

# RADIO TODAY



After the Broadcast Is Over  
Let the Melody Linger On

## SEPTEMBER

Caldwell-Clements, Inc., N. Y.

# NEW G-E BEAM-A-SCOPE RADIO

## PRICED TO BECOME THE YEAR'S BEST SELLER

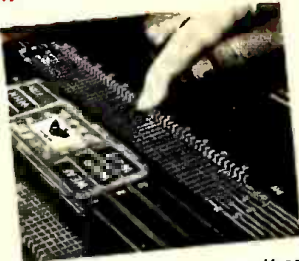


### MORE GREAT SALES-MAKING FEATURES



**KEYBOARD TOUCH TUNING** — Another G-E Scoop

A sensational improvement that brings you fast, easy tuning. Station keys are conveniently located. Swift as lightning your station is tuned in at the mere touch of a key — and it stays tuned to hair-line precision.



**TIME TUNING** — Another Brand-new G-E Radio Thrill

The new G-E Model G-106 permits you to pre-set — with the G-E Automatic Program Pre-selector — all the programs you select on five different stations, for 24-hours ahead. No re-tuning! No re-dialing. Set your radio *once* — and it tunes in the programs you want.

### NEW POPULAR-PRICED GENERAL ELECTRIC RADIO

**Needs No Aerial — No Ground Wires**

◆ Here's news that spells greater profit opportunity for every G-E Radio Dealer. General Electric presents a new model G-99 equipped with the amazing Beam-a-scope — the scoop feature of the year, at the lowest price at which this deluxe feature has been offered.

The Beam-a-scope is a sales sensation. It makes the new G-E the one radio that does not need to be anchored in a fixed location. It operates in any spot — in any room. No aerial — no ground wires! Just plug it in like a floor lamp — anywhere.

Also the Beam-a-scope reduces local static interference — gives finer, quieter reception — especially in noisy areas.

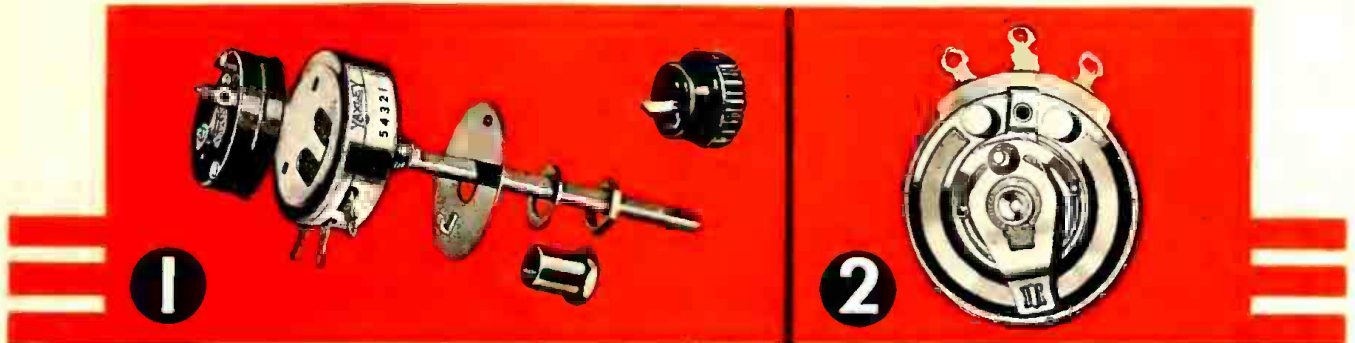
It pays to line up with G-E Radio — this year more than ever.



# RADIO

GENERAL  ELECTRIC

# These **4** Volume Control Developments "Speak Volumes" for what MALLORY-YAXLEY has done to make the Service Man's job easier and more profitable

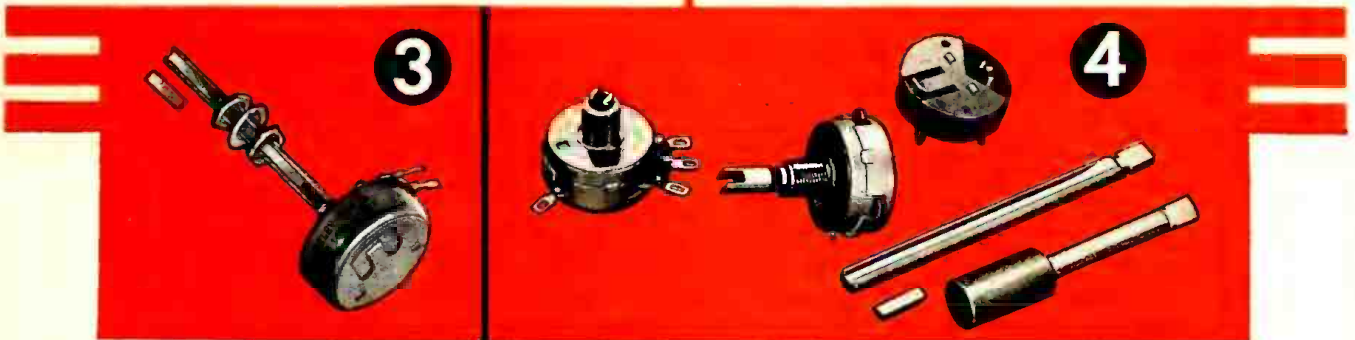


**1** *Universal Design*—for extreme flexibility and quick, sure replacements. Mallery-Yaxley engineering made it possible to develop universal designs to meet all service needs.

**2** *Velvety Smooth Operation*—through the silent carbon element, the "non-rolling" roller, the silent "M" construction, perfect smooth tapers, silver-to-silver contacts—all Mallery-Yaxley contributions.

**3** *Channel Shaft*—to fit all types of knobs by use of the special insert. An easy-to-cut aluminum shaft may be fitted to any knob and any one of five attachable switches. A Mallery-Yaxley help for swift servicing.

**4** *Universal Midget Controls*—with Plug-in Shafts. Flexible, adaptable and universal. 10 Mallery-Yaxley Midget Controls plus 17 Plug-in Shafts now give the servicing range of 170 ordinary exact replacement controls.



The "M.Y.E." makes the service man's job easier, too—

Read what the magazine SERVICE says of the Mallery-Yaxley Radio Encyclopedia:—"Let it be said that here is a book primarily for the service man—written in his language, and one which will give its readers many profitable hours in more ways than one . . . the book is on the 'must' list of every radio service man . . . an almost inexhaustible store of up-to-the-minute information."

