. T. VOLTMETER—Model VG-6 full-wave square-law type infinite impedance vacuum tube voltmeter. Readings not affected by harmonics; frequency error is 3 per cent between 40 cycle and 56 mc.; furnished with coaxial test cable; voltage range from 2 to 600 volts in 6 steps; a.c. or d.c. scales selected by toggle switch. Televiso Co., 337-345 N. Crawford Ave., Chicago, Ill.

## ATLAS

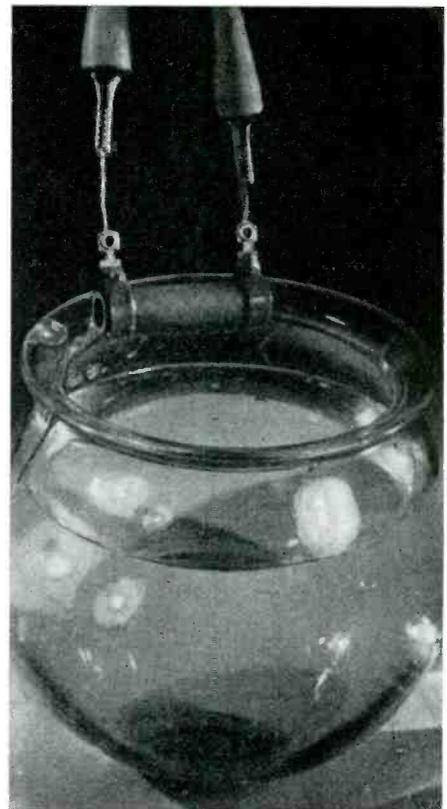


MIKE CONNECTORS—Hold Tite microphone plugs and connectors featuring the new combo connector and plug which makes microphone connection possible on amplifiers having either jacks or chassis screw connectors. Contain new cable fastener for better contact. Atlas Sound Corp., 1447-51 39 St., Brooklyn, N. Y.

## SOLAR



EXAM-ETER—New circuit and component analyzer. Serves as output indicator, dual range peak-voltmeter; r.f. alignment indicator; capacitance bridge; resistance bridge; power factor indicator; leakage indicator; and continuity checker. Solar Mfg. Co., Bayonne, N. J.



*Try*

## THIS ON YOUR POWER RESISTORS

- ★ Heat them red hot with several hundred per cent overload. Plunge into cold water. Repeat several times. Then examine coating for cracks, flaking, peeling. Compare with a CLAROSTAT power resistor undergoing identical test.
- ★ That's a tough heat-shock test. Subjects resistor to years of wear in a few moments. Yet CLAROSTAT "Greenohm" cement coating comes through unimpaired.
- ★ Again, moisten coating of different types of resistors. Test for electrical leakage between winding and surface. Note minimum leakage for CLAROSTAT coating.
- ★ Overload various types in direct comparison with CLAROSTAT units. Use of cold-setting cement means unimpaired winding from very start, and maximum heat conductivity.
- ★ Check life histories of power resistors. Note that CLAROSTAT cement free from water glass and other corrosive agents, and with unimpaired wire winding, is setting new long-life records.

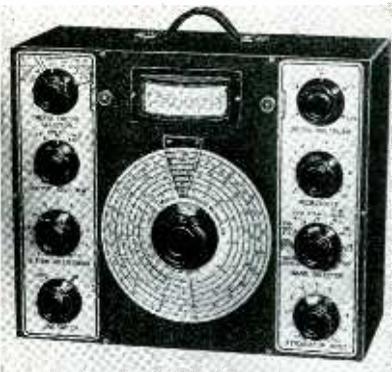
Ask Your Jobber . . .

- ★ Insist on "Greenohm" CLAROSTAT power resistors, for a trial at least, 10 to 200 watts, 1 to 150,000 ohms, fixed or adjustable.

CLAROSTAT MFG. CO., Inc.  
285-7 No. 6th St., Brooklyn, N. Y.

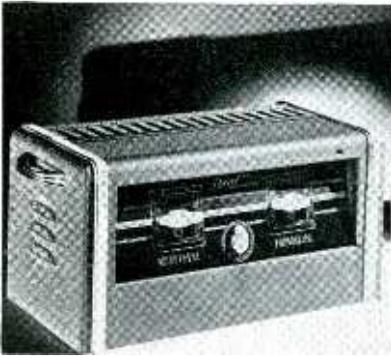


## HICKOK



**MICROVOLTER**—Crystal controlled signal generator with self contained vacuum tube voltmeter and power level meter. Provides signals from 100 kc. to 15,000 kc. at 100 kc. points; also 1000 kc. to 100 mc. at 1000 kc. points. Accuracy better than .01 percent. R.f. output from 1/2 to 100,000 microvolts. Seven radio frequency ranges calibrated directly from 100 kc. to 60 mc. Hickok Electrical Instrument Co., 10514 Dupont Ave., Cleveland, Ohio.

## ERWOOD



**AMPLIFIER**—Model 2418-A, an 18 watt unit adapted to general public address requirements. Has two inputs and tone control, output impedance is variable. Uses 7 tubes, transformers are well impregnated and wiring is cabled using flame-proof wire. Erwood Sound Equipment Co., 224 W. Huron St., Chicago, Ill.

## PIONEER



**POWER PLANT**—A 5 k.w. gas electric power plant designed for heavy duty. Engine completely enclosed in sheet metal housing to protect it from dirt, dust and rain. Uses 4 pole generator rotating at 1800 r.p.m. Complete with rheostat, voltmeter and switchbox. Filter and shielding available for radio operation. Pioneer Gen-E-Motor Corp., 466 W. Superior St., Chicago, Ill.

# Save Time and Money with THE MEISSNER ANALYST

*In Kit form  
at about  
half the  
price*

**SERVICES  
ANY TYPE OF  
RECEIVER**

**\$60 NET**



Note Ease of Reading  
Channel by Channel

**AUDIO**  
50-50,000  
CYCLES

**VOLTMETER**  
5, 15, 50, 150,  
500 VOLTS

**OSCILLATOR**  
0.6 to 15.0 MC.

**RF-IF**  
95 to 1700 KC

**LINE CURRENT**  
0.1 to 3.0 AMP.

The Meissner ANALYST is not only highly efficient—covering every conceivable phase of signal testing—but it is surprisingly easy to read and operate. This up-to-the-minute instrument will work wonders in raising the standard of service in your shop. It will take the kinks out of your toughest servicing problems . . . step up your efficiency . . . save valuable time . . . increase your profits.

It accurately measures both control and operating voltages without affecting the operation of the set. Channels can be tested individually or simultaneously. Reading is greatly simplified. There's an individual panel for each channel.

And best of all you buy the ANALYST in KIT FORM . . . Save nearly HALF the cost of a factory-wired set of comparable quality and efficiency. And at the same time acquire a fundamental knowledge of this instrument and what it will do for you that could not otherwise be obtained by weeks of study and experiment.

Get the facts on this revolutionary TIME and TROUBLE SAVER . . . See the Meissner ANALYST at your Parts Jobber's—or mail coupon below for FREE FOLDER . . . It tells the whole story!

### NEW TIME-PAYMENT PLAN

You can now buy the ANALYST and other Meissner Products on TIME. Ask your Parts Jobber or write us for details.

For superior performance in any type of receiver—try this remarkable mid-get I. F. Transformer. Simplified construction permits maximum space efficiency and a lower cost. Only 2 1/2" long—1 1/4" square. Complete range of operating frequencies. In-put, inter-stage or out-put.

Paste on 1¢ Postcard

MEISSNER MFG. CO.  
Mt. Carmel, Ill. Dept. R-10

Mail Folder on the Meissner ANALYST  
Also your complete '39-'40 Catalog

Name .....

Address .....

City..... State.....

THE NEW IMPROVED MEISSNER  
I. F. TRANSFORMER

Molded low-loss plastic trimmer — drift guaranteed less than ceramic.

Molded low-loss plastic coil form — more uniform coils — impervious to humidity — less corrosion.

Leads — new underwriters approved live rubber covered — heat resistant to 167° F.

Litz-wound HI-Q coils impregnated in Meissner HI-Q Cement.

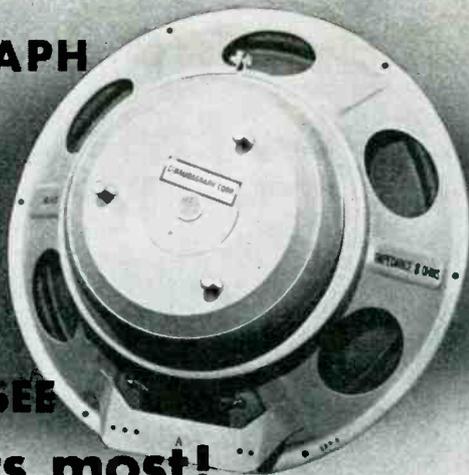
Aluminum can — size 1 1/2" square x 2 1/2" long, small enough to fit in any set.

**\$1.00 LIST**

**Meissner** MT. CARMEL, ILLINOIS  
A FAMOUS NAME FOR TWO DECADES

# IN CINAUDAGRAPH SPEAKERS

it's what  
YOU DON'T SEE  
that counts most!



There's more to Cinaudagraph's success than what you see in the speaker unit. It's what stands behind this complete line of permanent magnet and electro-dynamic speakers that counts. The years of research, of design, assembly and laboratory testing—all performed under one roof by Cinaudagraph's trained engineers.

Profits come biggest where volume sales came quickest. Cinaudagraph speaker turnover is fast because every sale means a satisfied customer. And you know what they say about satisfied customers—"your best advertisement."

There is a Cinaudagraph Speaker for every indoor and outdoor job, in both electro-dynamics and permanent magnets, from 5" to 27". Send for new catalog today.

**CINAUDAGRAPH CORPORATION**  
STAMFORD • CONNECTICUT



## Model DN-50 DYNAMIC MICROPHONE

HIGH IN EFFICIENCY.  
LOW IN PRICE.

Model DN-50 Microphone incorporates Astatic's new Unitary Moving Coil System . . . a correctly designed magnetic structure with Alnico Magnet and carefully proportioned acoustic circuit. Equipped with tilting head, swivel base, plug connector and 25 ft. cable. List Price . . . . . **\$20**

Transformer Models \$22.50

See Jobber or Write for Literature



**Astatic Microphone Laboratory, Inc.**

Youngstown, Ohio

Licensed Under Brush Development Co. Patents

# WEBBER Testing Instruments

"years ahead in design"



## SERIES 200 TUBE TESTERS

Tests all the new tubes, including 117 volt tubes, dynamically. Factors of both mutual conductance and of emission are covered. Noise and other tests are included and choice of three meter sizes and four types of cases are offered. Series 200 includes six different testers ranging from \$29.95 to \$44.75.

**FREE!** Introductory offer! 80 cents retail quality screw driver, 8 inch transparent amber handle, 1/2 inch rust resisting satin plate blade. Send only 20 cents in stamps to cover cost of mailing and handling.

WRITE FOR CATALOG 29-10A



**EARL WEBBER COMPANY**  
1313 W. RANDOLPH ST. CHICAGO, ILL.

# CLARION



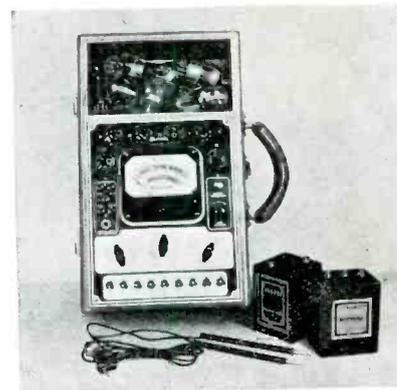
**SOUND SYSTEM**—Medium powered complete sound system, model C-418. Rated at 16 watts; 113 db. gain on mike input; 60 db. gain on two phono inputs; response 40 to 9500 cycles; output tapped from 2 to 500 ohms. With two 10 inch p.m. speakers in wall baffles, mike, floor stand, all cables and plugs, \$99.98 list. Transformer Corp. of America, 69 Wooster St., New York, N. Y.

# RADIO CITY



**TROUBLE TRACER**—Model 456 accurate inexpensive pocket size general utility instrument. Voltage ranges from 5 to 1000 volts; resistance from 500 to 500,000 ohms; two current ranges of 0-1 and 0-10 ma.; decibels from minus 12 to plus 54. Radio City Products Co., 88 Park Place, New York, N. Y.

# WESTON



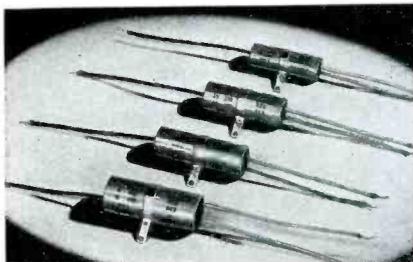
**TUBE AND BATTERY TESTER**—Model 777 tests all receiver tube-types and in addition checks "A" and "B" batteries used in portables. Battery tests are conducted under the correct load, ensuring accurate results. Tests ballasts, gas tubes, up to 117 volt types; provided with roller index system. Weston Electrical Instrument Corp., Newark, N. J.

## WEBSTER ELECTRIC



**CRYSTAL PICKUP**—Model X-79A phono pickup with convenient single mounting hole fastener; may be used on motorboards 1/16 to 1/2 inch thick. Frequency response stated to be 50 to 8500 cycles; 2.5 ounce needle pressure. Arm assembly is rubber cushioned eliminating microphonic feedback and motor noises. Available with or without built-in pilot light. Webster Electric Co., Racine, Wisconsin.

## CORNELL-DUBILIER



**DUAL ELECTROLYTICS**—Model BRL tubular units with common negative leads and polarity clearly marked. Supplied with sturdy mounting strap around its center which can be firmly attached to chassis by a single screw. Available in voltage ranges from 25 to 450 volts; capacity sizes from 5.5 mfd to 20-20 mfd. Cornell-Dubilier Electric Corp., South Plainfield, New Jersey.

## OPERADIO



**PORTABLE SOUND SYSTEM**—A 30 watt portable address unit, model 425-66. Incorporates the Remote Mixtrol, enabling the operator to mix two microphones from any position within hearing distance. Complete in two carrying cases, one holding amplifier, mike and floor stand; the other a split case housing two 12 inch heavy duty P. M. speakers; with 25 foot microphone cable. Operadio Mfg. Co., St. Charles, Ill.

## UNIVERSAL

**CARBON MIKE**—Single button mike Model W for amateurs and radio beginners. May be used as a lapel or watch model in any position. High sensitivity; light weight; low hiss level; 200 ohms, output—38 db. Universal Microphone Co., Ltd., Inglewood, Calif.

# Federal's *NEW* Recorder Triumph



## THIS NEW "PROFESSIONAL MODEL" 4-WAY FEDERAL RECORDER HAS EVERYTHING

This is the new Professional model, 16-inch Federal Recorder, incorporating many new and exclusive features found only in this instrument; other features up until now, included only with very high priced commercial recorders, and retaining all of the superlative characteristics of the original Federal machine.

Demonstration under all conditions of work plus the many advantageous features of this new Federal triumph unquestionably distinguish it the finest, all-purpose recorder ever produced. But the best news of all is that its retail selling price remains at a low level, within easy access to every professional band, school, amateur recording laboratory, etc.

### OVERHEAD, FULLY ADJUSTABLE, CUTTING HEAD

Note the overhead cutting mechanism. This assembly has an overhead feed screw of the type used invariably on the most expensive recording instruments. This entire feed assembly is readily removable from the recorder for easy and safe handling when the unit is in transport. This applies also to the turntable. A double-height cutting-head adjustment permits changing the depth of cut while recording. Two buttons on either side of the assembly release it from the feed screw, allowing it to slide back and forth to any point desired.

