

# RADIO TODAY



Make Ten Calls Every Day! Ask 'em to Buy—  
Sets, Tubes, Antennas, Service Repairs.

**AUGUST**

Caldwell-Clements, Inc., N. Y.

# "HERE'S THE GREATEST RADIO SCOOP OF THE PAST TEN YEARS" ..

AMAZING G-E BEAM-A-SCOPE ENDS NEED FOR AERIALS AND GROUND WIRES. NEW G-E RADIO OPERATES IN ANY SPOT IN ANY ROOM. JUST PLUG IT IN LIKE A FLOOR LAMP.

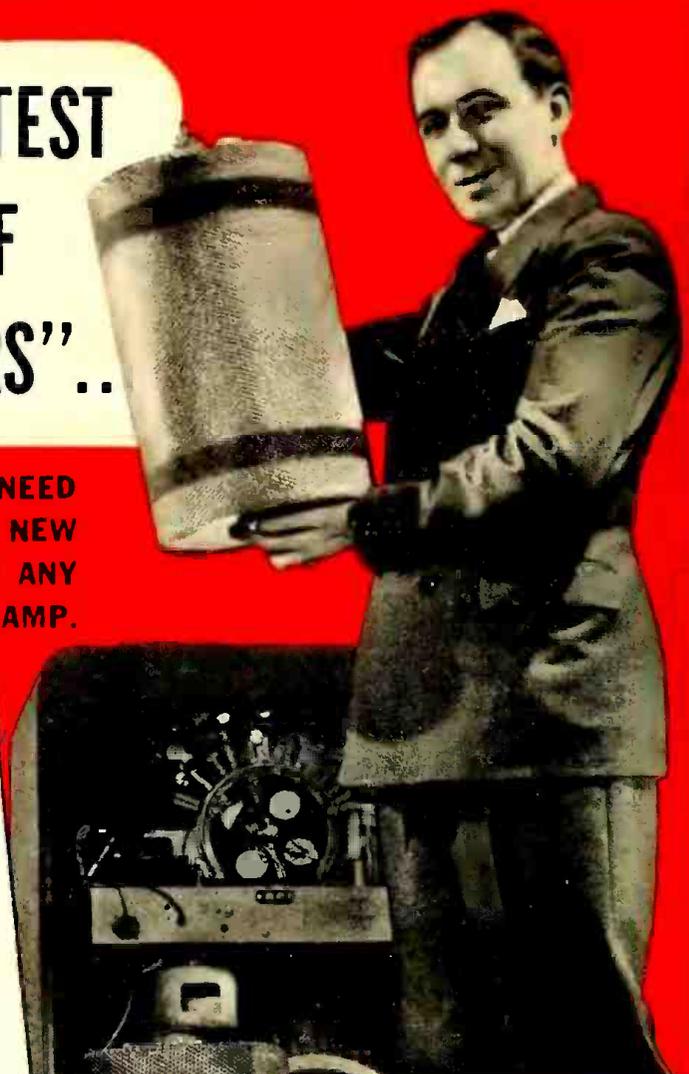
GET YOUR **FREE** COPY OF  
THIS VALUABLE BOOK ... NOW!  
THE GENERAL ELECTRIC  
**KEYBOARD SELLING PLAN**

(SPECIAL  
DEALERS'  
EDITION)

A tested selling  
plan for increas-  
ing your radio  
sales through  
HOME SELLING  
—based upon the  
actual experience  
of 550 of the

most successful radio dealers in 216 cities  
throughout the nation.

A real working manual and guide to successful  
home selling. A smart merchandising campaign  
for your local promotion. Get your copy  
today from your G-E Radio Distributor.



Again General Electric leads the parade with the most brilliant radio development of the past ten years—the amazing Beam-a-scope. This new scientific built-in mechanism does away entirely with the need for unsightly aerial and ground wires. It makes the new G-E the one radio that does not need to be “anchored” in one fixed location in the room. It operates in any spot—in any room. Just plug it in like a floor lamp—anywhere you choose. Also, the Beam-a-scope reduces local static interference—gives you finer, quieter reception—especially in noisy areas.

Think what a tremendous advantage the Beam-a-scope gives you in closing demonstration sales—in the home—or on the sales floor. It's this year's greatest radio sales feature.

Every radio in the new 1939 G-E line is designed and engineered for sales action. This year, more than ever, it's easier to sell the new G-E Radios than to sell *against* them.



# RADIO

GENERAL  ELECTRIC



## A Nine Point Star to Solve Your **CONDENSER PROBLEMS**

This entirely new Mallory development brings you all the advantages you've ever had in condensers, plus new improvements of tremendous significance to you.

### 9 Star Points Feature the New

P. R. MALLORY & CO. Inc.

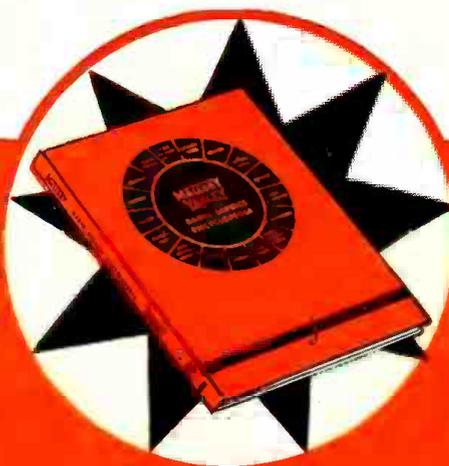
# MALLORY Type BB Condensers

- 1 Positive, non-corroding connections.
- 2 Positive acting gas seal... condensers cannot explode.
- 3 One piece drawn aluminum can.
- 4 Heavy leads... no thin foil tabs.

- 5 New separator material... impervious to surge voltage.
- 6 Extremely low power factor and series resistance.
- 7 Uniformly low RF impedance.
- 8 Uses new Mallory fabricated plate. Much shorter than other types of plate for given capacity. No acid etching. No squeezing to fit can. Plenty of room for separator and electrolyte.
- 9 No temperature limitations due to small size.

### Another Star of the First Magnitude the 2nd Edition Mallory-Yaxley Radio Service Encyclopedia . . .

You'll agree with thousands of other service men that the 2nd Edition "MYE" is the greatest help a service man ever had. Covers every phase of automatic tuning... every system. Nearly twice the information given in the 1st Edition. Second printing just off the press. Be sure to have your distributor reserve a copy for you now.



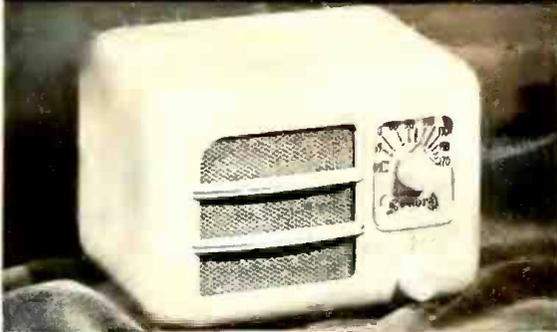
USE  
P. R. MALLORY & CO. Inc.  
**MALLORY**  
REPLACEMENT  
CONDENSERS . . . VIBRATORS

P. R. MALLORY & CO., Inc.  
INDIANAPOLIS, INDIANA  
Cable Address — PELMALLO

USE  
**YAXLEY**  
REPLACEMENT  
VOLUME CONTROLS

# Yes! Sonora

OFFERS PROFITABLE  
DISTRIBUTOR OPERATION



THE "TEENY-WEENY," P-100. A 4 tube gem-like AC-DC radio that will fit in the palm of the hand. Tunes 1720 to 550 K.C. 2 Watts Output; Beam Power Tube; Dynamic Speaker; Illuminated Dial; Built-in Aerial. Plastic cabinet; available in ivory, black or walnut. Only 6 3/4" x 4 7/8" x 4 7/8". Weighs only 4 lbs. Black or walnut lists at only.....

**\$9.99**



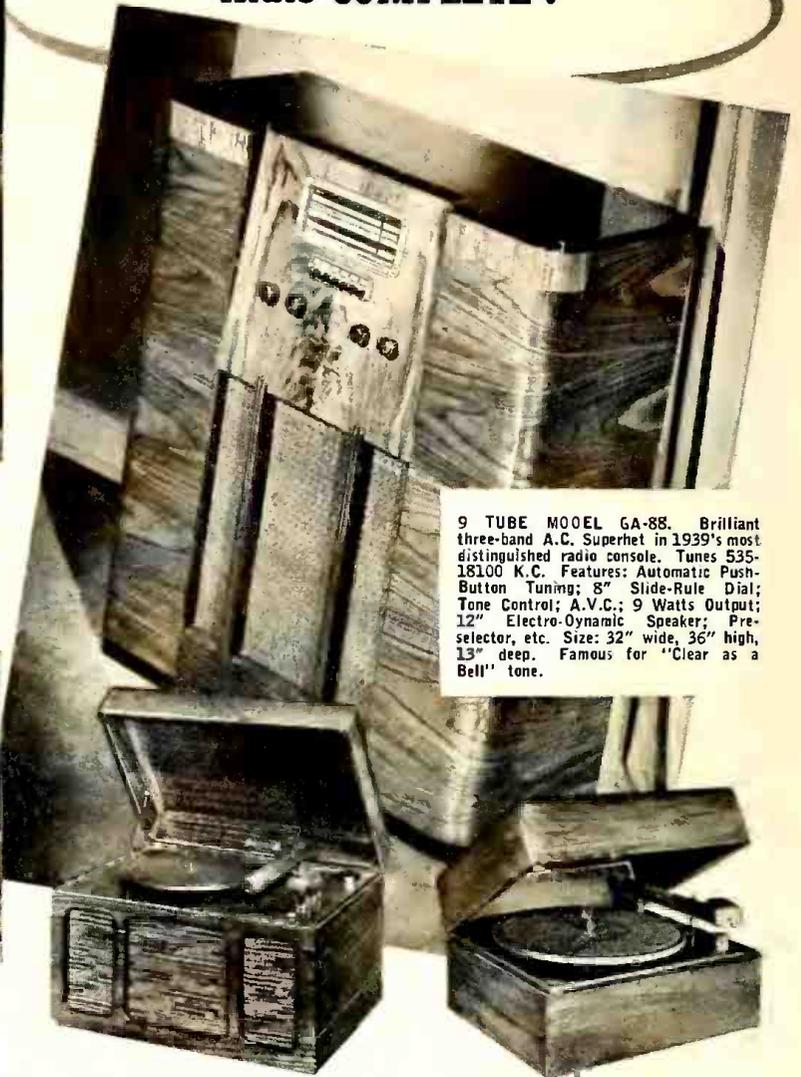
5 TUBE MODEL PS-102. "Teeny-Weeny" style. Tunes 1720 to 550 K.C. and police calls. AC-DC Superhet Circuit; A.V.C.; 2 Watts Output; Beam Power Tube; Dynamic Speaker; Illuminated Dial; Built-in Aerial. Beautiful molded cabinet; available in ivory, black or walnut. Only 6 1/2" x 4 1/2" x 4 1/4". Weighs only 5 lbs. Black or walnut lists at only.....

**\$12.95**



6 TUBE MODEL D-12. A two-band AC-DC Superhet of brilliant styling. Tunes 1720 to 535 K.C.; 2200 to 7000 K.C. Features: 2 Watts Output; Beam Power Tube; Tone Control; A.V.C.; 6" Slide Rule Dial; 6" Electro-dynamic Speaker. Size: 16" x 7 1/2" x 9 3/4". The new type table cabinet has the exclusive SONORA louvre grille.

with **PRICES** that pack sales appeal-  
and a line that's **NEW**, that's **SMART**,  
that's **COMPLETE!**



9 TUBE MODEL GA-88. Brilliant three-band A.C. Superhet in 1939's most distinguished radio console. Tunes 535-18100 K.C. Features: Automatic Push-Button Tuning; 8" Slide-Rule Dial; Tone Control; A.V.C.; 9 Watts Output; 12" Electro-Dynamic Speaker; Pre-selector, etc. Size: 32" wide, 36" high, 13" deep. Famous for "Clear as a Bell" tone.

P-800 ELECTRIC PHONOGRAPH. A magnificent new A.C. musical instrument. Has full six watts output. Features: Dynamic Speaker; Tone Control; Variable Speed self-starting motor; 10" turntable; Crystal pickup with tangent head. Plays all size records flawlessly. In solid walnut cabinet.

PB JR. RECORD PLAYER. The finest available. Plays all size records through any radio. Has Crystal pick-up, self-starting motor, 8" turntable, volume control and on-off switch, etc. For 110 volts A.C. 6 1/4" x 14" x 10 1/2". Weighs only 10 lbs. In solid walnut cabinet with removable cover.

# Sonora

*Clear as a Bell*

**RADIO & TELEVISION CORP.**  
**MERCHANDISE MART • CHICAGO**

PHONOGRAPH DIVISION:

Sonora Electric Phonograph Company • 132 W. 22nd St., N. Y.

SONORA is open for qualified distributors for territories not yet adequately represented. Write, phone or wire for complete details.

**SINCE 1914 - THE LEADING NAME IN THE MUSIC REPRODUCING WORLD**

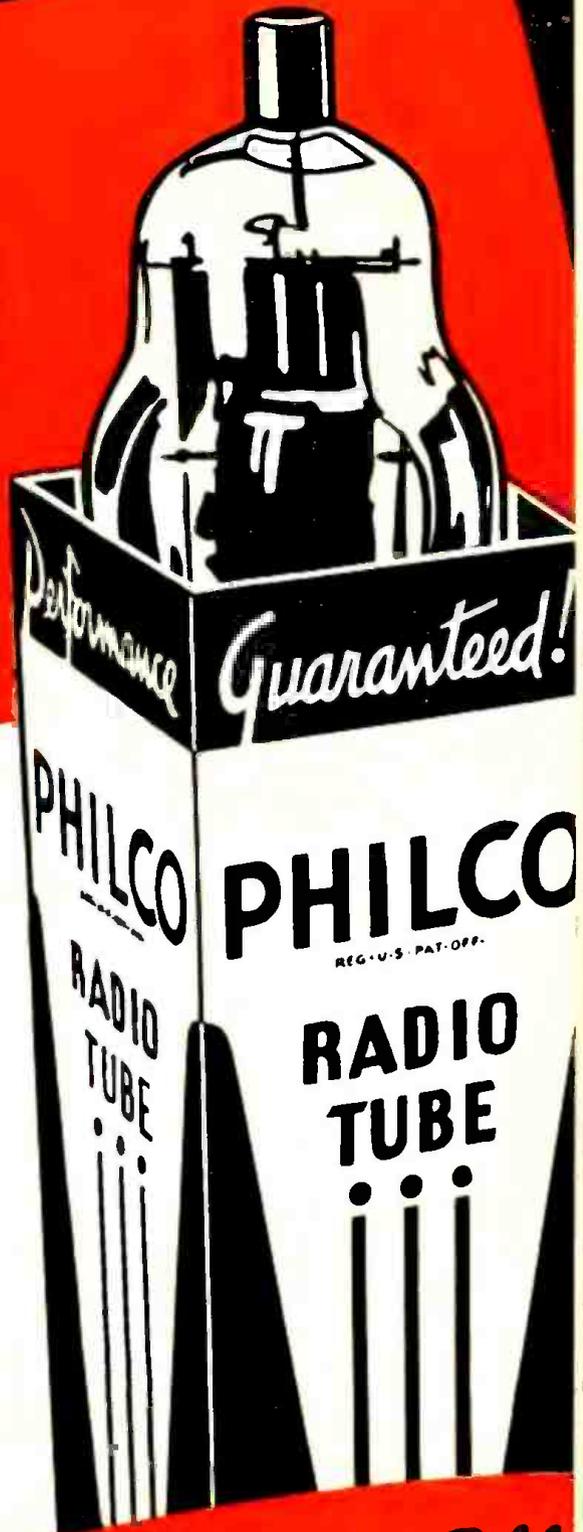
There's always a  
**READY MADE**  
market for

# PHILCO TUBES

**T**HERE are alone FIFTY-FIVE MILLION Philco Radio sockets whose tubes must eventually be replaced. And when that time arrives, Philco Tubes will be the natural and inevitable choice of each Philco owner. Only Philco offers such a huge replacement opportunity . . . and only Philco dealers are in a position to cash-in on this vast "ready made" market!

In addition, millions of owners of other make radios are bound to be influenced by Philco prestige, Philco popularity and Philco advertising. They, too, will specify Philco Tubes when replacement time comes around.

No wonder the dealer who concentrates on Philco Tubes has the greatest "ready made" market in existence . . . and the greatest opportunity to make real money!



*The Easiest Tubes in the World to Sell*

# FIRM FOUNDATIONS



**E**VERY Sylvania tube is built on a "firm foundation"—you may be sure of that. For in the basing process—as in every other step of manufacture—Sylvania insures perfection by accepting only the finest in materials and workmanship.

To begin with, a special grade of basing cement is used, the best obtainable—and Sylvania's base shells undergo exacting tests before acceptance. Then the bases are "loaded" with cement as shown above . . . the glass

bulbs are carefully attached—and finally, the complete units are slowly baked in temperature-controlled ovens to secure perfect adhesion.

At the Sylvania factory, it's "quality in everything"—from the very beginning of production until the tubes are packed and shipped. That's why you can recommend Sylvania's with confidence . . . and sell them with profit! Hygrade Sylvania Corp., Emporium, Pa. Cable HYSYLVANIA, N. Y.

*Hygrade Sylvania Corporation Also Manufactures the Famous Hygrade Lamp Bulbs.*

## SYLVANIA

SET-TESTED RADIO TUBES





MORE WORTHWHILE  
SELLING FEATURES  
THAN ANY LINE  
I'VE EVER SEEN!

AM I GLAD  
I'M WITH  
STROMBERG-  
CARLSON!

IT'S GOING TO  
BE A BIG YEAR  
FOR ME AND  
MY DEALERS!

THEY'VE SEEN...THEY'VE BOUGHT...THEY AGREE

## *It's Radio's Hottest Line!*

Distributors and Dealers who have seen the new Stromberg-Carlsons say, "It is the radio line of the year." Every dealer owes it to himself to see this great line at once. Have your distributor give you radio's real profit story.

PORTLAND, MAINE  
Farrar-Brown Co.  
BOSTON, MASS.  
Gross Sales, Inc.  
NEW YORK, N. Y.  
Gross Sales, Inc.  
ALBANY, N. Y.  
Hudson Valley Asbestos Corp.  
ELMIRA, N. Y.  
Barker, Rose & Kimball  
ROCHESTER, N. Y.  
Stromberg-Carlson Tel. Mfg. Co.  
BUFFALO, N. Y.  
Graybar Electric Co.  
PHILADELPHIA, PA.  
Motor Parts Co.  
SCRANTON, PA.  
Charles B. Scott Co.  
ALTOONA, PA.  
Electric Appliance Distributors  
PITTSBURGH, PA.  
Graybar Electric Co.  
CLARKSBURG, W. VA.  
Williams Distributing Co.  
RICHMOND, VA.  
Graybar Electric Co.  
AKRON, OHIO  
Hamburg Bros. Co.

COLUMBUS, OHIO  
Pixley Electrical Supply Co.  
CINCINNATI, OHIO  
Graybar Electric Co.  
LOUISVILLE, KY.  
Stratton & Terstegge Co.  
NASHVILLE, TENN.  
Tennessee Valley App., Inc.  
DETROIT, MICH.  
Specialties Distributing Co.  
SOUTH BEND, IND.  
Cloud Bros. Co.  
CHICAGO, ILL.  
Stromberg-Carlson Tel. Mfg. Co.  
MOLINE, ILL.  
Rogers Maytag Co.  
MILWAUKEE, WISC.  
Lappin Electric Co.  
DUBUQUE, IOWA  
Renier Radio & Television Co.  
MINNEAPOLIS, MINN.  
Graybar Electric Co.  
SIOUX CITY, IOWA  
Warren Electric Co.  
ST. LOUIS, MO.  
Brown Supply Co.  
KANSAS CITY, MO.  
Jenkins Music Co.

OKLAHOMA CITY, OKLA.  
Jenkins Music Co.  
WICHITA, KANSAS  
Jenkins Music Co.  
EL PASO, TEXAS  
Peterson Lumber & Paint Co.  
DENVER, COLO.  
Robert F. Clark Co.  
ALBUQUERQUE, N. M.  
Raabe & Mauger Hdware Co.  
PHOENIX, ARIZ.  
Penrod & Siegmund  
SALT LAKE CITY  
Radio Studios, Inc.  
SPOKANE, WASH.  
Hughes & Co.  
SEATTLE, WASH.  
Graybar Electric Co.  
PORTLAND, OREGON  
Graybar Electric Co.  
SAN FRANCISCO, CALIF.  
Graybar Electric Co.  
LOS ANGELES, CALIF.  
Stromberg-Carlson Tel. Mfg. Co.  
SAN DIEGO, CALIF.  
Electric Supplies Dist'g. Co.

## HERE IS WHY THEY BOUGHT..

### LABYRINTH MODELS from \$119.50\*

Radio's greatest selling feature. Invention for improving tone quality—now available at prices anyone can afford.

### AUTHENTIC DESIGNS—Style New to Radio—from \$99.50\*

Just what everyone has been wanting for years. The cabinet-making art of the 18th Century combined with the radio skill of the 20th.

### TABLE MODELS priced from \$39.95\*

The most attractive sets of this type to be found in radio. Cabinets in walnut and in rosewood—a size for every table radio need.

### CORNER CABINET RADIO and EAR- LEVEL PROJECTION—New Develop- ments Made Possible by the Labyrinth

A style that makes every prospect say, "Why didn't someone do it before?" A feature that improves tone quality in any room.

\* All Prices F. O. B. Factory

Get in touch with your nearest distributor or write direct to the

Stromberg-Carlson Telephone Mfg. Company  
179 Carlson Road, Rochester, N. Y.

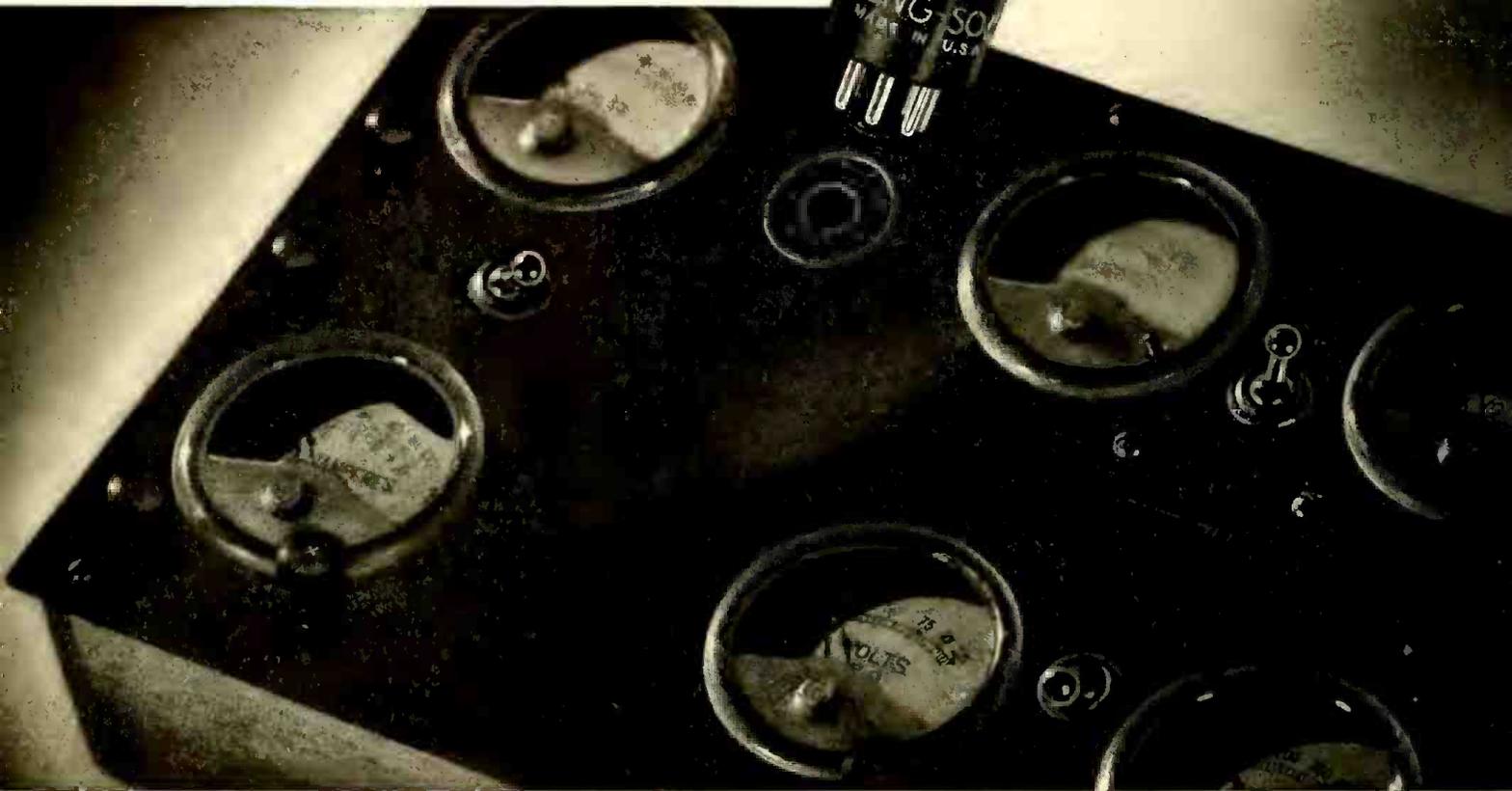
Please send me complete information  
on Radio's Hottest Line.

Name \_\_\_\_\_

Address \_\_\_\_\_

*There is nothing finer than a*  
**Stromberg-Carlson**

**TOO BAD** THERE AREN'T  
METERS TO CHECK *profits*



**S**UPPOSE your tube checker *did* have a profit and loss dial. Which way would the needle swing?

Would it indicate that investment losses due to slow turnover, obsolete stock and cut-price competition are cutting into your profits?

Under the Tung-Sol Consignment Plan, the needle *always* reads plus. Your profits are guaranteed, because you pay only for the tubes you sell *after* you sell them.

Thousands of dealers who could qualify have found this plan the means to profitable radio tube sales. Our nearest office will be glad to furnish you with details.

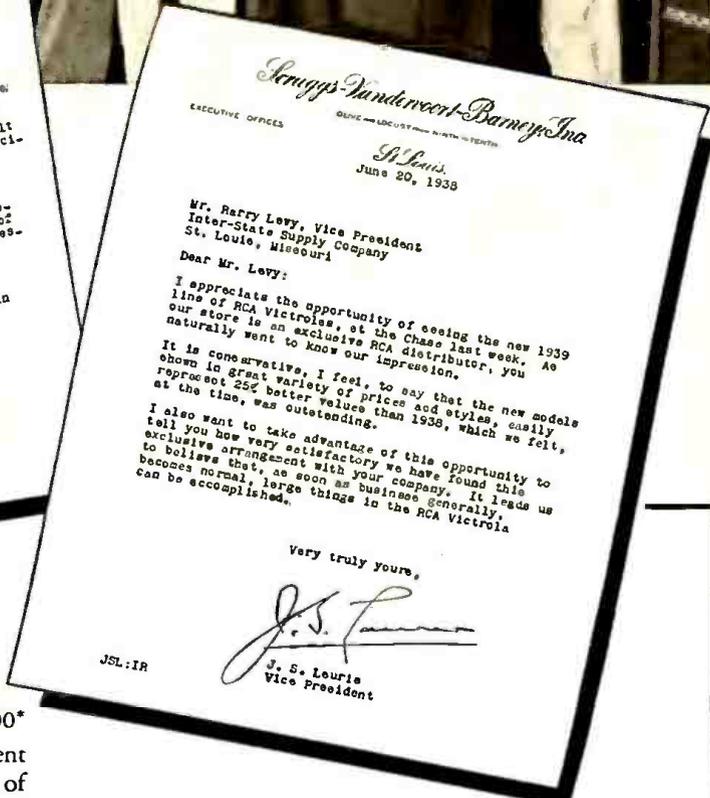
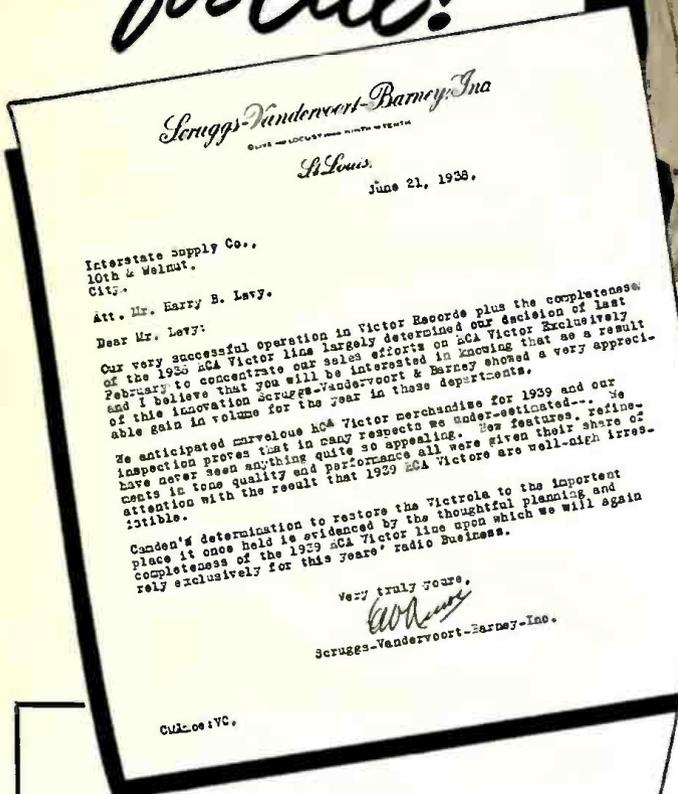
TUNG-SOL LAMP WORKS, INC.  
Dept. C Radio Tube Division

**TUNG-SOL**  
*Tone-flow Radio Tubes*

# "1939 RCA Victor Line 25% Better Values than 1938" SAYS STORE OFFICIAL

Dealer enthusiasm from coast to coast confirms wisdom of RCA Victor's decision to offer

## ELECTRIC TUNING for All!



### Two of many enthusiastic dealer letters

Dealers admire new console grand model 97KG. Price \$85.00\*

... this photograph was taken in the Radio Department of Scroggs-Vandervoort-Barney, St. Louis, Mo.—one of the leading department stores in the country. Harry Levy, RCA Victor distributor, is shown demonstrating RCA Victor Model 97KG to Clarence W. Amos, manager of the Scroggs-Vandervoort-Barney Radio Department, Joseph Cantoni, an owner of the Southside Radio Service Co. of St. Louis, and J. S. Laurie, vice-president of Scroggs-Vandervoort-Barney. Letters from Messrs. Laurie and Amos are reproduced on this page. They mirror the enthusiasm dealers from coast to coast hold for the new line. Model 97KG is just one of 32 sensational new RCA Victor radios with Electric Tuning—each one of which is a sure-fire profit item—backed with features to help you sell. Some of the outstanding features of Model 97KG are its

new distinctive Console Grand Cabinet, Electric Tuning for 6 stations, Victrola Button, "Plug-In" for Victrola Attachment, Straight-Line Dial and RCA Victor Metal Tubes. \*Price f.o.b. Camden, N. J., subject to change without notice.

FOR FINER RADIO PERFORMANCE—RCA VICTOR RADIO TUBES  
 RCA presents the Magic Key every Sunday, 2 to 3 p. m., E. D. S. T., on the NBC Blue Network

 **RCA Victor**  
 RCA Manufacturing Co., Inc., Camden, N. J.  
 A SERVICE OF THE RADIO CORPORATION OF AMERICA



HARRY BOYD BROWN  
National Merchandising  
Manager of Philco

# All Owners of Old Sets Must Now Admit Their Radios Are Obsolete

**P**HILCO Mystery Control revives the demand for quality radio—removes the emphasis on price—sharply reverses the trend toward cheaper sets. Yes, thanks to Philco Mystery Control, this

Fall season will see the greatest sales and profit opportunity for Philco Dealers since the introduction of the AC Tube 10 years ago.

A thrilling, dramatic, exciting radio invention! A traffic-getter without parallel! A demonstration that you can scarcely believe even after you have seen it. But—most important of all—a radio invention that brings a new comfort—a new convenience and pleasure to radio operation and enjoyment. A revolutionary radio development that is appreciated by everybody the instant it is seen.