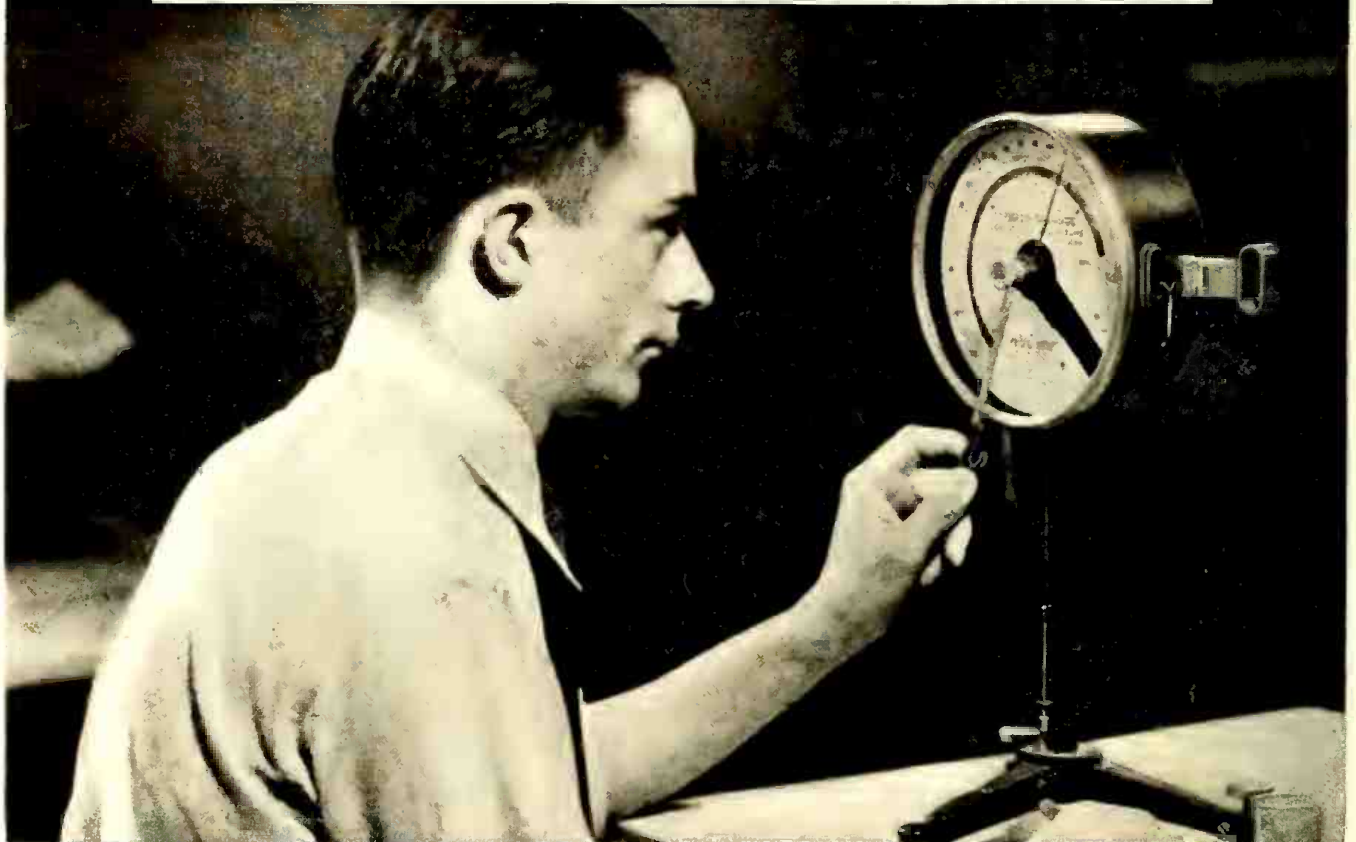
Get your copy today from your distributor

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

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 INDIANAPOLIS INDIANA  
 Cable Address—PELMALLO

Use  
**YAXLEY**  
 REPLACEMENT  
 VOLUME CONTROLS

# *How Much is a* **MILLIGRAM?**



**T**HOUGH a milligram is only 35/100,000ths of an ounce—it means a lot to this Sylvania workman.

Just the right amount of coating material must be sprayed on a cathode to insure its long life. So as a check-up to this process—a Sylvania expert precision-weighs samples from each batch of cathodes coated. Then he completely removes the coating . . . weighs them again. The difference in weight repre-

sents the amount of coating present—and this amount *must* meet a set Sylvania standard of perfection.

Intricate? — Yes. Difficult? — Very. Worth it?—Decidedly! For only by precautions such as this—taken at every step of manufacture—can we be sure of A-1 quality in the finished tube . . . and satisfied customers and repeat sales for you. Hygrade Sylvania Corp., Emporium, Pa. Cable HYSYLVANIA, N.Y.

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

# **SYLVANIA**

**SET-TESTED RADIO TUBES**



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# FRONT PAGE NEWS!

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With More Than **15,000,000** Circulation  
in National Magazines . . .

(**AMERICAN WEEKLY • SATURDAY EVENING POST  
COLLIER'S • LIFE • ESQUIRE**)

---

With More Than **20,000,000** in  
Local Newspapers . . .

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**Starting Next Month . . .**

# Emerson for 1939

. . . will be Promoted by the Biggest  
—Most Dramatic Advertising Cam-  
paign in All EMERSON History!

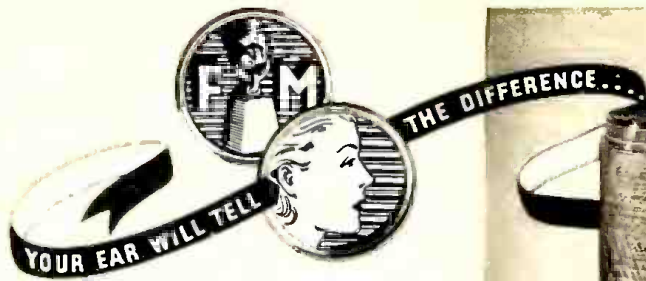


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**Watch for Detailed  
Announcements!**

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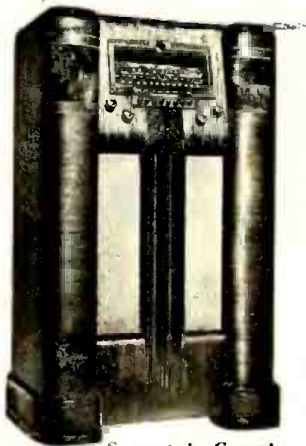
**EMERSON RADIO AND PHONOGRAPH CORPORATION • 111 Eighth Avenue • New York, N. Y.**  
*"World's Largest Maker of Small Radios"*



Not a  
"Me, Too" Model  
in the Line



Twelve-tube Console Grand



Seven-tube Console



Seven-tube Console Grand

● The new series of Fairbanks-Morse radios is built for the *profitable* type of customer who *can* and *will* buy when he (or she) sees and *hears* the difference between these and ordinary radios. There is not a "me, too" model in the line—not one that is like some other radio the prospect has seen elsewhere. Each is a *fine* musical instrument that gives a new thrill to listening. The line includes *no superfluous stock* which serves only to increase inventory. There are no short-discount models. You get your normal and rightful profit from every sale, while selling is made easier by a name that has enjoyed public confidence for more than 100 years. For complete details, write or wire Fairbanks, Morse & Co., Home Appliance Division, 2060 Northwestern Ave., Indianapolis, Ind.