### SPEED-GOVERNOR TURNTABLE

A 35-pound steel turntable on this 16-inch Federal Recorder acts as a governor or balance wheel, which maintains an even, solid motion and assures a smoothly cut record without vibration or speed waves.

### SOUND MIXING FEATURE

Two inputs for microphone reception having individual volume controls, permit sound mixing under complete control of the operator. Thus, for example, music and the voice of the announcer may be recorded simultaneously, or sound effects from different locations may be recorded simultaneously. Has a 20 watt amplifier. A high-grade dynamic microphone is included with the 16-inch Professional Model Federal Recorder.

### FOR BIG VOLUME RECORDER BUSINESS 4-WAY FEDERAL IS TOPS

The unmatched advantages of this 4-Way Professional Model Federal Recorder,—a wonderfully faithful recorder, a fine radio, a public address system, an electric phonograph,—combine with an attractive selling price of \$450 to make this unit the greatest recorder buy ever offered. Its new airplane-luggage styling gives it a final sales appeal to place the Federal dealer in an extreme preferred position for full business. Write today for complete details of this new Recorder achievement, as well as other 16-inch and 12-inch Federal Recorders, selling at popular prices. The Federal dealership is an enviable one. Write at once for complete details.

240



# FEDERAL RECORDER CO., INC.

Dept. 10753  
630 So. Wabash Ave.  
Chicago, Illinois



**WITH UNIVERSAL PLASTICS** — Colonel Harlow D. Savage has been elected executive v.p. for Universal Plastics of New Brunswick, N. J. He will devote full time to the job, continues as v.p. of Baker and Spencer Engineers of New York, used to be president of the Combustion Engineering Corp.

## RSA — NAB — RMA Co-op Speeded

More stations to plug RSA servicemen in year 'round air effort

WASHINGTON — From headquarters of the National Association of Broadcasters—Radio Manufacturers Association joint industry campaign here, comes word that an increase in the number of NAB member stations cooperating with local Chapters of the Radio Servicemen of America in the recently inaugurated year 'round effort to promote all phases of radio is planned.

RSA Chapters in Boston, Cleveland, Chicago and Danville (Illinois) took part in a "Curtain Raiser" program staged nationally by NAB stations in the week of September 24. Chapters in Peoria, Davenport, St. Paul, Green Bay, Johnstown and Pittsburgh were ready to cooperate in carrying on the work and additional Chapters were working with broadcasters to set up test programs in other cities. Twenty-five RSA Chapters were to act as pioneers in the program in order to learn experimentally the best methods of making the year 'round program most effective for all concerned. (The RSA has nearly 70 Chapters at present).

To members of the NAB from Joint Committee headquarters in advance of the "Curtain Raiser" week's drive went printed matter including prepared spot announcements to be read over the air. All of these recommended RSA men to the listener requiring service, were written in a manner permitting reference to that Association to be deleted in those cities having no Chapters.

# On the Newsfront

## NRPDA Tube Survey Released

Group says vast majority of jobbers oppose free equipment tube deals

NEW YORK — The National Radio Parts Distributors Association, of which Arthur Moss is executive secretary, completed a survey concerning free equipment deals in connection with radio tubes October 1, released the following statement to the press:

"A questionnaire was sent to 427 parts distributors. A total of 178 replies were received. Jobbers going on record as opposed to the use of free equipment deals as a means of swelling tube sales totalled 164. Those finding no fault with the practice totalled 14.

"Main reasons given by those opposing deals included: (1) Merchandise offered as premiums is figured in excess of regular discounts. (2) Equipment deals bring concerns into the tube business who would otherwise remain outside it and who have no interest in the rest of the radio parts industry. (3) Deals made to induce radio servicemen or dealers to use a particular brand have gone beyond the limit of common sense. (4) To assure a legitimate profit on each item sold by the jobber the buying and selling of merchandise should be conducted along strictly business lines.

"Distributors who stated that they saw no objection to properly conducted deals stated, in the main, that in their opinion there were much more important matters than deals pertaining to tubes for the Association to investigate."

## Majestic-Chrysler Deal Reported

CHICAGO—From the Majestic Radio and Television Corporation comes the following announcement:

"A joint agreement became effective between Walter P. Chrysler, Jr. and the Majestic Radio and Television Corporation, whereby Walter P. Chrysler, Jr. has made available \$100,000 in exchange for an option to purchase 225,000 shares of Majestic stock on or before October 23, 1939 in part payment of which the note evidencing the \$100,000 loan will be accepted. This loan is made through the Allied International Investment Corporation.

"Simultaneously, Mr. Chrysler has a further option to purchase on or before March 31, 1941, an additional 75,000 shares in installments of 15,000 shares, and Allied International is likewise given

an option to purchase 75,000 shares of Majestic at a total of 30,000 additional in installments of 5,000 at the same price at which the stock was offered to Mr. Chrysler.

"If Mr. Chrysler exercises his option on or before October 23, 1939, the board of directors of the Majestic Radio and Television Corporation may be increased from six to nine to permit Mr. Chrysler's representation on the board. While the option is pending, however, Allied International has conditionally agreed to have Mr. Chrysler substituted as one of the three proxies which presently control the voting rights of 175,000 shares of the capital stock of Majestic."



**TWO UP FOR MAJESTIC**—J. P. van Horn (above) has been made advertising manager for Majestic; is a former newspaperman and advertising agency exec. Harry T. Byrne, long with the company and widely known throughout the trade, steps up into assistant general salesmanship, working closely with W. B. E. Norins



**JUST TWO**—Execs *Ballantyne* (left) and *Loveman* of *Philco* pose with the *Trylon* and *Perisphere* as a background during a visit of 7,000 *Philco*-men and women to the *New York Worlds Fair*

## Philco Day at Worlds Fair

7,000 from Philadelphia plant ride 7 special trains to Flushing Meadows

NEW YORK—More than 7,000 *Philco* employees and members of their families visited the *New York World's Fair* on a gala trip from the Philadelphia factory September 16, the largest single industrial group to visit *Flushing Meadows* from out of town. Fair management designated it as "Philco Day."

Seven special trains were employed to transport the group, filling 80 cars. A special station was erected at the plant and the train rolled right into the Fair grounds.

Among executives making the trip were *J. T. Buckley*, *Harold Butler*, *George E. Deming*, *John Ballantyne*, *Ernest B. Loveman*, *Edward Mayhew*, *John F. Gilligan* and *Joseph Gillies*.

Through the courtesy of the *Ford Motor Company* the terrace gardens of that firm's exposition was made available as a gathering place for *Philco* personnel.

## U.S. Record Appoints Lewis

NEW YORK—The *United States Record Corporation*, maker of "Varsity" and "Royale" records, has appointed *William R. Lewis* regional sales manager for the middle west territory.

*Lewis* has sold for *Victor*, *Southern Wholesalers of Washington* and *G. E. Supply of Baltimore*.

## NY-NJ G-E Dealers Offered Trip

NEW YORK—To *General Electric* dealers in *New York City* and northern *New Jersey* *D. W. May* of the *New York radio* and *Earl Poorman* of the *Appliance and Merchandise* distributing

department are offering a *February 29* to *March 8* trip to *Miami* aboard the *Seaboard's* crack streamliner "Silver Meteor."

Accommodations at the swank *Miami-Biltmore Hotel* are included in this, *NY-NJ G-E's* seventh winter vacation plan.

## Farnsworth Execs Re-Elected

Firm applies to *FCC* for tele license, promises *televisors* for demonstration by *Christmas*, says radio production hits 1,000 a day

FORT WAYNE.—All officers of the *Farnsworth Television & Radio Corporation* were re-elected *September 20* at a meeting of the firm's board of directors, following the first annual meeting of stockholders. Those re-named include *J. B. McCargar*, *E. A. Nicholas*, *E. H. Vogel*, *J. P. Rogers*, and *B. Ray Cummings*.

Following the meeting *Nicholas* announced that the company had filed application to construct an experimental television transmitter at *Fort Wayne*, said the company's production of radio receivers and radio-phonographs was now in excess of 1,000 per day, informed the board that television receivers would certainly be ready for demonstrating purposes and possibly for sale by *Christmas*.

## RCA-Farnsworth License Agreement

NEW YORK—*RCA* and *Farnsworth* have entered into patent license agreements whereby each party has acquired the right to use the inventions of the other in the fields of television and in other fields of their respective businesses.

*RCA* acquired a non-exclusive license under the patents of *Farnsworth* for television receivers, for television transmitters and other radio and sound recording and reproducing apparatus. *Farnsworth* acquired a standard, non-exclusive license for broadcast and tele-



TELEVISOR'S RIEKE—*George A. Rieke*, recently appointed sales manager for the *Televiso Company* of *Chicago*, has just returned to the plant from the East, where he launched the firm's *Fall* campaign among jobbers



LUCKY BEEBE—And lucky *Thor-darson*. Former rep *J. R. Beebe* has just been made assistant sales manager

vision receivers and electrical phonographs under the patents of *RCA*, and also other non-exclusive licenses for television and broadcast transmitters and for its other fields of business.

Neither Corporation acquired any right to grant sub-licenses to third parties under the patents of the other.

## Stromberg-Carlson Adds Dealers

ROCHESTER—Since introduction of the 1940 line of *Stromberg-Carlson* radios last *May 49* per cent more dealers than the company had in 1938 have been signed, according to *Lee McCanne*, radio sales manager.

*McCanne* stated that this 49 per cent increase in dealers accompanied opening of distributorships in territories not previously represented and increased acceptance for the line.

## Emerson Drive On

NEW YORK—*Emerson Radio and Phonograph* is at present conducting an advertising and sales promotion campaign celebrating its 25th Anniversary and said to be the most ambitious in the firm's history.

Included in the promotion is extensive consumer advertising, an impressive broadside mailing to the trade picturing and describing the company's entire 1940 line, two new display pieces for stores, extension of the *Elliott Roosevelt* broadcasts, a consumer broadside for dealer mailing and a cooperative promotion with *Proctor and Gamble*.

## Soundview Marine Moves

NEW YORK—The *Soundview Marine Company*, maker of marine radio receivers, has just moved into new and larger offices and display rooms at 1775 *Broadway*. The company formerly located in *City Island, N. Y.*, is headed by *S. J. Karns*.

## Reps Elect New Officers

MacDonald of Philadelphia heads group

NEW YORK—At its September 12 meeting "The Representatives" elected S. K. MacDonald of Philadelphia president; Martin Camber of New York, vice president, and David Sonkin of New York, Secretary-treasurer.

Newly-appointed Board of Governors included Dan R. Bittan (Chairman), Perry Sattler, Adolph Friedman, Leo Freed and I. Golden. Membership committeemen were Irvin Nevins (Chairman), Ben Joseph, Adolph Friedman, Leroy Schenk, Hy Steinberg. Entertainment committee included Marty Camber, Jules Sussman and Jack Sharf. Publicity is to be handled by C. B. Cooper.

Seven new members, all from outside New York, were elected during the meeting.

## N-U Defends Premium Plan

NEWARK—From the National Union Radio Corporation October 3 came the following statement regarding its premium merchandising plan:

"National Union originally conceived the Free Equipment Plan for merchandising radio tubes in 1930 as an answer to a problem which was not then generally recognized. The problem was one of adequately servicing an increasing number and complexity of radio receivers. We foresaw the necessity for accurate, expensive, scientific testing instruments and the need for thousands of men to own and operate these instruments if the radio sets of the country were to be maintained. We felt that servicemen were not in position to finance the purchase of all the instruments they would need and knew that, if a great service profession was to be developed, some method of making it easy for the men to own instruments would be the answer. The past ten years has proven that the well equipped serviceman has survived and prospered and our Free Equipment Program has been a vital constructive force in the development of the profession.



ON TOUR—Cornell-Dubilier's *Leon Adelman* left the South Plainfield plant September 9, will be on the road continuously until January 2 contacting the trade in nearly 100 cities east of the Rockies

"We have always deliberately avoided the type of merchandising which would 'load' the dealer. We made the purchasing requirements against our equipment contracts small and spread them over long periods

of time so the dealer could easily earn the instruments he needed. We have never felt that piling a great load of tubes on a dealer in a single purchase does justice to him, his distributor, or ourselves as it creates a false sales picture and leads to *unloading* which means disastrous price wars.

"Not only has our proposition extended a helping hand to thousands of service dealers, but it has proven to be a low cost sales method for the distributor. No distributor has ever been coerced into accepting our premium plan. Distributors have operated on the plan or not as they have chosen. It might be pointed out, however, that distributors who have successfully pursued the premium plan of merchandising have not only found their selling costs and overhead lower, but have created a vast amount of dealer goodwill. Under our plan, the dealer obtains instruments he needs, he builds his business, he continues to sell a normal monthly allotment of tubes with his sales increasing as his business grows—naturally, he is grateful to the jobber who makes this possible. It's only logical that a dealer will continue trading with the jobber who helps him most.

"No one can deny that providing the means for a better livelihood in the service profession is a constructive force—our plan does this. Certainly, any method of selling which cuts jobber selling costs is constructive—our plan does this.

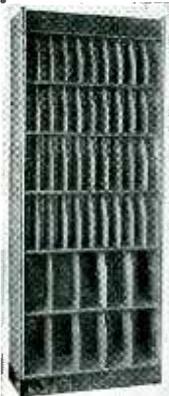
"It should be born in mind that our Premium Merchandising Plan has been in operation steadily for ten years. There have been no basic changes in the structure of the program. The factors which have helped build the service industry are still building. The factors which have made for jobber success are still successful."

## Kelvinator Post for Farrell

DETROIT—Thomas A. Farrell, former eastern sales manager for Frigidaire, has been appointed eastern sales manager of the Nash-Kelvinator Corporation's Household Division.

# BITTER

Brings You a Bigger NET from Record Sales



**MERCHANDISER No. 28** →  
For display or storage. Sets on counter or hangs from wall. Sheet steel, sprayed Duco finish walnut color. Holds 140 10" records. 21" long, 37" high, 9" deep. Price \$6.25. Boxed F.O.B. Factory.

← **CABINET No. 100**  
May be used independently or as a unit of a large record department. Outside facings of birch finished in walnut. Recessed ebonized maple base. Dustproof construction. Holds 500 10" and 500 12" records and 75 album sets, 2' 10" long, 7' 2" high, 14 1/2" deep. Price \$44. Unrated F.O.B. Factory.



Standardized, economical equipment for greater efficiency in selling records, albums, etc. Write for free folder showing full line. Prices on Special Units Upon Request.

**RECORD BOOTH B-1** →

Standard Construction  
Standard Construction—Built of completely standardized sectional units which can be readily rearranged or added to as the need arises. Made of kiln dried birch. Finished in walnut, mahogany or a painted finish. Can be readily converted into dark room use in demonstrating television sets. Price on request.

## RECORD MERCHANDISING EQUIPMENT



PUT NEW PROFITS  
IN YOUR SALES!

# With Sentinel

QUALITY RADIO SINCE 1920

Built-In Loop  
Aerials  
Television  
Connections

Battery, Electric and Portable Models  
Battery-to-Hi-Line-  
Switch-over

SENTINEL RADIO CORPORATION  
2020 Ridge Ave., Dept. RR, Evanston, Illinois

Illuminated Dials without  
Drain on Radio Battery

FULL DISCOUNTS

## G-E's Scaife to Bridgeport

BRIDGEPORT—A. L. Scaife, for several years in charge of the advertising and promotion of General Electric refrigerators and other products at Cleveland, has moved to Bridgeport where he will handle the firm's entire appliance line as assistant advertising and sales promotion manager of the merchandise department.

## RMA Parts, Accessories Organized

NEW YORK—Organization of nine distinct manufacturing groups in the RMA Parts and Accessory Division has just been completed under the chairmanship of H. E. Osmun.