Philco Mystery Control makes possible a newspaper advertising story that will pull like a house afire—and better still—that will bring buyers *not* looking for bargains, *but buyers that are willing to pay the price for something fundamentally and vitally new—something tremendously desirable.*

Philco Mystery Control will bring hundreds of thousands of new radio buyers into the market. Buyers whom mere price appeal could not touch—buyers who will now realize that their old radio is truly obsolete—because they see in Mystery Control the one thing they will want more than the old radio they have been satisfied with for years.

Yes—hundreds of thousands of people—you and I have met many of them—own radios for which they paid \$300 or more a few years ago. You have heard them say, “My old radio sounds just as good as any of these late models”. Nothing short of actual failure to operate has been able to lure these people into the market.

But Mystery Control will shatter that resistance. Overnight, every radio relic will lose its lustre! Every time its owner rises from a chair to change a program, every time he leaves his soup at the dinner table to tune in a station, every time he wishes for music from his porch or bedroom, that old set will whisper to him, “I’m all done! I’m obsolete! What you need is Philco Mystery Control!”

There is no substitute for Philco Mystery Control. And remember—it is an exclusive Philco invention. Only Philco has it. Only Philco dealers will cash-in on it.

*Harry Boyd Brown*

# PHILCO

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201 N. Wells, Chicago, Ill.

# RADIO TODAY

MEMBER AUDIT BUREAU OF CIRCULATIONS

ORESTES H. CALDWELL  
Editor  
M. CLEMENTS  
Publisher

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CALDWELL-CLEMENTS, INC.  
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New York, N. Y.

## RADIO INVENTORIES IN GOOD SHAPE

Radio goes into its Fall season with stocks in very excellent shape compared with a year ago. At present there is no congested situation. Manufacturers' inventories are largely liquidated, and no threat overhangs the market. Jobbers and dealers are moving their stocks satisfactorily, clearing the way for new purchases. No disquieting factors are present in the 1938 Fall picture, and the stage seems all set for healthy recovery.

Meanwhile the new RMA system of checking radio production by weekly reports of manufacturers' outputs, inventories, and jobbers' stocks, is completing its first month's trial. About two-thirds of the receiver manufacturers are reported to be cooperating in the survey, but since it is not yet known whether large or small set makers are missing from the census, the survey will be more significant for trends revealed from week to week, than for actual production figures.



Paul S. Ellison of Hygrade Sylvania Corp. has been named chairman of the Sales Managers' Club, Eastern group.

\$5,848,841.64, against \$6,754,272.07 for the year ending June, 1937.

For the six months from January to June, inclusive, 1938, the radio tax collections were 31.5 per cent below those of the first six months of 1937.

## EXCISE-TAX INDEX UP

An increase in excise-tax collections from the Federal 5 per cent excise tax on radio, the first increase since November, 1937, was recorded in June, 1938, by the U. S. Internal Revenue Bureau. The June excise-tax collections, covering operations largely of last May, were \$448,882.61, an increase of 12 per cent above tax collections of \$394,641.50 in June, 1937. Taxes collected on mechanical refrigerators last June were \$565,129.15 against \$976,637.18 in June, 1937.

For the fiscal year ending June 30, 1938, the excise tax collections were 13.4 per cent less than the corresponding fiscal year ending June 30, 1937, and about \$1,000,000 below the Treasury estimates when Congress was considering the continuation of radio and other excise taxes last winter. The total radio and phonograph taxes for the June, 1938, fiscal year were

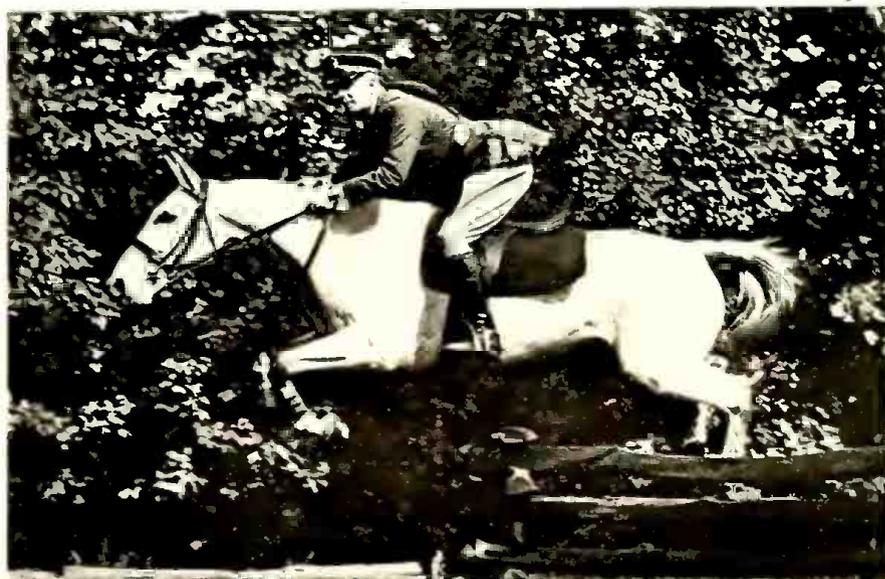
## MAN-HOURS AND WEEKLY EARNINGS RISE

An increase of half-an-hour in the length of the average work-week in manufacturing contributed to an increase in average weekly earnings from \$23.38 in May to \$23.77 in June, according to figures just released by the National Industrial Conference Board. Average hourly earnings were the same in June as in May.

Among the twenty-five industries covered by the Conference Board's regular monthly survey, increases in total man-hours worked were noted in the following: wool, 12.6 per cent; iron and steel, 9.1 per cent; boot and shoe, 8.6 per cent; leather tanning, 6.8 per cent; lumber and millwork, 6.6 per cent; furniture, 3.4 per cent; meat packing, 3.3 per cent; rubber, 1 per cent; and hosiery, 0.6 per cent.

A comparison of conditions in June of this year with those of a year ago shows the following trends:

Total man-hours, —39.1 per cent; payrolls, —38.2 per cent; hourly earnings, +1.6 per cent; length of aver-



Col. H. H. Frost, many times president of RMA, is an ardent horseman. Here he is on his favorite mount, Jeb Stuart, at the Piping Rock Horse Show, between spells of working on his new intercommunicator and other radio enterprises.

age work-week, —17.2 per cent; weekly earnings, —16.2 per cent; cost of living, —2.5 per cent; real weekly earnings, —14 per cent; employment. —26.4 per cent.

## BIG REPLACEMENT MARKET —FARMS LEAD

A recent survey of more than 200,000 electrified farm families has shown 93.7 per cent as owning one or more radios.

Only 12.1 per cent owned sets less than one year old. Sets either one or two years old amounted to 31 per cent, while those which were three, four and five years old totaled 25.1 per cent. The chief surprise was that radios over six years old accounted for 31.8 per cent, the highest single grouping.

The total proportion of radios over three years old amounted to 56.9 per cent, or considerably more than half of all the radios owned.

"The important factor," says Philco's Sayre M. Ramsdell, "is that almost a third of radio owners, from this survey, own radios more than six years old. Within the past six years, or even three, radio has been revolutionized. Automatic tuning, foreign reception, vastly better tone and design are all very recent. This coming year will find even more revolutionary improvements in radio.

"The farmer," Ramsdell continued, "is in a more advantageous economic position than most of the urban population. Farm prices have been

maintained at satisfactory levels. Significant of the buying power of the farmer is the fact that 58 per cent of all farms are absolutely free of mortgage indebtedness, and 18 per cent is the ratio of farm debt to value, which is better than in most urban and industrial areas."

## "BUSINESS IS MUTUAL SERVICE"

George D. Barbey, national secretary of the National Radio Parts Distributors Association, and head of the George D. Barbey Company, radio parts jobbers of Reading and Lancaster, Pa., has a motto which he prints on all his company letterheads and on advertising blotters issued by the concern. Here it is:

*"Business is mutual service. The more you do for us, the more we can do for you."*

A number of radio parts jobbers attending the Chicago trade show asked Mr. Barbey for permission to use this slogan on their own literature, which, of course, was gladly given.

## URGES LICENSING OF SERVICEMEN

F. Lingnor of Acme Supply Corp., 510 W. State St., Milwaukee, Wis., is leading a campaign to have all radio servicemen licensed by the state. In letters sent to the industry he writes:

"A state license for the serviceman would give him prestige, and stop so-called gyp and cut-rate shops, also discourage a great many incompetents from becoming competitors.

"The watchmakers license law went into effect (in Wisconsin) April 29, 1937. After this period of a little over a year, it is found that watch repair prices and wages have increased. The morale of watch makers has risen and they are no longer a down-trodden trade.

"Radio servicemen belong in the professional group, and only a state license will place them on a higher plane."

## A NEW SALES COMBINATION

★ Radios, microphones, movie projectors and cameras, and films have grouped themselves together as a new promotion bet for radio men. Dealers may now sell up-to-the-minute professional home movies, with sound, to the average home.

For some time, radio stores have merchandised cameras and projectors for home movie use. Now, the suggestion is that "voice" effects be sup-

plied by speaking through a microphone hooked to the radio set. Scripts for these voice effects are being supplied by Castle Films, Inc., New York, makers of professional films for home, club and school movies.

Castle films ranging in price from \$1.75 up list are available to dealers who want to hike their store traffic by supplying film releases to those customers who look to the radio store as home movie headquarters. The company attracted considerable attention with its 16 mm. and 8 mm. films of England's Coronation and also with



Lee McCanne of Stromberg-Carlson gets a riding from his merry son, Roy.

its work on the *Hindenburg* crash. Newest releases are "Hitler Invades Austria," "American High Spots," "Canadian High Spots," and "Big Fish." The releases are available at the rate of about four per month.

## A RECORD MOB DIALS THE FIGHT

Example of how the U. S. population makes "a mass attack on radio dials when the right show is broadcast was June 22 when an all-time record audience tuned to NBC for the Louis-Schmeling event.

The Cooperative Analysis of Broadcasting interviewed set owners, found that 63 per cent of the total heard the fight. Of all those who did radio listening after 8 p.m., 92 per cent got the bout, and at 10 p.m. 97 per cent of all tuned sets were hearing the ringside account.



Ernest Alschuler, busy president of Sentinel Radio, was a recent visitor to New York City.

# TO START UP RADIO-BUYING!

## PLANS FOR A NATIONAL RADIO WEEK THIS FALL

**R**ADIO buying needs a tonic. Everyone in radio—whether dealer, serviceman, distributor or manufacturer—agrees that radio purchasing needs to be got going again.

“As soon as the public starts buying sets freely,” we are told on all sides, “everything will be all right—all along the line!”

And to pry radio off “dead-center,” this Fall, we have all the tools and materials needed, right in our own hands. Radio itself possesses the greatest promotional machinery ever devised by man—yet, surprisingly, radio has never used this in its own behalf.

But now some radio men are waking up. Already the broadcasters have reorganized their own affairs, elected a new president, and are out to prove to Washington and to the general public that radio broadcasting is performing a public service and doing it darned well.

### *Industry banquet, big show*

Some broadcasters go further and talk about a big National Radio Week for this Fall—with headline programs, an industry banquet and perhaps a big Radio Show to demonstrate to laymen how much bigger values one gets for his radio dollar now than ever before.

The broadcasters can easily stage a monster affair out of National Radio Week. They can make radio and radio programs the center of attention this fall. But the set and parts manufacturers should be eager to play roles too, in this big promotional effort, and to see that the effects of this timely stimulant to sales are felt and shared in by every radio dealer, serviceman and distributor. The electric-light companies, who without lifting a hand, collect as much from radio as do the broadcasters themselves, should be asked to help by devoting local advertising space to radio before and during National Radio Week.

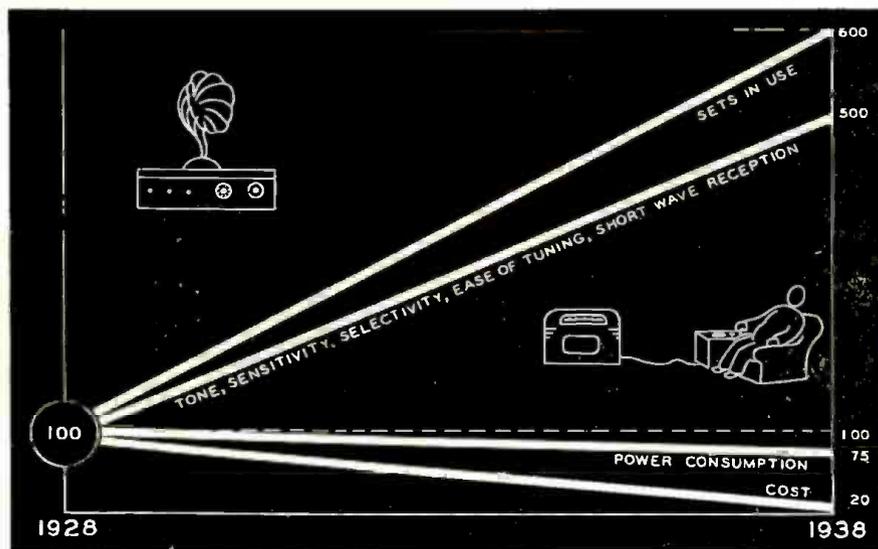
### *Push sets, tubes, antennas, parts*

Thus a National Radio Week can be made a great countrywide occasion to glorify radio, to focus attention on programs, and to stimulate sales of receivers, tubes, antennas, parts, and radio service, tying in with other promotions already under way. Through such a campaign, the broadcasters will build more listening audience; the industry will find more customers. And the public will be led to buy additional radios and to appreciate how much more the radio dollar buys today than ever before.

A National Radio Week in October should start radio-buying going again; speeding up Fall sales and paving the way for a big radio Christmas.

Let's see that radio doesn't miss this million-dollar opportunity for all radio interests to pull together, and build back the business prosperity of earlier days.

This chart, compiled by *Sales Management* from information supplied by *Radio Today*, shows how engineering design and modern production have multiplied radio values.



•  
**HOW NEW  
RADIOS  
GIVE TEN-  
FOLD VALUE  
FOR THE  
DOLLAR  
COMPARED  
WITH 1928**  
•

# EVERY DAY, MAKE TEN CALLS!

## Radio men add outside selling, as National Salesmen's Crusade makes buyers more receptive

A big sales campaign is underway in all the forty-eight states of the nation. It is built around a very simple formula for action:

"Make ten calls every day."

In other words, each day plan to push ten new door-bells, to find buyers.

Two sound principles underlie this National Salesmen's Crusade: 1. Despite the recession, many families still have the ability to buy. 2. Selling can stimulate demand and public confidence, thus accelerating consumption and in turn speeding production and employment. "Sales mean jobs." And jobs mean more sales.

Already the campaign is producing sales in other lines—refrigerators, automobiles, furniture, clothing—all over the country. From border to border and coast to coast local groups have taken up the effort, and whole

populations are alive to the purposes of the campaign and ready to give a sympathetic reception to the salesman who calls "cold turkey."

### Radio men join in

Radio men have used little "outside selling" in the past. Too often they have been content to wait for customers to come and buy. But now that whole communities are getting sales-minded—and sales receptive—it is time for radio men to join in, and put these successful methods to work to sell radio sets, tubes, parts and service.

"One of the big reasons this sales crusade has gained such a great impetus in so short a time is that it is so simple. There's nothing to it. Anybody can do it," comments John F. Ditzell, Stewart-Warner sales manager. "You don't have to join anything to get in on it. You don't have

to buy anything. All you need do is fit *yourself* into the picture and go to town with the idea."

"A strong point in favor of this concerted effort to get America off dead-center is that it is timed right," adds Mr. Ditzell. "There are increasing signs that sales organizations have decided to quit waiting for the Administration to pull a white rabbit out of the hat, and are taking recovery into their own hands. As one man put it: 'You can't make any foot-prints in the sands of time sitting in a chair crabbing about the government.'"

### Visit other business men

Personalized selling can bring many profit dollars tinkling into a radio dealer's cash register, according to Alvin Anderson, Columbus, Wis.

Here is how it works: Mr. Anderson gets in a shipment of new radios, tries them out and finds reception wonderful, and selectivity and range all that could be asked for. Then he gets his direct mail and newspaper advertising program working so that everyone in his territory who is interested, can read about the features of the new sets, and thus see why they are superior to last year's models.

Then Mr. Anderson starts out during spare time to call on all the business men in his town. Not a high-pressure selling campaign, understand. He merely drops in to call on business men and begins talking radio programs. He knows the favorite radio programs of most of the merchants, and mentions "how swell these programs come in" on the new sets.

Often such a lead gets the merchant interested. He asks questions, and before Mr. Anderson leaves he has invited the merchant to come to the store some afternoon or evening to listen to the new sets, and often the result is another sale.

Office people are prospects for radios, too. Picture shows Rockefeller Center office of Miss LeBrun Rhinelander, social arbiter for young women, with her handy Andrea "studio monitor" as a desk-top companion.



### Seven "men about town"

Jensen Bros., Terre Haute, Ind., where G. R. Turner is a sales expert, have found that the new emphasis on house-to-house work gives the store a new command of summer radio sales. The firm has seven men "around the town," using all possible music and appliance contacts as openers.

Here, three-day home demonstrations are favored; Jensen records show that 70 per cent of them result in sales.

### Jes' circulate

At the Mulvane Radio Co., Mulvane, Kansas, where farm radio business is important, a novel part of the outside sales work is "just circulating around on street on the days when the farmers are in town."

Barber shops and certain shady spots on Main Street where knots of farm folk are seen to gather are good bets, according to Mulvane radio men. To remain in the store and depend on window displays in a small town like this, where you can step out on the street and see practically everything that goes on, is no good, they say.

The subject of the weather is forever of great importance to farmers, because it makes or breaks their crop yields. Agriculturalists will always "open up" on this topic, and it is an easy matter for radio salesmen to get the conversation around to the matter of wind-chargers, without starting out with what is obviously a sales attack.

### Twelve selling

"We have twelve fulltime radio salesmen now doing a job outside the store," reports W. S. Riley of the Robinson Music Co., Steubenville, Ohio.

"We believe in this 'sales-mean-jobs' campaign because we think that salesmen should realize that they actually are a factor in the business structure of this country."

To give the Robinson campaign some special purpose, the store is currently doing its outside selling among the finest homes of Steubenville. These prospects are commonly believed to be hard to approach, but early results in this Ohio town indicate that skilled salesmen get a good

"There's no place like home" to demonstrate a fine receiver. And no home cozy-corner is complete without a modern radio. Illustrated is the novel Stromberg-Carlson "corner console" which fits diagonally into any corner space.

### SIX DONT'S FOR SALESMEN

Don't forget that the basic desire of human beings is for *things* and not for money.

Don't count on fancy selling ideas and sales psychology to take the place of *hard work*.

Don't waste your time with the prospective customer in the discussion of politics, economics, the depression, recession, the New Deal or the weather. Too many salesmen spend 75 per cent of their talking time on the political and economic situation, 15 per cent on the weather, and only 10 per cent in talking about the goods they have to sell.

Don't "pad" your call record. In doing so you are fooling yourself more than the boss.

Don't succumb to the urge to lay off on all of the many holidays—and every time the baby has a new tooth.

Don't think that your fine personality and wide acquaintance will get results without hard work—calls, calls, calls.

reception generally, and are allowed to tell their new radio sales story, in full, to wealthy persons in the big homes.

These salesmen are encouraged not to make too many calls per day—one of them made a hundred in a single day and was advised to shorten the list and do a more thorough job at

each door. Home demonstrations are being offered, but are sharply limited to those prospects which are the most likely buyers. Single-day trials are favored.

### Tube openers

A house-to-house canvass in which he offered to test radio tubes free was productive of more business for Al Bains, proprietor of Bains Electric Company, Oneonta, Ala., than he could handle.

The time from 6:00 to 8:30 in the evening was used for the check-up, so as to catch people at home and not to interfere with regular business hours. Bains worked one part of the town at a time, so that a trip could not be charged up to each call.

"The 'old something for nothing' urge gained us entry into 95 per cent of the homes," explained Mr. Bains. "We averaged one tube sale to each home, also various parts. A few owners of old static-makers traded them in for new models. We have a notebook full of customers on whom we are still working.

"This experience was proof to us that the more contacts a dealer establishes with the public the more business he will do."



# ANALYZING THE NEW 1938-39 SETS

Push buttons used on 85% of consoles. Average price down 15%\*

Most important fact about the new sets is that two-thirds of all consoles and table models have push-button tuning (miniature table sets not included). Approximately 85 per cent of the console models offered this year have automatic tuning. In table models the figure is slightly under 50 per cent, mainly because of the much lower price-ranges.

While the use of push buttons for tuning has greatly increased, the average prices have dropped quite a few per cent. The average price of all table (including miniature) and console models is \$57.60 for 1938-39, as compared to \$67.50 for last year and \$65 for two years ago. In one year the average price has dropped 15 per cent.

The reduction in the average price is noticeable in both the table and console models, showing that it is not due entirely to the introduction of the miniature table models. The average console price is \$100.50 for

this year as compared with \$116 a year ago—this is a reduction of about 13 per cent.

The average number of tubes used has also decreased somewhat. In the AC-DC sets the decrease is partly due to RADIO TODAY's application of the R.M.A. tube definition which rules out plug-in line dropping resistors (ballast tubes). This year's average AC-DC table set has 5¼ tubes as against 6.1 for 1937-38. For AC-DC consoles the figures are 7½ for this season and 8.6 tubes for last year. The average miniature table model (mainly AC-DC sets) has 4½ tubes. All table models including miniature have an average of 5.35 tubes, while a year ago it was 6¼.

In the AC type sets the reduction in the number of tubes is a smaller percentage. The average AC table model employs 6.1 tubes as compared with 6¼ for last year. AC consoles this year have an average of 9 tubes while a year ago the figure was 9½.

## More combinations, fewer chairside

While neither chairside sets nor combinations are included in the preceding averages, the following comparisons are available. For this year there are 27 chairside models which

are offered by 10 manufacturers, while in the 1937-38 season there were 18 companies making 40 models. Combinations, on the other hand, are on the increase. This year we have listed in our specifications a total of 115 models under 20 trade-names (electric phonographs are omitted). A year ago there were 19 manufacturers of combinations with only 92 models. And announcements to be made in the next month will add several more manufacturers to the list of combinations. Furthermore, this year's prices are way under those for a year ago. All indications point to an increase in the combination's popularity.

## Automatic tuning simplified

This year's line of sets uses automatic tuning systems that are far superior to those of a year ago. Station set-up has been greatly simplified and electrical circuits stabilized against temperature changes. The telephone-dial type mechanism is used in only one or two models. The mechanical lever type of device has been perfected and is used in more than one-third of the table models having push button tuning.

Since last year a trimmer type of push-button tuning using iron-core coils or inductances has been introduced and it is featured in almost one-third of the push-button consoles. Motor-type tuning is still very popular in the higher-priced consoles, but it is only in third place as shown in the accompanying chart. The diagram showing the use of the various types of push button tuning is based on the number of models listed in RADIO TODAY's specifications. Miniature table, chairside, and combinations are not included.

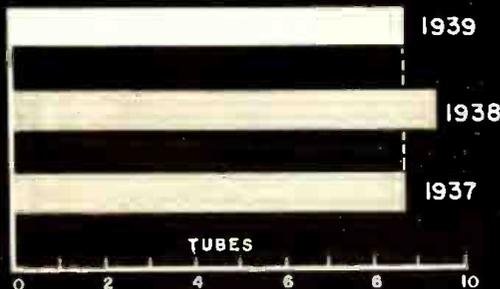
With the advent of temperature compensating condensers and iron-core trimmer units, automatic frequency control has become less popular, being used in only a few of the most expensive models. The drift that was common in previous push-button models not having A.F.C. seems to

\* All figures used in this article are based on RADIO TODAY's specifications appearing in the July and August issues for 1938, the June and July issues for 1937, and the September issue for 1936, and were compiled by Vinton K. Ulrich.

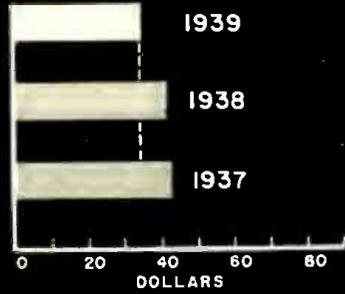
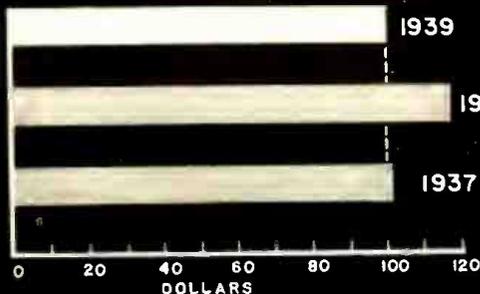
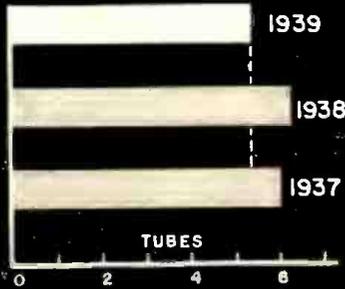
## AVERAGE PRICES AND NUMBER OF TUBES

IN 1939 MODELS COMPARED WITH 1937 AND 1938 SETS

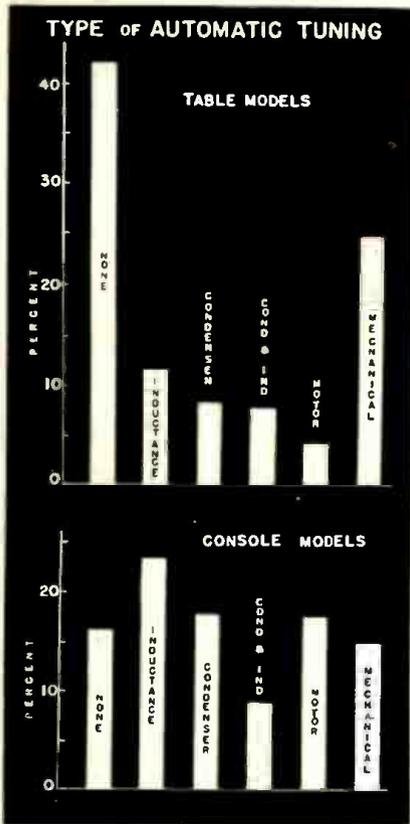
### CONSOLE MODELS



### TABLE MODELS



The "average" consoles for 1939 and two years ago have approximately the same price and number of tubes. The average price of all table models is decreasing each year.



Mechanical type of tuning leads in the table sets, while permeability or inductance type tuning predominates in the consoles.

have been conquered through the use of better and new circuit components.

As might be expected, the glass tube with the octal base is increasing in popularity, and at the expense of the old type glass tubes. Metal tubes are used in more models this year than last. An accompanying chart shows a break-down of the various tube types as employed in consoles and table-type sets for this year and the past two seasons. The white portion of the bar shows the percentage of sets which use the type of tube exclusively. The shaded portion means that the tube type is used in combination with other types of tubes, but that it is the predominating type.

The octal-G bar for 1939 table models is interpreted as follows: 12.7 per cent of all models use the octal-based glass tube; 21.8 per cent of the

Chart at the right shows the popularity of metal, octal glass, and old-style glass tubes over a three-year period. The solid portions of the bar indicate the percentage of sets using the particular type of tube exclusively. Shaded sections show percentage of sets using a particular type of tube in combination with another type. Sets having combinations of tube types are grouped by the predominating tube type.

sets (shaded section) use octal glass tubes in combination with either the old glass or metal types (octal-G tube predominates in the combination). The white portion of the bar at the right indicates that 2.6 per cent of the table models are using the small or miniature type octal-based glass tube.

The increased use of metal tubes in the table sets is found mainly in the miniature and other extremely compact receivers.

As was true last year, the price range of radios starts at a few dollars and soars to many hundreds for the super deluxe models. However, most of the manufacturers have curtailed their activity in the really expensive models. To date only five manufacturers have announced consoles costing over \$170, while a year ago there were eight. This fact is even more significant when one considers the increased use of push button tuning with its attendant increase in cost.

### "RELATIVITIS"— DEADLY TO SALES

"Relativitis" is an insidious disease that attacks at least 75 per cent of all radio sales after they are made, according to Irving Smith, Baranov's, San Diego, Cal.

"The first thing that happens after the purchase of a radio is that all the relatives come to see it. It is then that the insidious germs of 'relativitis' are planted to begin their deadly work of undermining the sale."

Typical remarks by relatives: "The

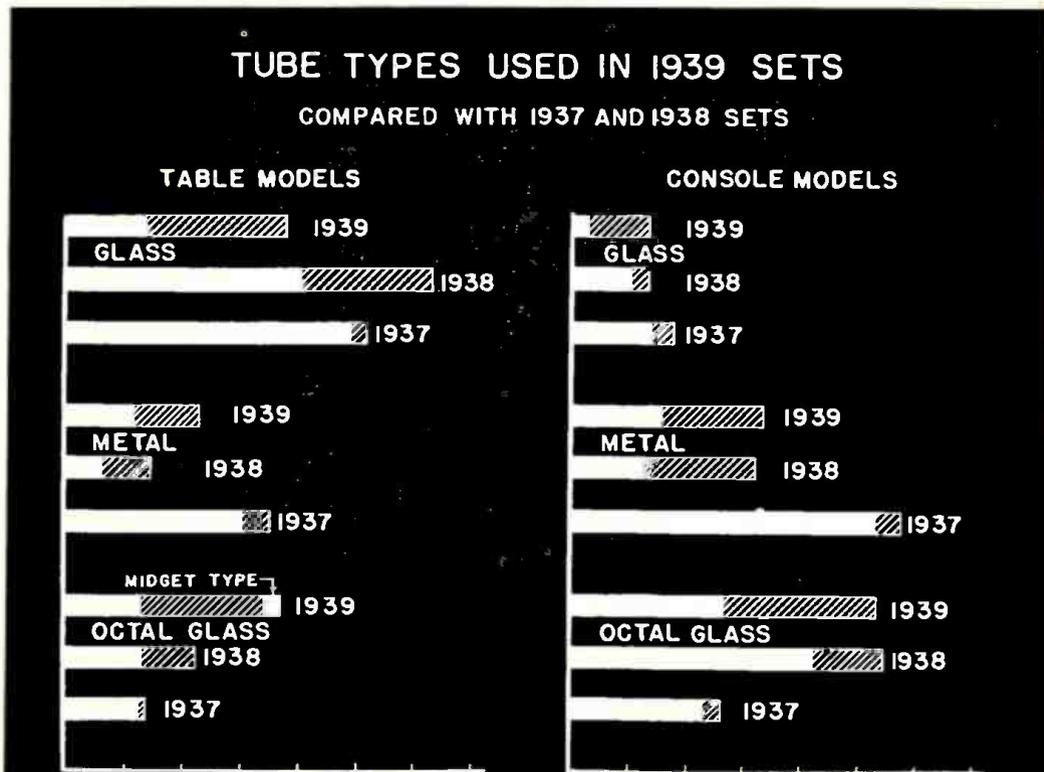
tone of this radio is not nearly as good as ours!" "I can get all kinds of stations you can't." "You paid entirely too much. Ours is just as good and only cost half as much." And so on, each relative adding his bit.

"The final result leaves the customer in various stages of doubt as to the wisdom of her choice," continues Mr. Smith. "A more or less degree of dissatisfaction has been planted, and if left alone often grows and festers until it breeds all kinds of trouble. Discontented with her purchase, the customer may be hard to collect from: she may harbor a feeling of ill-will towards the store, and may even go so far as to have us take the radio away.

"Our method of overcoming 'relativitis' is to make a sale twice," explains Mr. Smith. "The salesman who makes the sale delivers the radio and makes sure it is working all right before he leaves the house. Twice in the next ten days he calls and inspects the radio and talks with the customer about it, thus reselling it to her and so overcoming germs of relativitis as they are planted!"

### ONE RADIO IN THREE NEEDS SERVICE

The Chicago Section of the Radio Servicemen of America recently made a house-to-house survey of 4,000 radio homes in the Chicago area. Results of the check-up showed that 34 per cent of the radio sets inspected were either inoperative or in need of service attention, reports Ray Mason, chairman Chicago Section RSA.



# DEALERS ARE OUT FOR SALES

They don't wait for the phone to ring—they make it!

"Business is not so bad as people think it is," says J. C. Kennedy, Washington (D. C.) radio man, with 18 years' experience in servicing.

"Business is just as good as you make it. You will find that true anywhere. We do some direct-mail advertising all the time, and keep the multigraph busy to get business. That is the only solution—to go out after it. Don't wait for it to stroll in, or for the telephone to ring . . . make it ring.

"After all, people still suffer from inertia, about 99½ per cent of them. And 99 per cent still follow the path of least resistance and keep putting things off. Get busy and go get it. Most radio men lay back and do nothing. The business is there. If they won't take it, it is their own fault."