**PROFITABLE MODELS** THE NEW FAIRBANKS-MORSE LINE OF RADIOS INCLUDES TABLE, CONSOLE, AND CONSOLE-GRAND MODELS WITH 7-, 9-, AND 12-TUBE CHASSIS

**WORTH-WHILE FEATURES:**

- Instant Electric Tuning
- Acousti-Sealed Tone Chamber
- Monitor Panel
- Cabinetry of highest quality with interlocking construction
- Complete permcapability tuning
- 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

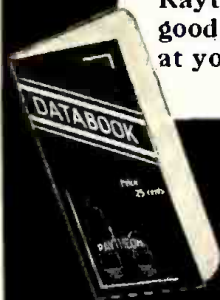


**BUT THE *RAYTHEON TUBES* IN RADIO-EQUIPPED U. S. ARMY TANKS WILL STAND UP UNDER TERRIFIC JARRING AND POUNDING**

Smashing, crushing drives over and through insurmountable obstacles! Terrible punishment even for a giant U. S. Tank!

Yet, Raytheon tubes operate constantly under these adverse conditions—flashing and receiving “behind the lines” messages as efficiently as in the quietude of a home or your customer’s automobile!

No wonder thousands of dealers and servicemen use and recommend Raytheon tubes. No wonder they save on unprofitable callbacks . . . build good-will . . . yet, RAYTHEONS cost no more! And you can always sell them at your full profit.



An amazing new 200-page book with receiver tube data previously known by only a limited number of receiver design engineers. Get yours from your Raytheon jobber for only 25c.

# RAYTHEON



NEWTON, MASS. NEW YORK CHICAGO SAN FRANCISCO ATLANTA

**“WORLD’S LARGEST EXCLUSIVE RADIO TUBE MANUFACTURERS”**



# It will pay you to be *Ready to Go!* NATIONAL ANTENNA CHECK-UP WEEK

The week of October 15 to 22 is National Antenna Check-up Week sponsored by Belden.

The purpose of this week is three-fold—

- 1st—To benefit the radio receiver owner by improving reception.
- 2nd—To increase the sales of antennas and parts.
- 3rd—To sell more labor in essential servicing operations.

Behind National Antenna Check-up Week is a tremendous publicity program. Large advertisements are appearing in Saturday Evening Post and Collier's with a total circulation of 5,500,000. Publicity is being released to the leading trade papers, magazines, and radio stations

throughout the country. Twenty-six million set owners are going to become antenna conscious and "better-listening" conscious.

**How You Can Tie In with National Antenna Check-up Week**

During the next few days, tie-in material will be sent radio dealers and servicemen throughout the country. Window streamers will be included to identify your shop with National Antenna Check-up Week. Large distinctive lapel buttons to be worn by servicemen and clerks will be sent you. An instructive book will be

included showing how to sell better antenna installations.

Other tie-in material is available, such as postcards imprinted with your name, ad mats for use in your local newspapers—everything to help you make a great success of National Antenna Check-up Week.

Write for complete information—get on the band wagon and increase your service and antenna sales during National Antenna Check-up Week.

BELDEN MANUFACTURING COMPANY  
4613 W. Van Buren Street  
Chicago, Illinois

Endorsed by Radio Servicemen of America

# Belden

## The Radio Wiring Line



# REMEMBER...

This Fall, As Always,

# PHILCO TUBES

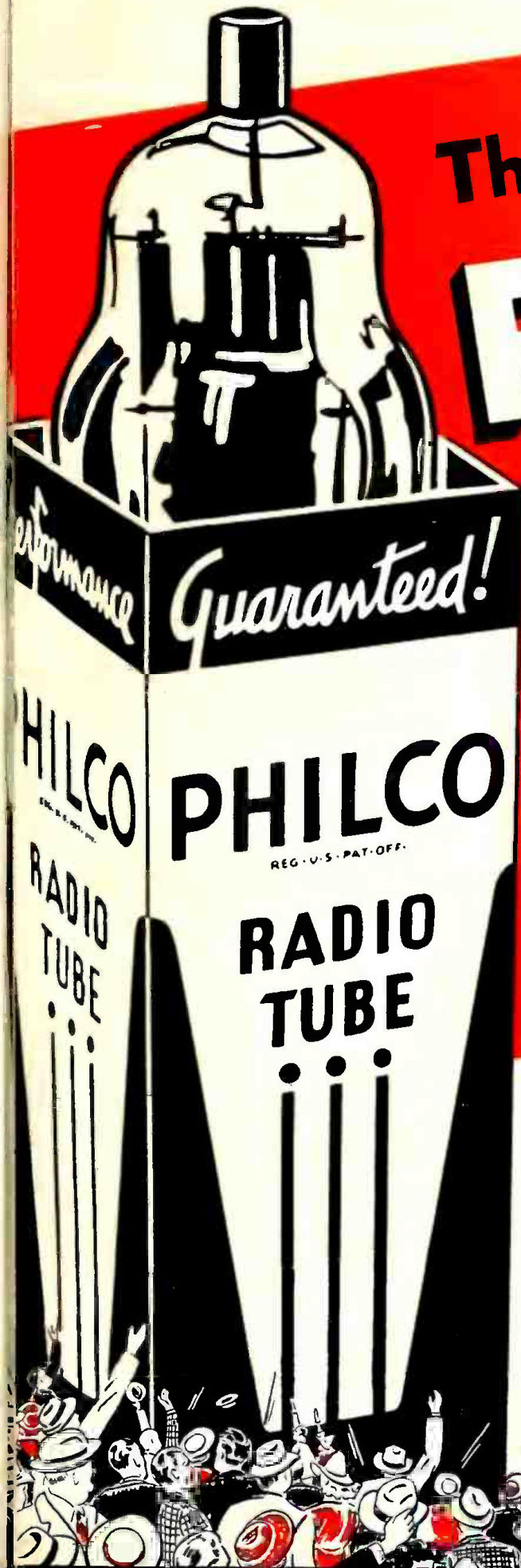
are the Easiest  
Tubes in the World  
to Sell!