The lineup includes: Carbon Resistor Section, headed by chairman W. H. Fryling. Coil Section, Monte Cohen. Instrument Section, Harold L. Olesen. Socket Section, H. W. Gebhard. Transformer Section, J. J. Kahn. Variable Condenser Section, Samuel Cohen. Variable & Wire Wound Resistor Section, W. A. Nicely. Wire Section, Raymond Zender.

## G-E Making Tele, FM Xmitters

SCHENECTADY—With the revision of its radio patent agreement, General Electric announces that it is now licensed to manufacture and sell and will immediately offer television and frequency

modulation transmitters including G-E tubes as standard equipment plus complete studio and control room accessories.

The license is also said to cover transmitters and receivers for other unspecified purposes.

## Williams Heads Cincy Group

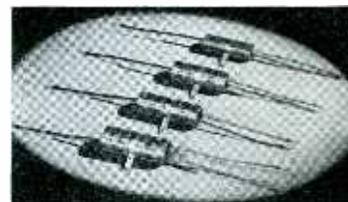
CINCINNATI—Matt Williams of the Crosley Distributing Corporation has been elected president of the major appliance division of the Cincinnati Electrical Association. He served as vice president last year and was simultaneously president of the radio division. Others elected to important Association posts include Harry Knodel, Carl Haller and John S. Kelly, Jr.

## Armstrong Gets CBS Programs

NEW YORK—Major Armstrong's experimental, frequency-modulated radio station W2XMN at Alpine, N. J. (40 kw. on 42.8 mc.) has been securing evening nourishment since September 18, when the Columbia Broadcasting System made certain of its programs available for transmission via this route.

## Seckler With Emerson-NY

NEW YORK—J. B. Seckler has joined the sales staff of Emerson-New York, Inc., distributor of Emerson radio in the metropolitan area, will specialize in the promotion of sets to premium houses.



Profit is made on turnover—*not leftovers*. And what's the secret of turnover . . . fast turnover? A product with a following . . . proved in reliability. And behind the product, a reliable company . . . wise in experience. Cornell-Dubilier capacitors turn over faster because they are backed by a company 29 years "at it" and recognized for Consistent Dependability the world over.

You can profit by standardizing on the complete line of Cornell-Dubilier Capacitors, Capacitor Test Instruments and Quietone Interference Filters. Available at leading distributors.

Catalog No. 175A free on request.

Product of the world's oldest and largest manufacturer of capacitors.

Now! **BALLAST REPLACEMENT**  
made **AMAZINGLY SIMPLE**

- Servicemen, with only 4 standard types of Amperite AC-DC Regulators you can replace 90% (over 100 types) of AC-DC Ballast Tubes now in use! Consult your jobber.
- Amperite Regulators are equipped with a patented Automatic Starting Resistor to prevent untimely burnouts and save pilot lights.
- New Low Price on Amperite AC-DC Regulators: \$1.00 LIST

Amperite Replacements for 2V Battery Set ballasts \$1.25 list

**AMPERITE Company**  
561 BROADWAY  
NEW YORK

WRITE FOR CHART AR

**AMPERITE**  
AUTOMATIC REGULATORS

**CORNELL-DUBILIER ELECTRIC CORPORATION**  
1019 Hamilton Boulevard, South Plainfield, New Jersey  
Cable Address: CORDU



**IN TRIPLE HARNESS**—Kendall Clough, already up to his ears in the business as chief engineer and president of Clough-Brengle, is assuming personal direction of instrument sales as well. Fred Wellman continues as vice president and advertising counsel

### RTA Registers Name

LONG BEACH, CALIF.—The Radio Technicians Association of this city, comprising 40 members, is registering its name with county authorities, is cooperating with KFOX by boosting that station in return for spot announcements, runs daily cooperative service ads in two local papers. Meetings are held alternate

Tuesday nights.

H. E. Ward, Jr. of Ward Bros. Radio is president, John Sawyer secretary and Marshall Williams treasurer.

### Jobber Opens Parts Department

ROANOKE—The H. C. Baker Sales Company of this city has just opened a wholesale radio parts department serving southwest Virginia. Officers include Alfred B. Geer, president; James H. Davis, secretary and treasurer.

### RCA Ups Bohlke

CAMDEN—W. H. Bohlke of RCA Manufacturing Company's service division has been appointed director of test equipment and service merchandising, will concern himself primarily with the serviceman's problems out in the field.

### DISTRIBUTION NEWS

**STROMBERG - CARLSON** — *Black Hills Radio Dealer*, Lead, South Dakota, has this line in parts of South Dakota and Wyoming. *Inland Radio* of Spokane has just been appointed to cover the state of Washington. *McGregor Company* of Marshalltown (branch in Oskaloosa) gets Iowa. *The Arthur Folmer Company* of Memphis has the line in its own area of Tennessee, part of northwest Mississippi and several counties in adjoining states.



**STEPS UP WITH NORGE**—George G. Whitney is now advertising manager for Borg-Warner's Norge Division

**IRC**—Bruce O. Burlingame of New York will cover the jobber and industrial trade for this firm in parts of eastern Pennsylvania, Maryland, Delaware, New Jersey and the District of Columbia.

**MAJESTIC**—Graybar Electric has just been given the exclusive for this firm's radio line in the Kansas City, Mo. territory.

**"PINCOR" Gasoline Engine Power Plants**  
**2 NEW WINNERS!**

"GOLD CROWN"—HEAVY DUTY Power Plant. Available as follows: 32 or 110 volts D. C., also 110 and 220 volts A. C., 600, 1000, 1500 watts and up. Electric starting; air or water cooled.  
"BLUE DIAMOND"—COMBINATION A. C. & D. C. Power Plant. All new "2-in-1" electric plant supplying 300 watts, 110 volts A. C., 60 cycles; also 200 watts, 6 volts D. C.; 250 watts, 12 volts D. C. or 325 watts, 32 volts D. C. Electric starting.

**PIONEER GEN-E-MOTOR CORPORATION**  
Dept. R-11, 466 W. Superior Street, Chicago, Ill.  
Please send me literature, price sheets and other information about the New "PINCOR" GOLD CROWN and BLUE DIAMOND Power Plants.

Name .....  
Address .....  
City ..... State .....

## ARISTON LABORATORY

ANNOUNCES ITS

### "New Process" Condensers

★ Here is a revolutionary new type of electrolytic condenser, manufactured by a unique etching process—the only one of its kind in the country.

A truly uniform etched foil, unlike anything heretofore used, greatly extends the life and high quality performance of these condensers.

No detail has been overlooked by our engineers to produce

the finest line of electrolytic and by-pass condensers. They are carefully manufactured under close supervision and individually tested under their maximum operating conditions.

Write for descriptive list price catalog #939.

Jobbers—write for details—several good jobbing territories still available.

**Ariston Laboratory, Inc.**

4045-59 DIVERSEY AVENUE, CHICAGO, ILL.  
Cable Address—"ARISTON CO"

**FADA**—Franklin Tire of Toledo and American Electric of St. Joseph, Mo. now have this line.

**DU MONT**—M. P. Griffith has just been appointed sales rep for this firm's television receivers in the entire New Jersey area.

**MAJESTIC** — Graybar Electric of Wichita, Kansas now has the line. Graybar's Oklahoma City office will also handle Majestic, with Oklahoma Tire and Supply continuing in its specific field.

**TRIUMPH**—Fry & Roberts of Los Angeles gets this tester line as West Coast representative for the states of California, Arizona, Nevada and Utah. Plans have been completed for opening a San Francisco office November 1.

**AIRTEMP COOL-BREEZE**—New distributors getting the Chrysler Corporation's line of small-sized "package" units for single rooms and offices include: Bruno-New York, Inc., Lockie & Glenn of Cincinnati, Anchor Distributing of Pittsburgh, Moock Electric of Ohio, Concord Hardware (territory extended to include Maine and Vermont as well as New Hampshire) and The W. C. Line Co., Inc. of Springfield, Mass.

**RECOTON**—Canadian Music Sales of Toronto has been appointed sole Canadian distributor.

*Last War Boomed Records*

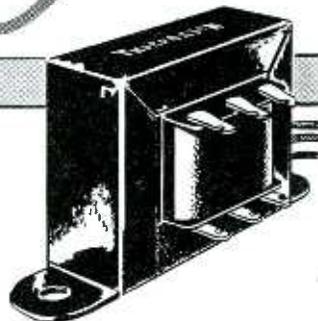
**CAMDEN**—RCA says that if 1913 may be considered a normal year Victor record sales upped 27% in 1914, first year of the World War, 76 per cent in '15, 145% in '16 and 161% in 1917.

**WILCOX-GAY**—New distributor appointments include York Supply of Cincinnati, Appliances, Inc. of Columbus, Ohio Valley Sound Service of Evansville, National Mill Supply of Fort Wayne and the George D. Barbey Company of Reading.



**CIGARS, IN CHICAGO**—(Left to right) Bob Berk, IRC's Sam Darmstader and Dan Fairbanks, Radio Wire Television's Sol Berk

*Correction!*



We recently stated that the THORDARSON T-13S38 was the largest selling replacement transformer in America.

However careful research and a more thorough study of the records shows us the statement would be more accurate if changed to read, "The THORDARSON T-13S38 is the largest selling replacement transformer in the WORLD!"

**THORDARSON**

Thordarson Elec. Mfg. Co., Chicago

"WORLD'S LARGEST-SELLING REPLACEMENT TRANSFORMERS"



**SELL TONKabinets**

for Phonograph Records and make EXTRA Profits

During this fall season you can make additional profits by selling TONKabinets. Your customers need and will buy cabinets for record storage.

Style 7803 illustrated above is a genuine walnut chairside cabinet with simulated drawer front which drops down to form shelf. Holds 96 records in albums.

Other styles make up a complete line of attractive record cabinets to harmonize with phono-radios and phonographs.

Write for new folder showing complete line.



**TONK MFG. CO.**

Dept. 8

1912 North Magnolia Ave., Chicago, Ill.

# WHAT IS AN "EXPENSIVE" RESISTOR?

You can buy resistors at almost any price—but, remember, you generally get just about what you pay for. One lost service customer, one callback as the result of trouble with a "cheap" resistor can cost far more than you can possibly save on dozens of resistor "bargains."

Insist on IRC Insulated Metallized Resistors—the finest most reliable resistors at any price. You can rely on them any time, any place, under the most severe conditions. They are a good investment in long, satisfactory performance. They are the least expensive resistors to use because they are the best resistors for protecting your reputation for highest quality workmanship on every job.

## INTERNATIONAL RESISTANCE CO.

401 N. Broad St., Philadelphia, Pa.



½-WATT (BT-½) 17¢ List  
 1-WATT (BT-1) 20¢ List  
 2-WATTS (BT-2) 30¢ List



INSULATED

*Metallized*  
**RESISTORS**

*"They Stay Put"*



ADMAN AT WORK — John S. Garceau outlines the various uses of the Farnsworth distributor's sales presentation book

## DEALER HELPS

**SHORTWAVE MAP, LOG**—Stromberg-Carlson has just printed a timely 17 by 22 inch map of Europe in seven colors, showing the War areas including the West Wall and Maginot fortified lines. On the reverse side are time conversion tables, European shortwave station lists, English language program schedules, shortwave tuning hints and photos of a dozen of the company's latest radios and combinations.

**POCKET SIZE TUBE BOOK**—A new edition of *National Union's Official Characteristic Handbook on Tubes* is just off the presses, includes complete data on 584 old and new types with base diagrams. An interchangeability chart within the book is also useful.

**TEST EQUIPMENT** — RCA announces a new catalog of radio and television test equipment, parts and accessories. Ask for No. 104. Includes prices, stock numbers, specifications and general descriptions of all company items in these classifications, including the Chanalyst and Voltohmyst.



PILOT, GOLFER—Nick Young and Len Hatry of Hartford. Their firm pioneered in New England's parts jobbing business

How to make **MORE** money  
 by spending **LESS!**

## RCP test equipment

RCP test instruments cost less, and do more than any other test equipment. Their accuracy and engineering design speeds service work . . . eliminates guess-work. These build customer confidence—and that builds better business for you.

Just as important, however—an RCP test instrument is designed to do many jobs. In some cases, as many as 45! Yet RCP prices are low. So low that the initial payment on a similar instrument often covers the entire cost of an RCP! You spend less money . . . you make more.

Don't you think it would be wise to have your jobber show you this quality-economy test equipment line—today?



RCP  
**ELECTRONIC  
 MULTITESTER**  
 Model 660

NOT EVEN IN INSTRUMENTS COSTING 2 to 4 times the price will you find the same extraordinary ranges, the sensitivity and facilities for measuring large values this new vacuum tube volt-ohmmeter offers. Ranges up to 6000 volts and 1 billion ohms. Lowest voltage reading 0.1 volts. Gets its unusual sensitivity from an input resistance of 200,000,000 ohms. Total of 12 ranges all on direct reading master scales. Extreme operating simplicity . . . remarkable versatility. Supplied complete in hand-rubbed sloping walnut case. **\$18.85**  
 Net .....

RCP  
**UNIVERSAL  
 SUPRETESTER**  
 Model 411



THE MOST COMPREHENSIVE tester ever devised to provide measurements of such accuracy in ranges never before available in small instruments. Use it to check heavy currents, use it in Television testing. Features include: 5 stage AC-DC voltage range to 500 volts; 3 stage AC-DC current range to 25 amps; DC milliamps 0/10/100; DC microamps 0/200; 3 stage ohmmeter range to 4,000,000 ohms. In natural hardwood case. **\$16.25**  
 Net .....



Now! Send for **FREE** Catalog No. 121 describing the complete RCP line of accurate economical test equipment.

**RADIO CITY**  
 PRODUCTS CO. INC.  
 88 PARK PLACE, N. Y. C.

RADIO CITY PRODUCTS RR-1039  
 88 Park Place  
 New York City  
 Please rush your **FREE** catalog No. 121.  
 Name .....  
 Address .....  
 City..... State.....

**PARTS CATALOG**—From the *Aerovox Corporation* comes word that this firm's 1939-1940 catalog is ready. Includes complete data on the full Aerovox line of parts plus the newly announced L-C Checker, motor-starting capacitor selector and emergency unit kit. Complete specs with dimensions and detail sketches.

**TESTER DATA**—*Precision Apparatus* of 647 Kent Ave., Brooklyn, N. Y., has just released its 1940 catalog of test equipment, illustrating more than 40 models.

**INTERFERENCE MANUAL**—*Sprague* has a new manual of Radio Interference Elimination (price 25¢) covering methods of locating noise and how to cure it. Devices discussed include motors, dc generators, alternators, switches, thermostats, sign-flashers, arcing devices, oil-burners, gas engines, vibrating contacts, mercury vapor lamps. Obtainable through jobbers or direct from the company.

**CONDENSER CATALOG**—*Cornell-Dubilier* has just issued a sixteen page 1939-40 catalog entitled "Radio Capacitors for All Requirements." Deals with mica, paper, Dykanol, wet and dry electrolytics for amateurs and servicemen and includes dope on capacitor test instruments and interference filters. No. 175-A is obtainable from distributors or on application to the plant at South Plainfield, N. J.

**MAP, SCOREBOARD**—*National Union* had a new Radio Foto Log for service dealers, containing photos of more than 300 radio performers, a radio map showing locations of principal broadcasting stations in Europe, dialing information for shortwave as well as broadcast band listeners and other interesting data. (\$2.90 per hundred unimprinted.) Announced also is a 20 by 28-inch steel football scoreboard in black, green and white at 50¢ each through company distributors.

**FOOTBALL AIDS**—*Hygrade-Sylvania* has available complete display material designed to permit its dealers to tie in with the football season. Includes a window streamer, counter card, string of pennants.

**CONVERTER DATA**—Bulletin 13-1, describing, picturing the *Janette Mfg. Co's.* complete rotary converter line in detail, may be obtained by writing this firm at 556-558 West Monroe St., Chicago.