## Does it with trailers

Two trailers belonging to Lakeview's, radio retailers, Passaic, N. J., have been rolling around New Jersey for the past year, each trailer carrying four men and a crew manager. The men work on commission, the crew manager on a salary and overwriting. Last year Lakeview's sold 3,000 radios. 65 per cent between \$100 and \$150, 25 per cent at \$150 or over and 10 per cent below \$100. Terms—12 to 18 months.

The trailers carry different makes of radios. Arriving at a certain section, the men get out and work every house on a staggered canvass. Two men on each side of the street, one takes even numbers, the other odd, so that each man works every other house. This has been found the quickest method of making contacts and getting results. Frank Hoppe, manager, says that a city of 50,000 can be covered in a few weeks with a trailer, if canvassing is selective. His men are instructed to eliminate the poorest sections and those housing the wealthier homes, which are hard to get in, and even if successful, only the servants can be seen. Hoppe says a man can make 100 contacts daily with less exertion via trailer than he can make 25 calls on foot, consequently salesmen are better satisfied. He reports no turnover on salesmen since the trailers were put into service. Frequently, first-time sales are

made from a Lakeview trailer, which is practically a selling impossibility with an ordinary canvass.

The trailer eliminates many call-backs because prospects may be taken right outside and given demonstrations.

## Demonstrators travel

However, the salesmen still have plenty of evening calls to make, sometimes with the trailer, sometimes, if more convenient, in their own cars. Although the trailer hasn't eliminated the call-back entirely, it has made it unnecessary to bring or send prospects to the showroom for demonstrations, except in special cases, and this has cured one headache in selling radios with outside salesmen. Too often, appointments for showroom "demos" break up the salesman's orderly routine in the field, and if he leaves the handling of prospects to showroom personnel, there is likely to

be disputes over the split on commission or the failure to sell.

## The aerial "opener"

When Charlie Deason, owner of the Deason Radio Co., 101 Navarro St., San Antonio, Texas, wants to make up a hot prospect list for new radios, he gets into his car and drives to the section of town where he thinks he can sell new sets with short-wave.

He then drives up and down the streets, jotting down in a special book the house numbers of those homes that do not have short-wave aerials. This fact can easily be determined, Mr. Deason says, by checking on each house as he goes along.

## Criss-cross records

When he gets back to the office, with his black book full of house numbers, Deason consults his criss-cross telephone directory which lists the names of all people living at various house numbers, and thus is able to get the names of people whose house numbers he took.

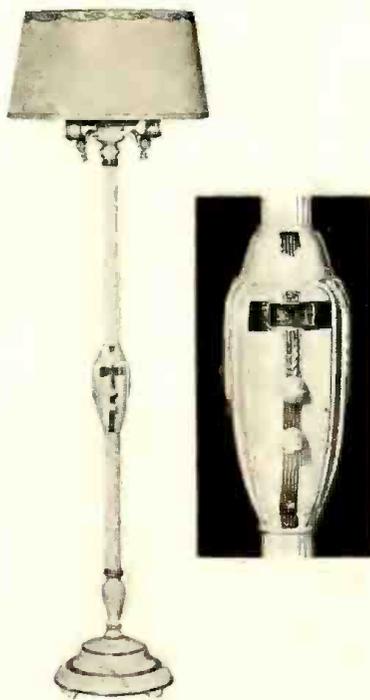
Deason then sends these people postcards advertising the sets he has for sale. The following week another followup card is sent, and the third week another card is mailed. After three cards a new set of prospects is made up with the use of the crisscross directory, and other streets used.

## Results are OK

"This plan has worked out very well for us," states Mr. Deason. "We try to send out about 300 cards a week and we feel reasonably certain they are going to people who are prospects for the new sets, including short wave. Quite a number of people have come in carrying these cards, which shows that the advertising pulls. As close as we can estimate, we get about a 10 per cent return on such mailing, which also includes service calls."

Mr. Deason points out that he keeps revising his direct mail list in this manner so that his cards prove effective. It takes but a short time to make up a good mailing list on up-to-date sets by checking on aerials, and the response to a mailing of the cards is often very prompt.

## RADIO IS ALL LIT UP!



Here's a radio-lamp with chassis concealed at the base. Controls are midway the stem, speaker at top. A new one from Radio Lamp Co., 1227 W. Washington Blvd., Chicago.



Dewald model 531 at \$39.95.  
At the left, Ansley's D25 with 15 tubes.

Popular demand for record music starts a new trend.

# BIG PLAY ON PHONOGRAPH-RADIOS!



Admiral 521-5C, \$29.95.



Emerson BL218, \$69.95.



Motorola 59F1, 5 tubes.



Zenith 6S304, 6 tubes.

Detrola's Leader model 235-AP, five tubes.

Fada 554PT, AC or AC-DC.

RCA Victrola U-119, duplex controls, \$79.95.



# JOBBER COUNT ON COUNTER MEN

But finding them and training them is quite a trick

"More important than many realize!"

This is a typical crack made by parts jobbers when they get to thinking about counter men—where to find them and how to train them.

Every last distributor is anxious to be well represented in this department of his business. The guy at the counter is after all the one who faces the supporters of the house—he's right in the middle of traffic. A jobber can get himself the finest, most complete, most up-to-the-minute stock available, yet if the chap who dishes it out across the counter is a punk, the success of the firm is blocked.

If you are a distributor and you ever need a good counter man, the following is what you'll run into, according to current opinion in the jobber trade.

Don't expect to find him in any particular trade group. You can't decide that he will be located among your ham or serviceman customers, although the possibility is likely. Many of the gents among your patrons will be too successful in their own business to be available; many of them are too deeply interested in radio as a hobby to make good salesmen.

Narrow your search generally to those who have had some experience

## THE LIKELY COUNTER MAN

Has a distinct sales personality.

Earns about \$30, flat salary.

Understands modern circuit design.

Has studied engineering essentials.

Is around 30 years old, married.

Was once a radio service man.

Regards radio as more than a hobby.

Reads trade journals, bulletins, etc.

with dealing with the public. Don't bother with the fellows who have had their noses in circuits all their lives. Too often they don't know and don't care about radio performance as a popular affair. One jobber reports that these "bugs" are likely to go into a huddle with one customer, about some extra-special point of transmitter design, and forget all about the fact that he is supposed to be waiting on others who come in.

These radio men do, however, have the advantage of being intensely and genuinely interested in their subject, and do a beautiful job as far as personal enthusiasm goes. If only they do not forget that they are a unit of a sales organization.

Look around until you locate a man who has had some service, and some ham experience, a sound technical training, a thorough knowledge of the problems of those who are your customers. The boys who can get along without this background are rare. Reports a distributor: "In all my experience I've run across only one man who could do a counter job without knowing anything about radio. It's actually all Greek to him. He lets the customer do the talking—he leads them on and gets by with it. But men with such talents are as scarce as hen's teeth."

"Just enough technical training to know parts and their proper use," prescribes another jobber. "Counter-men shouldn't have to tell service men how to do their work, but they have to know enough practical radio to be able to suggest proper replacements and most suitable equipment."

Another parts manager wants to give his counter men their first experience as such. Those who have worked for other jobbers have annexed habits and fixed ideas as to what the job calls for. These notions are often hard to change and may be awkward and tiresome to the new employer.

### The matter of age

It's a good idea to take a special look at the applicants between the ages of 25 to 30, although most jobbers agree that it is not smart to set definite age limits. It depends on the man.

"I don't think many older men will be found behind radio parts counters," observes one boss. "I don't know of any, myself. Young married men are likely to furnish most promising stock as prospective counter men."

A few houses use very young fellows at the counter. The theory is that customers do not expect special assistance from these youngsters—they can see at a glance that they are not confronted by an old timer. Service is mechanical, but usually peppy. Special problems are taken up, when necessary, with older men in the store. You can save a little money this way.

An occasional high-powered counter man makes \$100 a week. Salaries go as low as \$22.50 and average about \$30. You can't expect to get a man



"Gotta have one that fits just right—it's an awful job to drill extra holes!"

with the "technical balauce" outlined above for less than that, depending on the living conditions in your special area.

### **The payroll! part**

The majority of jobbers pay their counter men a flat weekly sum, but a few favor "a small commission on the gross" along with the fixed wage. Salesmanship on jobber floors is of course not the highly developed science you find where consumers are involved. Most customers know what

they want when they come in. There's no occasion for flashy technique. For this reason the sales made by counter men have a tendency to be uniform and a commission plan does not help much except to encourage the employes to make friends with the customers.

### **Home work**

In training the counter people, the popular idea is that you should insist on the employes reading trade publications, catalogs, engineering

bulletins and new technical books. Be sure that all announcements of new products are carefully taken in; not just the news itself, but all the applications and every-day significance.

"The best men study all this stuff they can get hold of," concludes a jobber. This procedure adds popular value to their technical background, teaches them what to expect on their shelves, and gives them a chance to be alert while handling customers.

# **"CONSUMER CO-OPS" HANDLING RADIO**

**Greeley, Colo., Greenbelt, Wash., Wellesley, Mass., present new form of dealer competition**

"YOU pay the regular retail price, of course—that is the co-op principle. But at the end of this quarter, you will receive the regular 20 per cent dividend on your purchases that we pay. And at the end of the year, if there is a surplus, you will get an additional dividend on your purchase. Our extra dividend on 1937 business was 6 per cent."

If a competitor of yours, selling radios, made a proposition like that on a nationally-advertised make, would you feel that you had tough competition to contend with? And yet Greeley, Colo., radio dealers face exactly that sort of situation, now that the Consumers Oil Co., a local co-op which on 1937 business returned over \$100,000 in dividends to members, has added a radio line. The company also sells a nationally-advertised make of electric refrigerators, washers, and vacuum cleaners.

### **Plan growing**

The "consumer co-op" movement has had much publicity in recent months. Greenbelt, near Washington, where families with moderate incomes are living in \$16,000 homes built by the government, is starting out with co-ops. Roger Babson has started a co-op in Wellesley, Mass. It is doubtful, however, if co-op competition anywhere in radios will develop more objectionable features than the Greeley situation.

This co-op operates on what is known as the Rochdale Plan, under which all sales are made at regular retail prices, with profits returned to

share-holders in proportion to purchases made. Only one share of stock, costing a nominal amount, is necessary to qualify for dividends which, in recent years, have been a standard 20 per cent, paid each quarter.

### **Thrown together**

Inquiry of the co-op elicited the information that radio and other electrical appliance sales are thrown into general receipts, along with automotive sales. There is no separate cost accounting on the radio department. The dividends paid are the same on radios as on gas and oil.

Whether this procedure is valid under the Colorado Unfair Practices

Act is a point which is being investigated. Radio dealers feel the competition is grossly unfair; that the co-op, by virtue of a gigantic gas and oil business, is virtually selling radio sets below cost when it makes on such sales the same dividend-refund as on gas and oil.

### **No advertising**

On behalf of its electrical and radio department, the co-op does no advertising, has no outside salesmen. The original plan was strictly cash, but instalment sales are now being made. An addition to the super-service station was recently made, with the result that there is now display space for radio sets both on the first floor and in a second-floor display room.

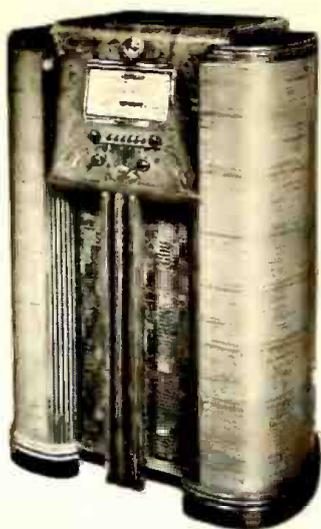
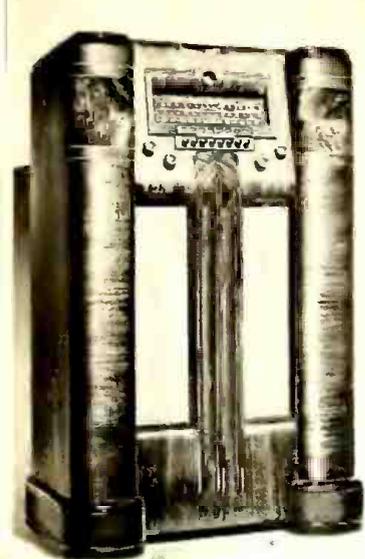
## **NEW FLOOR COVERING FOR RADIO STORES**

Dealer A. S. Magee of Magee Radio Service, 6907 Wisconsin Ave., Bethesda, Md., recently faced the necessity of having the floor of his store recovered. They told him about a broad-loom, made by a new process so that it is practical for store use, so Mr. Magee tried it.

"After covering the floor," reports Mr. Magee, "I found that radios have a remarkably better tone than with linoleum on the floor. The carpet has other advantages, such as keeping down dust, improving the appearance of the store and giving the place a novelty appeal."



"And then you get 20 per cent back, plus extra dividends."



Fairbanks-Morse model 7AC with push-buttons for six stations.

Fada 6A80C with all-wave coverage and P.B. tuning.

Zenith's 9S367 features the robot dial and radiorgan control.

Motorola 89K1 with 24-hour automatic time tuning of six stations.

## FEATURES AND SPECIFICATIONS OF THE 1939 SETS — Compiled by Radio Today

(Continued from July issue)

Model No.	List price	Cabinet		Wave-bands	Number tubes (RMA defin.)	Plug-in resistor	Cond. gang %	Spkr. size & type	Watts audio power (Max.)	Power supply and watts	Selectivity	Tone control	Visual tuning	Automatic Tuning			I.F. Peak			
		Style	Material											Type	Drift Comp.	Stations Adjust-ments		Re-mote con-trol AVC		
<b>Belmont Radio Corp., 1257 Fullerton St., Chicago, Ill.—"Belmont" &amp; "Freshman Masterpiece."</b>																				
521	NS	FT	Plastic	B	5	1	NS	NS	NS	AC-DC	Fixed	None	None	Mech	None	6	1-F	No	Yes	NS
526	NS	FT	Pl. or Wood	B	5-OM	None	2	NS	NS	AC	Fixed	None	None	Mech	None	5	1-F	No	Yes	465
632	NS	PC-T	Wood	B	6-O incl resistor	2	2	5-EE	NS	AC	Fixed	None	None	Mech	None	5	1-F	No	Yes	470
665	NS	FT	Wood	B	5-OM	None	2	6-EE	NS	AC	Fixed	None	None	Mech	None	6	1-F	No	Yes	465
767-M	NS	VT	Wood	B,S	7-OM	None	2	6-EE	NS	AC	Fixed	Var	None	Mech	None	6	1-F	No	Yes	NS
767-C	NS	CON	Wood	B,S	7-OM	None	2	10-EE	NS	AC	Fixed	Var	None	Mech	None	6	1-F	No	Yes	NS
<b>Crosley Radio Corp., 1329 Arlington St., Cincinnati, Ohio—"Crosley"</b>																				
C418B	\$ 9.99	FT	Plastic	B	3-G	1	2	5-EE	1	AC-DC	Fixed	None	None	Mech	CC	4	1-F	No	No	TR
C428B	12.99	FT	Plastic	B	4-GO	None	2	5-EE	2	AC DC	Fixed	None	None	Mech	CC	4	1-F	No	No	TR
628B	19.99	FT	Plastic	B,S <sub>1</sub>	6-O	None	2	5-EE	NS	AC	Fixed	None	None	Mech	CC	5	1-F	No	Yes	NS
718A	29.95	VT	Wood	B,S	7-O	None	2	5-EE	5	AC	Fixed	None	CR	Mech	CC	5	1-F	No	Yes	NS
718M	49.95	CON	Wood	B,S	7-O	None	2	8-EE	5	AC	Fixed	None	CR	Mech	CC	5	1-F	No	Yes	NS
828M	69.95	CON	Wood	B,P,S	8	None	2	10-EE	NS	AC	Fixed	Var	CR	Mech	CC	8	1-F	No	Yes	NS
1128M	99.50	CON	Wood	B,P,S	11	None	2	12-EE	NS	AC	Fixed	Var	NS	NS	NS	8	NS	No	Yes	NS
448A	24.95	PCM-T	Wood	B	4-GO	None	2	5-EE	2	AC	Fixed	None	None	Mech	NS	4	1-F	No	No	TR
438M	49.95	PCM-C	Wood	B	4-O	None	2	NS	3	AC	Fixed	None	None	Mech	NS	5	1-F	No	Yes	TR
818A	39.95	FT	Wood	B,P,S	8-O	None	2	8-EE	5	AC	Fixed	Var	None	Mech	CC	5	1-F	No	No	NS
<b>Fairbanks, Morse &amp; Co., 2060 Northwestern Ave., Indianapolis, Ind.—"Fairbanks-Morse."</b>																				
7AT	\$ 69.95	T	Wood	B,S <sub>1</sub> S	7-OM	None	2	8-EE	6	75 AC	Fixed	Var	CR	It	CC	6	1-F	No	Yes	455
7AC	89.95	CON	Wood	B,S <sub>1</sub> S	7-OM	None	2	10-EE	6	75 AC	Fixed	Var	CR	It	CC	6	1-F	No	Yes	455
7AG	99.95	CON	Wood	B,S <sub>1</sub> S	7-OM	None	2	12-EE	6	75 AC	Fixed	Var	CR	It	CC	6	1-F	No	Yes	455
9CC	114.95	CON	Wood	B,S <sub>1</sub> S	9-OM	None	3	12-EE	10	110 AC	Fixed	Var	CR	It	CC	8	1-F	No	Yes	455
9CG	129.95	CON	Wood	B,S <sub>1</sub> S	9-OM	None	3	12-EE	10	110 AC	Fixed	Var	CR	It	CC	8	1-F	No	Yes	455
12BG	159.95	CON	Wood	B,S <sub>1</sub> S	12-OM	None	3	12-EE	10	160 AC	Fixed	Var	CR	It	CC	8	1-F	No	Yes	455
<b>Galvin Mfg. Corp., 4545 Augusta Blvd., Chicago, Ill.—"Motorola". See July RADIO TODAY for table models.</b>																				
59K1	\$ 49.95	CON	Wood	B,S	5-G	None	2	8-EE	4½	65 AC	Fixed	Var	None	Mech	CC	6	1-R	No	Yes	455
69K1	69.95	CON	Wood	B,S	6-G	None	2	10-EE	10	75 AC	Fixed	Var	None	Mech	CC	6	1-R	No	Yes	455
89K3	89.95	CON	Wood	B,S	8-G	None	2	10-EE	10	85 AC	Fixed	Var	None	Motor	CC	6	1-R	No	Yes	455
89K1	109.95	CON	Wood	B	8-G	None	2	10-EE	10	85 AC	Fixed	Var	None	Motor	CC	6	1-R	No	Yes	455
89K2	129.95	CON	Wood	B	8-G	None	2	10-EE	10	85 AC	Fixed	Var	None	Motor	CC	6	1-R	Yes	Yes	455
109K1	149.95	CON	Wood	B,S <sub>1</sub> S	10-O	None	3	12-EE	14	100 AC	Fixed	Step	None	Motor	CC	6	1-R	No	Yes	455
109K2	169.95	CON	Wood	B,S <sub>1</sub> S	10-O	None	3	12-EE	14	100 AC	Fixed	Step	None	Motor	CC	6	1-R	Yes	Yes	455
6A2	39.95	CS	Wood	B,S <sub>1</sub> S	6-OG	None	3	10-EE	4½	65 AC	Fixed	Var	CR	None	CC	6	1-R	Yes	Yes	455

(Continued on page 22)

% Line voltage dropping resistors of plug-in type, commonly referred to as ballast resistors or tubes.

### Index to codes on page 44

Halsion's model A5 is appropriately called the Dwarf—list \$15.

This portable Philco is battery operated—weighs only 18 pounds.

Arvin model 68 features six push-buttons and station variator—\$24.95.





*An amazing tone discovery -*  
**Radiorgan--**

With this 1939 Super-feature Zenith Radio tone performance BEGINS . . . where radio . . . even Zenith radio up to now has stopped. And you can prove this to yourself and your customers, incontestably.

Do not fail to operate RADIORGAN for *yourself* at your Zenith Distributor's. You will positively HEAR Zenith tone go SIX BIG DEFINITE STEPS BEYOND *conventional* radio tone.

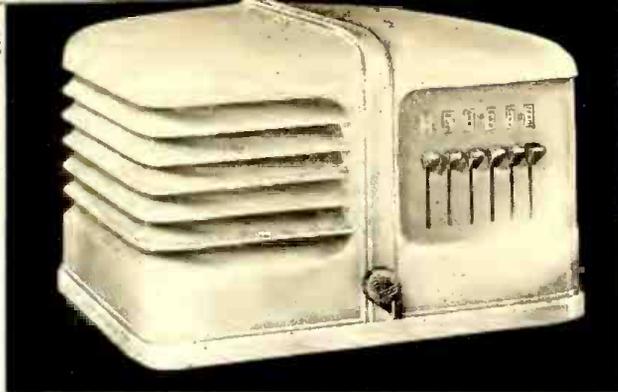
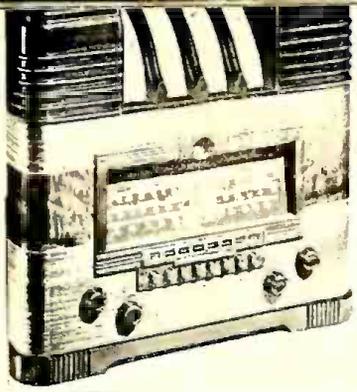
You can take the customer into NEW REALMS OF TONE which means you can take yourself into NEW REALMS OF SALES. Not a luxury feature. You'll find RADIORGAN begins on a popular-price Zenith. 1939 Zenith compact, table, console, chairside and combination models from \$14.95 to \$350.



1939 Zenith is ten years ahead with RADIORGAN as it was in 1928 with the first automatic tuning ever put on a home radio.

CELEBRATES 1939 LEADERSHIP  
 WITH GIANT VALUES

ZENITH RADIO CORPORATION, CHICAGO, ILL., U. S. A. - CABLE ADDRESS "ZENITHRAD"



e-band operation and push-button  
g—Fairbanks-Morse model 7AT.

Belmont's model 521 has mechan-  
ical type tuning for six stations.

American and Foreign tuning are  
offered by this Arvin model 78.

**SALES FEATURES AND SPECIFICATIONS OF THE 1938-39 SETS CONTINUED FROM JULY ISSUE—Compiled by Radio Today**

Model No.	List price	Cabinet		Wavebands	Number tubes (RMA defn.)	Plug-in resistor	Cond. in gang sections	Spkr. size & type	Watts audio power (Max.)	Power supply and watts	Selectivity	Tone control	Visual tuning	Automatic Tuning			I.F. Peak			
		Style	Material											Type	Drift Comp.	Stations No.		Adjust-ments	Re-mote control AVC	
International Radio Corp., Ann Arbor, Mich., "Kadette", Information not available up to August 10.																				
Majestic Radio & Television Corp., 2600 W. 50th St., Chicago, Ill.—"Majestic."																				
42	\$ 12.95	MT	Wood	B	4-M	None	2	3½-EE	1.8	40 AC-DC	Fixed	None	None	None	.....	.....	.....	No	TRF	
42	NS	MT	Wood	B	5-M	None	2	3½-EE	1.8	45 AC-DC	Fixed	None	None	None	.....	.....	.....	Yes	455	
Charlie McCarthy	NS	MT	Plastic	B	6-M incl.	resistor	2	3½-EE	1.8	45 AC-DC	Fixed	None	None	None	.....	.....	.....	Yes	455	
41	NS	T	Plastic	B	5-G	None	2	5½-EE	3	40 AC	Fixed	None	None	None	.....	.....	.....	Yes	455	
451	NS	T	Plastic	B,S	5-G	None	2	5½-EE	3	40 AC	Fixed	Step	None	None	.....	.....	.....	Yes	455	
42A	NS	T	Wood	B,S	6-G	None	2	6-EE	3	45 AC	Fixed	Step	None	Mech	None	4	1-F	No	Yes	455
439	NS	CON	Wood	B,S,S	7-MO	None	3	10-EE	3	75 AC	Fixed	Var	None	Mech	None	6	1-F	No	Yes	455
429	NS	CON	Wood	B,S	6-G	None	3	10-EE	3	45 AC	Fixed	Step	None	Mech	None	6	1-F	No	Yes	455
439	NS	CON	Wood	B,S,S	7-MO	None	3	10-EE	3	60 AC	Fixed	Var	CR	Mech	None	6	1-F	No	Yes	455
439	NS	CON	Wood	B,S,S	9-MO	None	3	10-EE	3	75 AC	Fixed	Var	CR	Mech	None	6	1-F	No	Yes	455
456	NS	CON	Wood	B,P,S	10-O	None	3	10-EE	4½	80 AC	Var	Step	CR	Motor	Expanded I.F. Channel	6	1-R	No	Yes	455
458	NS	CON	Wood	B,P,S	10-O	None	3	10-EE	4½	80 AC	Var	Step	CR	Motor	Expanded I.F. Channel	8	1-R	No	Yes	455
356	NS	CON	Wood	B,P,S	13-O	None	3	12-EE	12	100 AC	Var	Step	CR	Motor	AFC	10	1-R	No	Yes	455
656	NS	CON	Wood	B,P,S	16-O	None	3	12-EE	15	125 AC	Var	Step	CR	Motor	AFC	12	1-R	No	Yes	455
United Motors Service, 3044 W. Grand Blvd., Detroit, Mich.—"Delco."																				
4-1144	\$ 99.95	CON	Wood	B,P,S	10-OM	None	3	12-EE	8	85 AC	Fixed	Var	CR	It	CC	6	1-F	No	Yes	465
4-1143	79.95	CON	Wood	B,P,S	7-OM	None	2	8-EE	5	75 AC	Fixed	Var	CR	It	CC	6	1-F	No	Yes	465
4-1142	69.95	CON	Wood	B,S	7-OM	None	2	10-EE	4½	65 AC	Fixed	Var	CR	It	CC	6	1-F	No	Yes	465
4-1141	39.95	T	Wood	B,S	6-OM	None	2	6-EE	3	65 AC	Fixed	Var	None	It	CC	6	1-F	No	Yes	465
4-1140	29.95	T	Wood	B	5-OM	None	2	6-EE	2½	45 AC	Fixed	Var	None	It	CC	5	1-R	No	Yes	465
4-1139	18.95	T	Wood	B	6-O incl.	resistor	2	5-EE	2½	45 AC-DC	Fixed	None	None	Mech	None	5	1-F	No	Yes	465
4-1135	18.95	T	Plastic	B	6-O incl.	resistor	2	5-EE	2½	45 AC-DC	Fixed	None	None	Mech	None	5	1-F	No	Yes	465
4-1134	16.95	T	Plastic	B	6-O incl.	resistor	2	5-EE	2½	45 AC-DC	Fixed	None	None	Mech	None	5	1-F	No	Yes	465
Vells-Gardner & Co., 2701 N. Kildare Ave., Chicago, Ill.—"Wells-Gardner" & "Arcadia"																				
5A11-802	NS	MT	Plastic	B	4-M	1	2	5-EE	.8	45 AC-DC	Fixed	None	None	None	.....	.....	.....	No	TRF	
5A11-804	NS	MT	Plastic	B	4-M	1	2	5-EE	.8	45 AC-DC	Fixed	None	None	None	.....	.....	.....	No	TRF	
07A15-704	NS	T	Wood	B,S	7-M	None	2	8-EE	1	50 AC	Fixed	Var	CR	It	CC	6	1	No	Yes	456
07A15-768	NS	CON	Wood	B,S	7-M	None	2	8-EE	1	50 AC	Fixed	Var	CR	It	CC	6	1	No	Yes	456
07A15-856	NS	CON	Wood	B,S	7-M	None	2	8-EE	1	50 AC	Fixed	Var	CR	It	CC	6	1	No	Yes	456
09A14-770	NS	CON	Wood	B,P,S	9-M	None	3	10-EE	2½	75 AC	Fixed	Var	CR	It	CC	6	1	No	Yes	456
09A14-860	NS	CON	Wood	B,P,S	9-M	None	3	10-EE	2½	75 AC	Fixed	Var	CR	It	CC	6	1	No	Yes	456
01A12-858	NS	CON	Wood	B,P,S	11-M	None	3	12-EE	8	100 AC	Fixed	Var	CR	It	CC	10	1	No	Yes	456
01A12-756	NS	CON	Wood	B,P,S	11-M	None	3	12-EE	8	100 AC	Fixed	Var	CR	It	CC	10	1	No	Yes	456
03A3-858	NS	CON	Wood	B,P,S	13-M	None	4	12-EE	20	170 AC	Fixed	Var	CR	It	CC	6	1	No	Yes	456
Zenith Radio Corp., 6001 Dickens Ave., Chicago, Ill.—"Zenith."																				
D311	\$ 14.95†	FT	Plastic	B	5-OM	1	2	5-EE	1.6	AC-DC	Fixed	None	None	None	.....	.....	.....	Yes	455	
D326	19.95	VT	Wood	B	5-O	1	2	5-EE	1.6	AC-DC	Fixed	None	None	None	.....	.....	.....	Yes	455	
D312	19.95†	FT	Plastic	B	5-O	1	2	5-EE	1.6	AC-DC	Fixed	None	None	It	4	None	1-F	No	Yes	455
D316	24.95†	FT	Wood	B	5-O	1	2	5-EE	1.6	AC-DC	Fixed	None	None	It	4	None	1-F	No	Yes	455
D317	29.95	FT	Wood	B	5-O	1	2	5-EE	1.6	AC-DC	Fixed	None	None	It	4	None	1-F	No	Yes	455
R312	19.95†	FT	Plastic	B	5-O	None	2	5-EE	3½	AC	Fixed	None	None	It	4	None	1-F	No	Yes	455
R316	24.95	FT	Wood	B	5-O	None	2	5-EE	3½	AC	Fixed	None	None	It	4	None	1-F	No	Yes	455
R317	29.95	FT	Wood	B	5-O	None	2	5-EE	3½	AC	Fixed	None	None	It	4	None	1-F	No	Yes	455
S319	29.95	FT	Wood	B,S	5-O	None	2	5-EE	3	45 AC	Fixed	None	None	It	5	None	1-F	No	Yes	455
S327	29.95	VT	Wood	B,S	5-O	None	2	6-EE	3	45 AC	Fixed	None	None	It	5	None	1-F	No	Yes	455
S320	34.95	FT	Wood	B,S	5-O	None	2	6-EE	3	45 AC	Fixed	None	None	It	5	None	1-F	No	Yes	455
S330	39.95	VT	Wood	B,P,S	6-O	None	2	6-EE	4½	65 AC	Fixed	None	None	It	5	None	1-F	No	Yes	455
S321	44.95	FT	Wood	B,S,S	6-O	None	2	6-EE	4½	65 AC	Fixed	None	None	It	5	None	1-F	No	Yes	455
S322	49.95	FT	Wood	B,S,S	6-O	None	2	6-EE	4½	65 AC	Fixed	None	None	It	5	None	1-F	No	Yes	455
S323	59.95	FT	Wood	B,S,S	7-O	None	2	8-EE	4½	65 AC	Fixed	Yes	CR	It	6	None	1-F	No	Yes	455
S324	89.95	FT	Wood	B,S,S	9-O	None	3	8-EE	4½	75 AC	Fixed	Yes	CR	It	8	None	1-F	No	Yes	455
S336	19.95	CS	Wood	B	6-O incl.	resistor	2	5-EE	1.6	AC-DC	Fixed	None	None	None	.....	.....	.....	Yes	455	
S337	29.95	CS	Wood	B	6-O incl.	resistor	2	5-EE	1.6	AC-DC	Fixed	None	None	It	CC	4	1-F	No	Yes	455
S337	29.95	CS	Wood	B	5-O	None	2	5-EE	3½	AC	Fixed	None	None	It	CC	4	1-F	No	Yes	455
S338	39.95†	CS	Wood	B,S	5-O	None	2	6-EE	3	AC	Fixed	None	None	It	CC	5	1-F	No	Yes	455
S330M	49.95	CS	Wood	B,S	5-O	None	2	6-EE	3	AC	Fixed	None	None	It	CC	5	1-F	No	Yes	455
S340	49.95	CS	Wood	B,S,S	6-O	None	2	6-EE	4½	AC	Fixed	None	None	It	CC	5	1-F	No	Yes	455
S341	59.95	CS	Wood	B,S,S	6-O	None	2	8-EE	4½	AC	Fixed	None	None	It	CC	6	1-F	No	Yes	455
S342	69.95	CS	Wood	B,S,S	7-O	None	2	10-EE	4½	AC	Fixed	Yes	CR	It	CC	6	1-F	No	Yes	455
S343	99.95	CS	Wood	B,S,S	7-O	None	2	10-EE	4½	AC	Fixed	Yes	CR	It	CC	6	1-F	No	Yes	455
S344	99.95	CS	Wood	B,S,S	9-O	None	3	12-EE	15	AC	Fixed	Yes	CR	It	CC	8	1-F	No	Yes	455
S345	149.95	CS	Wood	B,S,S	12-O	None	3	12-EE	30	AC	Fixed	Yes	CR	It	CC	8	1-F	No	Yes	455
S346	199.95	CS	Wood	B,S,S	15-O	None	3	12-EE	30	AC	Fixed	Yes	CR	It	CC	8	1-F	No	Yes	455
P360	29.95	CON	Wood	B	6-O incl.	resistor	2	6-EE	1.6	AC-DC	Fixed	None	None	None	.....	.....	.....	Yes	455	
S361	49.95	CON	Wood	B,P,S	6-O	None	2	10-EE	4½	AC	Fixed	None	None	It	CC	5	1-F	No	Yes	455

(Continued on page 44)

Light natural wood, \$3 additional. †Brown plastic. Ebony or Ivory, \$3 additional.  
Line voltage dropping resistors of plug-in type, commonly referred to as ballast resistors or tubes.