AS the peak radio months approach, more and more dealers are concentrating on Philco Tubes. Why? Because they are *The Easiest Tubes in the World to Sell* . . . this fall, as always. Consider these facts:

Approximately ONE out of every FOUR radios in use today is a PHILCO . . . which makes a total of FIFTY-FIVE MILLION sockets that must eventually be filled. Naturally, when it comes time to re-tube, these Philco owners will want and demand Philco Tubes!

But that's not all. Today, more than ever, PHILCO is the first name that comes to mind whenever radio is mentioned. And with the tremendous interest in Mystery Control, the name PHILCO is literally on every tongue. Which means that millions of owners of other make radios will swing to Philco when they buy replacement tubes.

You, too, can reap the profits of Philco popularity by pushing Philco Tubes . . . *The Easiest Tubes in the World to Sell!*





HARRY BOYD BROWN  
National Merchandising  
Manager of Philco

# No Radio Dealer Ever Made A Dime Advertising Low Priced Radios

PHILCO always has devoted every engineering effort and every merchandising and advertising effort—to the tune of millions of dollars—pushing the sale of higher priced quality radios so that the retail dealer and everybody else connected with Philco business could make a proper and satisfactory profit.

Year after year—the average retail selling price on Philco home sets in the United States has been 25% above the rest of the radio industry. And it is exactly that high average Philco selling price that has kept thousands of radio dealers and radio departments in business and in the *black*.

No retail radio dealer ever made a dime *advertising* low priced radio merchandise—\$10 compact radios for instance. As a matter of fact, spending advertising money on \$10 compact radios is the best way I know of to go broke. This is proven with a little arithmetic.

As an illustration, let us take the advertising sum of \$300. Every radio dealer knows that if he spends \$300 in newspaper advertising on a \$10 compact radio, he will be doing better than the average if as many as 60 people respond by calling at his store.

And even if he sells them all—this means an advertising cost of \$5 for each retail sale. The dealer's gross profit on the \$10 compact at the most is probably \$4. At that rate, his entire gross profit on the 60 sales would only total \$240, which means he has already lost \$60 without even considering rent, heat, light, investment and selling commissions.

And even assuming that the dealer does some selling-up—you and I know that \$9.95 radio prospects are not often sold-up beyond \$14.95. And even if enough selling-up is done to average \$5 gross on each sale, the dealer is merely breaking even on the advertising cost. All other expenses certainly put him well in the *red*.

On the other hand—think what you can do with Philco Mystery Control as an advertising and selling weapon! Now, for the first time in radio history, the retail dealer—on higher priced radios—has an advertising story of tremendous pulling power—a far greater traffic-getter than any low priced radio compact ever could be.

“NO WIRES! NO CORDS! NO PLUG-IN CONNECTIONS OF ANY KIND! AND YET PHILCO MYSTERY CONTROL OPERATES YOUR RADIO FROM ANY ROOM IN YOUR HOME.” In those opening words of Philco newspaper copy, you have an advertising story so new and different—so amazing and exciting—so almost unbelievable that it will pack your store with people—with interested prospects.

And bear in mind—Philco Mystery Control prospects do not come to your store with \$9.95 in mind—or with ‘\$1.00 down’ in mind—or with a big trade-in allowance in mind. They do not come looking for bargains. They come instead to see a radio invention that is fundamentally and vitally new—exceedingly desirable. And when these prospects buy—your gross profit on each sale is 15 to 20 times as much as on a \$10 radio compact.

*Harry Boyd Brown*

# PHILCO

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MEMBER AUDIT BUREAU OF CIRCULATIONS

ORESTES H. CALDWELL  
Editor

M. CLEMENTS  
Publisher

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CALDWELL-CLEMENTS, INC.

Tel. PLAZA 3-1340

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New York, N. Y.

**A PEACH OF A PICK-UP**

Assorted trends are right now combining themselves to make a flourishing Fall for radio men. Aside from the fact that general business is better, there are the November elections to think of. Not to mention the Autumn reopening of the top shows on the air, the beginning of the football season Sept. 24, and the World Series early in October.

Among the opening dates for interest-stirring broadcasts, set to air during the coming weeks:

- Sept. 9—Hollywood Hotel—CBS
- Sept. 11—Ford Sunday Evening Hour—CBS
- Sept. 12—Lux Radio Theater—CBS
- Sept. 24—Major collegiate football begins
- Sept. 27—Bob Hope—NBC Red
- Sept. 29—Joe Penner—CBS
- Sept. 30—Burns and Allen—CBS
- Oct. 1—Tommy Riggs and Betty Lou—NBC Red
- Oct. 1—Prof. Quiz—CBS
- Oct. 2—Jack Benny NBC Red
- Oct. 2—International Silver Theater—CBS
- Oct. 2—Charles Boyer—NBC Blue
- Oct. 3—Eddie Cantor—CBS
- Oct. 5—Fred Allen—NBC Red
- Oct. 5—Texaco Star Theater—CBS
- Oct. 8—Joe E. Brown—CBS
- Oct. 9—Metropolitan Opera Auditions—NBC Blue
- Oct. 10—American School of the Air—CBS
- Oct. 10—Al Pearce—NBC Red
- Oct. 12—World Series opens
- Oct. 14—Jack Haley—CBS
- Oct. 15—Arturo Toscanini—NBC
- Nov. 20—Robert Benchley—CBS
- Dec. 3—Metropolitan Opera—NBC

**COMPACT GUIDE TO TRADE-IN VALUES**

Readers of RADIO TODAY are making one request that is quite simple: They want a general guide to trade-in values, simple in form and easy to get at. The demand is for something else besides the old-time "black books"—catalogs covering acres of page space and losing themselves in their own tiny letters. Salesmen in 1938 work too fast for the dictionary form;

**MAKE MORE CALLS!  
USE MORE TACT!**

Walk more miles, make more calls,  
Take more chances, and more falls,  
Times more hard, try more ways  
The more you do the more it pays.

Find more spots, use more bait,  
Start more early, stay more late,  
Try more schemes, use more tact,  
The more you do, the more you act.