**TEST EQUIPMENT**—*Radio City Products Company* of 88 Park Place, New York City, has just released its new 1939-40 catalog. Describes, pictures and prices all RCP test instruments including tube testers, combination tube and set testers, Analyzer units, signal generator and special instrument types. Catalog 121 has 12 pages. RCP also has a new counter display card providing for insertion of an actual instrument.

Available to Readers of *Radio Retailing* through the Factory or Jobbers.

**TWENTY-FIVE DOLLARS**  
worth of  
**SERVICE DATA**  
only **25¢**  
Your Radiart jobber  
now has your copy  
THE RADIART CORP. • CLEVELAND, OHIO

# How to stop feedback in P.A. set-ups!

A Cardioid Microphone installation showing minimum feedback. Dotted area indicates dead zone.

## 639A MIKE SOLVES YOUR TOUGHEST PROBLEMS!

With the 3-in-1 Cardioid Directional Mike you have pick-up control formerly impossible.

It provides new flexibility—gives you a ribbon mike or a dynamic mike or both, matched and equal-

ized to offer a new high in clarity and fidelity. It has a large dead zone, minimizing feedback. It's ideal for any and all Public Address set-ups, as well as for broadcasting. Get full details. Send the coupon today.

**Western Electric**  
**CARDIOID**  
**DIRECTIONAL MIKE**

GRAYBAR ELECTRIC CO., Graybar Bldg., New York.  
Please send booklet describing Western Electric's New 639A Mike. RR-10-39

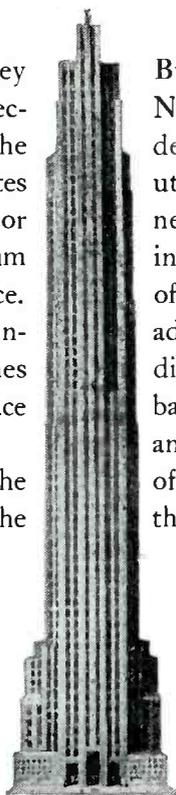
NAME.....  
ADDRESS.....  
CITY..... STATE.....

# From zero to 44 million in 20 years!

in two decades research in RCA Laboratories has played a big part in making radio set ownership exceed the figures for any other electrical device

People want radio sets more than they want anything else in the line of electrical equipment. This is proved by the fact that there are in the United States more radio sets than electric irons, or toasters, or washing machines, or vacuum cleaners, or any other electrical device. Even the 44 million radios in this country are not enough. Millions of homes want *more* radios, and want to replace old models with new.

RCA takes pride in the fact that the intense public interest in radio, and the ever-growing market for radio sets, both rest in no small degree on research in RCA Laboratories. From these studies there have come many of the important advances constantly made in set design and performance.



But RCA does more. Through the National Broadcasting Company it renders a fundamental service that contributes to the life-blood of the radio business... broadcasting. For interest in buying radio sets depends on a continuous offering of good programs, and constant advance in the art of broadcasting. NBC discovered or developed many of the basic principles of radio entertainment, and is responsible for a large proportion of the advances that have been made in the technical aspects of broadcasting.

This month RCA celebrates its twentieth anniversary, confident that it has rendered in two decades a pioneering service of the utmost importance to a great American industry as well as to the American public.



## RADIO CORPORATION OF AMERICA

RADIO CITY, N. Y.

RCA Manufacturing Co., Inc.  
R.C.A. Communications, Inc.

RCA Laboratories  
National Broadcasting Company

Radiomarine Corporation of America  
RCA Institutes, Inc.

1940 CALENDARS—National Union Radio Corporation announces from its Newark, N. J. headquarters that new full-color, art-mount calendars are available in a choice of four subjects, with space for the dealer's imprint. Price is \$4.50 per hundred, including imprint. Company distributors have samples.

### SOUTHERN BUYER LOOKS

(Continued from page 19)

dition. They formerly carried a cheap line of refrigerators but found this too costly. They feel that they may be forced into carrying a cheaper line again despite this.

STORE 6—This next firm had a beautiful store, well arranged, doing from \$18,000,000 or \$20,000,000 a year. The radio and refrigerator department on the fifth floor covered an enormous space possibly five times as large as our department. The radio department was featuring an off-brand radio at \$25 but the buyer told me that most of his volume was done on the standard lines of radios, which we also carry. They were doing a nice record business and had a number of booths.

They carried eleven makes of washers which are a very big factor in appliance business in the North. Most of the appliance salesmen seen were from forty-five to sixty years of age.

Store has five lines of refrigerators and have lost a lot of money on two off-brands, which they formerly carried, and are planning to cut down their stock to the standard makes. They complain, as others do, of small dealers cutting their prices. Model kitchens seem to be lacking in favor as they are unable to sell sufficient quantities to compensate for the floor space. They did \$158,000 on washers, refrigerators, gas and electric ranges. They did about \$125,000 on radios and records. They pay 6 per cent commissions.

STORE 7—The next store visited had poor display, yet does \$8,000,000 to \$10,000,000 a year.

Radio and refrigerator department was in arcade annex near the main store in a large display room which was also poorly arranged. Has the standard lines of ranges, refrigerators and radios and pay from 8 to 12 per cent commissions to the salesmen.

Saw nothing useful here.

### City Over 1,000,000

STORE 8—Had just gone into the record business but seemed not too active, particularly in their radio and refrigerator departments. Stock plainly showed it as they had a very limited amount and it was poorly arranged and displayed. They do about \$75,000 to \$90,000 a year and have moved their department to their annex. They pay their salesmen 7½ per cent commission.

I talked to the promotion man from a large factory who introduced me to Mr. —, who is appliance manager for —, a distributor. He is in accord with stores visited that the curse of the appliance business is at the moment "price

(Continued on page 66)

# THE Big 3 IN True DYNAMIC TESTING



MODEL 560 VEDOLYZER

The recent announcement of the 560 Vedolyzer, 561 metered output A.F. and R.F. Signal Generator, and 562 Audolyzer has created more interest, and has been received with greater acclaim than any equipment since the beginning of radio service. Thousands of servicemen have written in or called their jobbers for information. More than a hundred orders were placed before prices were announced.

This splendid reception is not strange or unusual, for the service industry realizes that true dynamic testing is much broader and far more comprehensive than so-called channel testing or signalizing. It is not enough to merely locate the stage wherein the trouble lies—it must actually show the serviceman the exact part or component

of the stage which is defective. It must be able to analyze and take into account such factors as distortion, overloading, power handling capability, and a host of other factors vital to the proper operation of the set.

Servicemen have been quick to realize that no other equipment, or combination of equipment, can



MODEL 562 AUDOLYZER

equal the versatility and utility of these new SUPREME instruments.

We want you to actually see and inspect these three new instruments. Have the story first-hand. Get the "feel" of this complete, amazingly different laboratory equipment, which already has the endorsement and approval of well-known radio engineers wherever demonstrated.

You can have DELIVERY NOW! WRITE US TODAY and we will advise you by return mail the name of the jobber for you to see—the jobber in your own locality who has these instruments in stock—and who will be glad to show them and demonstrate them to you without obligation.

You will be interested in this new equipment which you may purchase without fear of obsolescence. Not just for this season or next year, but for years to come—year after year of complete, MODERN service.

PROVE IT TO YOURSELF—5 DAYS FREE TRIAL IN YOUR OWN SHOP.



MODEL 561 SIGNAL GENERATOR

## SUPREME

SUPREME INSTRUMENTS CORP.  
GREENWOOD, MISSISSIPPI, U.S.A.

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Cable Address: LOPREH, N. Y.

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Greenwood, Miss.

Address name of my nearest jobber who can demonstrate  
SUPREME's New Models 560, 561, and 562.

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_



## This New Series Webster Electric Crystal Pick-up Offers Jobbers MAXIMUM Profits

Many outstanding features, unusual performance, beauty of design, and the reputation of Webster Electric make this new Pick-up a good bet for any jobber. The price is right, and discounts insure real profit for jobber and service man. Write for details—you'll want to read about the features of the NEW Webster Electric Crystal Pick-up.

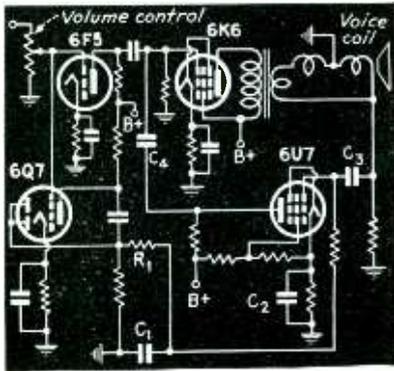
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# Webster Electric

"Where Quality is a Responsibility and Fair Dealing an Obligation"

# for the Service Department



## Automatic Expander-Bass Compensator

In principle, the automatic volume expander and bass compensator by Majestic consists of, as shown in the diagram, a 6F5 first audio amplifier and a 6K6 output tube plus a phasing network. The voltage appearing across the voice coil of the speaker is applied to the grid of a variable mu tube such as the 6U7. The output of the 6U7 is fed to the input of the 6K6 in such phase that all frequencies above the resonant period of the speaker are degenerated, while those below that resonant period are regenerated. The amount of voltage fed back to the 6K6 depends on the bias of the 6U7 which is applied, through resistance capacity filter  $R_1C_1$ , by the diode of the 6Q7 tube.

If a small audio voltage is impressed on the volume control, of a frequency higher than the resonant frequency of the speaker, the degenerative action of the 6U7 tube will decrease this voltage eventually appearing across the voice coil because the bias on the 6U7 is small. As the e.m.f. across the volume control gradually increases, the diode of the 6Q7 impresses a greater negative bias on the 6U7 which degenerates less and less. Thus, small voltages are decreased more than large ones, giving rise to automatic volume expansion.

Since the frequencies below the speaker resonance are regenerative, the opposite will take place and the bass will be boosted at low levels more than at high levels. The nature of the bass compensation can be varied by changing the values of  $C_2$ ,  $C_3$ ,  $C_4$ , or altering the speaker resonance.

## Twin Loop

The heart of the Philco All-Wave Super Aerial System is the twin loop, consisting of a multi-turn loop designed for broadcast reception, and a single-turn loop especially designed to provide reception in the short-wave bands. The multi-turn broadcast loop

is mounted in a vertical plane in order to take advantage of the fact that electromagnetic wave signals of broadcast frequencies are vertically polarized.

On the other hand, it has been

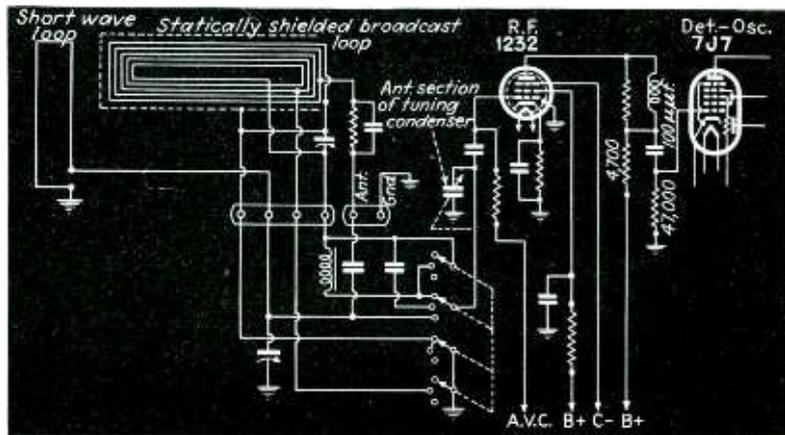
found that, in the reception of short-wave signals, better results are obtained when the receiving loop is disposed in a horizontal plane. This appears to be due to the fact that at considerable distances from the transmitter, short wave signals possess both horizontally and vertically polarized components. In some instances the vertically polarized components may be all but absent. These relations have been found regardless of whether the transmitting antenna radiates a horizontally or a vertically polarized wave.

By placing the loops in mutually perpendicular planes, in addition to other precautions, the coupling between them has been reduced to a negligible value. The result is to increase the efficiency of each loop and to eliminate the appearance of "dead spots" in the various bands due to the loading effect of a nearby unused loop.

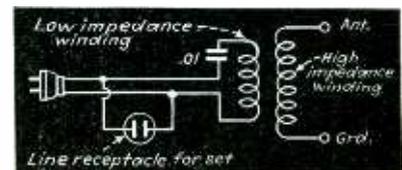
Since the aerial is considerably reduced in size and restricted in its location a very high gain is obtained in a r.f. stage in order to make possible reliable broadcast and short-wave reception.

The new untuned coupling system is shown in the drawing connected from the output of the 1232 r.f. amplifier to the input of the 7J7 frequency converter. It will be observed that the coupling circuits remain fixed over all bands, no band switching is required. At the lower radio frequen-

cies the coupling is largely due to the 4,700 ohm and the 47,000 ohm resistance elements in conjunction with the 100 mmf coupling condenser. At the high frequencies the efficiency of signal transfer is maintained by reason



of the resonance between the output capacity of the 1232, the input capacity of the 7J7, and the inductance connected between the plate of the 1232 and the 100 mmf coupling condenser. The circuits are designed to provide efficient coupling over the unusually wide range extending from 540 kc. to 18 mc.

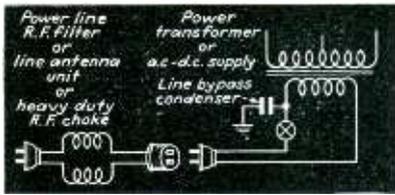


## Wave Wizard

The works of Stromberg-Carlson's Wave Wizard antenna are shown here.

Operating on the r. f. signals present in the power line, the device consists of a step up r. f. transformer to match the impedance of the line to the antenna circuit of the receiver.

The transformer is composed of two windings. The primary which is connected directly across the power line through a .01 mfd condenser couples inductively to the secondary. The ratio of the two windings is such that a voltage gain takes place and an increased signal voltage reaches the antenna post.



### Improving Reception With Built-in Antennas

Two types of built-in antennas are used in modern sets, the loop antenna, comprising a tuned r.f. input circuit, and the line antenna, consisting of a capacity, coupling the antenna terminal to the power line. Either one will usually provide excellent results under average conditions.

Where operation of line-antenna sets is poor, connect an outside antenna to the live side of the power line through a .01 mfd condenser. With this arrangement, the antenna picks up the signals, feeding them into the power line from where they go to the set. This system also works nicely in the home where the set is moved from room to room.

There is one other thing that will seriously reduce signal pickup with a line-antenna set. Practically all sets other than line-antenna sets have a line bypass condenser across the line

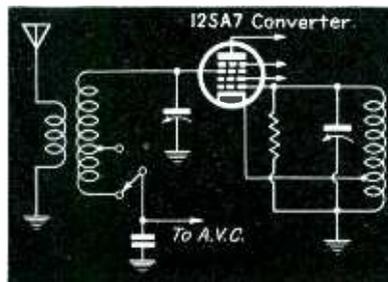


from one side to ground. When such sets are used in the vicinity of line antenna sets this condenser will bypass nearly all r.f. in the line.

To overcome this, insert an r.f. filter between the line cord and wall outlet of these sets. Such a filter may

consist of a standard r.f. line filter, many of which are on the market, or r.f. chokes, or a separate inductive-type line-antenna attachment. If the latter unit is used, no connection is necessary to the antenna and ground provision of the unit. It is used only to decouple the set from the line. If necessary, any number of sets can be run from this unit providing its wattage rating is not exceeded.

Ofttimes it is difficult to effectively demonstrate loop sets in steel buildings. To remedy this connect an outside antenna to a large insulated metal surface in the room or to a screen under the demonstration table as shown.



### Image Band Switching

On the Stewart Warner models 03-5C and 01-5D the switching from the broadcast band to police band is a little unusual.

As can be seen in the schematic the antenna coil is tapped so that it will tune to the frequencies from 2320 to 2500 kc. No provision however is made for changing the frequency of the oscillator coil.