YOUR EAR WILL TELL THE DIFFERENCE



9-Tube Console Grand illustrated, No. 9CG

THE NEW  
**FAIRBANKS-MORSE  
RADIOS**

If you want a radio line that is built for those who insist that their radios be truly fine *musical instruments*—that takes you miles away from price competition, novelty cabinets, trick dials, and gadgets—that gives a new thrill to listening—

If you want to fill every demand of

the *profitable* type of buyer from a small number of models and put your profit in the bank instead of into stock—

Write or wire for details. Fairbanks, Morse & Co., Home Appliance Division, 2060 Northwestern Ave., Indianapolis, Indiana.

Features of the NEW F-M Line

which includes table, console, and console-grand models with 7-, 9-, and 12-tube chassis

- Instant Electric Tuning • Acousti-Sealed Tone Chamber • Monitor Panel • Complete Permeability Tuning • Cabinetry of highest quality with interlocking construction • Clearer and stronger short-wave reception • Plus the most startlingly realistic tone you have ever heard in a radio.

**FAIRBANKS-MORSE RADIO**  
A TRULY *fine* RADIO

# NEW THINGS

Latest news of radio products from manufacturers



## Torpedo crystal mike

★ Low-cost crystal microphone. Free from peaks. Semi-directional pick-up. Output level of -60 DB. Finished in chrome, aircraft aluminum, and telephone black. Turner model 55—List \$15.95. The Turner Co., Cedar Rapids, Iowa—RADIO TODAY.

## Replacement coils

★ Coil repair and duplicating service. Coils either repaired and restored to original condition or duplicated. For both I.F. and R.F. coils for any make of receiver. Just send remains of coil with shield or shield dimensions. Specify make of set and type of coil, together with I.F. frequency. Average cost \$1.50. J. W. Miller Co., 5917 S. Main St., Los Angeles, Cal.—RADIO TODAY.



## 25-watt speaker

★ Directional type speaker for outdoor and indoor installations. Weighs only 19½ pounds. Handles 25 watts. Frequency range is 140 to 8,000 cycles. Distribution angle of 50°. 29¾ inches overall and 18½-inch bell. Type MI-6260—list \$89. RCA Mfg. Co., Front St., Camden, N. J.—RADIO TODAY.

## Remote control tube

★ Gas-filled triode tube which may be used as an extremely sensitive detector of high-frequency signals. Can be operated in standard self-quenching super-regenerative circuit at ultra-high frequencies.

Sensitive relay replaces usual headphones. A number of these tubes can be operated at different frequencies so as to perform different functions. Type RK 62. Raytheon Production Corp., 420 Lexington Ave., New York, N. Y.—RADIO TODAY.

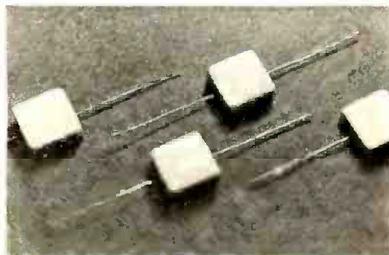


## G-E test equipment

★ Complete line of radio servicing equipment including signal generator (illustrated), tube checker, multi-meter, tube and set tester, oscillograph and frequency modulator. Type SG-1 all-wave oscillator has a jumbo direct-reading dial. Fundamental range of 100 to 31,000 KC. Output of .1 volt on all bands. 400 cycle modulation. General Electric Co., 1285 Boston Ave., Bridgeport, Conn.—RADIO TODAY.

## Instrument tap switches

★ Line of tap switches with positive contact and low noise levels. Standard units for any current up to 60 amps. Small units for use where space is premium. Mycalex or hard rubber insulation. Single and multiple deck units. Described in bulletin 381. Tech Labs., 7 Lincoln St., Jersey City, N. J.—RADIO TODAY.



## Silvered mica condenser

★ Low-loss mica condenser that maintains a constant capacity. Can be had to within 1% of specified capacity. Silver-coated mica plates. Ceramic case entirely moisture-proofed. All sizes up to .01 mfd. Dumont Electric Co., 516 Broadway, New York, N. Y.—RADIO TODAY.



## All-metal rheostat

★ 25-watt rheostat which can be operated at full rating down to ¼ of full rotation. Resistance element wound on aluminum core insulated by asbestos. Layers of mica insulate the element from die-cast aluminum housing. Smooth resistance variation at all points. Type PR-25. International Resistance Co., 401 N. Broad St., Philadelphia, Pa.—RADIO TODAY.



## Resistor and condenser bridge

★ Bridge type condenser and resistor tester. Measures capacity from .0001 to 100 mfd. and power factors up to 50 per cent. Resistance values from 10 ohms to 1 megohm. Also measures insulation resistance of condensers. Continuously variable power supply from 15 to 600 volts. Provides a vacuum tube voltmeter, voltmeter, and milliammeter for external uses. Complete with tubes \$35.75 net. Aerovox Corp., 70 Washington St., Brooklyn, N. Y.—RADIO TODAY.

## Low-loss socket

★ Super-MIP sockets specially designed for high-frequency use. Made of molded Polystyrene, a transparent low-loss material. Power factor less than 1/1500 of the best bakelite. Low dielectric constant-high tensile and dielectric strength. Available in octal type only. Type 54-8—list 50 cents. American Phenolic Corp., 1250 W. Van Buren St., Chicago, Ill.—RADIO TODAY.

# "NEW VARSITY RADIOS"

WITH ANY SCHOOL MONOGRAM

GENUINE SUPERHET

IN ANY SCHOOL COLORS



AC-DC

FOUR-STATION MAGIC KEYBOARD

CALIBRATED DIAL

## THE ONLY COMPLETELY NEW RADIO IDEA OF THE YEAR!

It's a sensation everywhere it's shown! A brand new idea in radio that's already playing chimes on dealers' cash registers. A powerful mellow-toned genuine superheterodyne with moulded cabinet in authentic colors of any school or college, individualized with the school letter—a radio that every student from high school freshman to college senior will be crazy about . . . and priced so they can have it! A real value, too—with 4-station Push-button Automatic Tuning—AC-DC circuit—genuine dynamic speaker—and calibrated dial . . . all at a list price of less than \$20.00! Write, wire or phone for details.

Stewart-Warner Corporation, Chicago, Ill.

**STEWART-WARNER**  
**MAGIC KEYBOARD RADIOS**

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STEWART-WARNER CORPORATION  
1828 Diversey Parkway, Chicago, Illinois

Without obligation please rush further information, prices and discounts on your new "Varsity" radios.

Name \_\_\_\_\_

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

# MORE NEW THINGS

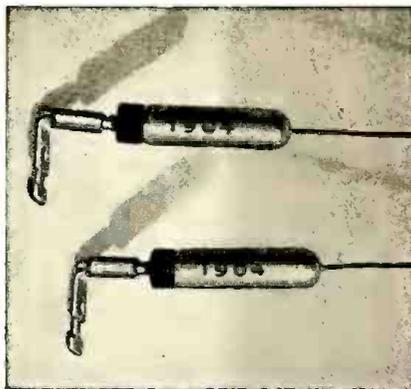


## Communications receiver

★ Six-tube amateur communications receiver. Tunes 540-40,000 KC. Ceramic coil forms, electrical band spread. Iron-core I.F. transformers. Beat-frequency oscillator. Built-in dynamic speaker. Model 430. Howard Radio Co., 1731 Belmont Ave., Chicago, Ill.—RADIO TODAY.

## Auto radio cable

★ Cable for auto-radio use which incorporates many outstanding advantages, among these being stability under all weather conditions, a new type insulation with extremely high "Q" and low capacity, and a weather-proof braid. Any number of conductors may be used, including R. F. and control leads. Lenz Electric Mfg. Co., 1751 N. Western Ave., Chicago, Ill.—RADIO TODAY.



## Liquid compensator condensers

★ Liquid compensating condensers designed to have a capacity decrease with a rise in temperature. Effect obtained as the result of the action of a liquid dielectric. Mechanically stable and returns to a given value at a given temperature. Completely sealed. Sprague Specialties Co., North Adams, Mass.—RADIO TODAY.

## Transcription needle

★ Long-life needle designed for the reproducing laterally-cut transcription readings. Keeps surface noise to a minimum. Each needle shadowgraphed twice. Will repro-

duce several programs satisfactorily—although it is recommended that it be used for only 2 15-minute programs. RCA-Victor No. 1 transcription needle. RCA Mfg. Co., Cooper St., Camden, N. J.—RADIO TODAY.

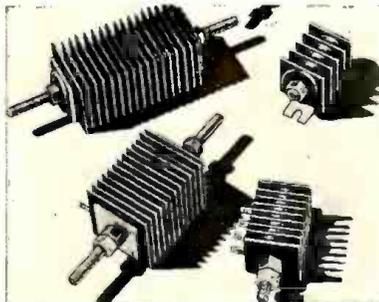
## Recording head

★ Full-frequency cutting head for recording machines. Standard equipment on all new Universal recorders. All precision metal construction. Records frequencies from 30 to 10,000 cycles. Operates from 15-ohm line. Input level of only plus 14 DB required. Dehydrated and impregnated coils. Universal Microphone Co., Inglewood, Calif.—RADIO TODAY.



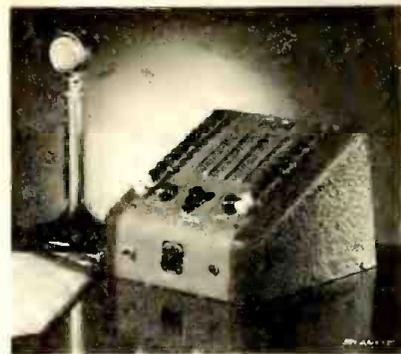
## Hickok signal generator

★ All-wave signal generator tuning 100 to 30,000 KC. Over 100 inches of direct reading scales. Audio output variable from 100 to 10,000 cycles. Frequency-modulated output (30 KC sweep) for visual alignment. Model 18 illustrated has 3-range output meter. Model 17 same as 18 except for omission of power level meter. Hickok Electrical Instrument Corp., Cleveland, Ohio.—RADIO TODAY.



## Dry-disc rectifiers

★ Magnesium-copper sulphide type of dry rectifier. Types are available for outputs of one to 20 volts and ½ to 20 amperes. Higher outputs may be obtained by simple series or parallel connections. Described in catalog R-610. P. R. Mallory & Co., Inc., Indianapolis, Ind.—RADIO TODAY.

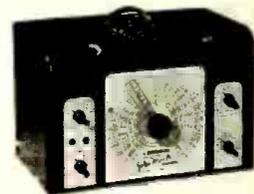


## School sound system

★ Low-cost sound system for schools having up to 20 rooms. Included in system are: master control, unit amplifiers, ten loudspeakers and cabinets, microphone and stand. Separate radio set and phone can be used with system. Return speech and call-in feature at additional cost. Model T E S. Operadio Mfg. Co., St. Charles, Ill.—RADIO TODAY.

## Audio oscillator

★ Beat-frequency type of audio oscillator, 0-13,500 cycles calibrated on separate graph. Output voltage constant within 15% over whole frequency range. Harmonic content above 100 cycles is 2%. Below 100 cycles harmonics increase to 10% at 23 cycles. Hum level 55 DB below maximum output. Type VC-1—\$37.50. Televiso Co., 341 N. Pulaski Rd., Chicago, Ill.—RADIO TODAY.



## Direct reading bridge

★ Capacity, inductance, and resistance bridge. Measures condenser values from .0001 to 50 mfd. and leakage up to 10 megs on direct reading scales. Inductance measured from 10 to 4,000 millihenries. Resistance measurements from ½ ohm to 1,000 megohms. Built-in power supply. Bridgemaster type 10—net \$29.50 with tubes. John Meck Instruments, 164 N. May St., Chicago, Ill.—RADIO TODAY.

## Recticharger

★ Automatic battery charger for keeping a bank of batteries fully charged. Uses copper oxide type rectifier unit. Saturated-core reactor type of control provides rapid charge during periods of high drain and minimum charge during no-load periods. For all popular battery voltages. Raytheon Mfg. Co., 144 Willow St., Waltham, Mass.—RADIO TODAY.

**NEW ARVIN  
PUSH BUTTON**

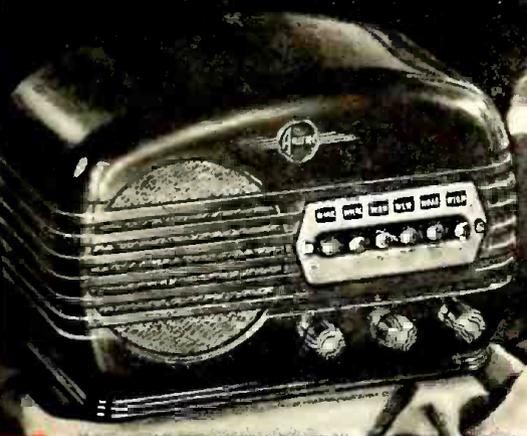
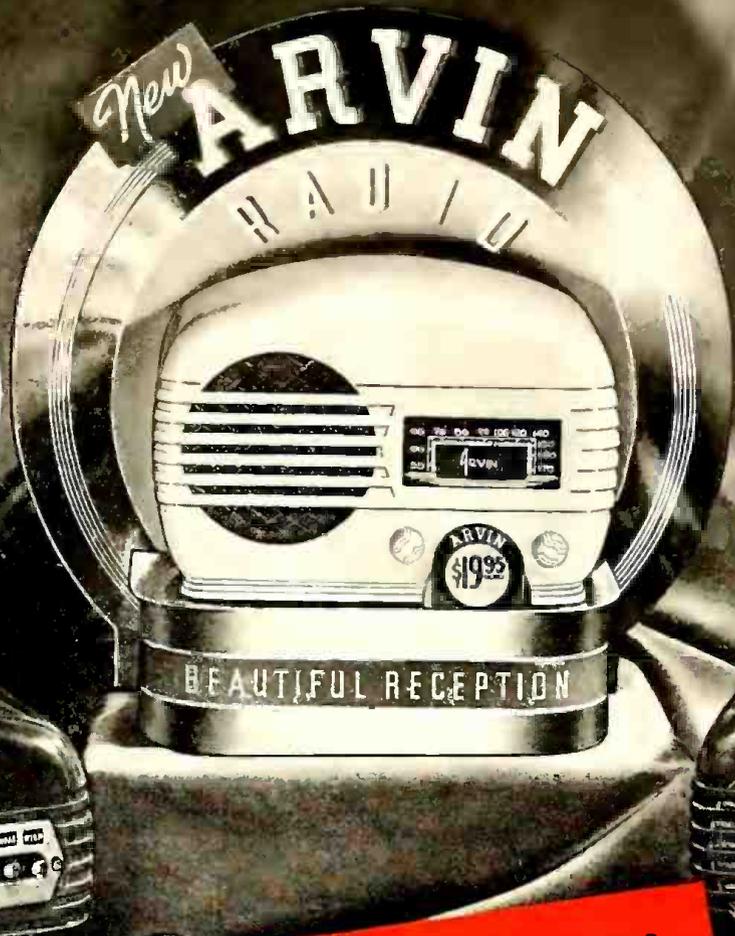
**AC Model 68 . . . \$24.95 list**

Powerful 5-tube AC superheterodyne with 6 push button automatic tuning. Has special Arvin "station variator" which increases tuning range to 18 or 24 stations. Electro-dynamic speaker. Modern walnut plastic cabinet 11½" high, 8" wide, 6¼" deep.

**TWO STREAMLINED  
PLASTIC RADIOS  
in a choice of colors**

Full sized table radios 11½" wide, 8" high, 6¼" deep. Powerful superheterodynes using 5 tubes, plus ballast tube. Operate on AC or DC current. Electro-dynamic speaker.

**Model 58A in ivory**  
at left . . . . . **\$19.95 list**  
**Model 58 in ebony black**  
below . . . . . **\$16.95 list**



SEE THESE NEW ADDITIONS  
TO THE COMPLETE LINE OF  
**ARVIN**  
RADIO S

**MODERN STYLING  
ATTRACTIVE PRICES  
BEAUTIFUL RECEPTION**

Right—New Arvin Model 88 with lid raised to show phonograph turn table.



**NEW ARVIN Radio-Phonograph**

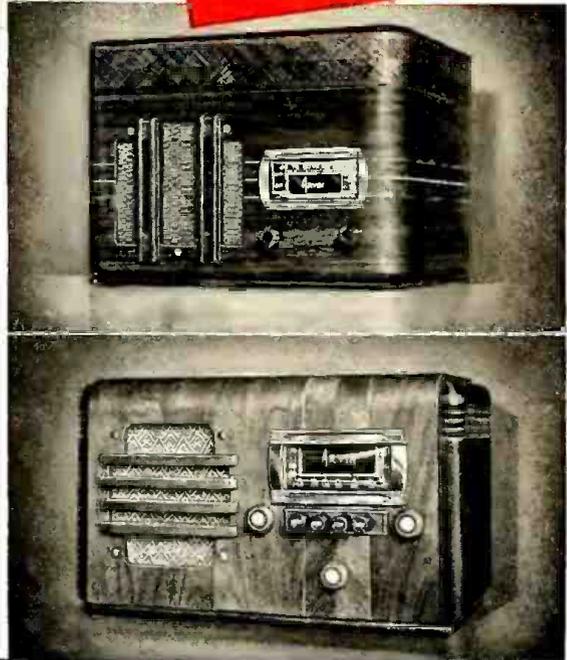
**AC Model 88 . . . \$39.95 list**

You can cash in on the popularity of radio-phonograph with this table model. Improved pick-up reproduces voice and musical recordings beautifully through the Arvin circuit. Plays 10" and 12" records. Has 6-tube superheterodyne circuit with 6" electro-dynamic speaker. Provides fine selectivity and splendid tonal range.

**NEW ARVIN Push Button  
AND DIAL TUNING**

**AC Model 78 . . . \$29.95 list**

A powerful broadcast and short wave superheterodyne receiver with full electro-dynamic speaker, covering 540-1750 kc. and 5.75-18.0 mc. Combines the convenience of 4-station push button tuning for a few preferred national chain stations and the flexibility of dial tuning for general station coverage. Cabinet 9" high, 14¾" wide, 6¾" deep.



● These new Arvins are fine radios—quality sets in every detail of appearance and performance. They are not to be confused with the many midget radios on the market today.

Five models, including the radio-phonograph, meet the demand of thousands of users—giving you the sales appeal of push button tuning, dial tuning or a combination of both in table radios. You can sell these new Arvins in volume—they're so reasonably priced.

The modernistic gold foil display, shown above, with the new plastic Arvins is a honey of a merchandiser. This window-counter display catches the eye—and really glorifies the new streamlined sets. The display is free with an order for any three table radios. Ask your jobber. Nobliitt-Sparks Industries, Inc., Columbus, Indiana.

Prices slightly higher in extreme South and West.

**ASK FOR CATALOG** showing complete line of table models, consoles, chairside radios and battery radios.

# MORE NEW THINGS



## Philco oscilloscope

★ Self-synchronizing cathode ray oscilloscope. Designed for checking through a radio set to overcome hum, locate trouble in all parts of the receiver, and for detecting distortion. Has built-in linear sweep circuit. Model 022—net \$42. Philco Radio & Television Corp., Tloga St., Philadelphia, Pa.—RADIO TODAY.

## Facsimile receiver

★ Attachment for receiving facsimile transmission on an ordinary radio set. Prints on a continuous paper strip about 4 inches wide. Requires at least 3 watts audio output for operation. Self-synchronizing—can be built for use on any type of power supply. Finch Telecommunications Labs., Inc., 37 W. 57th St., New York, N. Y.—RADIO TODAY.



## Community antenna system

★ Antenna foundation kit for multiple antenna installations. Lightning arrester built into antenna coupling unit simplifies installation time. Refined antenna-ground circuit eliminates loss of signal strength. Noise ratio reduced 25 to 30 per cent in both AC and DC houses. Technical Appliance Corp., 17 E. 16th St., New York, N. Y.—RADIO TODAY.

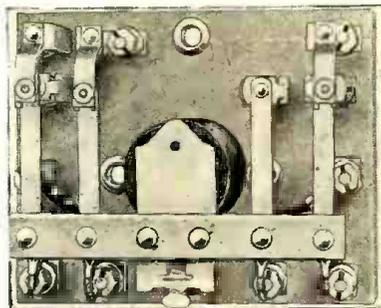
## Carrier type phone system

★ Intercommunicating telephone system using carrier principle whereby signals are carried over the power line circuits. Both two station and fully selective master

systems available. Uses conventional telephone handset for privacy. No talk-listen switch is needed. Model A lists for \$50 per unit installed. Frocraft Corp., 12 E. 41st St., New York, N. Y.—RADIO TODAY.

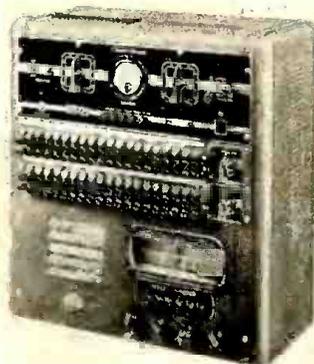
## Jensen 12-inch speakers

★ Complete line of 12-inch P.M. speakers for covering all requirements. Speakers vary in sensitivity, power handling capacity, and response characteristics. List \$9.85 to \$34.75. Jensen Radio Mfg. Co., 6601 S. Laramie Ave., Chicago, Ill.—RADIO TODAY.



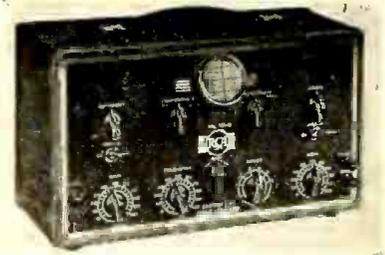
## Break-in relay

★ Change-over relay for phone transmitters desiring push-to-talk operation. Relay switches antenna from transmitting to receiving, connects receiver plate circuit, and opens oscillator plate primary. Midget types for 110 AC or 6 volts DC. Heavy duty types for 110 or 220 AC or 6 volts DC. Ward Leonard Electric Co., Mt. Vernon, N. Y.—RADIO TODAY.



## School sound system

★ Compact, centralized sound system for schools that handles up to 40 rooms. Unit completely self-contained. Transmits microphone programs, radio broadcasts, or recordings from separate phono unit. Includes separate communication system for 2-way conversation simultaneously with regular program. Model S-40. Webster Co., 5622 Bloomingdale Ave., Chicago, Ill.—RADIO TODAY.



## 2-inch cat-ray 'scope

★ Low-cost cathode-ray oscilloscope with 2-inch tube. Has all controls on the panel. Sensitivity of 1/2 rms volt per inch with maximum amplifier gain. Special tilt mounting of the tube. Model 151-2—net \$49.95. RCA Mfg. Co., Front & Cooper Sts., Camden, N. J.—RADIO TODAY.

## Wide-angle reflexed horn speaker

★ Loudspeaker for use where wide-angle distribution is needed. Storm-proof construction. Uses reflex principle so that a 6-foot acoustic column is obtained with an overall length of 3 feet. Rectangular bell opening 48 x 14 inches. Uses P.M. speaker unit. 180° angle of distribution. Model W.R.. University Labs., 191 Canal St., New York, N. Y.—RADIO TODAY.



## Clough-Brengle AC bridge

★ Condenser and resistance bridge using cathode-ray tuning eye indicator. Three capacity ranges from 1 mmfd. to 100 mfd. Resistance ranges from 10 ohms to 500 megs. Measures power factor of electrolytics from 0 to 50 per cent and transformer turns ratios from .01 to 100. Sturdy collapsible tilt-leg contributes to convenience of operating and reading. Clough Brengle Co., 2815 W. 19th St., Chicago, Ill.—RADIO TODAY.

## Low-drain battery tubes

★ Line of tubes designed to operate directly from a dry cell. Filament rated at 1.4 volts. 50 milliamper filament drain. Power output pentode type 1A5G has .1 watt output at 90 volts. Other types are 1A7G converter, 1H5G diode-triode, 1N5G r-f pentode. Type 1C5G is a power pentode with 240 Mw. output—filament rating of .1 amp. Hygrade Sylvania Corp., 500 Fifth Ave., New York, N. Y.—RADIO TODAY.



# CHECK THESE RADIO VALUES AND YOU'LL ✓✓ DOUBLE CHECK THE PROFIT POSSIBILITIES

*Unprecedented radio values!*  
That's the story in a nutshell of the new 1939 Westinghouse Precision Radios.

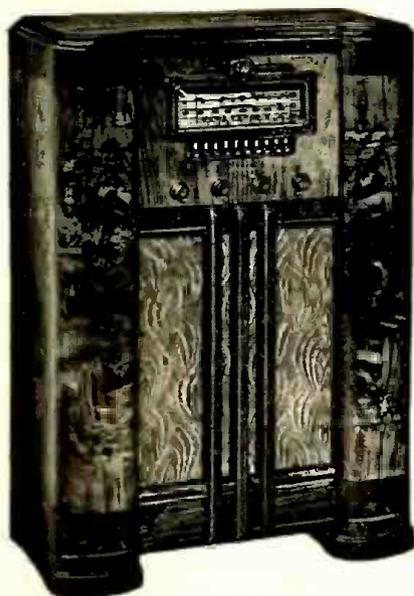
Never before have so many outstanding features been offered to the radio buying public at prices as low as Westinghouse has set this year.

The line is complete, from precision built table models to a phonograph combination and deluxe consoles. Every cabinet styled by America's foremost designers. Every set provides performance that backs up everything you say about it.

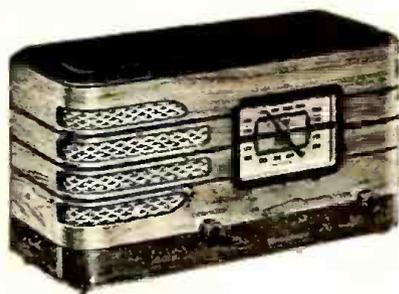
Here is a line that you can sell in volume at substantial profit.

Furthermore—Westinghouse offers you a completely new and resultful merchandising program for your local use. Hard-hitting cooperative newspaper advertising . . . colorful floor and window displays . . . consumer folders and other helps with **PROVED** sales-getting features.

It will pay you to get complete details of this remarkable line and merchandising program. Call your local Westinghouse Representative today!



MODEL WR-368



MODEL WR-256



MODEL WR-258

Merchandise Headquarters — Westinghouse Radio — 150 Varick Street — New York City

# Westinghouse Precision RADIO

# MORE NEW THINGS



## Zero current voltmeter

★ Mult-range meter with zero current voltmeter with 0/10/50/250 volt ranges. AC and DC volts at 1,000 ohms per volt of 0/10/50/250/500/2,500. Current scales of 0/1/2/1/5/50/500 milliamperes. 0-1 AC mils. Five resistance ranges from .05 ohms to 10 megs. Five ranges of capacity covering .0001 to 200 mfd. Model 4,900 S. Hickok Electrical Instrument Corp., DuPont Ave., Cleveland, Ohio.—RADIO TODAY.

## Drill and grinder set

★ Small, low-cost electric drill and electric grinder in metal case with assortment of grinding tools. Drill operates at 1,000 r.p.m. with 1/4-inch drill, which is the maximum capacity. Grinder operates at 20,000 r.p.m. Units ideal for radio repair and construction work. Complete outfit—list \$14.95. Speedway Mfg. Co., 1834 S. 52nd Ave., Cicero, Ill.—RADIO TODAY.

## TRADE FLASHES

David E. Johnson, formerly president of the Dayrad Company and for the past three years sales manager of the radio test-equipment division of the Bendix organization, has been appointed sales manager of the Dayton Acme Co. of Cincinnati, Ohio, manufacturers of radio test equipment. This company has been manufacturing instruments for service and laboratory use for the past eight years, and has just announced an unusual tube tester which, it points out, has outstanding exclusive features.

Ranking officials of the U. S. War Dept. attended a demonstration of one of the largest mobile sound systems in the country recently at Ft. Meyer, Va., when RCA showed them the new high powered outfit just procured by the Signal Corps of the Army. The unit is capable of covering 100,000 persons, under the normal operating conditions.

## Willard dry batteries

★ Complete line of dry batteries which includes flashlight cells, radio A, B, and C batteries, dry cells, and lantern batteries. Specifications and performance exceed requirements of U. S. Bureau of Standards. Willard Storage Battery Co., Cleveland, Ohio.—RADIO TODAY.



## Compact 5-watt amplifier

★ 5 to 8 watt amplifier having dual input channels for mike and phonograph pick-up. Variable tone control. Maximum gain of 120 DB with microphone. As a complete system amplifier is supplied with one 8-inch PM speaker, choice of mike and all necessary cables. Type 848-T. Wholesale Radio Service Co., 100 Sixth Ave., New York, N. Y.—RADIO TODAY.

## Record lubricant

★ Compound for prolonging the life of phonograph records. Applied directly to the record surface. Two-ounce bottle—list 35 cents; 8-ounce bottle, 75 cents. Nash Radio Products Co., 5437 Lisette Ave., St. Louis, Mo.—RADIO TODAY.

Sales manager Charles B. Shapiro of Howard Radio Co. was a recent guest at two radio showings in the Pacific coast area, at the Town House, Los Angeles, and at Seattle Radio Co., Howard jobbers for Washington state. At the former spot, plans were made for complete installation of Howard armchair sets.

W. Bert Knight, 115 W. Venice Blvd., Los Angeles, has been named representative for the firm's communication receivers in California, Nevada and Arizona.

New representative for Technical Appliance Corp. in Logan, Utah, is Ronald G. Bowen. For Taco, Mr. Bowen will cover Utah, Colorado, Indiana, southern Wyoming and northern New Mexico.

John Vassos, who designs radios and other products for RCA, was recently appointed chairman of the organization committee of the American Designers Institute, at a meeting in Chicago.



## Pocket multimeter

★ Switch-type volt-ohm-milliammeter in solid mahogany case with removable cover. 5 DC voltage ranges up to 2,500 volts at 5,000 ohms per volt. 4 DC current ranges to 1 amp., 3 AC ranges up to 1,000 volts. Resistance ranges of 1,000 and 2 megs. 3-inch square meter. H. J. Bernard, 319 Third Ave., Brooklyn, N. Y.—RADIO TODAY.



## Electric phonograph

★ Smallest self-contained electric Victrola ever built. Unit plays 10 and 12-inch records. Crystal type pick-up, 3-tube amplifier and dynamic speaker. Cabinet measures only 3 inches high and 10 inches deep. May also be converted to play records over any radio set, thereby taking advantage of the set's amplifier and speaker system. Model R-89—list \$24.50. RCA Mfg. Co., Camden, N. J.—RADIO TODAY.

H. L. Weisburgh, who is in charge of sales for the Brunswick radio division of Mersman Bros. Corp., is now busy organizing a group of sales experts for marketing his firm's new line of radios and phonograph-radios, recently introduced in a complete line of authentic period-style cabinets. Executive sales headquarters for Brunswick have been established at the New York Furniture Exchange, 206 Lexington Ave., New York City, where a full set of samples are on display, and a sound proof demonstration room has been opened. Mr. Weisburgh has announced that distribution of the new receivers will be on a "direct selling basis," with no distributors involved; jobber discounts will be available to direct accounts. To eliminate price-cutting, all models will be listed under all Fair Trade acts.