Talk more hope, use more skill,  
Seek more prospects, then more still,  
Smile more smiles, spread more cheer—  
The more you do, the more you hear.

Think more thoughts, more intense,  
Give more reasons, with more sense.  
Work more hours, work more well—  
The more you do, the more you sell.

book-length tabulations are bulky, heavy, and headache-producing.

Elsewhere in this issue, RADIO TODAY, therefore, presents a convenient trade-in value chart, instantly helpful and sharply reduced to a single page. It's a straightforward attempt to assist the busy salesman, without hand-

ing him a mass of model numbers which he is supposed to locate among the wild assortment of sets being dragged into his store.

**LONDON'S "RADIOLYMPIA,"  
FEATURES TELEVISION**

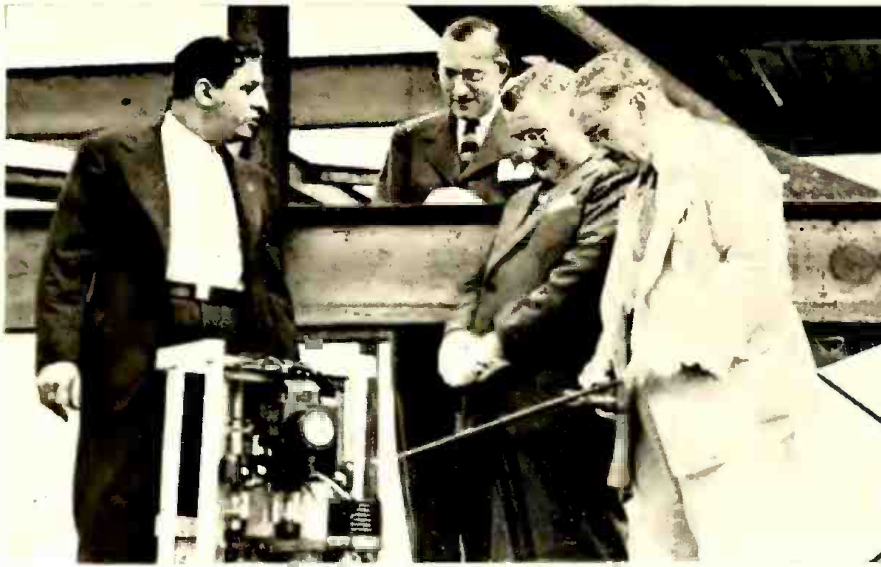
London's annual radio show, "Radiolympia," held August 24 to September 3, had only half as many exhibitors as the 1937 show, but chief attention was centered on television. Twenty-one manufacturers exhibited television sets, and the exhibition included 59 different models priced from 21 guineas (\$110) up to 250 guineas (\$1,300), with pictures from 5 inches square up to 20 inches square.

The radio sets, as well as the television sets, were in operation during the show from a common source, in contrast to the mute sets in American shows. Observation seemed to be that the British public "walked right by" all radio sets but stood in front of television sets! This continued for a

**TREND IS TO "COMBINATIONS," TO RAISE UNIT SALES FOR FALL**



With all the leading names in radio now featuring "combinations" in their lines, smart retailers are laying Fall plans as reported on pages 34, 35, etc. Picture shows novel record counter at Hudson-Ross, Chicago.



With radio waves heating it white-hot, a final rivet is set in the radio building at N. Y. World's Fair. Facing exhibit-manager J. D'Agostino, are RCAM's commercial vice-president H. C. Bonfig and general manager Robert Shannon. NBC's J. de J. Almonte holds the rivet tool.

full week, with practically no change of attitude by the public.

"By the law of averages, all this activity of the newspapers and set manufacturers in exhibiting television accompanied by so much publicity, is going to sell television; but it is going to retard radio," was a radio man's comment.

### Opinion divided

The television quality was generally very good. Naturally, at the show it was mostly film reproduction. A good deal of the curiosity of the public seemed not so much interest in television as interest in the picture itself. People thought they were at a cinema, not really examining the picture from a television point of view. Cricket

games were televised from the field and were remarkably good.

Just what the outcome of this television activity is going to be remains to be seen. British radio-set manufacturers are about equally divided as to whether they should push television or not, and the division is severe enough that it may lead to a breakdown of the British Radio Manufacturers Association. Opposition comes both from firms who are making and those who are not making television sets. Naturally some manufacturers are making it for their own protection marketwise.

At present England has only one station sending out a programme, and that is in London. The picture can be received nicely up to about 30 miles. There are instances of greater distance but not generally. There is talk of additional stations in different districts outside of London, but as a result the dealers and distributors in those territories are very much perturbed about their fall radio business, feeling positive that people will wait to see what comes out of television.

### RE DYNAMIC TESTING— WE WOULDN'T BRAG

Heaped high on a desk in New York City are dozens of letters from servicemen.

The writers are saying mostly this: "We are interested in dynamic testing of radio sets. We want the back articles on the subject. We hope you continue the material. Will the articles be available in book form?"

Blanket answer: what RADIO TODAY started, RADIO TODAY will appro-

priately finish. Right now, service editor Vinton K. Ulrich is in his lab, about to dynamic-test another receiver with one hand, tabulate the results with another, the while dictating replies to impatient readers. Give the guy time.

The rumpus started in the February, 1938, issue, when Mr. Ulrich thought of the new method, named it, and outlined the whole business. Since then dynatesting has been examined by experts, featured by manufacturers, cited by the RSA, recognized by neighbor magazines, welcomed by hundreds of servicers.

Meanwhile, Dynamic Testing (servicing) headquarters remain suitably at 480 Lexington Ave., New York City, where a good deal of hard work will be going on as long as it's of any help to the industry.

### BETTER DAYTIME DEMONSTRATION PROGRAMS NEEDED—

"My thanks go to RADIO TODAY for its interest in the idea of better *daytime demonstration periods of music* on the air," says Darse E. Todd, radio buyer for the Higbee Company, Cleveland, Ohio.

"Naturally this is of interest to me. And because of the undeniable dependence of each and every branch of the radio industry on every other branch of that industry, it would seem to me that this subject would be of vital importance to radio manufacturers, distributors, dealers, broadcasting companies, and sponsors of broadcast programs.

"Fitting into this picture from the dealer's standpoint I offer the following observation from that point of view.

"The sales resistance of the customer is reduced to a minimum when a good demonstrative program is on the air. All the new sets sound good. The old set at home seems poor by comparison. Picking the make and model is all that has to be done to close a sale.