When normally receiving broadcast stations the oscillator is tuned 455 kc. higher in frequency than the received station so as to provide the correct i.f. beat. That is, if the station received was on 1000 kc, the

oscillator operated on 1455 kc. Likewise, the oscillator could work at 545 kc and still produce a 455 beat signal.

This is the system used here, except that the oscillator remains fixed and the r.f. input is changed. If the set were tuned to 1500 kc, that would mean the oscillator was operating at 1955 kc and would also produce the correct beat with any signals entering the convertor at 2410 kc.

### Recordio

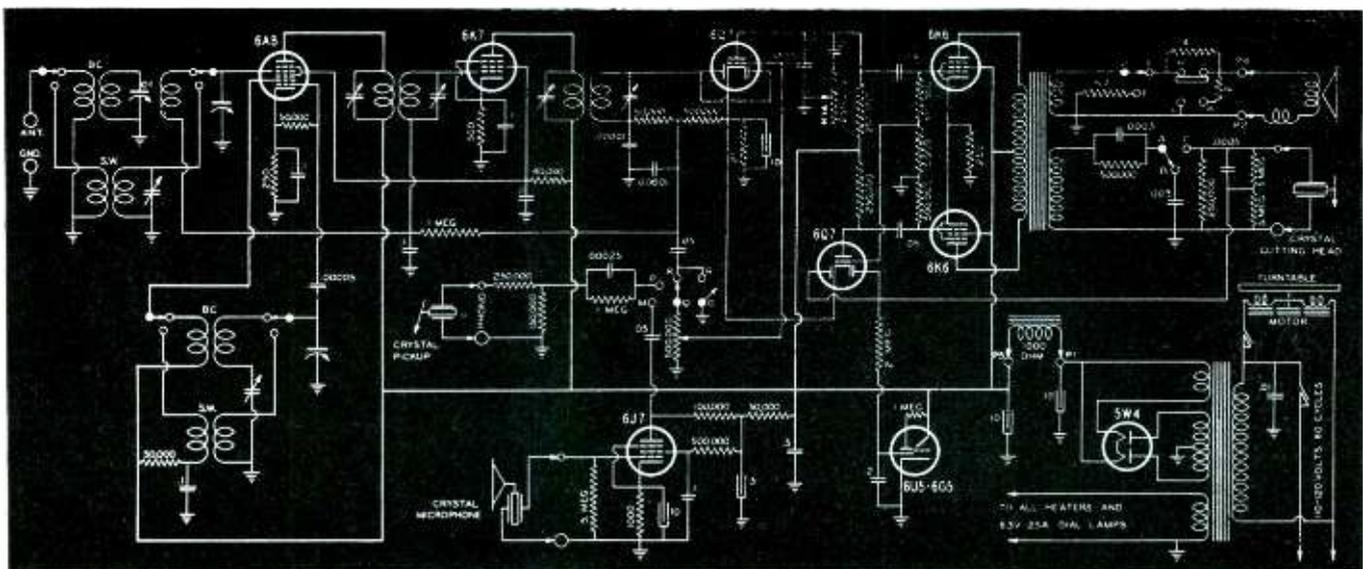
Combining radio, phono, sound system and recorder; model A-70 by Wilcox-Gay introduces a new instrument for home use.

The radio receiver part of the circuit may be considered standard, comprising a 6A8 mixer, 6K7 i.f., 6Q7 second detector and first a.f. and pushpull 6K6 output tubes. The lower 6Q7 serves as phase inverter and recording level indicator in conjunction with the 6U5-6G5 eye tube.

Directly below the 6K7 in the schematic is the crystal pickup for phono reproducing. To the right of this is the switching assembly permitting straight radio operation, radio program recordings, phono, and mike. When the radio is not in use the output of the second detector is shorted to ground. In the "mike" position recordings may be made or sound system operation may be had.

The speaker, shown at the upper right is disconnected from the circuit by switch DEF when recording. Likewise is the recording head by switch ABC when loudspeaker operation is desired.

When recording, using the mike, the 6J7 operates as an additional amplifier, bringing the output of the crystal mike up to a sufficient level to drive the remaining amplifiers.



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**XTRA SECTION**—New revised 64 page "How It Works" section gives easy to understand explanations on the theory of Television—Facsimile—Wireless Record Players, etc. Many servicemen regard this section to be as valuable as the manual itself. Volume X index covers all 10 Rider Manuals.

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*John F. Rider* Publisher

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## New Tubes

**3Q5-GT**—A beam power output tube by RCA intended for a.c.-d.c.-battery receivers. Filament is center-tapped to permit series or parallel filament arrangement Class A, Characteristics are:

Filament Voltage (series).....	2.8 volts
Filament Current.....	0.05 amp.
Plate Voltage.....	90 volts
Screen Voltage.....	90 volts
Grid Voltage.....	—4.5 volts
Plate Current.....	7.5 ma.
Screen Current.....	1.0 ma.
Plate Resistance.....	110,000 ohms
Transconductance.....	1,800 umhos
Load Resistance.....	8,000 ohms
Total Harmonic Distortion.....	7.5
Power Output.....	250 mw.

**811**—Transmitting or Class B audio triode by RCA with zirconium-coated plate of increased heat-dissipating and getter qualities. Equipped with "micanol" base having excellent insulating qualities. The plate connection is brought out at the top of the bulb. Class B characteristics are:

Heater Voltage.....	6.3 volts
Heater Current.....	4.0 amps.
Plate Voltage.....	1500 volts
Grid Voltage.....	—9 volts
Plate Current (max.).....	200 ma.
Grid Current.....	38 ma.
Max. Plate Dissipation.....	50 watts
Load Resistance (Plate to plate).....	18,000 ohms
Driving Power.....	10.5 watts
Power Output.....	225 watts

**812**—Transmitting or Class B triode by RCA similar to the 811 except for lower amplification factor.

## Audio Frequency

AN UNUSUAL CASE OF WHEEL STATIC is contained in a recent RCA auto radio service bulletin.

It appears that several Jersey servicemen unsuccessfully tried to find the cause of severe noise on an RCA 8M3 installed in a 1938 Plymouth. Interference was so bad that even local reception was impossible. The cause was definitely traced to wheel static since it did not disappear when the ignition was cut while rolling along. However, all known methods, including static collectors, bonding, graphite on the tire casings and such, failed to eliminate the noise.

Finally, one energetic sleuth, discovered that the noise took place on each revolution of the wheels. Interchanging wheels with the spare found the offending wheel. Not satisfied he proceeded to find out why.

Delving deep into chemistry, it was learned that part of the tire was at one time saturated with a strong solution of K<sub>2</sub>P. This permitted the static charge built up in the car to leak to ground, accompanied by the offending interference.

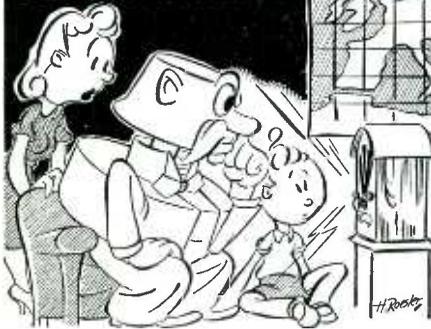
Who said a dog is man's best friend?

# TUBE TESTER Characteristics

Model	Type	Price (Net)	Test Principle	Calibration	Short Test	Noise Test	Leakage Test	Gas Test	New Tube* Types Tested	Maximum Filament Voltage	Number of Sockets	Spare Sockets	Pushbuttons?	Rotary Chart?	Number of Controls	Line Adjustment?	Meter Size (Inches)	Dimensions (Inches)	
<b>Clough-Brengle Co., 5501 Broadway, Chicago, Ill.</b>																			
225	Counter-Portable	\$34.50	Cond.	C-B Eng.	Yes	No	Yes	Yes	SLG	117	8	2	Yes	Yes	4	Yes	3	10x12x5	
<b>Consolidated Wire Associated Corps., 514 S. Peoria St., Chicago, Ill.</b>																			
9000	Portable or Counter	\$37.50	Dyn. Cond. Eng.	Consolidated Eng.	Yes	No	Yes	Yes	SLB	117	6	..	No	No	6	Yes	2½	14x12½x7	
<b>Dayco Radio Corporation, 915 Valley St., Dayton, Ohio.</b>																			
401	Counter	\$125.00	Emis.	D.R.C. Direct	Yes	No	Yes	Yes	SLG	117	7	..	Yes	Yes	†	Auto.	4	12x13½x6½	
404	Portable	45.00	Emis.	Direct	Yes	No	Yes	Yes	SLG	117	7	..	Yes	Yes	..	Yes	4	6x11½x15	
405	Counter	45.00	Emis.	Direct	Yes	No	Yes	Yes	SLG	117	7	..	Yes	Yes	..	Yes	4	5½x11¼x13	
† Entirely automatic, uses punched cards.																			
<b>Dayton Acme Co., 2339 Gilbert Ave., Cincinnati, Ohio.</b>																			
303C	†Counter	\$ 29.90	Emis.	Daco Eng.	Yes	No	Yes	No	SLBG	125	7	4	Yes	Yes	3	Yes	3	16x13x5½x3	
303C5	†Counter	29.90	Emis.	Eng.	Yes	No	Yes	No	SLBG	125	7	2	Yes	Yes	3	Yes	5	16x13x5½x3	
303P	†Portable	29.90	Emis.	Eng.	Yes	No	Yes	No	SLBG	125	7	4	Yes	Yes	3	Yes	3	13x12½x6	
303P5	†Portable	29.90	Emis.	Eng.	Yes	No	Yes	No	SLBG	125	7	2	Yes	Yes	3	Yes	5	.....	
† Includes voltohmmeter																			
<b>Hickok Elec. Inst. Co., 10514 Dupont Ave., Cleveland, Ohio.</b>																			
530	Counter-Portable	\$52.80	Mut. Cond.	Hickok Yes	Yes	Yes	Yes	Yes	SLBG	117	7	..	No	Yes	5	Yes	4	14x13¼x6	
<b>Jackson Electrical Inst. Co., 129 Wayne Ave., Dayton, Ohio.</b>																			
634	Portable	\$28.95	Dyn. Out.	Eng.	Yes	No	Yes	No	SLBG	115	8	1	Yes	No	5	Yes	3	8½x8½x4	
634D	Portable	33.95	Dyn. Out.	Eng.	Yes	No	Yes	No	SLBG	115	8	1	Yes	No	5	Yes	3	16x9½x5½	
634C	Counter	33.95	Dyn. Out.	Eng.	Yes	No	Yes	No	SLBG	115	8	1	Yes	No	5	Yes	3	19x10x7	
<b>Million Radio &amp; Television, 685 W. Ohio St., Chicago, Ill.</b>																			
DF	Portable	\$16.95	Emis.	Million Eng.	Yes	No	Yes	No	SLBG	117	10	1	No	No	3	Yes	3	9x9x5	
BG	Portable	24.95	Emis.	Eng.	Yes	No	Yes	No	SLBG	117	10	3	Yes	No	4	Yes	3	10x12½x6	
<b>Philco Radio and Television Corporation, "C" and Tioga St., Philadelphia, Pa.</b>																			
033	Portable	\$51.00	Emis.	Philco Eng.	Yes	No	Yes	No	SL	30	6	..	Yes	Yes	2	Yes	4½	13x10x14	
<b>Precision Apparatus Co., 647 Kent Ave., Brooklyn, N. Y.</b>																			
910 MCP	Portable	\$29.95	†	Precision Eng.	Yes	Yes	Yes	No	SLBG	120	7	..	Yes	Yes	6	Yes	3	12x10½x6	
910P	Portable	33.95	†	Eng.	Yes	Yes	Yes	No	SLBG	120	7	..	Yes	Yes	6	Yes	3	12x13x6	
910 C	Counter	33.95	†	Eng.	Yes	Yes	Yes	No	SLBG	120	7	..	Yes	Yes	6	Yes	3	16x12x8	
910 PM	Panel	33.95	†	Eng.	Yes	Yes	Yes	No	SLBG	120	7	..	Yes	Yes	6	Yes	3	12½x19	
912 MCP	Portable	33.95	†	Eng.	Yes	Yes	Yes	No	SLBG	120	7	..	Yes	Yes	6	Yes	4	12x10½x6	
912 P	Portable	37.95	†	Eng.	Yes	Yes	Yes	No	SLBG	120	7	..	Yes	Yes	6	Yes	4	12x13x6	
912 C	Counter	37.95	†	Eng.	Yes	Yes	Yes	No	SLBG	120	7	..	Yes	Yes	6	Yes	4	16x12x8	
912 PM	Panel	37.95	†	Eng.	Yes	Yes	Yes	No	SLBG	120	7	..	Yes	Yes	6	Yes	4	12½x19	
915	Counter	51.95	†	Eng.	Yes	Yes	Yes	No	SLBG	120	7	..	Yes	Yes	6	Yes	9	23x16x10	
915 PM	Panel	49.95	†	Eng.	Yes	Yes	Yes	No	SLBG	120	7	..	Yes	Yes	6	Yes	9	12½x19	
† Dynamic mutual conductance.																			
<b>Radio City Products Co., Inc., 88 Park Pl., New York, N. Y.</b>																			
308C	Counter	\$16.95	Dynopti.	Eng.	Yes	Yes	Yes	No	SLBG	120	8	1	No	No	4	Yes	3	9x12x5	
308P	Portable-Counter	18.95	Dynopti.	Eng.	Yes	Yes	Yes	No	SLBG	120	8	1	No	No	4	Yes	3	11¼x12x7	
311C	Counter	28.95	Emis.	Eng.	Yes	No	Yes	Yes	SLBG	120	6	..	No	No	4	Yes	4½	10x15x7	
311P	Portable-Counter	31.95	Emis.	Eng.	Yes	No	Yes	Yes	SLBG	120	6	..	No	No	4	Yes	4½	13x14x9½	
† Also ohmmeter and capacity meter.																			
<b>RCA Manufacturing Co., Inc., Camden, N. J.</b>																			
156B	Portable	\$39.95	Emis.	RCA Yes	Yes	Yes	Yes	No	SLBG	120	10	2	Yes	Yes	4	Yes	3	13½x8x5½	
156C	Counter	37.95	Emis.	Yes	Yes	Yes	Yes	No	SLBG	120	10	2	Yes	Yes	4	Yes	3	13½x8x5½	
<b>Readrite Meter Works, Bluffton, Ohio.</b>																			
432A	Portable-Counter	\$17.85	Emis.	Readrite Eng.	Yes	No	Yes	Yes	SLBG	110	6	..	No	No	5	Yes	3	9x8½x7	
<b>Simpson Electric Co., 5216 W. Kinzie St., Chicago, Ill.</b>																			
325	Counter	\$34.50	Emis.	Simpson Eng.	Yes	Yes	Yes	No	SLBG	120	7	..	No	No	5	Yes	9	10x18x10	
333	Portable	26.50	Emis.	Eng.	Yes	Yes	Yes	No	SLBG	120	7	..	No	No	5	Yes	4	7½x10½x5	
<b>Supreme Instrument Corp., Greenwood, Miss.</b>																			
503	Portable	\$44.95	Emis.	Supreme Eng.	Yes	No	Yes	No	SLBG	117	6	..	Yes	Yes	5	Yes	4	.....	
504	Portable	65.95	Emis.	Eng.	Yes	No	Yes	No	SLBG	117	6	..	Yes	Yes	5	Yes	4	.....	
<b>Triplet Electrical Inst. Co., Bluffton, Ohio.</b>																			
1510	Portable-Counter	\$49.67	Dyn. Cond.	Triplet Eng.	Yes	No	Yes	Yes	SLBG	110	12	..	No	Yes	7	Yes	4	15½x11½x7½	
1615	Portable-Counter	63.34	Dyn. Cond.	Eng.	Yes	No	Yes	Yes	SLBG	110	7	..	Yes	Yes	..	Yes	4	15½x11½x6½	
1612	Counter	29.84	Emis.	Eng.	Yes	Yes	Yes	Yes	SLBG	110	7	..	No	Yes	5	Yes	7	15½x11½x6	
1613	Portable-Counter	34.84	Emis.	Eng.	Yes	Yes	Yes	Yes	SLBG	110	7	..	No	Yes	5	Yes	7	15½x11½x6½	
1213	Portable	22.00	Emis.	Eng.	Yes	No	Yes	Yes	SLBG	110	6	..	No	No	5	Yes	3	7½x6½x5½	
1210	Portable-Counter	39.00	Emis.	Eng.	Yes	No	Yes	Yes	SLBG	110	7	..	Yes	Yes	..	Yes	4	15½x11½x6½	
<b>Triumph Manufacturing Co., 4017 W. Lake St., Chicago, Ill.</b>																			
440	Counter	\$32.95	Emis.	Automatic Eng.	Yes	No	Yes	Yes	SLBG	117	9	1	Yes	Yes	3	Yes	3	11x9x12	
440	Portable	32.95	Emis.	Eng.	Yes	No	Yes	Yes	SLBG	117	9	1	Yes	Yes	3	Yes	3	11½x11½x5½	
Aut. Viso.	Counter	59.95	Emis.	Eng.	Yes	No	Yes	Yes	SLBG	117	9	1	Yes	Yes	3	Yes	3	12x19x15	
<b>Earl Webber Co., 1313 W. Randolph St., Chicago, Ill.</b>																			
AP	Portable	\$47.95	Dyn.	Webber Eng.	Yes	Yes	Yes	No	SLBG	117	7	2	†	Yes	2	Yes	4½	14½x13½x6½	
AC	Counter	49.20	Dyn.	Eng.	Yes	Yes	Yes	No	SLBG	117	7	2	†	Yes	2	Yes	4½	15½x16x7½	
AM	Portable	42.95	Dyn.	Eng.	Yes	Yes	Yes	No	SLBG	117	7	2	†	No	2	Yes	4½	10x13½x5	
AR	Rack	46.05	Dyn.	Eng.	Yes	Yes	Yes	No	SLBG	117	7	2	†	No	2	Yes	4½	10x13½x5	
200SP	Portable	34.50	Dyn.	Eng.	Yes	Yes	Yes	No	SLBG	117	7	3	Yes	No	4	Yes	3½	14½x13½x6½	
200MP	Portable	38.50	Dyn.	Eng.	Yes	Yes	Yes	No	SLBG	117	7	3	Yes	Yes	4	Yes	4½	14½x13½x6½	
200LP	Portable	43.50	Dyn.	Eng.	Yes	Yes	Yes	No	SLBG	117	7	3	Yes	Yes	4	Yes	6½	14½x13½x6½	
200SM	Portable	29.95	Dyn.	Eng.	Yes	Yes	Yes	No	SLBG	117	7	3	Yes	No	4	Yes	3½	10x13½x5	
200MM	Portable	34.50	Dyn.	Eng.	Yes	Yes	Yes	No	SLBG	117	7	3	Yes	No	4	Yes	4½	10x13½x5	
200LM	Portable	38.50	Dyn.	Eng.	Yes	Yes	Yes	No	SLBG	117	7	3	Yes	No	4	Yes	6½	10x13½x5	
200SC	Counter	35.50	Dyn.	Eng.	Yes	Yes	Yes	No	SLBG	117	7	3	Yes	Yes	4	Yes	3½	15½x16x7½	
200MC	Counter	40.80	Dyn.	Eng.	Yes	Yes	Yes	No	SLBG	117	7	3	Yes	Yes	4	Yes	4½	15½x16x7½	
200LC	Counter	44.75	Dyn.	Eng.	Yes	Yes	Yes	No	SLBG	117	7	3	Yes	Yes	4	Yes	6½	15½x16x7½	
200SR	Rack	33.05	Dyn.	Eng.	Yes	Yes	Yes	No	SLBG	117	7	3	Yes	No	4	Yes	3½	10x13½x5	
200MR	Rack	37.60	Dyn.	Eng.	Yes	Yes	Yes	No	SLBG	117	7	3	Yes	No	4	Yes	4½	10x13½x5	
200LR	Rack	41.60	Dyn.	Eng.	Yes	Yes	Yes	No	SLBG	117	7	3	Yes	No	4	Yes	6½	10x13½x5	
† Automatic.																			
<b>Weston Electrical Inst. Co., Frelinghuysen Ave., Newark, N. J.</b>																			
777	Counter	\$54.75	Emis.	Weston Eng.	Yes	Yes	Yes	No	SLBG	117	6	1	..	Yes	3	Yes	4½	.....	
777	Portable	49.50	Emis.	Eng.	Yes	Yes	Yes	No	SLBG	117	6	1	..	No	3	Yes	4½	.....	
† Also tests batteries for portable receivers.																			