F. H. Behrendt of Recoton Corp., New York City makers of special steel alloy phonograph needles, has left with his wife for a 2-month business trip to England, Holland, France and Switzerland.

# Still time

... TO GET THIS  
COMPLETE SERVICE BENCH

**FREE!**

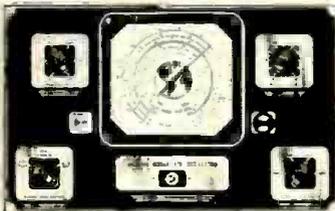


**1st PRIZE**

This complete servicemen's test bench, including a high-sensitivity Analyzer, Socket Selector Set, Tube Checker, All-wave A.A.C. Oscillator, set of 8 Service Manuals, service tools and replacement tubes.

**THE INSTRUMENTS**

which make  
any Service Bench  
Complete



WESTON Model 776  
all wave, hand-calibrated Oscillator



WESTON Model 772  
Super Sensitive  
Analyzer



WESTON Model 773  
Tube Checker  
(available in counter  
and portable types)

... and 24 other awards in  
**WESTON'S "50th Anniversary" Contest!**

Get your entry blank today! Write 100 to 250 words telling "How Modern Test Equipment Helped Me Solve A Difficult Servicing Problem." Send in your entry before September 1st, and, if your answer is judged the most practical and most interesting, the completely equipped service bench shown above will be shipped to you FREE! And there are 24 other awards ... all WESTON test equipment ... being offered in this contest by WESTON in celebrating its 50th Anniversary of instrument leadership.

The contest is open to all individuals actively engaged in radio servicing, except WESTON employees or representatives. The contest rules, the complete list of prizes, and complete instructions are included on the entry blank. Be sure you enter today.

*Get entry blanks from your jobber,  
or return the coupon today.*

**WESTON**  
*Radio Instruments*

Weston Electrical Instrument Corporation  
597 Frelinghuysen Avenue, Newark, N. J.  
Send entry blank for WESTON'S "50th Anniversary" Contest

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

# LOCATING CAUSES OF DISTORTION

Seventh installment of the dynamic testing principles originated by *Radio Today*

By VINTON K. ULRICH,  
(Service Editor, RADIO TODAY)

Continuing last month's discussion of how to test for harmonic distortion, RADIO TODAY now illustrates its points with oscillograms photographed in its own laboratory.

In telling of the various ways in which distortion could be observed, much stress was laid on the aural method whereby the human ear was used to tell when distortion occurred. To many servicemen, it may appear that this method is subject to unusually high errors. However, numerous tests with various types of distortion show that the human ear is keen to changes in timbre (amount of harmonics or overtones) of a single fundamental tone. It is this sensitivity of the ear that tells us that a particular note is sounded by a violin instead of a flute.

## Ear sensitive to harmonics

The erroneous disregard of the ear's sensitivity in observing harmonic distortion is doubtlessly due to the fact that the ear is known to be extremely insensitive to changes in volume. To readily note a change in volume, the change must be on the order of 3 DB or about a 40 per cent voltage increase.

To changes in the timbre of the tone (harmonics) the ear is far more sensitive as shown in Fig. 1 on opposite page. By feeding a single tone (sine wave) into the set, a pure tone should be heard in the speaker if there is no distortion. Curve A† is the waveform of the output of the set at a fairly low

level and is substantially the same as that of the audio oscillator—frequency is 1,000 cycles. Curve B is for a slightly-increased power output and shows very little distortion.

Fig. 1-C shows a fair amount of distortion which is readily recognized by ear. In fact the signs of distortion are recognizable about half-way between waveform B and C. Curve D shows a high amount of distortion and curve E shows extreme distortion.

The amount of distortion shown by waveform C is tolerable and would probably be considered as the maximum distortion permissible for an "undistorted" power output rating.

## Peak and average vs. RMS voltages

In addition to using the oscilloscope or the ear, many servicemen have a third way of checking for distortion at their disposal. This method requires the use of a rectifier-type meter and a vacuum-tube voltmeter connected across the voice coil of the set.

Rectifier-type meters operate on the average or rectified current and are calibrated in terms of root mean square (R.M.S.) voltages. As long as the voltage is sinusoidal (no harmonics) they read accurately. On the other hand some vacuum-tube voltmeters operate on the principle of peak readings. Like the rectifier-type meter, they are calibrated in terms of RMS volts and are accurate so long as used on sinusoidal waves. Other tube meters operate on R.M.S. voltages\* and are accurate regardless of the waveform.

By operating the two meters in parallel across the voice coil, they will both read the same (within the maximum errors of the meters) so long as the waveform is sinusoidal. As harmonic distortion sets in, the readings of the two meters will diverge—one will read higher than the other. If the readings of the meters are plotted against each other, as long as there is no distortion, a straight-line plot will result. As distortion sets in, the meter readings will diverge, causing the plot to become curved or deviate from a straight line. Figs. 2 and 3 show this phenomenon.

## Aural and visual harmonic analysis

If the two meters have errors; for instance, one reads 3 per cent high and the other 3 per cent low, the plot will still be a straight line when there is no distortion present—however, the line will not have a 45° slope, as it does when the meters read exactly equal.

Fig. 2 shows how the voice coil voltage varies with the two types of meters when distortion sets in. The letters A, B, C, D, E refer to the corresponding waveforms in Fig. 1. Also the output level at which distortion is apparent to the ear is marked on the plot. Note that in this plot the voltage indicated by the rectifier type meter when distortion is present is higher than that shown on the tube voltmeter.

To show that this comparison of rectifier and tube voltmeter readings will work on more than one type of

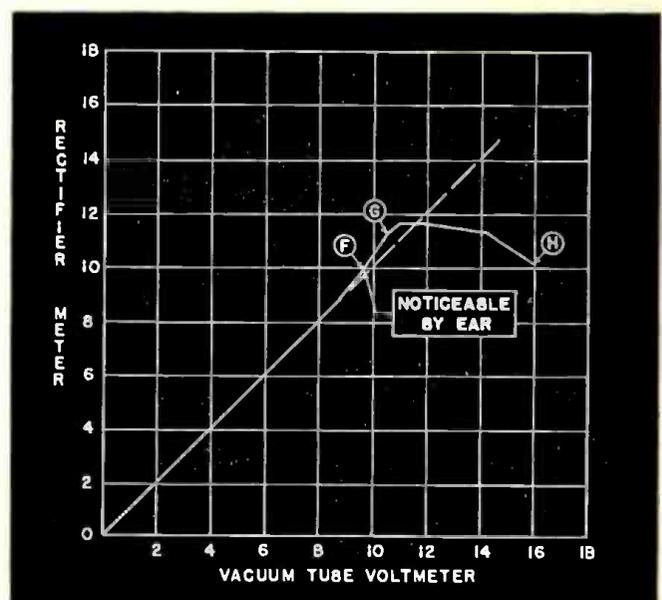
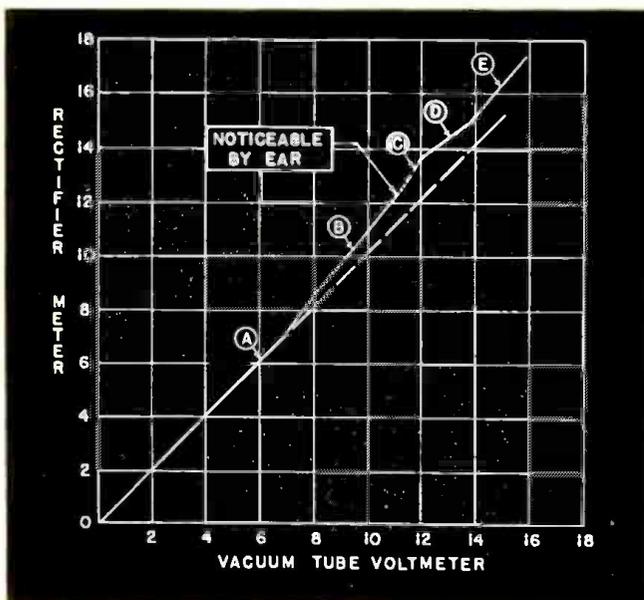


Fig. 2 (left) and Fig. 3 show how the readings of a rectifier type meter and a vacuum tube voltmeter will diverge when distortion occurs. Letters refer to corresponding curves in Fig. 1.

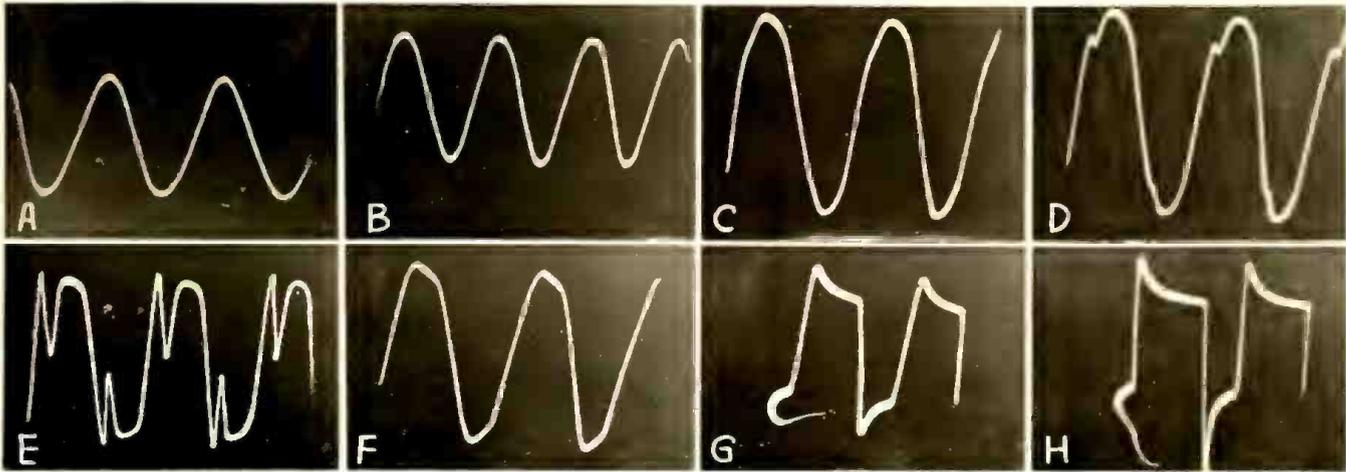


Fig. 1. A to E and F to H are two series of oscillograms taken to illustrate sensitivity of the ear in recognizing distortion. The ear will easily recognize distortion when it reaches the percentage shown in curves C and F.

waveform, the data for Fig. 3 was taken. In direct contrast to Fig. 2, at very high output levels with high distortion, the rectifier type meter reads less than the tube meter. This is quite explainable however, since the waveform is very peaked. The letters F, G, H, refer to the waveforms in Fig. 1.

#### Frequencies for distortion tests

While 1,000 cycles was used in the tests described, the same results will be obtained on frequencies as low as one hundred. Generally speaking the use of such a low frequency is inadvisable because of possible overloading of the speaker and other sources of distortion that are not factors at higher frequencies. Frequencies above 1,000 cycles are not satisfactory, since the harmonics may be out of the range of the set. A number of tests at 400 cycles shows this frequency to be entirely satisfactory.

The next topic deals with how to find those factors which limit the frequency response of a stage. As was pointed out in the June issue on pages 40 and 42, the plate-grid coupling condenser in a resistance-coupled

stage is an important factor in determining the base response.

The audio oscillator should be connected to the plate side of the coupling condenser and the frequency of the oscillator varied while noting the voltage output of the set. If a copper oxide meter is used, it should be connected across the voice coil without using the DC blocking condenser.≠

#### Checking grid coupling condenser

In order to prevent disrupting the DC voltage distribution in the set, a 2 to 4 mike DC blocking condenser should be used in series with the output of the oscillator as explained in the July issue on page 42. The condenser should be this large in order to overcome loading effects of the circuit such as the plate impedance of the preceding tube.

Fig. 4 shows the types of response that will be obtained in a high-fidelity set with various values of coupling condensers. The solid line represents the response with normal value of coupling condenser. When the coupling condenser is reduced to 1/10 its

normal value or .001 mfd. the bass response falls as shown by the dotted curve. A curve for a .00025 mfd. coupling condenser is also shown.

If the bass response is too low the oscillator should be connected to the grid side of the coupling condenser. If the bass response then becomes the same as for a proper value of coupling condenser, the loss in bass response is traceable to the coupling condenser. If the coupling condenser were .00025 mfd. and the oscillator tuned to 100 cycles, by moving the oscillator connection from the plate side to the grid side of the coupling condenser, the response would change from that of point "A" on Fig. 4 to point "B."

Note that at higher frequencies the effect becomes less. Because this effect is greatest at low frequencies, the test should preferably be made at the lowest frequency that the set should pass without appreciable loss in volume.

In order to show the effect of the varying impedance of the speaker voice coil, the heavy dotted load curve was taken after a resistive load had re-

(To page 36)

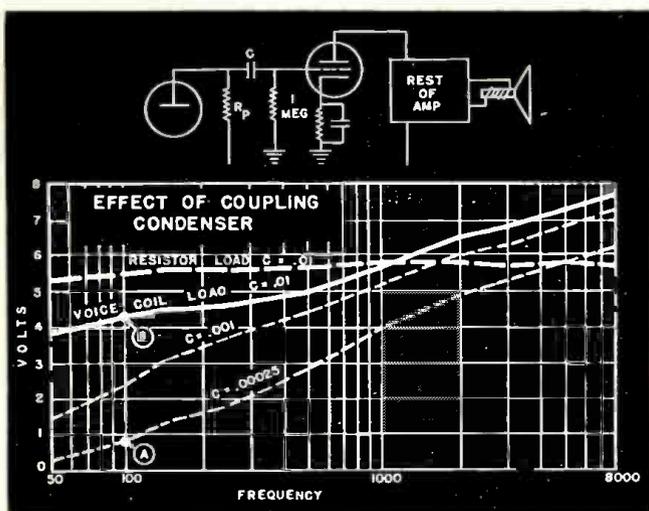


Fig. 4 shows the effect of the coupling condenser in a resistance coupled stage. Note (heavy dotted curve) how the substitution of a resistor load for the speaker voice coil flattens out the response of the audio amplifier.

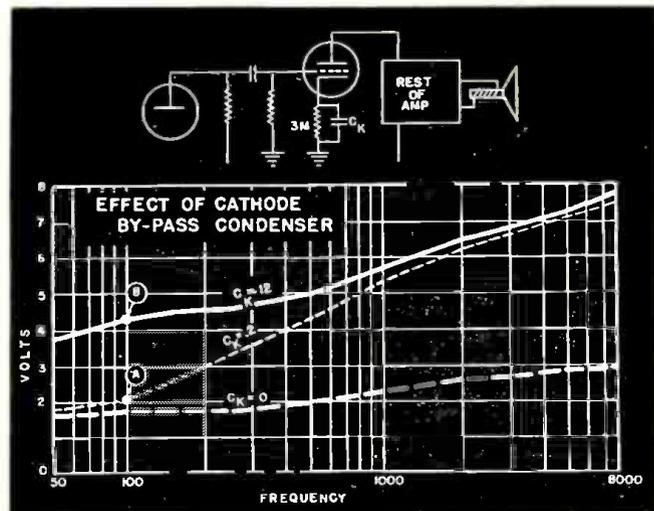


Fig. 5 illustrates how the gain of the set is reduced when no cathode by-pass condenser is used (heavy dotted curve). The light curve shows the effect of insufficient by-pass condenser. Note that gain of the amplifier is reduced on lows only.

# ELECTRIC REFRIGERATION MARKETIPS

Which includes news of associated appliance lines

## NEARLY 50 PER CENT OF BOXES ARE 4 YRS. OLD OR OLDER

In the now-famous home inventory conducted among 53,124 housewives in 16 key cities, the Scripps-Howard statisticians found that 47.2 per cent of those owning refrigerators bought them in 1934 or earlier. Exactly 59.7 per cent of the homes reporting have a "box" of some kind.

Sales by years of all brands of refrigerators, in per cent of mentions, run like this:

1937	16.6
1936	19.2
1935	17.0
1934	11.9
1933	8.9
1932	7.0
1931	4.8
1930	6.1
1929 or earlier	8.5

## BUYING POWER STUDY

"The average retail price of all household washers sold in the first five months of this year is \$74.49, compared to \$71.95 in the same period of 1937," reports J. R. Bohnen of the American Washer and Ironer Mfgs.

Association. This is taken to mean that consumer buying is steady, and responsive to quality appeal.

As for units, washers shipped last May totalled 84,016, compared to 160,246 in May last year. Ironers shipped during that month added up to 6,675, compared to 12,062 in May 1937.

Sales of vacuum cleaners for May were 94,666, while the total for that month last year was 168,609, according to C. G. Frantz of the Vacuum Cleaner Mfgs. Association.

## FARM APPLIANCE SALES GET A BOOST

That farmers are now excellent prospects for appliances, but are often unable to pay on a regular monthly time-payment basis, is the reason for new financing plans announced by General Electric Contracts Corp. Farmers can pay when they harvest a crop, under a new arrangement which applies to refrigerators, ranges, water heaters, dishwashers, kitchen waste units, home laundry, etc.

A two-payment plan provides for a

25 per cent down payment, with the balance payable in equal amounts at the end of six and eight months.

A four-payment plan requires a 15 per cent down payment, with one-quarter of the balance due at the end of three, six, nine, and twelve months.

The third plan requires a 20 per cent down payment, with the balance payable in eight installments at the end of 3, 6, 9, 12, 15, 18, 21 and 24 months.

Also current in farm sections is a big drive by Briggs & Stratton, co-operating with GE, to sell gasoline-powered washers. State and county fairs, corn husking bees, tractor shows and similar farm events are the center of this drive, and elaborate promotional material is being prepared for dealers and distributors to use at all such farm gatherings.

## REFRIGERATOR BUSINESS-GETTER

A simple and dramatic device to show refrigerator prospects that modern boxes are fast-freezing is being suggested by Westinghouse. The idea is that salesmen actually make up a batch of Jello, for the customer, in four minutes chilling time.

You make the recipe in your spare time, so as not to do the mixing in the customer's presence. You simply dissolve Jello in boiling water, add ice cubes in water and let melt, and store the mixture in the Water Server.

For the prospect you begin the demonstration by pouring one cup of the mixture into the Multi-Service tray. In four minutes you have tangible proof that the box works swiftly.

To conduct this stunt, and also an ice cream-making one, the firm has introduced a handy demonstration kit.

## GLIDE SHAVER PROMOTION

For the new Glide Shaver, the \$7.50 electric razor made by International Appliance Co., a division of the International Radio Corp., makers of Kadette radio, the firm has made an introductory offer to dealers.

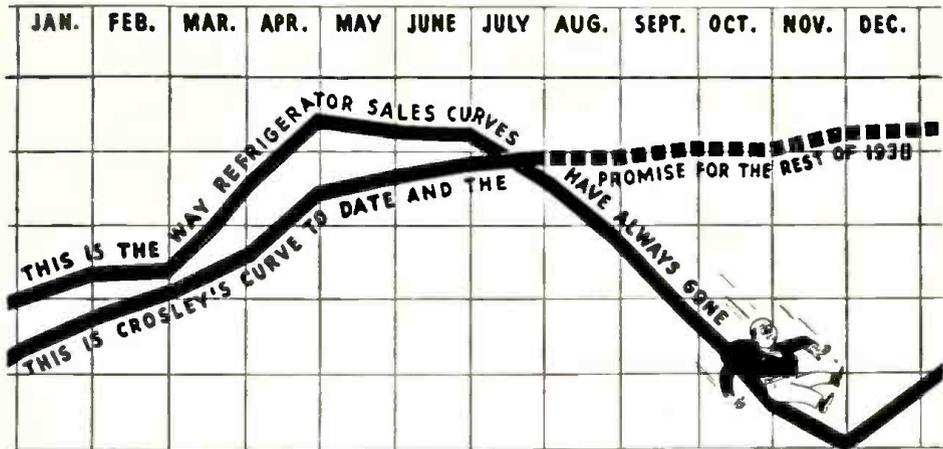
This offer includes a display unit, a counter card, a window streamer and two newspaper ad mats, along with the merchandise.



This refrigerator introduces itself, then lets its features speak for themselves! The voice comes from a recorded sales presentation, played on the phonograph, heard through the radio at the top of the "Musical Shelvador."

# Don't follow the old curves!

Your Sales Curves won't follow old curves if you follow Crosley!



Crosley Follows **NO** Precedent.

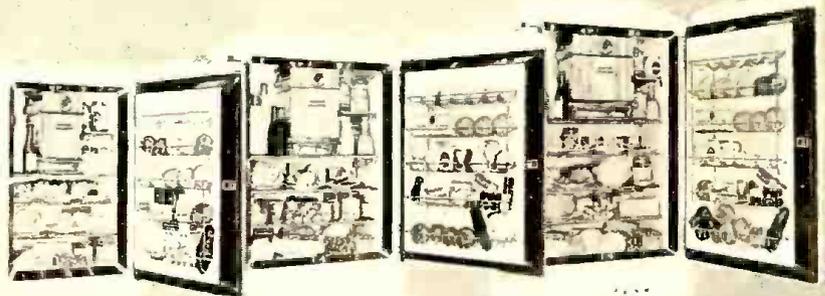
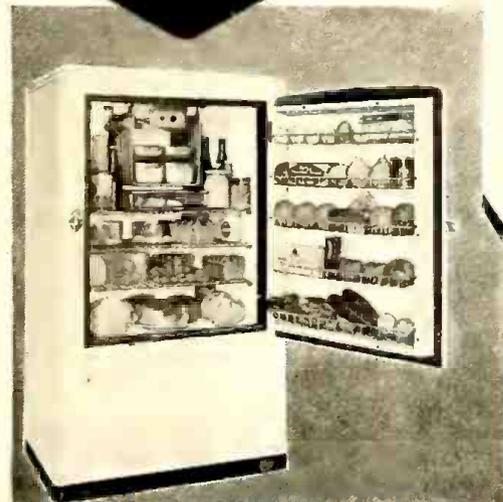
Don't play "dead dog" just because the refrigeration business does from now until January 1st. New automobiles stimulated car sales in the fall. Crosley applies the same idea to Shelvadors, presenting brand new startlingly low priced, completely re-engineered refrigerators.

Get the most of the refrigeration business between now and Christmas! You can get up a lot of momentum between now and January 1st and meet the new year with a running start.

With the new Crosley line of Shelvadors and energetic sales effort this fall you can leave your competition way behind!

**NEW  
"REGULAR"  
SHELVADORS  
PRICED TO  
MEET 1938  
CONDITIONS**

**6  
cu. ft.  
R.F.D.  
SPECIAL  
\$99<sup>95</sup>**



**4½ cu.ft.  
\$119<sup>95</sup>**

**5½ cu.ft.  
\$137<sup>50</sup>**

**6½ cu.ft.  
\$149<sup>95</sup>**

*Rodio is not standard equipment but may be had in above models at additional cost.*

The public always responds when prices are low and values are evident.

If you are not stocking and showing the new Crosley 1939 models including the RFD Special rush to the nearest Crosley distributor and get going right away.

*Prices slightly higher in South and West.*

**THE CROSELY RADIO CORPORATION**  
POWEL CROSELY, Jr., President CINCINNATI  
Home of "The Nation's Station" - WLW-70 on your dial

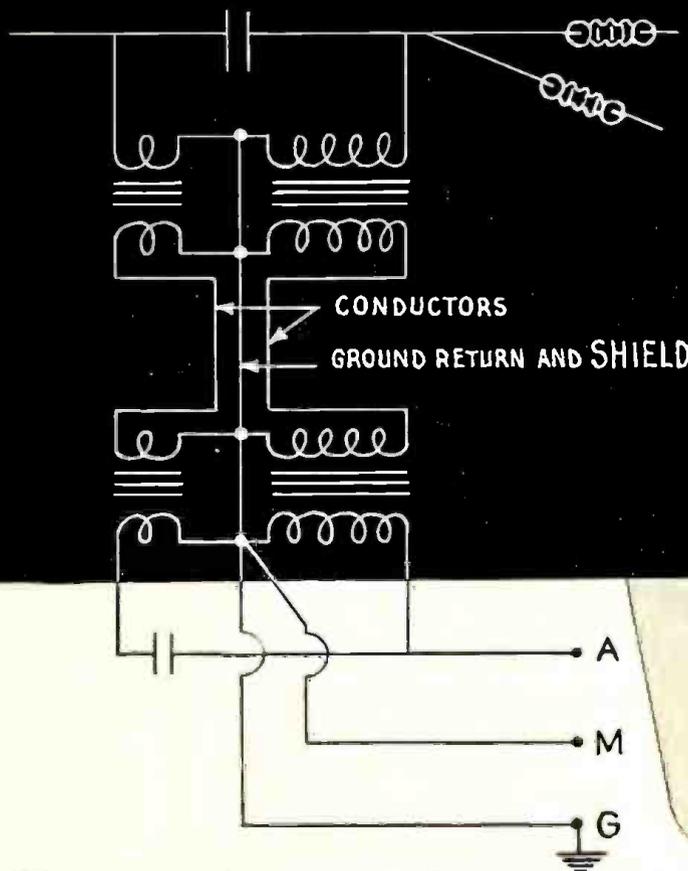
**CROSELY SHELVADOR**



# You Ought to Know WHAT'S IN THIS



## New Clear Channel Antenna System



**UNIQUE NEW DESIGN**—Result of long, careful research. The new Belden Clear Channel Antenna System provides ALL the following features:

- 1—A clear channel and uniform performance over the entire wave band from 400 to 22,000 kc. No dead spots.
- 2—A shielded transmission line which reduces noise and makes possible a convenient ground connection for the antenna coupler.
- 3—A shield on the transmission line which functions as a lightning arrester because it grounds any accumulated electrostatic charges.
- 4—A system that transfers greater radio power from the antenna to the receiver because of the iron core couplers and the clear channel transmission line.
- 5—An antenna that is very easy to erect and once erected, it retains a neat appearance longer with minimum risk of breakage due to wind or ice.
- 6—Elimination of man-made electrical interferences.

**BELDEN QUALITY**—has been built into this Clear Channel System. Beldenamel aerial—shielded low loss, 2-channel transmission line—special Belden Iron Core Transformers in the coupling system—these provide the finest antenna system ever produced.

**EXTRA SALES AND PROFITS**—Sell the new Belden Power Line Filter when you sell a new antenna. Eliminate the “Back Door” noises and complete your job of cutting out man-made interference.

*Ask your jobber or write*

**BELDEN MANUFACTURING COMPANY**  
4613 W. Van Buren St., CHICAGO, ILL.

Get Behind  
*National* **ANTENNA  
CHECK-UP WEEK**  
Sponsored by Belden

A big national advertising campaign in Saturday Evening Post and Collier's will boost your antenna system sales and increase your service business. Be sure to tie in.

Watch for Your Announcement

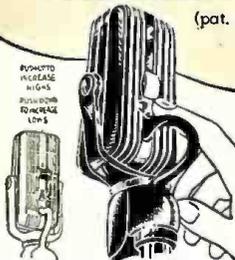
# Belden

**The Radio Wiring Line**

# AMPERITE offers "ADJUSTABLE RESPONSE"

... made possible by  
**THE ACOUSTIC  
COMPENSATOR**

(pat. pend.)



\*Higher or lower pitch with the same microphone.

With the flip of a finger you can now (1) lower or raise the response of the microphone. . . (2) adjust the microphone for most desirable response for close talking or distant pickup. . . (3) adjust the system to any "taste", room condition, or equipment.

MODELS RBHk, RBMk, with Acoustic Compensator, frequency range 40 to 11000 cps, output, -65 db., complete with switch, cable connector and 25' of cable. . . . . \$42.00 LIST

## NEW LOW-PRICED CONTACT "MIKE"

\$12.00 LIST



The new popular-priced Amperite Contact Microphone can be used on most radio sets made since 1935 and on all P.A. systems. It "makes an ordinary violin sound like a Strad" . . . gives a small piano the tone of a Grand. And yet, there is no distortion. No unnatural effects. No "fingering noises." No changes in strings or instrument. Attached without tools.

Operates with either high or low gain amplifiers. Has frequency response of 40 to 9000 cps. Output, -40 db. 20' of cable.

MODEL SKH (Hi-imp.); SKL (200 ohms), \$12.00 LIST  
Professional Model KTH (or KTL) \$22.00 LIST

## NEW COMPACT "MIKE"

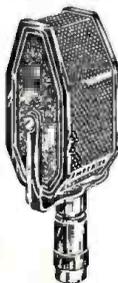


A new velocity microphone of compact size, having a head only 1 1/4" x 2 3/4" x 1 1/4". Good for speech and music. May be used as hand mike as well as for stand mounting. Complete with output transformer, cable connector and switch. Output, -70 db. into open line. Frequency response 60 to 7500 cycles.

MODEL ACH (Hi-imp.); ACL (200 ohms) . . . . . \$25.00 LIST

## MODEL RAH...\$22.00 LIST

P.A. Men, you can improve those "price" jobs by using the popular Amperite Model RAH (or RAL). You will get better results because (1) it is excellent for both speech and music; (2) has flat response without undesirable peaks; (3) reduces feedback; (4) stands up under rough handling and changes in temperature, pressure or humidity. . . . Frequency range 60 to 7500 cps. Output, -68 db.



MODEL RAH (Hi-imp.); with 12' of cable; RAL (200 ohms) with 8' of cable, ONLY \$22.00 LIST

Write for Complete Illustrated Bulletins and Valuable Sales Helps.

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

# SERVICE NOTES

20 per cent at 50 cycles. That the oscillator voltage is not constant is unimportant so long as the serviceman takes it into account. For the sake of convenience, the voltage output of the audio oscillator used in these tests has been plotted on a chart which hangs on the wall of RADIO TODAY's laboratory.

†Oscillograms in this article were photographed directly from the screen of a Clough-Bregle model 127 oscilloscope.

\*The Weston type 669 vacuum tube voltmeter used in Radio Today's Lab. operates on R.M.S. voltages.

#A Hickok 4,800 S multimeter was used for these tests.

for shorts whenever an open fuse is encountered.

## COUPLING CONDENSERS IN RESISTANCE-COUPLED AMPLIFIERS

An interesting bit of information not generally known to servicemen regarding coupling condensers in audio amplifiers has been included in National Union's *Radio Tube Manual* and is quoted herewith:

"It might be mentioned that a mistake commonly made in resistance-coupled amplifiers is the use of an unnecessarily large coupling condenser. If the possibility of motor boating is to be minimized, the coupling condenser should be no larger than is absolutely necessary to obtain satisfactory transmission at the lowest useful frequency. For instance, in certain receivers where, due to limitations imposed by the speaker and the effective baffle size, the lowest useful frequency for the amplifier to transmit might well be as high as 100 or 150 cycles. In such an instance, assuming a grid leak of 0.5 megohms, the coupling condenser should not be more than 0.003 microfarad.

"Incidentally, another benefit accruing from the use of a coupling condenser no larger than is absolutely necessary is that the effective power output is increased. This is true because transmission of frequencies to the grid of the power output tube, lower than that which may be acoustically reproduced, simply uses up an appreciable part of the tube's power capability. Using a coupling condenser as large as 0.1 microfarad invites trouble."

## USE PROPER FUSES

Fuses are provided in radios simply to protect the power transformer and thereby avoid an expensive replacement in case something goes wrong in the tubes or circuits, states Stromberg-Carlson's service division.

If the proper fuse is replaced by one of higher current rating, or by a piece of wire, etc., this protection is nullified, and the transformer exposed to possible burn-out at that time or in the future. Such practice is dangerous, and it certainly is not fair to request free transformer replacement—even within the guarantee period—where an improper fuse has been used.

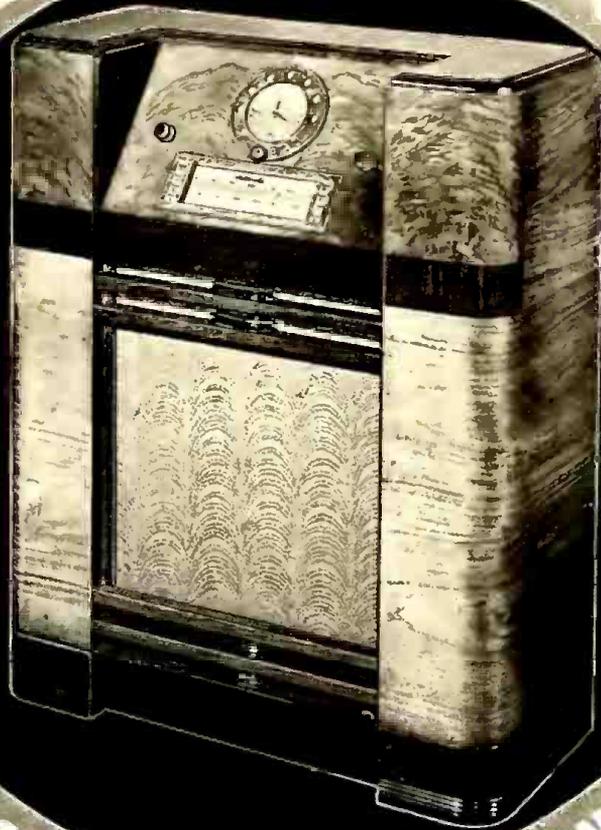
We are all aware that shorted rectifiers can blow fuses, or can burn-out an unprotected transformer. It is news to some, however, that new high-power audio output tubes can do the same, or that any short in the filter system to these low-impedance tubes can overload an improperly fused transformer.