### Sales spoiled

"But consider what is much more likely to happen. The prospective purchaser of a new radio has decided at home to consider the selection of a new model. After an evening of listening to good programs on the old and obsolete set, he visits a radio store or radio department, expecting to hear better music and entertainment than he usually receives on his old set. The salesman by whom he is being served may be of the very highest type, alert, painstaking, intelligent, and have a thorough knowledge



New chairman of the Sales Managers' Club, western group, is Eddie Riedel, Raytheon's general sales manager.

of his merchandise. But, if after stressing the tone qualities of the new sets, he is forced to demonstrate this tone on programs carrying various domestic stories, cooking advice, or others equally lacking in tone possibilities, the customer is very likely to think that the programs he heard the evening before on the old radio were equally as good, if not better.

"This is certainly making the least of an opportunity. This customer had decided to purchase a new radio, went into the place where new sets are sold, was given courteous attention by a salesman whose very livelihood depends on his ability to make sales, but because of a lack of proper judgment somewhere along the line in selecting programs, the customer's desire to own a new radio is actually lessened instead of increased.

"My hope is that with a little coaxing on the part of some of us who sell radios, the sponsors of daytime programs will consider more seriously the men who sell radios, the men who drive and listen to auto radios, the youngsters who are at home almost as much as the mothers, the thousands of shops, hospitals, gas stations, restaurants, and other places of business, where a little more music might boost the sales of their product just as much as the programs they are now directing presumably to the 'stay-at-home' housewife!"

## MORE TUBE TYPES; MORE DEALER HEADACHES

★ After exhausting the "single-letter" tube designation, tube and set manufacturers have now been forced to resort to type numbers containing two identifying letters. Recent examples are 6AB5, 6AC5G, and 6ZY5G.

Unfortunate angle is that the radio dealer must stock the ever increasing number of tubes if he is to serve his customers. And those types available in both metal and glass envelopes are twice as much of a problem. From the tube manufacturers' point of view the picture is much brighter, for elements in some of the newer octal types are the same as the old glass types. But dealer gets it in the neck since he has to stock the same "guts" with two different base arrangements. Now we hear there is to be a new series called "loctal."

And the dealer serving farm and power line areas finds it necessary to stock additional 6-volt tubes that have a 150 mil filament current instead of 300, otherwise many of the types are almost identical. Then,



Octave Blake, the Cornell-Dubilier president, a new director of the RMA.

there is the 2-volt series with octal and the older type base. And most recently, there is the 1.4 volt series of tubes.

Perhaps there is some way of introducing a universal type of replacement tubes with adapters which would make one tube interchangeable with several others. For instance, a type 6K7G might be used to replace a type 78 and in many cases a 6U7G and 6D6. Or sockets might be changed in the older sets. In this way one tube would replace four types with no major differences in performance.

## STRIKING IDEAS FOR SELLING EXTRA RADIOS

"It's all right when you win the argument, but it's not much fun to have to listen to a Bach Fugue when you were sitting with bated breath to hear what happened next in the G-man's chase of those state-line bandits!"

This is one of the ways the New Orleans Public Service, Inc., appeals to the public to "see your favorite radio dealer" for extra radios in the home. Other sales phrases are "If you're only a living-room listener, you don't know what you're missing!" and "There's something on the air to enrich every hour of the day—news, thrilling drama, contests, folklore, comedy, good music, household hints."

In one ad used in the campaign, it says "Do your tastes dictate what everyone must listen to?" and suggests that the listener "widen the listening range of your home with an extra radio." The broadcast menu is divided into 15 parts in this copy, showing in a striking way how a single set would be inadequate to keep a family happy. These parts are (1) For thrill hunters, (2) For those of mellow years, (3) For the fair ladies, (4) Religion on the air, (5) For sports followers, (6) For news hounds, (7), For serial-drama addicts, (8) For the theater fans, (9) For music lovers, (10) Comedy bound, (11) For song fanciers, (12) For twinkling toes, (13) Appeal to reason, (14) For variety searchers, (15) Children's delight.



"It's climate-sealed," explains Frank A. D. Andrea, left, to the African explorers, Mr. and Mrs. Armand Denis, who dropped in to discuss their next radio Safari.

# GO OUT—AND GET

## The ABC's of outside selling — alphabetically applied to radio.

**Action**—the hard-hitting, persistent kind of effort which used to be called “over-selling”, is now OK. It's no secret that people everywhere are trying to hoist themselves out of a depression, and the buying public does its share by giving a new kind of welcome to pleasant salesmen. Today it is hard to overdo the sales call.

**Business** men, your neighbors, can be dragged in on radio display and demonstration if your merchandise is non-competitive. They buy sets for their own homes or stores, or they may send you prospects for a small cut. And they cooperate with you when a “Buy In Our Town” campaign comes along.

**Colors** on radio receivers are a “go” signal on a whole new line of action. Among new sets, tricky and salable combinations of tints have appeared in de luxe designs. Here's an appeal for those who have color-scheme rooms, as well as for those who are conscious of school colors and those who just have positive preferences in the matter of color.

**Demonstration** for the whole family, in the place where the family lives and does its listening, is a key-note trick. If the looks and the performance of 1939 receivers will sell themselves, the home itself is the best possible spot to turn on a new radio and let it prove its place in the house.

**Entrance** into prospects' homes, for demonstrations, will depend upon (1) whether you are willing to breeze around after business hours, (2) what impressions you

have created as to your professional methods and manners, and (3) whether the prospect is convinced that you offer a real improvement over the radio equipment already in the home.

**Files** of prospect names, organized and up-to-the-minute, will eliminate a great deal of cold selling. You'll get openers from service matters, replacement needs, holiday requirements, changes of address, etc. The arrival at your store of special types of new merchandise will often be reason enough for an approach to many of the names in the file.

**Gift** models, with all their “personal radio” appeal, have a year 'round use. They deserve promotions mainly at Christmas, Easter, Mother's Day and Father's Day. But birthdays, graduations, and marriages are also important to radio sales.

**Handy** tuning, developed to a high degree and at a cost of millions, represents a tangible and dramatic aspect to today's demonstrations because it involves getting the prospect's hand on the buttons. In some sales areas, the “push button” homes are the only ones not regarded as hot prospects.

**Instant** action on leads from the service department, the utility, jobber salesmen, old customers, newspapers, etc., is today's sales plan. Snappy attention to new prospects will either sell them or get them off your lists. Prompt calls make a good impression, anyway.

**Junior** sets, the nifty models of the pee wee gang, are a cinch to carry along on house-to-house calls. Demonstrated, they seem to work into places where prospects originally had no thought of using a radio.