\* S = Single ended. B = Ballast.  
L = Loctal. G = Gas types.

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Where permanence of temperature compensation insure and retain stability of frequency in oscillator circuits.



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### Toggle Switches

In communication receivers . . . with crystal filters and wherever delicate supplemental tuning is involved.

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Milwaukee, Wisc.

# Television Test Leads

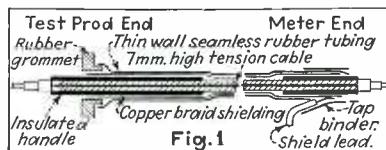
By

PHIL ROSENBLATT

WHEN any test leads become worn, the insulation cracked or frayed, a certain amount of danger from shock exists. If these leads happen to be of the high voltage type and used on television power supplies, a life or death problem arises.

After several corona flash warnings on various sets of test leads for meters with 3000 and 5000 volt ranges, conventionality was disregarded and the leads shown in Figure 1 were assembled.

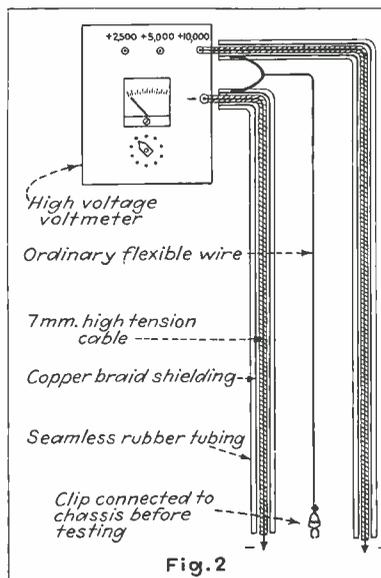
The operation of these "pre-shortened" test leads is best realized from a



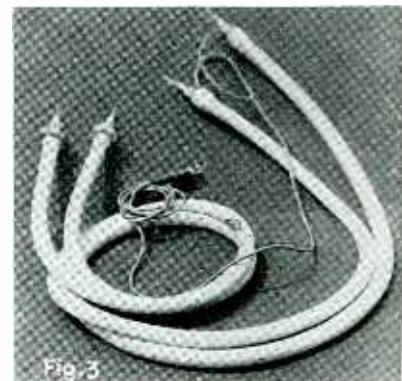
study of Figure 2. Figure 3 shows the completed leads. It is impossible at any time for voltage or corona discharges to get by the grounded shield braid.

Rubber tubing is placed over the shielded leads to minimize fraying of the braid. The leads can be any length, 5 feet was found to be most versatile for testing and space requirements. The insulated handles at the test prod end and meter end of the leads are  $\frac{1}{2}$ " outside diameter drilled to accommodate the 7 mm. cable and the needle tip plugs. Notice the rubber grommet guards placed at the test prod ends and the copper braid shielding which extends to the grommet edges.

With this arrangement it is im-



possible for the fingers to wander or slide down to the hot end, and in the event of flashovers, only the shield takes it. The grommets used were taken from the shipping shock absorbing assemblies on Philco Consoles. They measure  $1\frac{1}{4}$  inches in diameter by  $\frac{5}{16}$  of an inch thick. The collar also extends back  $\frac{5}{16}$  of an inch and the hole is  $\frac{1}{4}$ " which provides a tight friction fit on the  $\frac{1}{2}$ " handles. The tinned copper braid shield is normally  $\frac{3}{8}$  of an inch when flat. This size stretches sufficiently to slide over the 7 mm. cable and handle. The rubber tubing has a  $\frac{1}{16}$  inch wall and is  $\frac{1}{2}$ " inside diameter. Make no mistake in using the ordinary shielded wire for such test leads. Although they would be absolutely safe, they will not stand up much above 1000 volts. Puncture would mean shorting to the shield. The 7 mm. cable recommended has



been proven by extensive usage, and for mechanical wearing qualities, the ordinary 7 mm. cable appears to be fully as satisfactory as most well made test leads. But in order to avoid eventual wire strand breakage due to excess handling of the test leads, an effort should be made to obtain 7 strand chromium steel 7 mm. ignition cable. It is virtually impossible to break any of these strands by ordinary flexing.

Care should be taken in choosing the proper rubber tubing. Any, that is the correct size and has a thin wall, will be useable. However, make sure the rubber is live and flexible. Certain types of tubing are hard, do not flex easily, and are susceptible to cracks or becoming gummy with age.

Despite the bulky appearance of these leads they are fully as maneuverable as any multi-strand lead. Further, they possess two additional virtues. They don't tangle easily, and they won't bite!

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A Battery  
Condition Test  
"Good - Replace"



Available in  
counter and  
portable types

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MODEL 777

### TUBE and BATTERY TESTER

tests batteries as well as tubes under load  
... gives dealers and servicemen extra  
sales and profit from battery replacements!

Look at the figures . . . and the opportunity. Over 30% of radio sales in recent months were portable battery or combination receivers. And sales still mounting and expected to climb in 1940. Here's a real opportunity to sell tubes . . . and a *brand new market in the sale of battery replacements.* » » » To enable servicemen and dealers to "cash in" on this opportunity WESTON provides the Model 777 Tester . . . which not only provides a thorough check on all tubes, but also tests *all* radio batteries under load. The "Good - Replace" scale instantly indicates whether the battery delivers sufficient potential to insure good reception. (Such a test cannot be made with ordinary battery testers, nor with high current drain meters.) » » » So with Model 777 you not only will be equipped with a tube checker that will remain serviceable for years, but you also will be able to check the batteries while you are checking the tubes. No tube checker today is up-to-date unless it supplies this battery test . . . enables you to give complete customer satisfaction, with *more profit for yourself.* Be sure you have complete information on Model 777. Return the coupon today.

#### Tests Radio Batteries Under Correct Load

"Good - Replace" indications based on battery manufacturers' standards and receiver requirements for good reception.

- ★ Tests high filament voltage tubes (up to 117 volt types)
- ★ Tests for noise
- ★ Tests Loktal tubes
- ★ Tests open elements
- ★ Tests OZ4
- ★ Individual element test
- ★ Tests ballast tubes
- ★ Spare socket for possible future requirement
- ★ Tests for shorts
- ★ Large WESTON Meter

WESTON ELECTRICAL INSTRUMENT CORP.

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Send literature on the Model 777 Tube and Battery Tester.

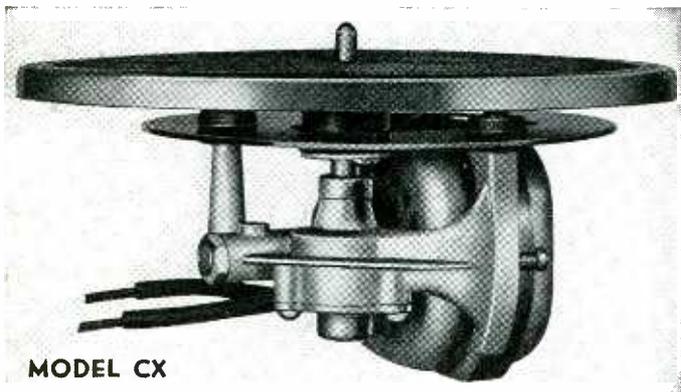
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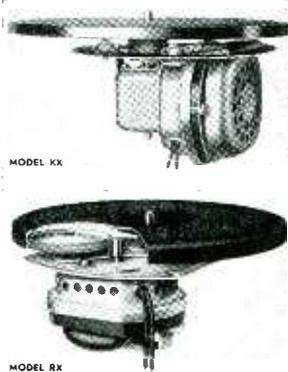


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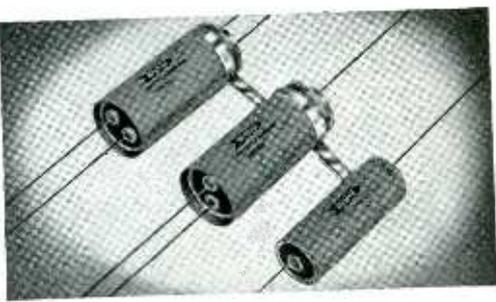
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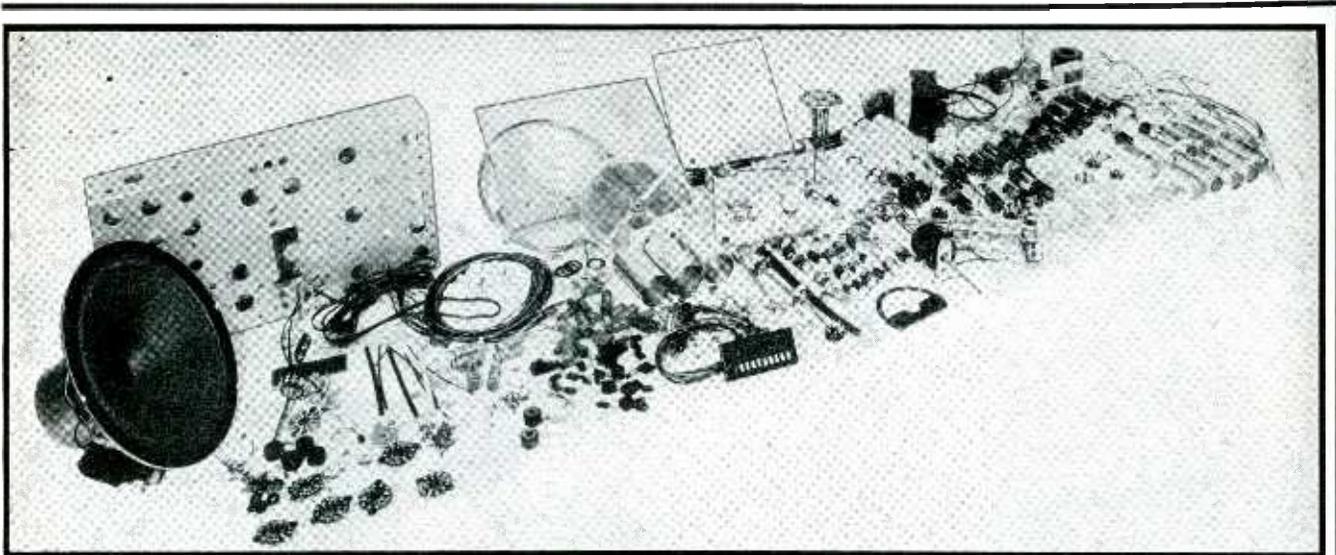
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The L-C Checker does a score of things. Checks inductances and circuits; aids alignment r.f. and i.f. stages; tunes traps; checks chokes, natural period of antenna and transmission lines, etc., etc. Yet it costs only \$29.50 net.

### Ask to See It . . .

- Your local AEROVOX jobber will gladly show you the L-C Checker. Ask for data—or write us direct.



# Triplex-Portable Principles

BY C. A. NUEBLING

**R**EMEMBERING the difficulty servicemen had when a.c.-d.c. sets were first introduced, it seems fitting that an explanation of the new a.c.-d.c. battery portables is in order. R.f. circuits in these sets are quite conventional. Power supplies, however, vary considerably and are apt to be confusing.