The only safe plan is to keep a stock of fuses on hand, and check thoroughly



Handy wall outlet installed at the window eliminates messy and troublesome antenna and ground lead-in wires. This unit offered by Cornish Wire is easily installed by the serviceman.

**NEW! SENSATION! TALK!**  
 THE MOST STARTLING IMPROVEMENT IN RADIO



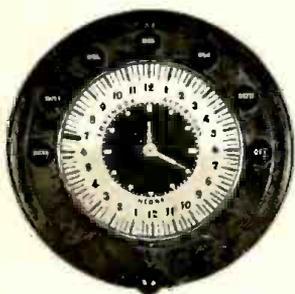
**Motorola TIME-TUNING**  
**THE RADIO THAT TUNES ITSELF!**

TUNES FAVORITE PROGRAMS BY ITSELF... ALL DAY

"SET" STATIONS ALL AT ONE TIME...  
 THEY'LL TUNE IN ONE AFTER ANOTHER  
 WITHOUT ANY FURTHER ATTENTION

COMBINED WITH

"Feather-Touch" ELECTRIC TUNING



This year's biggest demonstrating feature. Nothing you ever saw compares with Time-Tuning in radio convenience and luxury. Automatically tunes favorite programs all through the day and night. Changes stations on the hour, half-hour or quarter hour . . . or the same station can be left on for several hours if desired. Turns itself ON and OFF. Simple and easy to "set" as a clock. It's electric—nothing to get out of order.

*The* **HOTTEST**  
**HOT LINE FOR 1939**

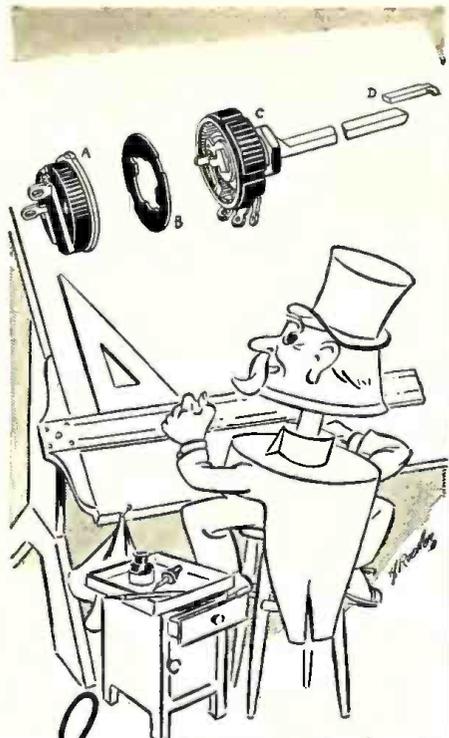
Setting the pace for the industry with something *really* new that your customers can afford to buy. Motorola gives you demonstrable worthwhile features that appeal to women buyers . . . a quick "turn-over" line of hot values . . . newest cabinet styling . . . and discounts that allow you a decent profit.

**"ALL-IN-ONE" REMOTE CONTROL**

Perfection in Remote Control. Tunes six favorite stations, turns set ON and OFF, and raises and lowers volume either at the radio set or remote control without turning any knobs or switches.



**GALVIN MFG. CORPORATION · CHICAGO**



In ANSWER to a  
DEFINITE DEMAND

## WIRE WOUND RADIOHMS

"Build us a wire wound resistor that's as good as your other products" . . . they asked us time and again. And so we "gave in" with the result that where circuit requirements call for "Wire Wound," servicemen have been using the new CENTRALAB Wire Wound Radiohm with remarkable success.

Available at your jobber . . . in dimensions identical with the Standard Radiohm. Be sure to specify Centralab.

### Features:

Small size. Bakelite case is 1 3/4" in diameter x 9/16" deep. Available in values from 2 to 10,000 ohms.

Insulated construction—no washers required in mounting.

Regular Radiohm switch covers can be attached.

Dissipates up to 4 watts without damage or change.

Universal shaft for all replacement work.

Close Tolerance —  $\pm 5\%$ .

### Chief applications:

1. Instruments
2. In radio receivers where very heavy bleeder current passes through unit in cathode and screen circuits.
3. Filament control.
4. Hum control.

In linear curve only

**Centralab**  
Milwaukee, Wis.  
Division of Globe Union, Inc.

# SERVICING

## STEWART-WARNER PUSH-BUTTON TUNING

In some of the new Stewart-Warner sets push-button switches are used for wave-changing as well as automatic tuning.

For the purpose of simplifying the schematic the switches have been drawn separately—although in the set they are grouped together and have a common latch-bar mechanism.

The top switch is the "foreign" or short-wave. When the manual broadcast switch or any one of the station switches is pressed, the short-wave switch unlatches and returns to the broadcast position.

The manual-automatic switch connects either the tuning condenser gang or the trimmers across the broadcast band coils.

Three different capacity trimmers are provided: high, medium, and low. These are plainly labeled in the setting-up instructions. *Never* use a high-capacity trimmer to set-up a high-frequency station or vice-versa. If trimmer is set-up either too tightly or too loosely, it will not retain its calibration.

## TIE UP WITH AN AUTO-PARKING LOT

An energetic Chicago serviceman has an arrangement with several automobile parking lots in his vicinity, through which he gets any radio servicing which originates in these lots. Signs are posted at the entrance to each parking-space "Dependable Radio Servicing While Your Car Is Parked—Ask Attendant."

A parking customer who has been having trouble with his auto-radio—

on leaving his car—merely has to explain the difficulty to the man in charge of the lot, who immediately calls up the serviceman. Quickly a repairman is sent to go over the set, and usually the repairs are all made and the radio is again in good operating condition before the owner comes back to get his car. The radio man makes out his bill and leaves it with the parking attendant, to be collected before the car leaves the premises.

Having found the repair service prompt and convenient, several customers have brought small sets and even consoles in their cars to be fixed by the invisible service man. A small commission to the parking-lot owner pays for the cooperation of the attendant and himself in this plan to speed up radio-service sales.

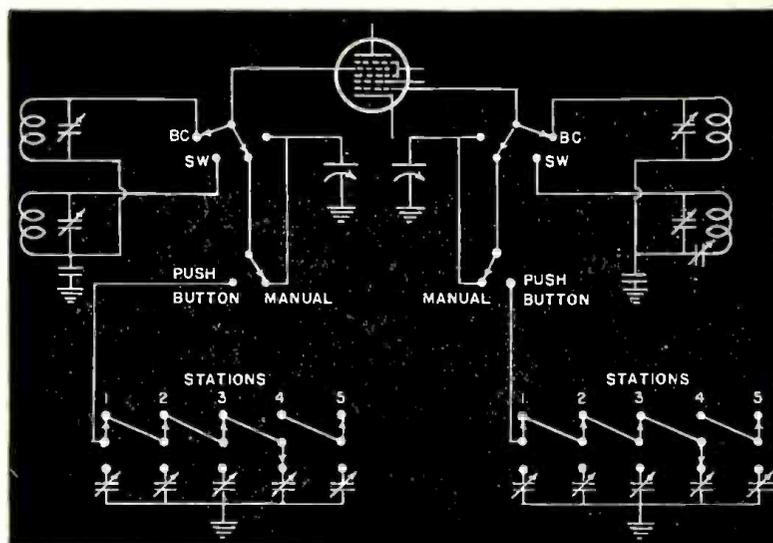
## USE CAUTION WHEN USING UNIVERSAL TUBE-TYPE RESISTORS

★ A word of caution to servicemen when using universal tube-type resistor replacements is sounded by the Clarostat engineering department, as follows:

In order to save the added cost of terminal strips, some manufacturers of AC-DC sets have been using the extra socket connections of the resistor tube for tie-in posts. These tie-ins, in most instances, carry plus B voltage. This practice has resulted in much grief by way of quick burnouts of tube-type resistors, and even serious damage to the set itself.

Therefore, the socket connections should be checked before inserting a universal type resistor tube. If only three prongs are needed, cut off the extra prongs so as to avoid any danger of having one of these extra prongs make contact with any high-voltage source that might burn out the tube.

Specifically: Take the 10-23-A, for instance. It comes with connections at prongs Nos. 7, 8, 2 and 3. Should



Push-button tuning circuit used in the current Stewart-Warner receivers. Wave-change and manual-automatic switch are part of the push-button assembly.

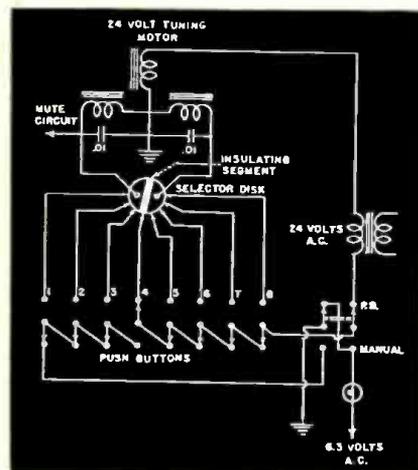
there be any connection at the socket for any other voltage but the line voltage, be sure to cut off the extra prongs. For example, we are going to replace a K-55-B with a 23-55-A Universal tube. On the K-55-B we have prongs Nos. 7, 8 and 3 for the necessary drop, while the 23-55-A has a connection at No. 2 prong also. Therefore, cut this No. 2 prong off to be safe, for under the chassis the set manufacturer may be using socket connection No. 2 for tying in some source of high voltage.

Reference to the necessary data, as given in the new Clarostat tube-type resistor wall chart, will help determine connections within any particular type of resistor tube.

### RCA ELECTRIC MOTOR TUNING

This year's type of motor tuning used in the RCA-Victor sets is of the homing type, where the motor automatically turns in the proper direction so as to go directly to the station.

This is accomplished through the use of a split-stator type selector disc.



One motor field winding is connected to each side of the selector disc. The direction of the motor rotation is determined by the position of the push-button contact on the selector disc—and this rotation is always such that the motor turns in the proper direction so as to go directly to the desired station.

Double-throw type station switches are used, so that if more than one is depressed at once, the mechanism will select a station and then come to a stop. The station selected if more than one is depressed, is the one with the highest number on the diagram. The manual-automatic switch grounds the mechanism on the manual position and operates the pilot indicator light.

Muting of the set during tuning is accomplished by taking an AC voltage from across the motor field and rectifying it so as to provide a cut-off bias in the audio stage.



**MAJESTIC 511**

**39's Greatest  
MERCHANDISING  
OPPORTUNITY!**

**Majestic**  
MIGHTY MONARCH  
OF THE AIR!

Majestic for '39 provides you with merchandiseable features that create profitable volume sales!  
Variety—A range of models that covers all consumer requirements!  
Style—Designs in the modern trend to satisfy all tastes!  
Engineering—Chassis designs that provide the utmost in performance and reception!  
Price—A price range in keeping with the purchasing power of your market and mark-ups that give you profits on all sales!

Write for additional information!

**MAJESTIC 511**—5 tube AC superheterodyne—5½" Electro Dynamic speaker—automatic volume control—illuminated full vision slide-rule dial. Tuning range, 535-1750 KCs. gets police calls. Semi-modern design in 2-tone ivory plastic.

**MAJESTIC 551**—5 tube AC superheterodyne—2 band tuning, American and foreign reception. 5½" Electro Dynamic speaker—automatic volume control—aeroplane type dial. Smart ivory plastic cabinet.

**MAJESTIC 62A**—6 tube AC superheterodyne—2 band tuning, American and foreign. 4-button mechanical push-button tuning—6" Electro Dynamic speaker—automatic volume control—tone control—full vision slide-rule dial. Genuine walnut cabinet, semi-modern design.

**MAJESTIC 639**—6 tube AC superheterodyne. 3 wave bands, American, foreign reception. 6-button mechanical pushbutton tuning—8" Electro Dynamic speaker—automatic volume control—tone control—full vision slide-rule dial—phono attachment. Cabinet of high grade walnut and walnut burl.

**MAJESTIC 739**—7 tube AC superheterodyne. 3 tuning bands. American-foreign broadcasts. Automatic volume control—10" speaker—base compensated audio system. 6-button mechanical mute tuning, front adjustment. Phonograph attachment. Vitatone cabinet, of matched domestic and Oriental walnut.

**MAJESTIC 939**—9 tube AC superheterodyne. 3 tuning bands, American-foreign. Automatic volume control—12" speaker—phonograph attachment. 6-button mechanical mute tuning, front adjustment. Vitatone cabinet, of matched domestic and Oriental walnut, trimmed in Bird's-eye Maple.



MAJESTIC 639



MAJESTIC 739



MAJESTIC 939



MAJESTIC 551



MAJESTIC 62A

*Majestic's the Line for '39!*

**MAJESTIC RADIO & TELEVISION CORP.**

2600 W. 50th STREET, CHICAGO, ILL.

EXPORT SALES OFFICE: 330 S. WELLS ST., CHICAGO, ILL., U.S.A.

CABLE: "MAJESTICO—Chicago"



# PA PICK-UPS

Walter C. Hunter of Hunter Radio Shop, Enid Okla., reports the completion of one of the largest and most profitable PA jobs of the season for his area—the installation of a 62-speaker system in the two local junior high school buildings.

Presto Recording Corp., New York City, arranged to make personal phonograph records free for all guests at the Chicago convention of the National Association of Music Merchants, Hotel Stevens, Aug. 1-4. The firm had ten portable sound recorders in action in rooms 549-50.

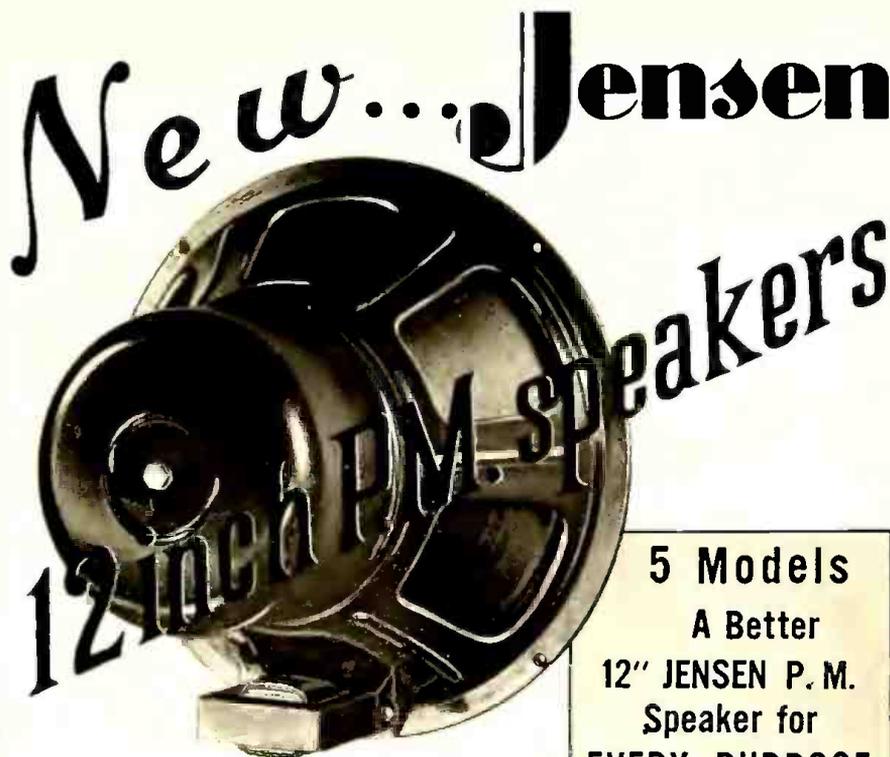
Radio Engineering Laboratories, 35-52 Thirty-Sixth St., Long Island City, N. Y., pioneer manufacturers of two-way police radio equipment, last month signed an agreement with American Telephone & Telegraph Co. permitting R.E.L. to continue with the development and manufacture of two-way communication equipment.

Miss Helen Staniland of Quam-Nichols reports that the new complete line of Quam speakers with replacement transformers, an exclusive Quam feature, is being received with tremendous enthusiasm by jobbers everywhere in the country, an enthusiasm that is being evidenced by an increasing jobber business. A number of new jobbers are handling the Quam speaker line, and reporting a real demand for Quam speakers and lots of enthusiasm among new customers for the replacement transformer idea.

Oxford-Tartak Radio Corp., Chicago, in recognition of increased demand for its products abroad, has named John C. Hill as export manager, according to news from J. S. Gartner, secretary of the company.

R. J. Coar, veteran, Washington, D. C., radio engineer consultant and now with Radioscriptions, Inc., in that city, has been appointed a distributor for the recording division of the Universal Microphone Co., Inglewood, Calif., and has established a display room with a complete Universal display including the master wax, professional, portable, school and college and aluminum models. He will act as distributor to radio stations and schools and colleges. L. C. Shumac continues as Washington, D. C., factory representative for both the recording and microphone divisions of the California factory.

Walter Spiegel, sales manager of Regal Amplifier Mfg. Corp., is making an extensive tour of eastern and western areas, plugging the company's complete line of "Tokfone" inter-communicating equipment. Latest addition to the line is a 10-watt combination paging and inter-communicating system, comprising master station, sub-station and power supply unit.



**5 Models  
A Better  
12" JENSEN P. M.  
Speaker for  
EVERY PURPOSE**

**A COMPLETE PERFORMANCE RANGE  
A COMPLETE PRICE RANGE**

... but

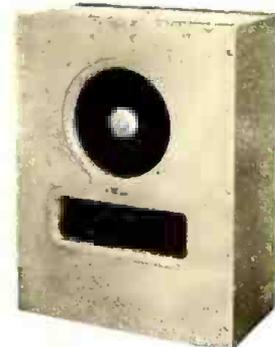
**REGARDLESS OF PRICE OR MODEL**

**All are built to the  
Uncompromising JENSEN  
Standard of Quality**

• Jensen policy is not to make one twelve-inch PM speaker and claim that it is best for all applications. We know that different applications require different models and that is why five models of Jensen Permanent Magnet Speakers are offered the trade. Choice lies between considerations of price, sensitivity, power handling capacity and response characteristics; but no matter which model is chosen there is no price premium for Jensen uncompromising quality.

- 1 Model A-12PM—In either High Fidelity or Standard Fidelity design. The most sensitive of all Jensen 12" PM Speakers and the greatest power handling capacity. List Price (Less Transformer) .....\$34.75
- 2 Model PM-12B—A new improved model of the previous PM12-B. More sensitive and very close to A-12PM in all around ability; in either High or Standard Fidelity design. List Price (Less Transformer).....\$25.00
- 3 Model PM12-H—A new model in either High or Standard Fidelity design. Handles output of ten watt amplifier and is highly sensitive. List Price (Less Transformer) .....\$19.50
- 4 Model PM12-C—A popular priced, widely used 12" PM speaker. Probably more value for the money than any other known 12" speaker. List Price (Less Transformer).....\$13.25
- 5 Model PM12-GS—A new Speaker throughout to meet the demand for a good quality low priced 12" PM Speaker. Handles output of 8 watt amplifier capably. List Price (Less Transformer).....\$9.85

BR-12



Use Jensen Peri-dynamic Reproducers with BASS REFLEX with all Jensen PM Speakers where the utmost in quality of performance and convenience in installation is required.

JENSEN RADIO MFG. COMPANY RT-838  
6601 S. Laramie Ave., Chicago, Ill.

Please send me more information on

- New Jensen 12-inch PM Speakers.  
 Peri-dynamic Reproducers with Bass Reflex.

Name .....

Address .....

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

# RECORDS

## of the month

**BUOY CLARK** singing I Married an Angel and Spring Is Here, both from the musical of the same name—Vocalion 4191.

**RICHARD HIMBER** and his Essex House orchestra playing My Margarita with VR by Stuart Allen and See Sharp—Victor 25890.

**DICK ROBERTSON** and his orchestra playing When Mother Nature Sings Her Lullaby, with VC by Dick Robertson, and Hi-Yo Silver, with VC by Robertson and Men About Town—Decca 1914.

**HENRY KING** and his orchestra playing Say It With Music from the 20th Century Fox film "Alexander's Ragtime Band," with VC by Sonny Schuyler and "Swonderful"—Decca 1890.

**KAY KYSER** and his orchestra playing Hi-Yo Silver with VC by ensemble, and My Best Wishes with VC by Harry Babbit—Brunswick 8165.

**WILL HUDSON** and his orchestra playing The Flat Foot Floogee with vocal by ensemble and There's Something About an Old Love with VC by Jayne Dover—Brunswick 8164.

**ART KASSEL** and his Kassels in the Air playing Silver on the Sage from the Paramount film "The Texans," and I'll Still Be Loving You, hotb with VR by Billy Leach—Bluebird B7696.

**JAN GARBER** and his orchestra playing The Same Sweet You with VC by Lew Palmer, and When Twilight Comes with VC by Russ Brown—Brunswick 8176.

**THE KING'S JESTERS** and their orchestra singing Pedro the Cocktail Shaker and Phil the Fluter's Ball—Decca 1902.

**MAXINE (Vocadence) SULLIVAN** singing St. Louis Blues and L'Amour Toujours, L'Amour, with Claude Thornhill and his orchestra—Victor 25895.

**ANDREWS SISTERS** singing I Married an Angel and Land of the Sky Blue Water—Decca 1912.

**RAY NOBLE** and his orchestra playing My Walking Stick and Now It Can Be Told, both from "Alexander's Ragtime Band," both featuring Tony Martin—Brunswick 8153.

**KAY KYSER** and his orchestra playing Music Maestro Please with VC by Jinny Simms and So You Left Me for the Leader of the Swing Band with VC by Sully Mason—Brunswick 8149.

## SALES FEATURES AND SPECIFICATIONS OF THE 1938-39 SETS CONTINUED FROM JULY ISSUE—Compiled by Radio Today

Model No.	List price	Cabinet		Wavebands	Number tubes (RMA defn.)	Plug-in re-sistor%	Cond. in gang sec-tions	Spkr. size & type	Watts audio power (Max.)	Power Supply and watts	Selectivity	Tone control	Visual tuning Type	Automatic Tuning		Stations No.	Re-remote control AVC	I.F. Peak		
		Style	Material											Drift Comp.	Adjust-ments					
<b>Zenith Radio Corp.,—Continued from page 22,</b>																				
6S362	59.95	CON	Wood	B.P.S	6-O	None	2	10-EE	4 1/2	AC	Fixed	None	None	It	CC	6	1-F	No	Yes	455
7S363	69.95	CON	Wood	B.Si,S	7-O	None	2	10-EE	4 1/2	AC	Fixed	Yes	CR	It	CC	6	1-F	No	Yes	455
7S364	79.95	CON	Wood	B.Si,S	7-O	None	2	12-EE	4 1/2	AC	Fixed	Yes	CR	It	CC	6	1-F	No	Yes	455
7S366	99.95	CON	Wood	B.Si,S	7-O	None	2	12-EE	4 1/2	AC	Fixed	Yes	CR	It	CC	6	1-F	No	Yes	455
9S365	89.95	CON	Wood	B.P.S	9-O	None	3	12-EE	4 1/2	AC	Fixed	Yes	CR	It	CC	6	1-F	No	Yes	455
9S367	99.95	CON	Wood	B.Si,S	9-O	None	3	12-EE	4 1/2	AC	Fixed	Yes	CR	It	CC	8	1-F	No	Yes	455
9S369	129.95	CON	Wood	B.Si,S	9-O	None	3	12-EE	4 1/2	AC	Fixed	Yes	CR	It	CC	8	1-F	No	Yes	455
12S370	149.95	CON	Wood	B.Si,S	12-O	None	3	12-EE	15	AC	Fixed	Yes	CR	It	CC	8	1-F	No	Yes	455
12S371	179.95	CON	Wood	B.Si,S	12-O	None	3	12-EE	15	AC	Fixed	Yes	CR	It	CC	8	1-F	No	Yes	455
15S372	199.95	CON	Wood	B.Si,S	15-O	None	3	12-EE	30	AC	Fixed	Yes	CR	It	CC	8	1-F	No	Yes	455
15S373	235.00	CON	Wood	B.Si,S	15-O	None	3	12-EE	30	AC	Fixed	Yes	CR	It	CC	8	1-F	No	Yes	455
6D302	29.95	PC-T	Wood	B	5-O	1	2	5-EE	1.6	AC-DC	Fixed	None	None	None	CC	4	1-F	No	Yes	455
5R303	41.95	PC-T	Wood	B	5-O	None	2	5-EE	3 1/2	AC	Fixed	None	None	It	CC	4	1-F	No	Yes	455
6S304	79.95	PC-T	Wood	B.Si,S	6-O	None	2	8-EE	4 1/2	AC	Fixed	None	None	It	CC	5	1-F	No	Yes	455
6S301	99.95	PC-CS	Wood	B.Si,S	6-O	None	2	8-EE	4 1/2	AC	Fixed	None	None	It	CC	5	1-F	No	Yes	455
6S305	99.95	PC-C	Wood	B.Si,S	6-O	None	2	12-EE	4 1/2	AC	Fixed	None	None	It	CC	5	1-F	No	Yes	455
6S306	149.95	PC-C	Wood	B.Si,S	6-O	None	2	12-EE	4 1/2	AC	Fixed	None	None	It	CC	5	1-F	No	Yes	455
9S307	199.95	PC-C	Wood	B.Si,S	9-O	None	3	12-EE	4 1/2	AC	Fixed	Yes	CR	It	CC	8	1-F	No	Yes	455
15S308	350.00	PC-C	Wood	B.Si,S	15-O	None	3	12-EE	30	AC	Fixed	Yes	CR	It	CC	8	1-F	No	Yes	455

## FARM AND BATTERY SET SALES FEATURES AND SPECIFICATIONS

Model No.	List price	Cabinet		Wavebands	Number tubes (RMA defn.)	Ballast resistor	Cond. gang sections	Output		Spkr. size & type	Tone control	Fil. volts	Battery Drain			Auto Tuning		Illum. dial	IF AVC	Peak
		Style	Material					Watts	Class				Stor. batt. amps	"A" amps	"B" volts	"B" mils	Type			
<b>Belmont Radio Corp., 1257 Fullerton St., Chicago, Ill.—"Belmont."</b>																				
408	NS	FT	(Plastic) B	4-M	None	2	NS	NS	5-PM	None	6	NS	NS	NS	NS	Mech	5	Yes	Yes	NS
501	NS	FT	(Wood) B	5-O	None	2	NS	NS	5-PM	None	2	NS	NS	NS	NS	Mech	5	Yes	Yes	NS
524	NS	FT	Wood B.S	5-O	None	2	NS	NS	6-PM	None	2	NS	NS	NS	NS	Mech	6	Yes	Yes	NS
611	NS	FT	Wood B.S	6-OM	None	2	NS	NS	6-PM	Var	6	NS	NS	NS	NS	Mech	6	Yes	Yes	NS
<b>Continental Radio &amp; Television Corp., 3800 Cortland St., Chicago, Ill.—"Admiral."</b>																				
512-6D	\$ 34.95	T	Wood B.S	6-O	None	2	1 1/2	A	6-PM	Step	6	2.8	NS	NS	NS	None	NS	Yes	Yes	456
965-6A	52.95	T	Wood B.S	6-O	None	2	1 1/2	A	6-PM	Var	6 & AC	2.2	NS	NS	NS	None	NS	Yes	Yes	456
950-6A	74.95	CON	Wood B.S	6-O	None	2	1 1/2	A	8-PM	Var	6 & AC	2.2	NS	NS	NS	None	NS	Yes	Yes	456
<b>Crosley Radio Corp., 1329 Arlington St., Cincinnati, Ohio—"Crosley."</b>																				
B458A	\$ 14.99	FT	Plastic B	4-O	None	2	NS	NS	5-PM	None	1.4	NS	NS	NS	NS	Mech	4	No	Yes	NS
B548A	19.99	FT	Plastic B	5	None	2	NS	NS	5-PM	None	2	NS	NS	NS	NS	Mech	5	NS	Yes	NS
B5548A	24.95	VT	Wood B	5	None	2	NS	NS	5-PM	None	2	NS	NS	NS	NS	Mech	5	NS	Yes	NS
B587A	29.95	VT	Wood B	5	None	2	NS	NS	NS	None	6 & AC	NS	NS	NS	NS	None	NS	Yes	NS	
B667A	54.95	VT	Wood B.P.S	6	None	2	NS	NS	NS	Yes	6 & AC	NS	NS	NS	NS	None	NS	Yes	NS	
B558M	39.95	CON	Wood B	5	None	2	NS	NS	8-PM	None	2	NS	NS	NS	NS	Mech	5	NS	Yes	NS
B667M	74.95	CON	Wood B.P.S	6	None	2	NS	NS	10-EE	Yes	6 & AC	NS	NS	NS	NS	None	NS	Yes	NS	
<b>Wells-Gardner &amp; Co., 2701 N. Kildare Ave., Chicago, Ill.—"Wells-Gardner" &amp; "Arcadia."</b>																				
106S2-714	NS	T	Wood B.S	6-M	None	3	.8	NS	8-PM	Var	6	2.4	NS	NS	NS	It	6	NS	Yes	456
106S2-768	NS	CON	Wood B.S	6-M	None	3	.8	NS	8-PM	Var	6	2.4	NS	NS	NS	It	6	NS	Yes	456

% Line voltage dropping resistors of plug-in type, commonly referred to as ballast resistors or tubes.

### NOTES

NS—Data not supplied

#### CABINET STYLE

- CS—Chairside
- CON—Console (Also C)
- FT—Flat table
- F—Furniture design
- MT—Miniature table
- PC—Phonograph Combination
- PCA—Phonograph combination with automatic record changer
- PCM—Phonograph combination—manual change of records
- PORT—Portable (Also P)
- T—Table
- VT—Vertical table

#### WAVEBANDS—

- B—Broadcast (approx. 540-1700 KC)
- P—Police (approx. 1700-5500 KC)
- P<sub>1</sub>—Police (approx. 1600-3500 KC)
- S—Shortwave (approx. 5500-20,000 KC)
- S<sub>1</sub>—Medium shortwave (approx. 2500-7000)
- U—Ultra shortwave (about 25,000 KC)
- W—Weather band (approx. 150-350 KC)

#### TUBES

- G—Glass (old style)
- O—Octal glass
- o—Octal glass—midjet type
- M—Metal
- GM—Mainly glass, some metal
- GO—Mainly glass, some octal glass
- MG—Mainly metal, some glass
- MO—Mainly metal, some octal glass
- OG—Mainly octal glass, some glass
- OM—Mainly octal glass, some metal

#### SPEAKER TYPE

- EE—Electrically excited dynamic
- Mag—Magnetic
- PM—Permanent magnet dynamic

#### POWER SUPPLY

- AC—Alternating current
- AC-OC—Either alternating or direct current

#### SELECTIVITY

- Fixed—Non-adjustable selectivity
- Var—Selectivity adjustable from panel of set

#### TONE CONTROL

- Step—Step type of tone control—2 or more points
- Var—Continuously variable tone control

#### VISUAL TUNING

- CR—Cathode ray indicator tube

#### AUTOMATIC TUNING

##### Type

- CT—Condenser trimmer
- C&I—Condenser and inductance trimmer
- IT—Inductance trimmer
- Mech—Mechanical type of unit
- Motor—Motor operated mechanism

##### Drift compensation

- AFC—Automatic frequency control
- CC—Compensating condenser

##### No. of adjustments per station and location

- B—Bottom adjusted
- F—Front adjusted
- R—Rear adjusted

##### Remote control

- Opt—Optional

# 100% SALES INCREASE

# Every YEAR



HERE ARE  
the  
REASONS

WHY  
SALES OF NEW  
1939 MODELS are  
already showing  
100% increase . . .

\*\*\*

SPECIAL AUGUST OFFER

NEW 32-VOLT MODELS!  
To be announced soon. Def-  
initely proven the world's  
finest. They are different.  
Write today. Be first to get  
the details.