**Kitchen** sets are pushovers for effective demonstrations, to housewives, because the daytime is the period when the likely kitchen broadcasts are coming. Householders are able to see a neat little radio, matching their kitchen colors, producing recipes and home-making hints galore.

**Leads** from chummy customers often give you a chance to use a brand of “testimonial” selling. Dealers can mention that “your friend, Mrs. Jones, is now enjoying a home demonstration on one of our fine radios. She's in on the ‘Sales Mean Jobs’ campaign and we hope that you will be, too.”

This Fall, radio dealers are turning to outside selling, to get orders for consoles, combinations, table models, tubes, antennas, and service repairs. Every day, in every way, they call on ten new prospects—or ten old customers!



# THE BUSINESS!

Every day call on ten new prospects and "Ask 'em to buy."

**Merchandising** help from the manufacturers, which is always the work of experts and often timed for sure-fire local application, will frequently stir prospect interest by (1) direct mail (2) newspaper blasts (3) colorful displays (4) national advertising (5) network or spot broadcasting (6) prizes for your salesmen (7) time payment conveniences (8) sales ideas, etc.

**National Salesmen's Crusade** should be the dynamic symbol for widespread "invitations to buy." To radio, in which the passive, sit-at-home brand of selling has been the rule, it means shoe-leather, doorbell-pushing, hours and hours of fast talking to everybody in town.

**Office** radios can be tagged "the instruments that give you market news, flashes from abroad, and financial reports of practical value to everyday business." These sets will fit under your arm and the buyers usually pay cash.

**Programs** are readily divided into neat lists to catch the eye of any type of prospect you call on. The nature and the time of all broadcasts in a particular area are of smash importance to any salesman who plans to tune a set for a prospect.

**Quick** follow-ups on local pay-days, re-employment of local workmen, crop harvests, newcomers to town, radio show registrations, leads from the utility company, etc., will give dealers an extra edge. To many merchants, WPA pay-days are a signal for bargain sales on traded-in merchandise.

**Records** turning in windows or playing in the store have netted plenty of extra sales of phonograph-radio combinations, record-players, or the discs themselves. To stir the already-stirred appetite for recorded music means store traffic, protected profits, unexpected sales of other lines.

**Surprise** styles in cabinets are glistening plentifully among 1939 lines. You now have the chance to sell radios in triangle shape, in maple, in period design, in easy-chair style, in streamlines, or to hang on the wall.

**Trailers**, plastered with dealer ads, are one popular method of getting your merchandise on the roll. Sales crews are often happier, more efficient and faster if you use this way of getting receivers into the residential districts.

College and high-school students make a special select class of prospects for personal radios. Picture shows how Lyon & Healy, Chicago, featured a windowful of Stewart-Warner's new Varsity models in college colors.

**Utility** aspects of radio cabinets are more cunning than ever. Sets are today combined with magazine racks, book shelves, tables, bars, lamps, easy chairs, pianos, clocks, etc.

**Varsity** crowds have been drawn en masse into the radio market because (1) sets have been colored and lettered for them (2) their favorite dance maestros are regularly on the air (3) they crave personal access to sports broadcasts.

**Window** stunts, to fit in with house-to-house work, can feature the catch lines: "The Radio Parade Is Coming Your Way", "Want To Try This Radio Miracle?", "Leave Your Name And Address For A Radio Surprise", "Our Radio Man Will Come Calling", etc.

**Xtra** value per dollar spent for new radios is a cinch to dramatize, when you list and demonstrate the features of the set you bring into the home. These features pile up nicely with those of the receiver being replaced. Many dealers choose to do this even if the sale is already made.

**Yields** from consistent house-calling should be tabulated in dramatic form, to encourage fellow doorbell-pushers. Not in sermon form, but attractively showing the juicy volume done in the action spots.

**Zipper**s have earned a place in radio. The cases for portable radios, designed in smart luggage style, are often the most displayable items which can get across the portable theme. For vacation specials, and for traveling men the year 'round.



# TO MOVE MORE MERCHANDISE

## Dealers plan promotions for a promising Fall

### DEALER DRAMATIZES TONE QUALITY

One of the new aspects of radio selling at Jensen Bros., Terre Haute, Ind., is brisk demonstration of the ways in which the new receivers outplay the older sets. G. R. Turner tries to keep the population aware of radio reception improvements.

Sample stunt projected by Mr. Turner outside the store is what happened at the local Kiwanis Club recently. One hundred townspeople at the meeting were confronted by four consoles, completely shrouded. The plan was to play them for blindfolded judges and select the one with the finest tone.

With local station WBOW, arrangements were made to pick up four organ solos from Radio City, New York. These selections came through the receivers, one after the other, and the whole business was broadcast over WBOW.

The judges selected the radio make stocked at Jensen's, and Mr. Turner

dramatically said so on the air. The Kiwanis crowd thought it was entertainment; the radio store knew it was a darned good ad.

To give the sales presentations another plus quality, Turner is talking up the matter of good aerials for finer reception. In many cases, the antenna is put up before the set arrives at the prospect's home.

### LETTERS IN WINDOW BRING CUSTOMERS INTO STORE

Everybody likes to read other people's mail—and genuine testimonial letters are a potent sales force. Practical application of these two principles brings hundreds of new customers every year to Sico Electric Radio Co., 258 Lexington Avenue, New York City, according to proprietor S. S. Cowen.

Across the front of the store's one small window are seven picture frames—the kind you can buy for a quarter or less. Within each frame is a letter—either from a customer, ex-

pressing appreciation of a service job well done; or from a manufacturer to someone in the neighborhood, recommending the store as a reliable radio repair shop. The group of letters is changed constantly. Those displayed at any time cover the most common radio ailments, so that the curious person reading can match some complaint with the trouble in his own set. One letter may refer to the elimination of interference, another to the adjustment of an old receiver so that it could tune the 1550 kc. band, a third to the improved tone since the Sico serviceman's call, and so on.

Folks enter the store almost daily saying, "Can you fix my radio like that letter in the window says you fixed Mr. Smith's?"