Four fundamental supply types are shown in Figs. 1 to 4. The most common version is that of Fig. 1.

Changeover from a.c.-d.c. to battery operation is accomplished by the d.p.s.t. switch at the right center of the schematic. To the right of this is the d.p.s.t. off-on switch, an integral part of the volume control.

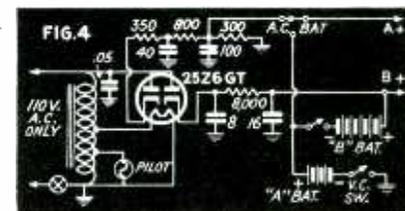
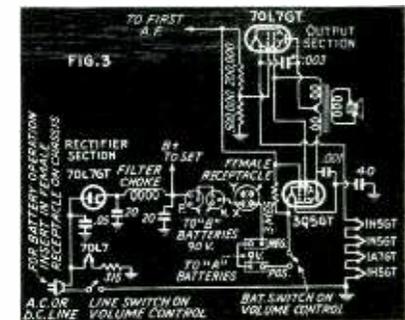
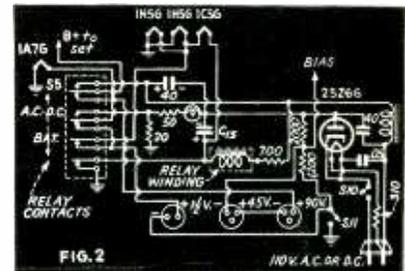
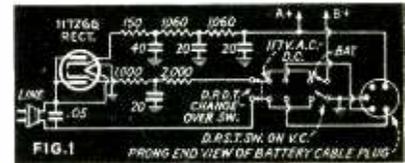
With the switch in the "line position" as illustrated, one side of the line is grounded by the lower half of the d.p.s.t. switch. This completes the circuit for the filament and plate of the 117Z6G rectifier. The upper section of the 117Z6G supplies filament power for the 1.4 volt tubes through the 150, 1060, 1060 resistor network. The action of this network is to drop the voltage to the desired value, and at the same time supply effective filtering in conjunction with high capacity condensers. The lower section delivers about 90 volts to the receiver circuits. The 1000 and 2000 ohm resistors, plus the 20 mfd condenser, filter this voltage. This filtering method has been used recently in small a.c.-d.c. sets with good results.

Battery operation is conventional as can be seen.

Several manufacturers have an automatic version (Fig. 2) which switches to a.c. whenever the line cord is plugged in and the rectifier warms up. When such a set is plugged into a line and the power switch turned on, it immediately begins to operate, obtaining its power from the batteries. As the rectifier warms up, the relay will be thrown over and the line will then supply the power. This is easily accomplished by connecting the relay, in series with a suitable resistance, across the output of the rectifier. When the relay closes, the ground end of the coil is opened, permitting the energizing current to flow through a series parallel filament circuit. A pilot light and resistor network drop the voltage for the IA7.

A d.p.s.t. switch on the volume control operates the receiver for either battery or line use.

Some manufacturers have increased the power output of these sets when used on the power line by adding a separate output tube. This is illus-



trated in Fig. 3 and has the advantage of battery economy when used as a portable, and good output when operated at home.

Switching from line to battery is accomplished simply with a minimum of switch contacts. A d.p.s.t. switch on the volume control permits the battery or line voltage to flow, depending on which one is desired.

For line operation, the line cord is plugged into any wall outlet and the volume control turned up, operating the line switch. As the 70L7GT rectifier and output tube heat up, plate voltage flows through the output section. Since the filament circuit of the 1.4 volt tubes is connected in series with the cathode of this tube, the voltage drop across the filaments gives the desired filament operating voltage. In addition, this voltage is used as bias for the 70L7GT. Output section voltage is supplied through the upper lead of the output transformer to the center tap. On battery, plate voltage for

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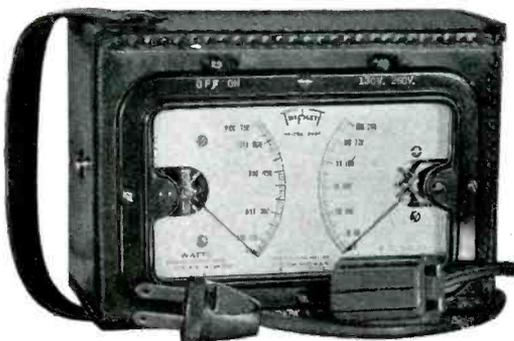
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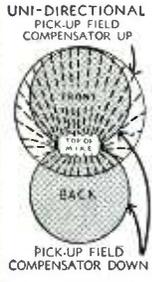
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- HIGH OR LOW PITCH**



By moving up the Acoustic Compensator, you change the Amperite Velocity Microphone to dynamic operation — without peaks. At the same time you reduce the back pickup, making the microphone practically **UNI-DIRECTIONAL**.

With the Acoustic Compensator down, the microphone is **BI-DIRECTIONAL** ... 120 degrees front and back without frequency discrimination. Rotating the microphone until it parallels the ceiling makes

the microphone **NON-DIRECTIONAL**. **THE ACOUSTIC COMPENSATOR** is a regular feature of these models: RBHk (hi-imp); RBMk (200 ohms) LIST \$42.00. RSHk (hi-imp); RBSk (200 ohms) LIST \$32.00

Write for Complete Illustrated Bulletins and Valuable Sales Helps.

**AMPERITE** 561 BROADWAY, N. Y. Cable Address: Alkem, New York

**AMPERITE Velocity MICROPHONES**

**Sound specialists are making money in P. A. with LAFAYETTE!**



**GET IN THIS PICTURE!**  
 Today, owners of stadiums, ballrooms, churches, department stores, offices, garages are sold on the importance of Sound. New outlets for P.A. sales develop every day! You can sell these—and profit more—with the Lafayette line for 1940.

**WE'VE GOT THE SYSTEM**  
 for every purse and purpose. Allied, too, Lafayette offers three lines—a DeLuxe, Standard and Economy to help you quickly turn prospects into customers, stock into cash profit. For there's eye appeal in Lafayette's packaged P.A.—and performance that can't be matched even at twice the low Lafayette price.

**HERE'S ALL YOU DO**  
 Tear out coupon and mail for **FREE** catalog. See the world's most complete line of sound systems. Compare Lafayette feature for feature, dollar for dollar with any other P.A. Then, go to town with Lafayette—the money-making line in the low price field.

**LAFAYETTE P. A.**  
 NEW YORK, N. Y. CHICAGO, ILL. ATLANTA, GA.  
 130 SIXTH AVENUE • 461 W. JACKSON, BLDG. 318 PRITCHETT ST.  
 BOSTON, MASS. • BRONX, N. Y. • NEWARK, N. J. • JAMAICA, L. I.

Rush **FREE** 1940 Radio Catalog No. 78.

Name.....  
 Address.....  
 City.....State.....  
 Radio Wire Television Inc. formerly WHOLESALE RADIO SERVICE  
 Dept. 74K9— 100 Sixth Ave., New York, N. Y.

the 3Q5GT flows through the entire winding. This is necessary to provide the desired output load.

For battery operation, the line cord is removed from the wall outlet and plugged into the female receptacle on the chassis. This completes the B minus and A minus return to ground when the volume control switch is closed. The filament of the 3Q5GT is heated also by this action.

The circuit of Fig. 4 is somewhat similar to Fig. 1 except for the tapped choke serving as an auto transformer. Heater and pilot light voltage are supplied from the taps. Filament voltage is delivered by one section of the rectifier while plate voltage is supplied by the other. Resistor-capacity filtering is used throughout as in the case of Fig. 1.

This circuit may be used on a.c. and battery only because of the auto transformer. If plugged into a d.c. line the transformer would quickly be burned out.

There are many other supply arrangements possible, only the most common have been shown here. Some make use of series filaments on both line and battery as in Fig. 3. Thus A battery voltage will range anywhere from 1.4 to 6 or 9 volts, depending on the filament circuit.

A word of caution about replacement parts; especially in filament circuits. In sets using dropping resistors

to obtain filament voltage be sure to use the exact resistance value when repairs are necessary, otherwise filament voltage may be increased materially, shortening tube life.

It might be a good idea to check filament voltage in the line position when sets are brought into the shop. Resistance values often change radically with age and use. If a set is found with too high or too low filament voltage when the line is approximately 117 volts, figure out the proper resistance value by Ohms Law and make the change.

*Audio Frequency*

**FOR SHIELDING AUTO ANTENNA LEADS** ordinary copper tubing makes an excellent substitute. Simply insert a section of insulated wire before bending the tubing and install. To eliminate trouble from dampness, heat the tubing slightly and pour in a little parafin.

**REFRIGERATOR INTERFERENCE** may usually be overcome by connecting a metal braid from the motor frame to the refrigerator frames.



**Just Out!**  
**RADIO SERVICE TRADE KINKS**

By LEWIS S. SIMON, Manager, Rexall Radio Stores, Brooklyn, N. Y. 269 pages, 9 x 11, spiral-bound to open flat, \$3.00

**Make more money on your radio servicing jobs—**

This is one service manual it will pay you to use. You will step up your profits on servicing jobs from the day you put the book to work for you. Every line in it has come out of actual, shirt-sleeve practice. This is no theory book.

This manual gives you blunt, step-by-step directions for finding troubles and for fixing them. Some of the methods are homely trade kinks that have never before been known except to a few expert service men. The book will save you hours of time and will give you satisfied customers.

It points out the weak points of radio receivers of specific makes and models, and consequently enables you to go right to that point to spot the trouble. It saves you going through elaborate tests of the entire circuit.

Every trouble solution in the book has been checked and re-checked again and again. Every page of directions may be depended upon.

Try the book out on your next servicing call. We are anxious to send you a copy on approval for 10 days' examination just for that purpose. Fill in and send the coupon today.

- A quick-reference manual of radio set troubles and their repair
- Saves time in testing and trouble-shooting—shows weaknesses and key trouble spots of specific sets
- Gives practical methods of repair and adjustment taken from successful radio servicing experience
- Covers hundreds of makes and models of radio receivers, household and auto.

**McGraw-Hill ON-APPROVAL COUPON**

McGraw-Hill Book Co., 330 W. 42nd St., N.Y.C.  
 Send me Simon's Radio Service Trade Kinks for 10 days' examination on approval. In 10 days I will send \$3.00 plus few cents postage, or return book postpaid. (Postage paid on orders accompanied by remittance.)

Name.....  
 Address.....  
 City and State.....  
 Position.....  
 Company.....RR-10-39  
 (Books sent on approval in U.S. and Canada only.)

# TRICKS

## AIRLINE 504

Inoperative at low frequency end of dial . . . change oscillator grid leak from 20,000 to 50,000 ohms.

## MAJESTIC 200

Continual frying noise . . . replace voltage divider ( $R_1R_2R_3R_4R_5$ ).

## MOTOROLA 89K1

Improper pushbutton tuning . . . adjust relay reversing contacts so that action is positive.

## PHILCO 37-38

Excessive image interference and low volume . . . replace defective antenna coil.

## RCA 96K6

When replacing audio coupling condenser use a .00025 paper condenser otherwise motorboating and oscillation will result.

## SPARTON 16

Drifts, weak, whistles . . . check the connections on the oscillator coil. One connection is fastened by a small screw which works loose in time.

## SPARTON WITH PRESELECTOR

Fading . . . all these models have die cast tuning gang on a steel shaft. Fading was traced to rotors shrinking loose from shaft. Drill hole through casting and insert setscrew into shaft or clean end of each gang section and solder to shaft.

## STEWART WARNER R-1252A

Dead, except for hum. The .25 mfd condenser connected to the third tap from left of candohm resistor and bracket has low resistance leak. Replace with similar unit.

## STROMBERG CARLSON 150, 155, 160, 180

Slight distortion and decreased volume . . . replace 4 mfd 350 volt electrolytic on screen of 6K7 audio amplifier. It is imperative to use a condenser with the highest possible resistance in this circuit since screen voltage is dropped through a 1 meg. resistor and any current drawn by the condenser drops the screen voltage.

## ZENITH 4K310

Dead . . . disconnect diode of 1H5G and check for leakage from tube prong to ground. This condition is probably caused by soldering fluid between wafers.

## ZENITH 4K401

Oscillation . . . replace defective 1A7 tube. Motorboating . . . poor ground connection on electrolytic condenser at rivet which fastens to chassis. Solder connector to chassis.

## ZENITH 9S307

Distortion similar to AVC blocking. . . Look for open output filter condenser.

## ZENITH 1940 MODELS

Noisy operation of automatic tuning may be caused by the leads to the automatic assembly or coils laying against metal frame of assembly.

Care should be taken that leads from the tone control condenser and all other leads in the 6 tube bakelite models be kept away from the 6Q7 tube, otherwise the tone will be affected.

Cutting out in portable receivers will usually be due to poor connections at the battery pack plugs. Slight bending of the prongs will correct this.

**Mr. Serviceman:**  
**"Be First**  
**with R.S.A.!"**



**Let's Grow Together in 1939!**

**MAIL THIS COUPON NOW!**

RADIO SERVICEMEN OF AMERICA, INC.  
304 S. Dearborn St., Chicago, Ill.

Name .....

Address .....

City ..... State .....

I am interested in RSA Membership. Tell me about it.....

I am enclosing \$4.00 for National dues and initiation.....

(Does not include Local Chapter dues where Local Chapters are organized.)  
RR1039

## HISTORY MAKING FIRSTS

First and only national service organization to have sponsorship of RMA, Sales Managers Club, and all radio journals.

First national service organization to have bonded employees and officers—with a democratic setup run entirely by servicemen elected by and from the membership.

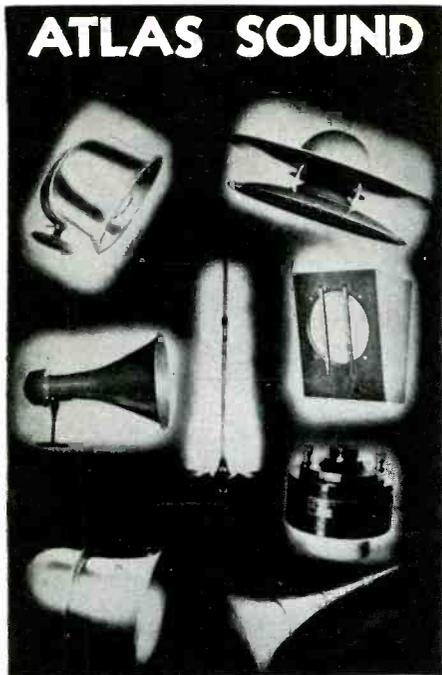
First service organization to have a cooperative agreement with broadcasters to sell RSA to the American public and to put into effect plans for making the service industry a profitable, year-round business.

First and only service organization to provide a Guaranteed Service Plan for protection of its members and their customers.

**RADIO SERVICEMEN  
OF AMERICA, Inc.**

**JOE MARTY, JR., EXECUTIVE SECRETARY**  
**304 S. Dearborn Street, Chicago, U.S.A.**

# ATLAS SOUND



## P. A. Profit Builder No. 1\*

\*To help you build better sound installations . . . to help you produce greater P. A. profits . . . Atlas Sound offers you the latest developments in sound engineering . . . the most compelling selling features that will clinch the contract for you. Sell your prospects with actual photographs of successful installations. Send for NEW Photo-Bulletins and your FREE copy of Fall Catalog F-39.

**ATLAS SOUND CORP.**

1454 - 39th Street Brooklyn, N. Y.