1. The basic "slip the wind" patented principle is improved consistently.
2. Parris-Dunn 6-volt chargers are quality built—durable—give perfect customer satisfaction.
3. Custom built for and approved by leading radio manufacturers.
4. Radio trade name advertises dealer and radio.
5. Parris-Dunn was first to make chargers a profit item.

—again proving that there is no substitute for EXPERIENCE. In over "20 years of knowing how" Parris-Dunn has been imitated but never equaled.

DEALER MARGIN GREATER  
AGAIN THIS YEAR

- All steel construction with four legged tower—Lighter—Stronger!
- No unnecessary weights on light Hy-Torque balanced propeller. Starts in low winds. Produces more watt hours.
- New discovery! Vibrationless back of center pivoting point. No vibration! No broken propellers!
- More powerful, air-cooled third brush control generator. Guaranteed for one year.
- Double action shock absorber governor spring, gives smooth power control. No flutter!
- Full floating self-adjusting all metal collector ring. New design. Guaranteed for life of unit.



**PARRIS-DUNN CORPORATION**  
20 YEARS OF SUCCESSFUL MANUFACTURING EXPERIENCE  
CLARINDA • IOWA • U.S.A.

# ANSLEY Dynaphone

THE most complete line of phonograph combinations available. Ansley Dynaphones are supplied in a variety of woods and finishes—in Modern and Period styles. Cabinets are made in our own factory.

*A Seven Year Record of  
Real Dealer Protection*

**ANSLEY RADIO CORPORATION**

240 WEST 23rd STREET

NEW YORK, N. Y.

**LOW  
PRICE**

...is only one reason why  
**YOU'LL SELL LOTS OF  
THESE RCA MIKES!**

**RCA JUNIOR VELOCITY MICROPHONE**



Recommend this mike to those who want the best at low cost. It's the finest popular priced microphone RCA has ever created. Provides peak performance, is attractive, and offers the rugged construction and long life of RCA Velocity Microphones. Alnico magnets are used to provide exceptionally high signal-to-noise ratio. Is adaptable to most input circuits because of three output impedances. And it costs only \$43.50 list, less stand.

**RCA AERODYNAMIC MICROPHONE**



Here's a P. A. winner! It costs only \$26.50 list, less stand. Is so small it can be easily carried in the palm of your hand. Yet has quality features including excellent frequency response, fine tone and high sensitivity. Is used to good advantage for close talking. Has new Alnico permanent metal magnet. Requires no external excitation of power.

See your nearest RCA Commercial Sound Distributor for the new RCA Sound Catalog, or write direct to the address below.

ANY SOUND SYSTEM SOUNDS BETTER EQUIPPED WITH RCA RADIO TUBES

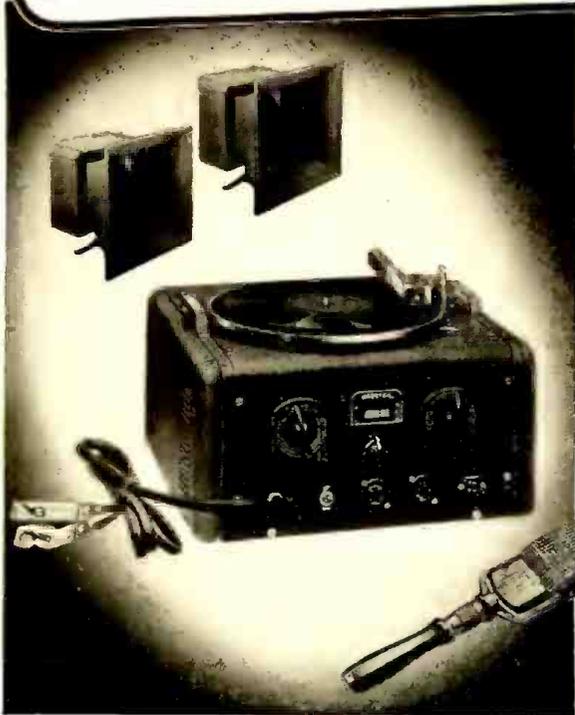
RCA presents the "Magic Key" every Sunday,  
2 to 3 p.m., E.D.T., on NBC Blue Network



*Commercial Sound*

RCA MANUFACTURING CO., INC., CAMDEN, N. J.  
A Service of the Radio Corporation of America

# NOW! You Too... Can afford to Own a Mobile Sound System



Model M-618

## COMPLETE SYSTEM \$89.70

with Amplifier M-618, Turntable Motor and Pickup with both 6 v. DC power pack and 110 v. AC power pack, two Model 3812 speakers, 15' cables and plugs, 1 Model 1240H velotron microphone with 25' of cable and plug, less tubes, less horns . . . . . NET PRICE \$89.70

This remarkable new addition to Webster-Chicago's line makes it possible for dealers who have long wanted to get into the sound business to own a system that will take care of all kinds of rental requirements.

Handling up to 3,000 people outdoors and double this number indoors, it will handle all moderate size gatherings. Remember, this system includes phonograph turntable and motor, microphone, power packs and speakers.

Don't delay. . . . See Your Jobber or Write to Webster-Chicago for more information.

## WEBSTER-CHICAGO

WEBSTER-CHICAGO  
Section AU-9, 5622 Bloomingdale Ave., Chicago, Ill.

Please send me more information on  
 New Mobile System M-618  
 Complete Catalog

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

## NEW WEBSTER- CHICAGO

### 18 Watt

### Mobile Sound System

### 6 v. DC—110 v. AC Operation

- Amplifier is 4-stage, 6 tubes, 18 watts output, with Multi-Stage De-generation Phase Inversion
- One Microphone, one Phonograph and one Tone Control
- Phonograph Turntable Is Built in as Integral Part of Amplifier
- P.M. Speakers
- Economical Power Requirements

This new Webster-Chicago system, Model M-618, combines all the advantages previously associated with the larger installations. This unit is built with the latest sound features, is thoroughly flexible, can be used both indoors and outdoors and on sound trucks, ideal for rentals.

All component parts used are selected with Webster-Chicago's usual care, and this unit carries Webster-Chicago's standard guarantee.

Manufactured under license arrangements with Electrical Research Products, Inc., subsidiary of Western Electric Co., Inc., and American Telephone and Telegraph Co.

## RSA BUILDS NATIONAL SPEAKERS BUREAU FOR SERVICEMEN

The RSA is completing plans for the first National Speakers Bureau for the benefit of local chapters of the Radio Servicemen of America. Speakers of national prominence will be scheduled to appear at regular chapter meetings as rapidly as the schedule can be arranged. A large number of prominent manufacturers who maintain speakers on a national speakers circuit have expressed their willingness and whole-hearted cooperation on the project.

RSA feels that it is doing a service to the entire industry by providing these speakers for its local chapters, which local chapters are thereby helped to have a better understanding and knowledge of their profession.

Any interested manufacturer is urged to write the national office for complete details.

### Extension course

The RSA announces an extension course for the professional serviceman. This course is intended to keep up to date the practical, professional serviceman; it is not for the beginner and it does not contain any fundamentals of radio theory. It will contain practical working details of all new developments in the radio service field as soon as they are available on the market.

RSA feels that there are plenty of good courses available for the novice in radio servicing from well recognized radio schools, and, therefore, this course is for the professional serviceman. It is available only to RSA members at a nominal charge per year. Complete details may be had upon application to national headquarters. The course is planned to begin in September, 1938.

### Chapter news

RSA reports that the following chapters have voted to affiliate with the RSA in the last three weeks: Green Bay, Wis.; Danville, Ill.; Decatur, Ill.; Pittsburgh, Pa.; Fargo, N. Dak.; and Minneapolis, Minn.

**Johnstown**—The Tri-County Chapter, Johnstown, Pa, had its yearly election of officers at which time the following men were elected: President, Ralph Galasso; Vice-President, D. L. Kaufman; Treasurer, George Martin; Secretary, Ken Vaughn.

**Danville**—Danville, Ill., voted to join the RSA at a recent meeting. On July 15th, plans for local chapter activity were taken up. The following officers were elected: Chairman, Lyl Cummings; Vice-Chairman, Harry Longer; Sec'y-Treas., Calvin Stapp.

Our local dues have been so priced as to include a year's subscription to any national trade journal of the member's choice.

**Oklahoma City**—The Oklahoma City Chapter sponsored a meeting on July 7th to which all distributors' service managers were invited. This was an attempt to get all distributors

together on such matters as charging dealers for labor on sets within warranty, elimination of competitive service by distributors, etc.

New officers were elected on July 5th as follows: Pres., Roy Allen; V-Pres., W. S. Jones; Sec'y-Treas., L. G. Dearing.

Minneapolis—One of the newer and larger additions to the growing RSA family is the Radio Dealers Association of Minneapolis. This group, which includes such outstanding members of the radio service profession as William Warmington and Ralph Viles, has voted to join forces with the RSA and are laying plans to take a very active part in the association work in the Northwest.

Decatur—The Decatur Radio Men's Association voted to affiliate on July 12th with the RSA. This fine group of servicemen has been very active in bettering service conditions in and around Decatur for a number of years. The group is under the leadership of Chairman, Gene M. Payton; Sec'y, Maurice L. Alexander; Treas., Raymond Shaw.

Mr. Dewey L. Otta was instrumental in having the local group affiliate with the RSA. The local newspapers have extended splendid cooperation to this group in their efforts to publicize its work.

Green Bay—The Green Bay Chapter was organized July 13th at the Radio Doctors in Green Bay. Mr. A. Nejedlo was instrumental in getting the servicemen together and in doing all of the preliminary work necessary for the meeting.

The following officers were elected: Chairman, George Thelen; Sec'y, Harold Dole; Treas., Fred Olsen.

The next meeting of the chapter will be held July 27th at 716 Main St., Green Bay, Wis.

## NATIONAL ANTENNA CHECK-UP WEEK, OCTOBER 15-22

The first annual Antenna Check-up Week will be sponsored by the Belden Manufacturing Company during the week of October 15 to 22.

In the automobile industry there are regular seasonal campaigns to stimulate car owners to look after their cars. For instance, the "Prepare the Car for Winter Driving" and "Change to Summer Oil" campaigns have long been successful in stimulating sales activity for automotive service stations and dealers. They are effective because they promote the sale of replacement parts and service at the periods of greatest interest in car maintenance.

The time is ripe for similar periodic check-ups in the radio industry. Therefore, the Belden company is inviting radio dealers and servicemen, from coast to coast, to participate for the purpose of:

(1) Benefitting the radio receiver owner by improving reception.

(2) Increasing sales of antennas and parts.

(3) Selling more labor in essential servicing operations.

To reach the millions of set owners Belden will advertise Check-up Week in the Saturday Evening Post and Collier's Weekly during the first week in October.

To 50,000 radio dealers and servicemen Belden will send a large envelope containing:

(a) An attractive window banner featuring Antenna Check-Up Week.

(b) Lapel buttons for store clerks and servicemen, to be worn during National Antenna Check-Up Week to identify the service organization with the nationally advertised campaign.

(c) A helpful booklet explaining "How to Sell Better Antenna Installations."

(d) Reprints of the Saturday Post and Collier ads to be displayed in the store during the campaign.

Radio wholesalers will be furnished with stickers featuring National Antenna Check-Up Week which they can use on all their correspondence as a build-up for the big drive during October.

## PRIZES FOR BETTER SERVICE SHOPS

To radio service men who want to modernize their shops into a bright exhibit of neatness and efficiency, Hygrade Sylvania Corp. now offers prizes worth a total of \$100. The coast-to-coast contest follows the widespread trade interest in Sylvania's Model Service Shop, built and exhibited at Emporium, Pa., headquarters, and very successfully shown in replica at the Chicago Parts Show. The firm announces the modernization campaign as part of its continuous effort to elevate the service man to a more profitable position.

The prizes await the three service men who best adapt the Sylvania Model Shop plans to their requirements. Decisions will be made from photos submitted, with special attention to appearance, efficiency, and resourcefulness in using available space. Model Shop drawings and specifications, which will suggest appropriate modernization in individual cases, are contained in a Sylvania booklet.

Local banks will furnish data on financing via the Federal Housing Administration so that economical improvements may be made promptly and without spot cash. Contest closes Sept. 30.

## HALSON FIGHTS PROFITLESS SELLING

In announcing a quality miniature, the Dwarf, as the leader of the 1939 Halson line, Hal P. Shearer, president, is opposing the common practice of cutting discounts on miniatures and very low priced models.

Mr. Shearer takes the position that extremely low prices and reduced discounts have been responsible for much of the profitless selling in radio. He contends that a really attractive set without any sign of cheapness will command a price sufficient to net the jobber and dealer a satisfactory profit.

Because of this policy, the Dwarf, at \$15 list, is not manufactured for direct competition with the lowest priced sets. "My idea," said Mr. Shearer, "is to get away from the loss-leader principle entirely. That is why we are producing a model which can be handled as a profit leader. I feel that the trade is entitled to have a fine little set that can be sold with confidence."




**SHORT WAVE CONVERTERS FOR CAR RADIOS**

Can be attached to any car radio. Has on and off switch. Does not affect the reception on the standard broadcast bands. MODEL 600—covers 49, 31, 25, 20, 19 and 16 meter bands. Designed for reception of American and Foreign short wave broadcast. Especially adapted to use in tropical countries and the more remote parts of the world. Distance range 5000 to 10000 miles. A very attractive unit. List Price ..... \$24.95

MODEL 700—Long wave converter covers 135 to 410 Kc. Used in U. S. to receive government weather reports, ships at sea, etc., in cars and boats of the water front districts. Designed also for use in Europe and Asia. List Price ..... \$24.95

**For Use of Police and Other Law Enforcement Officers**

MODEL 100—Police converter with fixed condenser. Covers 1500 to 2600 kilocycles. List Price \$11.95

MODEL 800—Super Sensitive police converter with fixed condenser. Covers 1500 to 2600 kc. Two metal tubes, exceptional distance range. List Price ..... \$15.95

MODEL 200—Police converter with variable condenser and illuminated dial. Covers 1500 to 5500 kilocycles. 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

ALL WAVE ANTENNAS—Model A—Hinge Mount telescopic, 60 in. long. List Price ..... \$3.50

**JOBBERS AND DEALERS WANTED**

**A B C RADIO LABORATORIES**  
3334 N. New Jersey Street  
Indianapolis, Indiana, U. S. A.

# CLAROSTAT

presents ...



- Provably better wire-wound power resistors. Green finish for ready identification. Inorganic cement coated. No blistering or cracking even at red heat. Units for extreme humidity applications. 10, 20, 25, 40, 50, 80, 100, 160, 200 watts. 1 to 150,000 ohms. Also variable power resistors.
- Voltage-dropping power cards for AC-DC sets. Enclosed resistance winding provides proper plate voltage for rectifier and reduced voltage for tube filaments. Eight types meet all needs.

**Ask** your local jobber to show you these new servicing aids. Ask for latest CLAROSTAT catalog. Or write us direct.

**CLAROSTAT**  
MANUFACTURING CO.  
Incorporated  
215 North Sixth St.  
Brooklyn, N. Y.

# Use the Motor that Sells the Set!



**FLYER MOTORS** do a lot of selling for radio-phonograph combinations, just as surely as the finest values in radio sets and cabinets do theirs.

High fidelity Flyer Motors run at constant speed, regardless of varying record drag. Noiseless, self-lubricating, laminated bakelite gears. Long, over-size bearings. Self-starting, with governor control. Either set-screw or pointer-and-dial speed adjustment. America's most efficient basic design. Precision built. Easy to install. Low in cost.

Order samples to test.

**The GENERAL INDUSTRIES CO.**  
3838 Taylor St., Elyria, Ohio

# SALES AID

## RADIOS IN SCHOOL COLORS

"Varsity" sets, with enamel color combinations haked on Bakelite table models, are being shown by Stewart-Warner, to attract undergrads and alumni from coast to coast. To suit all the schools, striking colors are combined on cabinet bodies, control knobs, push buttons, speaker grills and cloth screens. Although the new sets must be custom-finished for each area, the company has arranged for prompt shipment.

## UNIPAK, A NEW MERCHANDISER

In order to say dramatically that "Radiart Vibrators 'come through' in the toughest test of vibrator dependability," the Radiart Corp., Cleveland, Ohio, have introduced the "Unipak" idea as a handy way for jobbers to encourage vibrator stocking by service-men.

It consists of six units, each one having a colorful display wrapper which encloses without concealing six individual vibrator cartons. Each of these wrappers shows that police departments of various cities have found the vibrators OK. Unipaks come in 10 different company combinations; one for Delco, for Philco, Motorola, etc.

Convenient handling, lively display, dramatization of quality features, price inducement and a 1-year guarantee are all parts of this novel promotion.

## TIME TO RETUBE



A self-starting electric clock, which attractively mentions radio tubes to the public, is being furnished by General Electric, for the dealer's window. The clock is a standard GE model, and has all its gears sealed in oil—no winding, oiling or regulating. Overall diameter is about 15 in.

## BACKGROUND FOR BEAUTY OF NEW SETS

Two new background displays, styled to set off the handsome qualities of new radios, are available from Stromberg-Carlson.

The first is a folding screen, two sides of which form a right angle, to fit the new corner console just introduced by the company. Designed for stores which lack corners in which to display this new set style, the screen also has two other sides which supply a background for straight consoles. Walls are green-toned; copy in black, gold and white.

Second background is a luxurious, silk-like drape, supported from the ceiling and styled for more impressive group displays. Coloring throughout the piece is rich and dignified; Wilton rugs and pedestals for table models are included.

## CHARLIE M'CARTHY AND 7,800 THEATERS IN RADIO PROMOTION

Radio distributors, dealers and local theaters are now involved in a huge promotion of Majestic's "Charlie McCarthy" radio set, recently introduced by the Chicago firm. Some 7,800 theaters throughout the U. S. will be showing the famous dummy's new Universal picture, "Letter of Introduction," and will give millions of Charlie's admirers a chance to win one of the radios, through newspaper contests and theater lobby displays.

Majestic points out that every fan will compete to win the set, only a handful will be successful, and every unsuccessful contestant will be a good prospect for radio dealers to sell. The dealer's part in the big stunt is to stock the sets, get the 4-ft., 5-color McCarthy display, and work with local theaters when the picture comes to town.

# "TOKFONE"

THE MOST COMPLETE LINE OF INTER-COMMUNICATING EQUIPMENT



The TOKFONE JR. comes with master and remote station and 50 ft. of wire ready to install. This is a low-priced two-way intercommunicating system designed for use among executives, professionals, hospitals, garages, homes, drug stores, etc. Also available for three-wire system called our TOKFONE JR. S-W with switching arrangement on substation to cut out background noises at slight additional charge. Price.....\$10.75 NET

← Tokfone Jr. Master Station

Tokfone Jr. Remote Station →



Tokfone Model 142EA Master Station

Model 142EA comes equipped with an earphone for private conversation. It is a complete two-way intercommunicating system from 2 to 11 stations, with a selector switch, low-priced, efficient, economical and fastest method of holding direct two-way amplified communication between two or more persons or departments. Ideal for use for hotel paging, hospitals, department stores, factories, offices, etc. Comes complete with master remote station and 50 ft. of wire.

Price.....\$12.95 NET

Also available with switching arrangement to cut out background noises at small additional charge.



Tokfone Model 142E Remote Station

TOKFONE MODEL 510 MASTER STATION equipped with earphone, selector switch, volume control, 50 ft. of wire, ready to install. Gives you complete inter-communication between any stations or any group of stations.



Direct conversation can be had with this system without the use of a talk-listen switch. Comes with earphone and ready to use. Per station, price...\$12.00 NET

← Tokfone Model 510—Master to Master Station



TOKFONE MODEL 141 is a two watt Beam Power System; comes complete with master, 50 ft. of wire and one remote station. Ideal for use where great volume is desired for offices, factories, small industrial plants, garages, etc. Up to 10 stations can be hooked up with this system. Price.....\$17.50 NET

← Tokfone Model 141 Master Station

Tokfone Model 141A → Remote Station



TOKFONE Model 144 comes complete with master station. Hypower Supply, substation and 100 ft. of wire and is a 10 watt combined paging and inter-communicating system which uses 6" P.A. speakers throughout. This system has a master switch for paging all outlying stations simultaneously, selector switch for calling single outlying stations. Outlying stations



Above illustration shows complete Model 144 system comprising master, sub station and Hypower Supply

can call the master station, etc. Also comes available with switch and three wire system to shut out background noise. Extremely sensitive and powerful, using 2-6R5 push pull in the output.

Master, sub station, Hypower Supply and 100 ft. of wire....\$32.95 NET

Three Wire Model 144SW at slight additional charge.

LICENSED, by agreement with Electrical Research Products, Inc., UNDER PATENTS OWNED OR CONTROLLED BY WESTERN ELECTRIC CO. AND AMERICAN TELEPHONE AND TELEGRAPH CO.

Send for Catalog Showing Complete Line

**REGAL AMPLIFIER MANUFACTURING CORP.**

16 WEST 17th STREET Cable Address: "Ramcoamp" NEW YORK CITY

## FEATURING IRIS CAMERAS

With an actual camera shown in position for use, a new counter and window display has been released by Universal Camera Corp., 32 W. 23rd St., New York City, to promote their new popular priced Iris candid cameras.

A cut-out of a man's head is set back from the descriptive copy. The camera is positioned at eye level, as for using the view finder and shooting. Dummy ones are supplied if dealers prefer. In four colors, the display is 11½ x 19.

## NEW BOOKLETS

United Transformer Corp., 72 Spring St., New York City, has two new bulletins. "Special Series Transformer Components, Amplifier Kits and Transmitter Kits" is the title of one; the other is a Radio Set Replacement Transformer Manual.

"The Modern Line of Quality Test Equipment" is the title of a new booklet released by Precision Apparatus Corp., 821 East New York Ave., Brooklyn, N. Y.

Fall and Winter Master Catalog, No. 73, an 188-page book with extra features, is forthcoming from Wholesale Radio Service Co., 100 Sixth Ave., New York City. All radio products are covered, along with camera equipment and P.A. Copies are also available from the firm's branch offices.

Wall chart in handy form, giving complete and detailed lists of interchangeable and replacement tube-type resistors, is now available from Clarostat jobbers or direct from Clarostat Mfg. Co., Inc., 285-7 Sixth St., Brooklyn, N. Y. It has seven pages, eye-letted together; ordered direct from headquarters it costs 25c.

Capacity and Resistance Bridge Manual, with practical instructions, theory and functioning of these instruments, is a new one from Aerovox Corp., 70 Washington St., Brooklyn, N. Y. The manual comes as detailed instructions with the bridge, or separately at 50c each from jobbers or from Aerovox.

A new public address and intercommunicator catalog, which lists all the products of the David Bogen Co., Inc., 663 Broadway, New York City, has been prepared by Bogen sales manager Haskel A. Blair.

The theory, the need, the development and the application of John F. Rider's new Chanalyst are all covered in a new booklet released by Service Instruments, Inc., 404 Fourth Ave., New York City. Copies of the 16-page publication, with illustrations, are obtained by writing there.

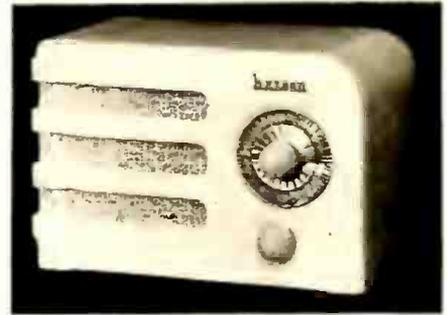
A book with 180 pages, the new 1939 radio catalog of the Allied Radio Corp., 833 W. Jackson Blvd., Chicago, is now ready. It features new trends in receivers, radio-phonographs, service instruments, amateur equipment, public address, radio parts, etc.

New low prices and latest technical information on CD's new "Blue Beaver" electrolytics are all found in Catalog 156A, available free on request from Cornell-Dubilier Electric Corp., South Plainfield, N. J.

"Complete Dynamic Testing, Step-by-Step, with Time-Saving Cathode Ray" is covered by Kendall Clough, president and chief engineer of Clough-Brengle Co., in a new condensed booklet. The complete 14-point test procedure, from antenna to ground is presented as the new trend in servicing; practical, simple, quick and direct.

Community Antenna Manual, featuring the new TACO master antenna system separately from individual set antennae, is now available from Technical Appliance Corp., 17 E. 16th St., New York City, or from jobbers. Complete line drawings of practical details are included, along with data on surveying buildings, estimating jobs, installation, testing, trouble shooting, maintenance, etc.

Complete dope on 166 types of glass, "G", Midget and Coronet tubes, as well as 38 types of ballast tubes, has been released in a revised edition of the Arcturus Tube Data Chart. Issued in handy form for everyday use, the chart is free from jobbers or from Arcturus Radio Tube Co., Newark, N. J.



## The Halson "DWARF"

*Fits into the palm of your hand*

### THE GREATEST MONEY-GETTER THAT A JOBBER OR DEALER COULD HAVE

- A profit-leader; not a loss leader.
- Far more beautiful than any picture can show.
- Exclusive gem-like cabinets resembling onyx; four colors.
- Brilliant performance and remarkable tone.
- Tremendously better, for only a trifle more.
- Larger discounts assuring decent profit to jobber and dealer.
- No cheapness anywhere.
- Merchandise that holds customers instead of losing them.
- 5-tube AC-DC. Broadcast and Police calls. Beam power, 2 watts output. Illuminated dial.

and the **\$15<sup>00</sup>**  
**PRICE** LIST

Wire or write for full details of the Halson "Dwarf" and five other smart table models, all big values in the best-selling price brackets.

**HALSON**  
RADIO & TELEVISION CORP.  
MERIDEN, CONN.

A GOOD NAME  
GOES A LONG WAY

Ken-Rad Tubes bring customers into your store. Ken-Rads have a good reputation, give perfect performance and make money for you.

KEN-RAD TUBE & LAMP CORP.  
OWENSBORO, KY.

KEN-RAD

DEPENDABLE RADIO TUBES

Boost PROFITS with this  
New WARD AERIAL



If you've been looking for a quality aerial in the low price bracket, Ward's new 5XX is the aerial you want. Complete with 36" approved Low Loss Shielded Lead Cable and insulated lower bolt assembly, this 3-section, telescopic, side cowl model sells at only \$2.95 and still makes you a handsome profit on every sale! Easy to install. Made of rustproof Admiralty metal.

**FREE!!**

See what's new for Fall in WARD'S complete line of car aerials. Write for free catalog.

**The WARD PRODUCTS Corp.**  
WARD BUILDING CLEVELAND, OHIO



•You can Laugh at the other fellow

if you have the training that leads to better pay!

CREI technical training is the first step to more money and a real radio future. Here is the opportunity for you to train yourself for a better job in Radio—at home in your spare time. CREI has trained thousands of men for important positions in broadcasting, service, aviation, marine and police radio. Constant improvements demand better men to have the important jobs—and that means a better job for YOU if you train NOW!

Write for the CREI "TESTED PLAN"

Paste the coupon below on a penny post card and receive your copy of this interesting and inspiring booklet. If you are interested in the advanced home-study course in Service and Public Address work, please check on coupon.



NEW! Just off the Press.

**MAIL THIS COUPON TODAY!**

CAPITOL RADIO ENGINEERING INSTITUTE  
Dept. RY-8, 3224 16th St., N.W.,  
Washington, D. C.

Please send me complete details and FREE illustrated 48-page booklet—"A Tested Plan for a Future in RADIO."

Name .....  
Address .....  
City .....  Service

# JOBBER ACTION

A new distributor for the new line of Howard household sets is the E. L. Chambers Co., 142 E. McMicken Ave., Cincinnati, Ohio, according to an announcement from Howard headquarters in Chicago. Radio Supply Co., also of Cincinnati, will continue to handle the company's line of communications receivers.

At Harper-Meggee, Inc., Seattle, Wash., distributors, Stewart Carter has been named sales manager for RCA products. President R. F. Meggee of the company has created this position to handle general expansion and "because of the wide variety of products now made by RCA."

Stromberg-Carlson has named Tennessee Valley Appliances, Inc., 305 Eleventh Ave., S., Nashville, Tenn., as distributor in the part of Tennessee east of the Tennessee River, according to SC jobber manager Fred N. Anibal. Head of the distributor firm is J. O. Smith.

In the Detroit, Mich., area and throughout eastern Michigan the firm's radios will now be distributed by Specialty Distributing Co., Detroit, where Leonard Turnbull is head man.

Radio Studios, Inc., Salt Lake City, Utah, with branches in Logan and Ogden, are also new distributors for Stromberg-Carlson, to cover parts of Nevada and Idaho and all of Utah.

General manager Harold W. Goldstein of Anchor Lite Appliance Co., Pittsburgh, Pa., jobbers for Crosley, reports that his company has opened 119 new dealers "to sell the sensational 1939 line of Crosley radios."

Major Appliances, Inc., Miami, Fla., distributors who have offices at Tampa and at Jacksonville, have been appointed jobbers for RCA musical merchandise, including records, needles, record players and associated products. Service on these lines will be offered to dealers from the Jacksonville, Fla., branch at 222 E. Bay St. J. Carl Ammons will be director of record sales in the area; Walter C. McDonald will handle orders and shipping. W. D. Rowlands is president.

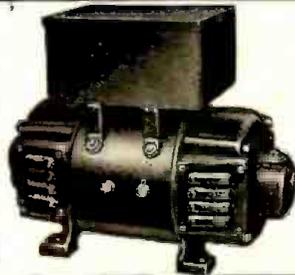
Guest group of 600 distributors went to the three-day Chicago convention to celebrate the appearance of the 82 models of the 1939 Zenith line. Applauded at the big meeting were announcement on "Leadership Giant Values," new chairsides, the Radiorgan, Transcontinental Automatic Tip Touch Tuning, a battery conservator for farm sets, etc. The convention was addressed by E. F. McDonald, Jr., president; Hugh Robertson, vice president and treasurer; E. A. Tracey, vice president in charge of sales; J. H. Rasmussen, assistant sales manager; Edgar G. Herrmann, advertising manager; N. H. Terwilliger, sales promotion manager; Frank Smolek, service manager; Hal Blakeslee, parts and accessories manager; R. F. Weinig, manager of the automotive division; Irving Allen of the E. H. Brown Advertising Agency, and others.

World distributor, exclusive, for Bullet microphones is the Tilton Electric Corp., 15 E. 26th St., New York City, according to news from Transducer Corp.

A new radio parts jobber in New Orleans is Radio Parts, Inc., 807 Howard Ave., where a complete line of replacement radio parts and standard make amateur equipment will be stocked. Head men at the company are Irving Levi, prominent New Orleans amateur, and Joe F. d'Aquin, for many years with Shuler Supply Co. of the same city.

New Detroit jobbers as announced by sales manager J. J. Davin include Kelley-How-Thompson Co., Duluth, Minn., and Billings, Mont.; Brown Supply Co., St. Louis, Mo.; Polk Musical Supply Co., Atlanta, Ga.; and Southwest Music Co., Dallas, Tex.; Jones-Cornett Electric Co., Welch, W. Va.; E. E. Forbes & Sons Piano Co., Birmingham, Ala.; Radio Television Co., Phoenix, Ariz.; Oakley Electric Co., Boise, Idaho; Wilson Music Co., Oshkosh, Wis.; 555, Inc., Little Rock, Ark.; W. B. Davis Electric Co., Memphis, Tenn.; Williams & Shelton Co., Inc., Charlotte, N. C.; Piedmont Distributors, Inc., Greensboro, N. C.; W. S. Donan Hardware Co., Richmond, Va.; Radio Supply Co., Norfolk, Va.; True & Blanchard, Newport, Vt., and R. B. Wall Co., Wilkes-Barre, Pa.

## Janette Rotary Converters



**FOR CONVERTING D.C. TO A.C.**

● Built especially for radio and sound apparatus—capacities 110 to 3250 volt amperes—with or without all wave filters. Dynamotor construction—economical to operate—ruggedly built for years of trouble-free service—used or recommended by the largest manufacturers of radio and sound apparatus—in use all over the world ● WHY EXPERIMENT—INSIST ON A JANETTE ASK FOR BULLETIN 13-1

**Janette Manufacturing Company**  
556-558 West Monroe Street Chicago, Ill. U.S.A.

Hundreds of buyers showed up at the showrooms of *Steem-Electric Corp.* last month at the New York Housewares Show, Hotel Pennsylvania. Firm president *Ernest F. Pohl* was on hand,



**Ernest F. Pohl**, head of the flourishing *Steem-Electric* iron company, St. Louis.

along with sales representatives *Sam Weiner*, *L. S. Gershon*, *Benny Ginsburg*, *Leonard H. Cooper*, *H. A. Smith* and others. Demonstrations were in charge of *Bernadette Eckstein*, educational director. Extra batch of foreign buyers were attracted by the \$12.95 steam-electric iron, and Mr. Pohl announced that a new plant will be opened in Toronto, Canada, for export operations. Headquarters are at 1726 Lafayette Ave., St. Louis, Mo.

*Pearson's Radio & Electric Service*, 1114 Park St., Evansville, Ind., reports that "we are just starting new in the wholesale business, as we were completely cleaned out in the 1937 flood." The firm is headed by *Wilfred Pearson* and covers about 15 countries in the area, currently using two outside salesmen. Plans are being made to add more parts lines, and to take on receivers. Sound equipment is also being considered by the company.

*Morrow-Thomas Hardware Co.*, Amarillo, Tex., have been named distributors for Sentinel farm and city radio, according to a flash from general sales manager *George Russell*.

Radio distributors of the Eastern states, 200 of them, went to the premier showing last month at Atlantic City of the *Stewart Warner* 1939 lines. Sales manager *John F. Ditzell* was the director of this Radio & Appliances Sales Conference, with vice-president *Frank E. Hiter*, introducing the new SW household appliances.

*Harold Davis*, of the parts distributing firm, *Harold Davis, Inc.*, Jackson, Miss., recently held an opening of a new home at 848 W. Capitol St. Speaking to the guest servicemen, Mr. Davis indicated that he would renew his fight with Mississippi newspapers to get radio program schedules printed daily. Citing the great public interest in the Louis-Schmeling bout, he declared that program interest was the basis of the radio repair business.

*Brown Supply Co.*, St. Louis distributors for *Stromberg Carlson* are opening a series of dealer meetings honoring the new SC line. This jobber's new technique in radio merchandising will be based on "selective selling with assured dealer profit."

Meeting of all *Stromberg* distributors in the Southwestern area was held last month in Kansas City with district representative *Oval McCann* and other company officials on hand. *Brown Supply* sent a group including executives *Norman S. Brown*, *Fred A. Wiebe*, *P. A. Ware*, *Harold R. McCormack* and *William W. Daney*; also salesmen *Jim Sumner*, *R. H. Echtenkamp*, *A. W. Vogel*, *L. N. Westmark*, and others.

*RCA* jobbers *Frank Mayer Co., Inc.*, Corpus Christi, Texas, are now established in their new home at 909 S. Staples St. The expansion includes modern arrangements for stock shelves, counter space, shipping facilities and parking conveniences. The firm presented an *RCA* engineer's pencil with resistor color code and fibre screwdriver to each dealer in the new store on the opening day.

## BE A SUCCESSFUL COUNTRY RADIO DOCTOR

A Profitable Practice Awaits You.



With the Stark Rural Meter you can be a COUNTRY RADIO DOCTOR in every sense of the word. For, at last, you have a combination tube tester and analyzer with self-contained power supply, designed for rural or unwired areas.

Enables you to service battery radios in the owner's home or car, without the bother or time loss in taking the chassis to the shop. While rendering a paid service, you can increase the sale of tubes, batteries, etc. Also make more contacts and get more prospects.

### FEATURES:

Large fan type (Poor-Weak-Good) meter . . . Hot filament short test . . . Cathode leakage test sensitive to 250,000 ohms . . . Tests all DC and auto radio tubes plus many AC types . . . Three DC voltage ranges, 0-10-100-300 . . . Three resistance ranges, 0-1000-100,000-1 Meg. . . RMA standards of DC tube tests . . . Condition of self-contained batteries read on meter by the flip of a switch.

Manufactured in U. S. A. by

**STARK ELECTRICAL INSTRUMENTS**  
418 So. Wells St. Chicago, Ill.

In Canada—Stark Tube Co., Toronto, Ont.

**STARK RURAL METER** Battery Operated Tube Tester and Analyzer



## MORE WATTS PER DOLLAR

Through efficient utilization of the unique heat dissipating qualities of aluminum, IRC has engineered a 25-watt ALL METAL Rheostat (Type PR-25) no larger in size than conventional types, yet with approximately one half the temperature rise at full load.

Actual temperature rise for full rotation is only 140° C. measured at the hottest spot.

In addition, due to highly efficient conduction, the full 25 watts may be applied across 1/4 of the winding area with only 160° C. rise at the hottest spot.

Write for Section VI of IRC Engineering Data for full details—or send complete information regarding your proposed application for our recommendation and sample unit.



ALL METAL

## RHEOSTATS

**INTERNATIONAL RESISTANCE COMPANY**

401 N. Broad Street, Philadelphia, Pa.  
In Canada: 187 Duchess Street, Toronto, Ontario

# TRADE FLASHES

Howard Radio Co., Chicago, has announced the appointment of *Joseph Muniz*, formerly with Hetro Electrical Industries, as its manager in charge of export sales.

*Walter Marsh*, sales manager of *Meissner*, is making an extended business trip through the New England States, and reports that jobbers are finding the Meissner parts line increasingly popular.

With the new *Sentinel* battery and AC lines creating tremendous interest, *George Russell*, general sales manager, and *Ed. May*, his assistant, are being kept busy attending *Sentinel* dealers' meetings throughout the country. When last heard from, Mr. Russell was in Denver and Mr. May in Buffalo. Both report enthusiastic acceptance of the *Sentinel* 1939 line, with excellent prospects for a record volume of business this fall. The new *Sentinel* 1½-volt models with phenomenally low battery drain are attracting especial interest in rural regions, while the new *Sentinel* AC line with its new system of push-button tuning is proving very popular in the city markets. All in all, it looks like a good year for *Sentinel*.

*Parker H. Ericksen*, for the past two years radio sales manager, home appliance division, *Fairbanks Morse*, and identified with radio and specialty merchandising for the past ten years, has resigned the *Fairbanks Morse* post to become associated with *Fairall & Co.*, a Des Moines, Iowa, advertising agency. Commenting on the change, *L. R. Fairall*, president, stated: "Mr. Ericksen's broad background and advertising knowledge, of national character since 1928, will strengthen this agency's ability to serve certain clients. His appointment is another step to expand and improve our service."

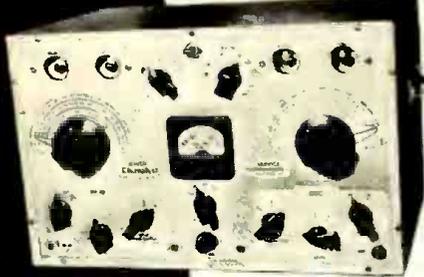
While television transmissions in the New York area are about to be resumed, and a number of new receivers make their appearance in the market, renewed interest has been reported in the now famous outline of the new industry as presented in the book, "*Television, A Struggle for Power*," by *Frank C. Waldrop* and *Joseph Borkin*. The volume is published by *William Morrow & Co., Inc.*, 386 Fourth Ave., New York City.

Completely new farm radio models are being introduced by *RCA*, following an extended survey of the rural radio market by *RCA* executives *John C. Marden* and *G. G. Gerlack*. There will be two series of sets; one will use the new 1½-volt tube, the other is a line of 6-volt receivers ranging from four to eight tubes.

*B. L. MacPherson*, 702 Union St., Ft. Wayne, Ind., is now the sales representative for *Clarostat Mfg. Co., Inc.*, Brooklyn, N. Y., in the Indiana area. To customers, jobbers and prospects there, Mr. MacPherson offers experienced, expert sales help.

# WAIT

THE GREATEST ADVANCE  
EVER MADE IN THE  
HISTORY OF  
SERVICING INSTRUMENTS



## THE RIDER CHANALYST

SEND FOR  
THIS 16-PAGE  
**FREE**  
BOOKLET  
**FIRST!**

Complete Details on

### The Instrument Everyone is Talking About

Hold everything until you've read this 16-page booklet on the Rider Chanalyst! It's written by John F. Rider, and is yours for the asking. It tells the how and why of the Rider Chanalyst—What it is . . . What it does . . . How it works . . . How it enables you to speed-test your service jobs — everything you want to know about this revolutionary new instrument. As you read through its pages you will learn how the Chanalyst enables you to trace the passage of the signal from the antenna to the loudspeaker in r-i, a-i or i-f stages, and localize troubles in each stage . . . How to check operating voltages at any point in the receiver without loading the circuit, no matter how complicated the circuit . . . How to check actual control voltages developed by the signal and present at the tube elements—a.v.c. and a.i.c. characteristics . . . How to check bad padders and

coils in oscillator section in a super-heterodyne . . . How to instantly check wattage consumption of the receiver during actual operation . . . How to quickly spot and localize troubles in intermittent receivers.

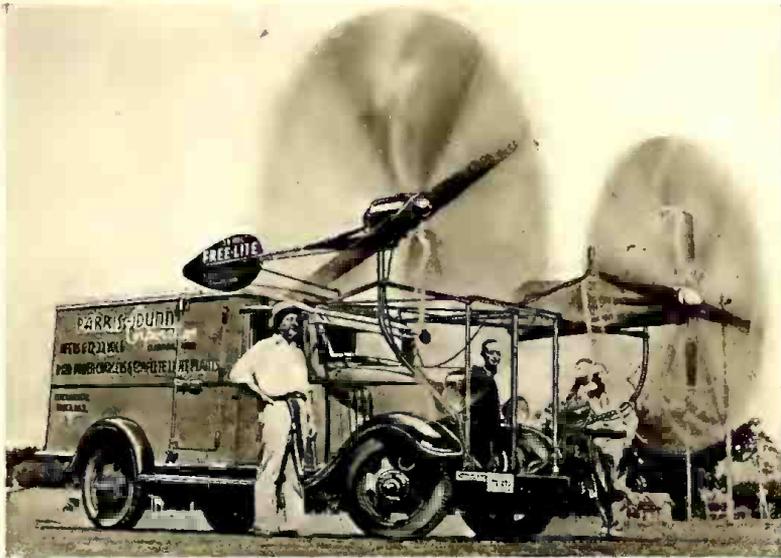
These are only a few of the multitude of tests which the Chanalyst makes possible. Send for your free booklet today on this remarkable, essential basic new instrument.

**"THERE'S ONLY ONE  
RIDER CHANALYST"**

**SERVICE INSTRUMENTS, Inc.**  
410 FOURTH AVE., NEW YORK CITY

SEND FOR BOOKLET  
See Your Jobber  
for Demonstration

SERVICE INSTRUMENTS, INC.  
410 Fourth Avenue, New York City  
Please send descriptive booklet on  
the Rider Chanalyst.  
Name.....  
Address.....



A whiz of a salesman—a test truck now used by Parris-Dunn to compare charger units. At left is the new 32-volt outfit.

J. M. Cartwright is the new factory representative for Howard Radio Co., 1735 Belmont Ave., Chicago, for the states of Arkansas, Mississippi, Louisiana and western Tennessee. Cartwright offices are at 1288 Vinton St., Memphis, Tenn.

Other Howard news comes from vice-president Howard Briggs: with 12 of the leading parts houses in New England, franchise plans have been completed on the firm's communication receivers.

Sparks - Withington Co., Jackson, Mich., makers of Sparton products, have taken out a facsimile license under the patents of the Finch Telecommunication Labs, 37 W. 57th St., New York City.

State and county fairs throughout the U. S. will be covered this season with bigger and better displays by Wincharger Corp. and its dealers, according to a firm sales executive, W. A. Stekelberg, who points out that contests will be an extra feature this year.

Maitland K. Smith, 635 N. Highland Ave., N.E., Atlanta, Ga., has been announced by Ward Leonard as the firm's representative for radio resistors, rheostats and relays in the states of North and South Carolina, Georgia, Florida and Alabama.

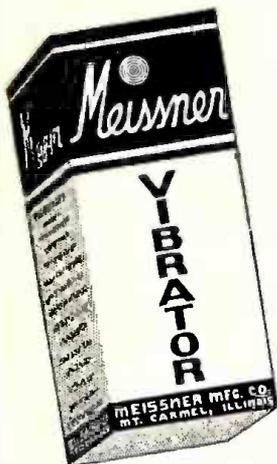
Two foreign service engineers for Philco's American Steel Export Co. recently left New York for instruction trips among jobbers abroad. Gilbert headed for Morocco, Algiers, Tunis, Egypt and the Far East; Hicks went to Central and South America and the West Indies.

Eddie (E. G.) May has been promoted to the sales department of Sentinel Radio Corp., Chicago. For 15 years he was active at the firm's headquarters; he will now cover the Southern and Southeastern areas for the company.

B-L Electric Mfg. Co., the St. Louis, Mo., manufacturers of dry, metallic rectifier units, battery chargers, battery eliminators and special power units, have appointed two new representatives. Arthur H. Baier, Cleveland, Ohio, will cover the state of Ohio and the city of Erie, Pa. Samuel K. Macdonald, Philadelphia, Pa., will cover the state of Pennsylvania (except for Erie) and the states of West Virginia, Maryland, Virginia, Delaware, the District of Columbia and the following counties in New Jersey: Burlington, Ocean, Camden, Gloucester, Salem, Cumberland, Atlantic and Cape May.

# MEISSNER VIBRATORS

CHECKED and DOUBLE CHECKED  
for DEPENDABILITY



THEY'RE tested, not once, but twice, and aged between tests—that's the reason why servicemen have so little trouble with Meissner Vibrators. The secret of Meissner dependability lies in the aging given every Meissner Vibrator. Where ordinary vibrators are manufactured, tested and shipped, Meissner Vibrators are aged so that the slight metallurgical changes that sometimes affect the operation of any vibrator, are discovered in the SECOND test that's given every Meissner Vibrator.

You're not gambling when you install a Meissner Vibrator—you know that it has received every possible test and will give your customer the long and dependable service that makes friends—for you and for us.

See Your Parts Jobber

**Meissner**

MANUFACTURING CO.  
Mt. Carmel, Illinois

"A FAMOUS NAME FOR TWO DECADES"

# NEW UNIVERSAL PRODUCTS for 1938 STREAMLINED DYNAMIC • CRYSTAL • CARBON • VELOCITY



The 15 mm. in dynamic, crystal or carbon.



The new 5 mm. ribbon.



The new model Handi-mike.

A complete new line of microphones and recording equipment approved and used by leading broadcast stations, transcription studios, laboratories, schools and universities . . . everywhere that tone quality and faithful reproduction is demanded. New complete 16-page catalog . . . one for microphones and accessories and one for recording machines and discs . . . ready for mailing. Write on your business letterhead, or ask your nearest representative.

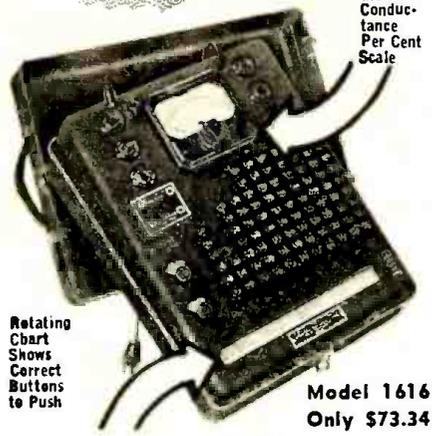


Universal Microphone Co., Ltd.  
INGLEWOOD, CALIFORNIA, U. S. A.

EXPORT AGENTS - CRAZAR & CO. 7 FRONT ST. SAN FRANCISCO

**TRIPLET**  
**The HIT OF THE SHOW**  
*Simplified*

**PUSH-BUTTON TESTING**



Rotating Chart Shows Correct Buttons to Push

Mutual Conductance Per Cent Scale

Model 1616  
 Only \$73.34

**DYNAMIC MUTUAL CONDUCTANCE**

**Tube Tester and Volt-Ohm-Milliammeter Many Claim Dynamic Mutual Conductance . . . Triplet Positively Has It.**

The hit of the Radio Parts Trade Show was this pace setting push-button tester by Triplet, with its revolutionary advancements. After rotating chart to the tube to be tested, the button to push is clearly marked under each row. What could be simpler?

And the Dynamic Mutual Conductance test for amplifiers and power tubes not only shows if the tube is GOOD or BAD, but the percentage of mu to the 100% Good Condition also is indicated. In critical sets this permits the dealer to pick his tubes with confidence. . . . Diodes and rectifiers are tested for emission according to the latest approved engineering standards. Gas and Ballast tube continuity test included.

Filament location switch permits application of filament voltages to any prongs of the tube. The same is true for plate location, screen location, e.g. location, etc. This selective feature, together with a spare socket, is an anti-obsolescence factor.

Rotate chart to Volt-Ohm-Milliammeter settings—push button for DC scales: 0-10-50-250-500-1000 Volts at 1000 Ohms per Volt; 0-10-50-250 M.A.; 2 Ohms to 500 Ohms—300,000 Ohms—1 1/2 Megohms—3 Megohms; 0-10-50-250-500-1000 AC Volts at 400 Ohms per Volt; decibel chart furnished to 42 db's. (Ohmmeter is line powered and provision is made for using batteries if desired). Uses two interchangeable plug-in type rectifiers, simplifying replacement in case of unintentional damage. One is in the tube tester circuit, the other for the Volt-Ohm-Milliammeter.

Furnished in attractive, all-metal case with lustrous finish. Removable cover for portable or counter use . . . sloping panel.

MODEL 1615—Dynamic Mutual Conductance Tube Tester only with Push-Button testing. Dealer Price **\$63.34**

MODEL 1610—True Emission Type Tube Tester with Push-Button Testing. Dealer Price. . . . **\$39.00**

MODEL 1611—True Emission Type Tube Tester with Push Button Testing and Volt-Ohm-Milliammeter. Dealer Price . . . . . **\$49.50**

**See Them At Your Jobbers—or Write FREE**—8 pp. two-color catalog listing today's most complete line of test equipment.

THE TRIPLET ELECTRICAL INSTRUMENT CO.  
 198 Harmon Dr., Bluffton, Ohio

Please send me more information on  
 Model 1616       Model 1615  
 Model 1610       Model 1611

Name .....

Address .....

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

**TRADE FLASHES**

New line of radios for export has been announced by Philco's export manager *Walter S. Cranmer*. They will have the name, *Philco-Tropic*, and will be of special design, to fit the needs of international trade.

*Howard Radio Co.* has a new representative for its communication receivers in Pennsylvania, West Virginia, Maryland, Delaware, Washington, D. C., and eastern Ohio—*O. Olsen*, of Pittsburgh, a well known parts representative.

Another new Howard representative is *P. D. Terwilliger*, Rochester, N. Y., who will handle the communication sets in the State of New York, except in the Metropolitan area.

President *James R. Fouch* of *Universal Microphone Co.*, Inglewood, Calif., has just finished a two-month vacation at Balboa Island.

At *Duke Appliances*, radio and appliance dealers of 426 Wabash, Terre Haute, Ind., store quarters have been remodeled and improved for general expansion. The firm now shares floor space with a music dealer, *Brewer Music Co.*

*M. F. Klicpera*, for the past 9 years western sales manager for Operadio and for Webster-Chicago, has now established manufacturers' representative offices in Houston, Tex., P. O. Box 2397. He will cover the states of Texas, Oklahoma, Louisiana and Arkansas, where he is acquainted with many jobbers and their problems. Mr. Klicpera will offer special merchandising service to jobbers, will travel regularly in his area, and will otherwise specialize in sales promotion on a limited number of lines.

*Indian Products Corp.*, Chicago, makers of the "Koolroom" self-contained air conditioning units, have made a series of test advertisements on the merchandise and general sales manager *I. R. Rozett* reports that his sales offices "have been swamped by the enthusiastic reception." With a good reaction from foreign markets as well, Mr. Rozett predicts a big year for the nine Koolroom models.

*Frank A. Arnold* has been elected vice-president of *Edwin Bird Wilson, Inc.*, 120 Wall St., New York, in charge of its radio department. The advertising agency, which has specialized for 22 years in the financial field, announced that it recognizes by this step the rising interest in radio among banks, trust companies and other financial services, as well as in the general field of public relations. Mr. Arnold was for 6 years Director of Commercial Development of the National Broadcasting Co., following his resignation as Secretary and Director of the Frank Seaman Advertising Agency. He is author of "Broadcast Advertising, the Fourth Dimension," a television edition of which has recently been published.

*Gentlemen*

**THE SPEAKER OF THE HOUSE**

● Cinaudagraph permanent magnet speakers need no special introduction. America's foremost engineers in radio and sound long recognized the precision engineering and superior workmanship of these speakers. Now YOU can enjoy Cinaudagraph's famed true-fidelity performance at no extra cost. For today, these speakers are competitively priced. Complete details on request.

**CINAUDAGRAPH CORPORATION**  
 Speaker Division  
**STAMFORD CONNECTICUT**  
 EXPORT DEPT., 100 VARICK ST., N. Y. C.

**Complete Electric Plants**

**MANY NEW Models**

**SIZES 350 to 5000 WATTS**

**COMPLETE POWER UNITS**  
 Operating A.C. Radio, PUBLIC ADDRESS SYSTEMS, SOUND CARS, MOTION PICTURE EQUIPMENT, and RADIO TRANSMITTERS. Also furnish Power for Lights, Water Systems, Refrigerators, all Household Appliances for FARMS, CAMPS, LAKE HOMES, or STANDBY SERVICE. For use anywhere Power Line Current is not available.

**A PLANT FOR EVERY PURPOSE**  
 110 Volt A.C., 6, 12, 32 and 110 Volt, D.C. as well as Combination A.C.-D.C. Units. Anyone can Operate. COMPLETE, READY TO RUN.

**WRITE FOR DETAILS ON DEALERS' PROPOSITION AND TERRITORY**

**D. W. ONAN & SONS**  
 594 Royalston Ave., Minneapolis, Minn.

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While every precaution is taken to insure accuracy, we cannot guarantee against the possibility of an occasional change or omission in the preparation of this index.



Presenting the chief radio engineer for Fairbanks - Morse, Edward B. Passow.

## ACOUSTIC CHAMBER WITH 40-FOOT ROOF

A new laboratory addition is being constructed by the Jensen Radio Manufacturing Co., Chicago, that will add 6,000 square feet of floor space and the most modern acoustical laboratory facilities. A feature of this addition will be a large, windowless room with a 40-foot ceiling.

The interior of this space will be arranged with a complex system of rigging, designed to effectively locate acoustical measuring equipment in relation to products which are the subject of investigation. The roof of the 40-foot tower will be equipped with similar rigging to facilitate outdoor measurements.

Hugh S. Knowles, Jensen chief engineer, widely recognized as an eminent authority on acoustics, stated: "The laboratory features embodied in our new factory addition are unique in the field of acoustical research and development. It will greatly improve our facilities and will be particularly useful in the development and perfection of high-fidelity loud speakers and equipment for theatres and public address."

*Tore Lundahl* of *Technical Appliance Corp.*, New York City, sailed recently for an 8-week tour of Europe. With Mrs. Lundahl, he will visit England, Sweden, Denmark, Holland and France, for combined business and vacation.

*M. Yankosky*, well known New York radio man formerly with Baltimore Radio and with American Sales, is now with *Yankee Radio & Sound Service*, 1620-26 St. Johns Place, Brooklyn, where production will be started soon on a full line of public address units and components.

**EXTRA · EXTRA ·**  
SEPARATE PLATE TESTS ON DIODES AND RECTIFIERS...  
BALLAST TUBE TEST



**NEW MODEL 432—**

**ONLY \$21.60**

- Separate Plate Tests on Diodes and Rectifiers
  - Uses Triplett Direct Reading Instrument (GOOD-BAO) Scale
  - Neon Short and Leakage Tests
  - Line Voltage Adjustment
- Complete in attractive, sturdy, quartered-oak case; suitable for counter or portable use. Sloping etched panel of silver and black.

Other Readrite Tube Testers Also Are Available

*Readrite*  
RANGER

**READRITE METER WORKS**  
819 COLLEGE AVENUE BLUFFTON, OHIO



● Everything you need in radio. It's all in this new 1939 RAOOLEK RADIO PROFIT GUIDE. Every repair part for every receiver. Newest radio receivers. New 1939 model public address amplifiers; outputs from 5 to 100 watts. New model public address speakers. Test instruments, Technical books. Special equipment. Leading standard brands. Every item guaranteed. It must be right or we make it right.

● And everything under one roof. You get what you want promptly, and exactly what you want. Radolek's immense stock plus Radolek's efficient organization insures you fastest service. 25,000 servicemen depend on this service and benefit by Radolek's lowest prices. Send now for your copy of Radolek's Radio Profit Guide. You save time and money at Radolek!

**The RADOLEK Co.**  
601 W. Randolph, Chicago, Dept. D-22

Send me the New 1939 Radolek Profit Guide FREE.

Name .....

Address .....

Serviceman?  Dealer?  Experimenter?

# RADIO TOMORROW

By Owen D. Young, Chairman of the Board,  
General Electric Company

(From an address delivered by Mr. Young at the dedication of the General Electric Company's new broadcast station, WGY, in Schenectady, N. Y., July 9)

Here at Schenectady, on February 20, 1922, WGY put out its first program.

And then the greatest development of all, unforeseen except by a few radio engineers of vision, the marvel of broadcasting.

Every boy up and down this valley, who could put together a little crystal set, was thrilled by this great achievement. The older people did not care much about it at first, and many of them did not believe that it was true anyhow.

Now those boys have grown to middle age; the oldest of the older ones have gone. We live in a broadcast age, the consequences of which no man can measure.

Engineers develop instrumentalities; they are not responsible for their use. That is true whether they devise mechanisms for war or peace.

## People will decide

Whether broadcasting serves this country or the world well or ill, lies not in the hands of the engineer, but in him who uses the instrument, influenced as he must be by the reaction of his listeners. Now for the first time, the people of the United States, not the engineers, not the broadcasting companies, must decide what radio shall do and what it shall not do.

If one assumes that arts advance with comparable speed, radio is today

where the electric and power industry was at the turn of the century. Then we thought there was little more to do in the application of electric energy to light and power. The fact is that the great strides in practical application have been made since then.

## Only radio's dawn

Will it be so with radio? Have we so far seen only the promising dawn—not the noon-day—of a great new art? Imaginative engineers tell us so.

One must remember that the hazy dreams of today become, in skilled hands, the realities of tomorrow.

Shall talking pictures be laid down in every home?

Shall newspapers be created there by facsimile without the daily shipment of pieces of paper?

Shall telephones be in every hutton-hole?

Shall we see "the world around," as we now hear the world around?

Shall we find this earth too small and some time, somewhere, reach into the vast spaces of the universe to gratify that insatiable curiosity of the human mind as to what we are and why we are?

The answer is not for me to make—nor however difficult, it is not for you to spurn.

All we can say is that as the years go on, we will adopt the latest and best facilities. And then we will hold again, from time to time, dedications of new instrumentalities doing those things which are only dreamed of now, and perhaps even those things which have not reached the state of dreams.

## TELEVISION IS ON THE WAY!

Television will be on the air again in New York City early in September. The National Broadcasting Company, in cooperation with RCA engineers, has been rebuilding parts of its Empire State Tower transmitter during the summer months and now plans to have everything in readiness to put regular television transmissions over the Metropolitan area by Labor Day. Programs will be produced in the television studios in Radio City, and with the new transmitter improvements, clear video signals are expected to be picked up within a 40- to 60-mile radius of the transmitter.

## CBS soon

Television programs from Columbia Broadcasting System's new transmitter, to be located at the top of the 1,000-ft. Chrysler Tower in New York, are promised for October. So far, however, very little construction work has been completed, and the coaxial cables which are to connect the CBS studios at 485 Madison Ave. with the Chrysler Tower RCA transmitter have not yet been pulled in by the telephone company. When the CBS television station goes on the air, it will present experimental programs under the direction of Gilbert Seldes, designed to test out fully the dramatic and artistic possibilities of sight-and-sound entertainment.

## Television sets from abroad

With the resumption of television programs in the New York area, preparations are underway to supply receivers to the public, to meet the expected demand. Already British television receivers are trickling into the New York market, coming from London, where television has now been a regular service for two years. These English sets are being adapted for the 441-line U. S. standard and offered in the New York territory. Dumont Laboratories, Montclair, N. J. are importing television sets. Hamilton Hoge, 480 Lexington Ave., New York, is handling the Pye receiver.

## U. S. receivers

American Television Corporation, 130 W. 56th St., New York, which came out with a \$125 television set in the Spring, will be ready with a line of receivers for Fall running into higher price brackets. For its television receiver it has coined the name "Videor"; for its remote unit, "Kinet." National Television, Inc., 480 Lexington Ave., New York, is understood to be getting ready a set to be sold for \$400.

The Bridgeport plant of the General Electric Company has been quietly preparing test models of a home television receiver during recent months. The company is also erecting a television transmitter at Schenectady, and evidently has big plans for television development.



Owen D. Young towers above the group at the WGY opening. From left: E.F. W. Alexanderson; Mrs. Young; Kolin Hagar, WGY manager; Chester H. Lang, advertising manager, General Electric; Mr. Young; and L. R. Lohr, president NBC.

# Wanted!

**JOBBERS and DEALERS  
WHO insist on PROFITS**



For 20 years, Frank A. D. Andrea has been known as the manufacturer who built his own success by making the success of his jobbers and dealers his first consideration. Today, this policy is continued by Andrea Radio Corp. under his ownership and management. The jobber and dealer who handles Andrea Radio will do so *at a profit*. Every detail of the Andrea set-up is shaped to assure that.

## F. A. D. ANDREA *Presents* ANDREA RADIO..the "profit" line for 1939

Andrea Radio receivers have that EXTRA appeal to the public taste . . . Cabinets of modern styling and ingenious design . . . "Studio Tone" with balanced treble and base response . . . life-time automatic push-a-button tuning . . . quality represented by 20 years of leadership in the radio industry. And in addition,

### ANDREA RADIO has PROFITS for JOBBER and DEALER

Yes, there is still big money for jobbers and their dealers when they have the active, progressive cooperation from the factory that has characterized Andrea merchandising methods since the beginning of broadcasting.

Andrea methods, as you know from past experience, are your assurance of full, legitimate profits, and your protection from ruinous price competition and dumping. To both jobbers and dealers, the Andrea Radio line is the 1939 line on which radio profits can be built up again!



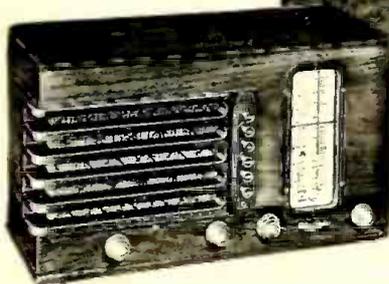
MODEL 2-E-6: Most admired among all 1939 table models is this distinctive Andrea 6-tube, 3-band receiver available for AC or AC-DC. H. 10 3/4 ins., W. 17 1/4 ins., D. 9 1/2 ins.

**MR. DEALER!** Here is an exclusive feature of the 1939 Andrea line. With 8 Andrea sets on your floor, you can actually demonstrate 15 different models, including table, console, and manual or automatic combination types, ranging from \$19.95 to \$220.00!

MODEL 6-E-6: phono-radio features Andrea type sloping dial. MODEL 4-E-6 console has top compartment where turntable and pickup can be installed subsequently. AC or AC-DC models available. H. 34 3/4 ins., W. 24 ins., D. 17 ins.



MODEL 14-E-6: Six-tube model that packs the power of last year's 8-tube sets. Walnut and rosewood cabinet of rare beauty. H. 9 ins., W. 16 1/2 ins., D. 7 7/8 ins.



MODEL 8-E-11: Startling innovation! Phono-radio with "Andrea Disappearing Turntable" — beautiful, convenient, original — the feature combination of 1939. Available for AC or AC-DC. 8 or 11 tubes AC—12 tubes plus 3 ballast tubes AC-DC. H. 40 1/4 ins., W. 26 ins. D. 15 3/4 ins.



### MR. JOBBER . . .

A number of excellent territories are still open. BEAUTIFUL NEW CATALOGUE READY. Phone, wire or write for full details today to ANDREA RADIO CORP., 4820-48th Ave., Woodside, L. I., N. Y.

# Andrea Radio



**RESCUED!**  
**FROM A WATERY GRAVE**  
**BY THE EVER-ALERT**  
**U. S. COAST GUARD!**

**Communications Equipment Operated with RAYTHEON TUBES**  
**Receive and Flash Messages Which Help Save**  
**Thousands of Lives Yearly!**

Weary, but happy survivors from what might have been another tragedy at sea!

But what an entirely different story newspaper headlines might have flashed to the world had not Raytheon tubes functioned in their usual dependable manner!

Other vital U. S. government communications depend on Raytheons, too. The Army, the Navy, Weather Bureau, Air Corps.

There may be no lives risked on your choice of replacement tubes, but why don't you, too, use RAYTHEONS—they cost no more! And you can always sell RAYTHEON tubes at your full profit.

**RAYTHEON**

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



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