# ACCEPTED!



by Service Engineers as the simplest, fastest method to the solution of "dead" and "intermittent" sets

Model VG-6 Vacuum Tube Volt-Meter . . . . .net

**\$25.00**

### Features:

- Will not disturb circuit under test
- One zero adjustment for all ranges
- No tricky "slide-back" or "bridge-balancers" which are confusing
- 3 to 600 volts, AC or DC in six selections
- Co-Axial cable input
- Solid Walnut Cabinet and Solid Bronze panel
- Used by leading Airlines, Universities, and Manufacturing concerns
- UNCONDITIONALLY guaranteed for one year!

SEE YOUR JOBBER or Write for latest catalogue—"Modern Standards of Measurement Technique."

**TELEVISIO COMPANY**

341-345 N. Pulaski Rd. CHICAGO ILLINOIS

## SOUTHERN BUYER LOOKS

(Continued from page 53)

cutting" and excessive trade-ins.

STORE 9—Sheet music was discussed as we are very much interested in this item. I also talked to the buyer of pianos and the buyer of combinations.

Store has sixteen salesmen, paying from 16 to 17 per cent commissions. They have a room for different music clubs to meet and numerous sound rooms for demonstrating purposes. They do the majority of their business in the radio department on combinations and small radios. They have five men on the floor and pay a 7 per cent commission.

STORE 10—Sells radios but their best volume is on combinations. Department looked crowded and "junky," having a lot of old models on hand which they are taking mark-down on. They have two salesmen and a manager and pay 7½ per cent commission.

STORE 11—Saw a clever idea. Takes a picture of every piano of one make sold in each town and uses that for a sales lever with new prospects.

Sheet music department is a concession on the seventh floor. They have a fairly large radio department with demonstration booths and carry the popular lines of radios. There seemed very little dumping at this time of standard brand radios, as was prevalent a year ago, and all dealers claim the distributors' stocks are in good shape.

The piano department is also a concession and they have poor display and poor lines of pianos but claim they do a good volume as they have a lesson plan which they sell along with the piano.

Stock of refrigerators looked bulky and their models were of an ancient vintage. They carry most of the popular lines of refrigerators and are discontinuing some of the off-brand names. Their gas range sales are 20 to 1 over electric as they claim the utility gets most of the electric business in this metropolitan city.

Have four salesmen on the floor and distributors do the service on the refrigerators and washers. They do about \$200,000 a year and pay 5 per cent commission.

STORE 12—Radios are on the seventh floor in the housefurnishing department, with refrigerators and washers. The store has records and booths and are doing well with records. They did only \$75,000 in refrigerators and washers and the radio department is leased out. Distributors service their refrigerators and washers. They have four salesmen and pay 5 per cent commission. Allowances on ice boxes are normally about 10 per cent.

STORE 13—Refrigerator department was in the housewares department. They carry five lines but are planning to reduce to two or three standard makes. They have refrigerator salesmen and two washer salesmen and do about \$150,000 a year volume, have no outside salesmen and pay 5 per cent commissions.

Complain of little dealers and wholesalers cutting prices.

They have a beautiful radio department, which is on another floor, and they sell five or six popular lines and do a tremendous combination and record business. They have a number of new booths. Have three salesmen on the

floor and do about \$200,000 a year and pay 5 per cent commissions. They allow 10 per cent on trade-ins, as we do normally.

### Conclusions

From this trip there are certain definite conclusions which I think would be profitable to our store:

1. Expansion of our combination and record business to include at least two booths and a much more complete record stock.
2. A wall display of radio and console models to give a more im-

(Continued on page 68)



**Get Quick Sales!  
Increase Your Profits!**

with this New  
**TURNER DYNAMIC**

MODEL 33D

25 Ft. Changeable Cable Set  
Full Tilting Head

- A handsome, trouble-free microphone for the ham, recording, or P.A. work. Gives you a wonderful opportunity for added profits with a wider margin! 33D is not sensitive to mechanical shock or climatic conditions.
- Output — 54DB. Smooth response 40-9000 cycles. Free from feedback. Full satin chrome finish.
- 100 foot lines possible at high impedance, thousands at low. Has balanced line cable to eliminate noise pick-up.

200 or 500 ohms, **\$25.00**  
or Hi-Impedance. . . . . List

Deduct \$1.50 for 50 ohm model  
Deduct \$1.50 for 8 Ft. Cable set

**33X CRYSTAL MICROPHONE**  
Same in appearance as 33D.

With 25 Ft. **\$22.50**  
Cable set . . . . . List

Licensed under Patents of The Brush Development Co.

Write for Details  
**THE TURNER CO.**  
911 17th St. N. E.  
CEDAR RAPIDS, IOWA.

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Although Radio & Television Retailing takes every precaution to insure accuracy, we cannot assume responsibility for an occasional change or omission in the above index.

**McGraw-Hill Publishing Company, Inc.** Publication Office: 99-129 North Broadway, Albany, N. Y. Editorial and Executive Offices: 330 West 42nd Street, New York, N. Y.

### New... SMALLER 15c SIZE IN FLASHY BOX

In every family where records are enjoyed, you'll find a demand for the sensational RECOTON liquid Record Renewer that cleanses, lubricates and protects—2-oz. bottle 50c, or this handy 15c bottle, powerfully displayed as illustrated at left.

Ask for samples of SUPERIOR, ACOUSTIC and AUTOMATIC hi-fidelity needles

**RECOTON CORPORATION**  
178 Prince St., New York City



**A GOOD NAME GOES A LONG WAY**

The good name of Ken Rad Radio Tubes is due to the highest standards of quality in manufacture and performance.

Ken-Rad Tube & Lamp Corp.  
Owensboro, Ky.

**KEN-RAD**  
DEPENDABLE RADIO TUBES

## SEARCHLIGHT SECTION

### New "SEARCHLIGHT" Advertisements

must be received by November 6th to appear in the November issue.

Address copy to the Departmental Advertising Staff

Radio and Television Retailing  
330 West 42nd St., New York City

**FREE RADIO CATALOG**

**ALL RADIO NEEDS**  
Your nationally known favorites in sets, parts and supplies, public address systems, testers and kits, etc., at lowest possible prices. Write for this big book.

**BURSTEIN-APPLEBEE COMPANY**  
1012-14 McGEE ST., KANSAS CITY, MO.

### PERSONAL

Anyone who knows the present address of Robert W. Bennett formerly in the radio industry in St. Louis and Dayton will confer a favor on his brother by sending it to Ell C. Bennett, 1836 Euclid Ave., Cleveland, O.

### AGENTS WANTED

Distributors wanted to handle low priced tubes. Each tube is guaranteed, stamped and sealed. Box AW-134. Radio and Television Retailing, 330 West 42nd Street, New York City.

WHEN answering the classified advertisements in this magazine, don't forget to put the box number on your envelope. It's our only means of identifying the advertisement you are answering.

## READY NOW!

### ALLIED'S 1940 RADIO CATALOG

- ★ 204 PAGES
- ★ 5 SECTIONS
- ★ 15,000 ITEMS

#### 1. New SETS

60 Sensational, new sets, 4 to 12 tubes, all types, latest portables, phonographs, record-players, phonoradios — Brilliant new styling.

#### 2. New P.A.

3 completely new lines—14 new systems 6 to 65 watts, new styling and performance—new accessories, latest recording equipment, New Time Payment Plan!

#### 3. New HAM GEAR

Newest receivers, Skyriders "Defiant", Television, Rotary Beam Equipment, etc. All leading standard lines. Most complete Ham section in Radio.

#### 4. PARTS SECTION

15,000 Radio parts for every purpose. Everything new in accessories—books, tools, tubes, kits and a complete line of Test Equipment—all at Lowest Prices!

#### 5. New Big BARGAIN SECTION

ALLIED RADIO CORP.  
833 W. Jackson Blvd.  
Chicago, Ill. Dept. 18-K-0

Send your new FREE 1940 Catalog.

Name .....

Address .....

**Free**  
**SEND COUPON**

# Where You Tell Us...

## Suggests Broadcast Campaign

Now, while America and the world at large is clamoring for war news and information on other important current events, it affords us in the radio business a marvelous opportunity to sell our own industry.

Newspapers over the country are purchasing radio time urging people to buy and read more newspapers, so why shouldn't we in the radio business use every available spot on the air to plug the advantages of radio. There are millions of radios today that are either completely out of order or impaired to the point where they are not rendering the best service. A word from the broadcasters asking these people to have their sets checked over by a competent serviceman will result in thousands of dollars being spent with radio repairmen as well as add to the radio audience thousands of additional satisfied customers.

A campaign pointing out some of the many advantages of radio in such times as these will cause millions of people to buy additional sets.

A recent experience, which I shall recite, convinces me of this fact. A radio set is standard equipment in my office and during the past week two people in neighboring offices have been coming in to listen to war news. The other day I told them there were flashes coming over which they did not get and suggested that they put a radio in their office. One of them has already purchased a set and the other says he soon will.

This example would be repeated a million times if all of us in the industry would do a better job of selling programs.

TULSA

J. P. KAY  
Kay Sales Co.

## He Thinks It's Worth It

In regard to F. W. Smith's "Service Estimating" (September issue) how does Mr. Smith charge and collect such high prices for labor as \$17.25 for installing condensers and parts, balancing and cleaning a radio?

Very few customers would have work done at all with such a high labor charge.

TOLEDO

C. M. CALDWELL  
Radio and Electric Service

## Can't Seem to Wait

Since subscribing to *Radio Retailing* a few months ago I can't seem to wait for the monthly issues. They contain so

much information and service helps and other ideas that I can't be without them.

Of all the publications I have seen this one is the only one that keeps servicemen thoroughly informed of the developments in tools and servicing equipment. Keep up the good work.

JEANNETTE, PENNA. JOHN MATURO  
Maturo's Radio Service

## SOUTHERN BUYER LOOKS

(Continued from page 66)

pressive appearance to the department, rather than having a number of consoles scattered about the floor among the pianos.

3. Eliminate the model kitchen as it is non-productive and is only a showroom for contractors. Utilize this space for display of appliances.

4. Sheet music, which we hope to obtain on a concession basis, should triple our floor traffic. This is a major need.

5. We should set each month, for the next six months, for a definite promotion such as a washer month, refrigerator month, electric range month, new model radio month or piano promotion month.

7. We should face the situation in refrigeration with determined effort to secure additional volume.

8. We should start promoting special price refrigerators of standard brands in February.

9. About April we should have a cooking school in the tearoom, with the electric range promotion.

10. We should also open up the spring season on home laundry, getting distributors to give us some additional advertising, purchasing some prices in a well known brand of washers and ironers.

11. A definite program is being conducted by the electrical association of which the writer is a director, to eliminate price cutting and stabilize the refrigerator business. It is thought that the trade-in problem on electric refrigerators may become an acute one and the Association plans to regulate that so far as possible.

12. It has also been recommended by the association to eliminate all ice box allowances, which should

materially help our net markup.

13. We have set up a shop in the Annex for pianos and have a full time man whom we hope to keep busy enough tuning and doing piano work to eventually pay for his salary. We are planning to let everyone in the store know about this by a bulletin to employees and also plan small classified ads to consumers.

14. Main floor should be equipped with spot displays.

## WAR REVITALIZES SHORTWAVES

(Continued from page 20)

wave feature and comprise the first line of the proposed selling attack).

(b) *People who own but do not often use receivers capable of European reception may logically be urged to purchase and install new noise-reducing antenna systems making shortwave newscasts more intelligible.* (Many of the shortwave sets in use have inadequate antennas and erection of modern types will usually improve broadcast band reception as well).

(c) *Owners of shortwave receivers never adequately instructed in their use might be educated through personal calls certain in many instances to produce by-product business.* (Tune-up jobs will frequently result when servicemen make such calls as any weakness in a receiver, such as a worn-out tube, shows up more dramatically on the shortwaves where signals are relatively weak than in the broadcast band where local stations "lay down" defect-masking signals).

Programs are the very heart of the radio business and the shortwaves now have program interest of first-rank importance to "table-top tacticians" (and what man isn't one today!).

Europe is in the midst of a War of words as well as bullets and we can hear those words.

Shortwave reception is just one more weapon among the many sales features provided this year.

If we're wise, we'll wield this weapon.



**CROSLY 599A**  
Operates AC-DC current. No ground. Carry it anywhere. Etched dial. Unusually clear tone. Brown bakelite case \$7.99. Colored cabinets slightly higher. Other table models \$9.99 to \$29.95.



**7 TUBE SUPERHET 719A**  
Illuminated slide rule type dial, new improved push buttons, **unmatched at \$19.99**. Foreign wave band added at slightly higher price. Other deluxe table models \$24.95 and \$29.95.



**12-lb. PORTABLE B-549A**  
Operated with AC-DC current or batteries. Automatic switch changes over. Light weight, carry it anywhere. **\$24.95 WITH BATTERIES GOOD FOR 200 hours or better.**



**CONSOLE 7739M**  
7 tube Superhet with **NEW CURVE-FLECTOR** tone diffuser and improved push button tuning. Domestic broadcast and short-wave for foreign reception. Cabinet imparts rich quality from finely selected woods.  
A real value at \$49.95. Other consoles also outstanding values at \$39.95.

## MEET THE DEMAND

Crosley presents smart developments of built-in aerials — television outlets — simplified push button tuning — features that the public is promised this season!

## OFFER MORE INNOVATIONS

with exclusive Crosley Curveflector Tone Diffuser in consoles . . . advanced Crosley automatic switch from batteries to AC-DC current in portable radio . . . Capehart record changer in combination 639M.



**COMBINATION PHONOGRAPH AND RADIO 639M**  
Latest type crystal pick-up, heavy motor, efficient radio and fine electro dynamic speaker create quality instrument, high fidelity assured. Capehart record changer, new Curveflector tone diffuser.  
**MODEL SHOWN \$114.**  
Other combinations at \$69.95 and \$49.95.

## GIVE MOST FOR THE MONEY

Every practical radio improvement plus many clever Crosley developments—some solely Crosley—some great advancements on existing features—all backed by 18 years of radio experience and discovery. This is pioneer radio—still out in front with all the advantages that accrue to those who **MAKE** history.

*Prices slightly higher in South and West.*



# CROSLLEY

## THE CROSLLEY CORPORATION

POWEL CROSLLEY, Jr., President

Home of "the Nation's Station"—WLW—70 on your dial

CINCINNATI



**CONSOLE 819M**  
Massive cabinet, 8 tubes, heavy duty speaker assembled on **NEW** tone diffusion baffle — the exclusive Crosley **CURVE-FLECTOR**. Far and away the biggest radio package on the market at the price. Biggest selling single radio item in Crosley's 18 years. \$69.95.

Everybody wants  
**NEWS WHILE IT'S HOT!**  
 ...THEY CAN HAVE IT WITH *Motorola*



EDWIN C. HILL  
 Radio Reporter

**"PRIZE PACKAGE" MODEL 72C**  
 7 TUBES \* 3 BANDS \* PUSH-PULL \* 6 PUSH-BUTTONS

**Easy TO GET  
 FOREIGN NEWS DIRECT**

The demand for *better radios* has been tremendously stepped-up by the public's thirst for NEWS. This 3 Band Motorola is your best bet to capture this newer, bigger market that NEWS has created. Model 72C Walnut Finish Console has 7 tubes: Push-Pull: 10" PM Speaker: Tunes American and European Short Wave, Aircraft, Amateur and Police bands from 540 to 18,000 kc.: 6-Station Push Button Tuning. At a **NEW LOW PRICE** that people will go for!



**Motorola**  
 AMERICA'S FINEST RADIO

**Making  
 Fast Sales  
 for  
 Dealers**



**FREE  
 "SALES-MAKER" DISPLAY!**

**YOU'LL SELL *More* ROOM RADIOS**  
 This handsome H-133 "Sales-Maker" is selling plenty of Motorolas for dealers who are up on their toes reaching out for *plus business*. See Your Motorola Distributor . . . he'll show you how to get this Display **FREE!**

**GALVIN MFG. CORPORATION • CHICAGO**