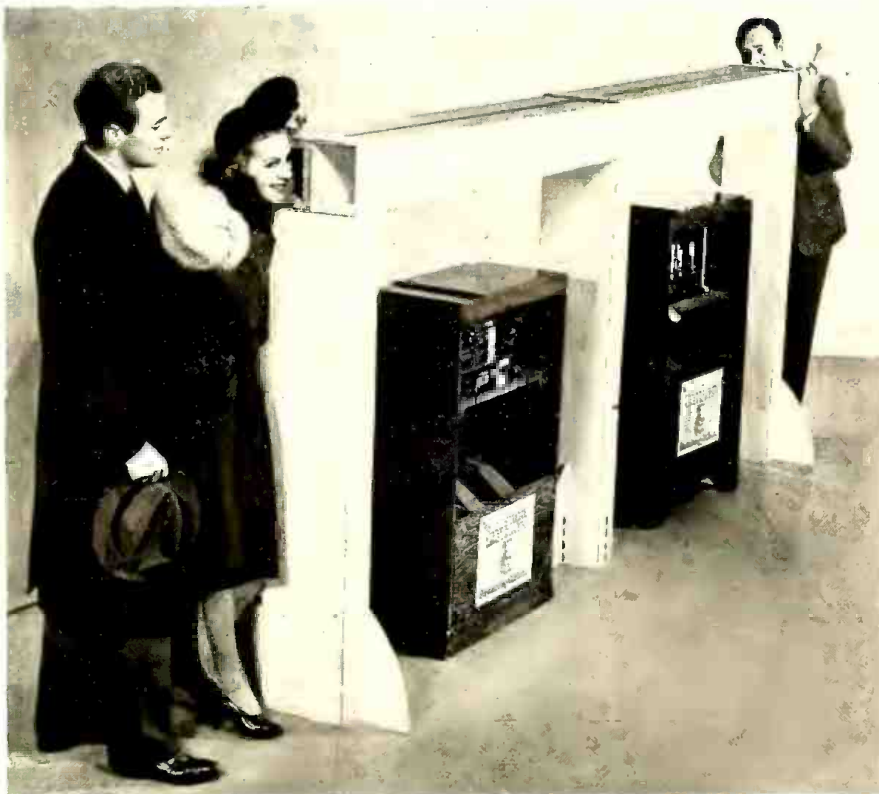
The picture frames are also used to display salesmaking charts or pictures clipped from RADIO TODAY and other magazines. Additional frames are hung within the store. "I have been displaying letters in this way for years," says Mr. Cowen. "They are responsible for the greatest part of my new business. People stop to read the letters who never would be attracted by a display of radios. I have watched passersby many times: they invariably read all the letters, and then their eyes travel to the sets on display."

### A ROBOT FOR YOUR WINDOWS

A traffic-stopping idea for a window display, which requires no fixings except the merchandise itself, has been worked out by M. Lehman of Port-O-Matic Corp., 1019 Madison Ave., New York City.

The stunt concerns the robot door, which is a regular feature attached to the side of the portable phonograph-radios made by the firm. It flops open to allow records to be released automatically. By adjusting the rejector to a special position for display purposes, the door can be made to move back and forth constantly. The result is a fascinating action display.

Records cannot be actually changed during this process, but with some of them displayed on the turntable, and some in the storage tray, the purpose of the door's movement will be clear to passersby.



Showing prospects how tone distortion is absorbed. This device and others will feature Stromberg-Carlson's early October Labyrinth Tone Week.



# CHART OF TRADE-IN VALUES OF OLD RADIOS

Simplified figures show maximum amounts allowable on large and small sets.  
 Compact tabulation takes place of bulky "trade-in books," now obsolete.

Many radio dealers have written to Radio Today requesting a compact reference sheet of "trade-in values" of old sets, to take the place of the bulky "black-books, green-books, etc.," compiled in earlier periods of radio's history.

"We don't need all those pages and pages of tabulations of out-dated and obsolete sets. Such books are themselves as obsolete as the radios they list. Give us

something simplified and convenient, which we can put in the hands of every salesman on the floor or on the pavement. Our men haven't time to pore through complicated compilations, all more or less exactly alike, when a simple chart would give us all we need to show the customer."

So in answer to these requests from busy radio men who want a streamlined chart of radio-set trade-in

values, Radio Today has compiled the simplified tabulation on this page. The values used are based upon the averages of trade-in allowances recommended by various associations and merchandising organizations. They are conveniently grouped under small sets and consoles, and are for use in sales where the new-set price is over or under \$70.

Trade-in sets listed by number of tubes (1T, 8T, etc.)

## VALUE OF OLD TABLE MODELS AND MIDGETS

As Trade-in on Purchase of New Set Listing under \$70

YEAR SOLD	NUMBER OF TUBES										YEAR SOLD
	4T.	5T.	6T.	7T.	8T.	9T.	10T.	11T.	12T.		
1929	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	1929
1930	1.00	1.00	1.00	1.00	1.25	1.25	1.50	1.50	1.50	1.50	1930
1931	1.00	1.00	1.00	1.50	1.75	1.75	2.00	2.00	2.00	2.00	1931
1932	1.25	1.25	1.50	1.50	2.00	2.00	2.25	2.25	2.25	2.25	1932
1933	1.50	1.75	1.75	2.00	2.25	2.25	2.50	2.75	2.75	2.75	1933
1934	1.75	1.75	2.00	2.25	2.50	2.50	3.00	3.00	3.00	3.00	1934
1935	2.00	2.00	2.25	2.50	2.75	2.75	3.00	3.00	3.00	3.00	1935
1936	2.25	2.25	2.50	2.75	3.00	3.25	3.50	3.50	3.50	3.50	1936

As Trade-in on Purchase of New Set Listing under \$70

YEAR SOLD	NUMBER OF TUBES										YEAR SOLD
	4T.	5T.	6T.	7T.	8T.	9T.	10T.	11T.	12T.		
1929	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.25	\$1.25	\$1.50	1929
1930	1.25	1.25	1.25	1.25	1.25	1.50	1.50	1.50	1.75	2.00	1930
1931	1.50	1.50	1.50	1.75	2.00	2.00	2.00	2.25	2.25	2.50	1931
1932	2.00	2.00	2.00	2.25	2.25	2.50	2.50	2.50	2.75	3.00	1932
1933	2.25	2.25	2.50	2.75	2.75	3.00	3.25	3.25	3.50	4.00	1933
1934	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.25	4.50	1934
1935	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	4.75	5.00	1935
1936	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.25	5.50	1936

## VALUE OF OLD CONSOLES

As Trade-in on Purchase of New Set Listing over \$70

YEAR SOLD	NUMBER OF TUBES										YEAR SOLD
	4T.	5T.	6T.	7T.	8T.	9T.	10T.	11T.	12T.		
1929	\$2.00	\$3.00	\$3.50	\$4.50	\$5.00	\$5.50	\$6.00	\$7.00	\$7.00	\$9.00	1929
1930	2.50	2.75	3.50	4.50	5.50	6.00	7.00	7.50	7.50	9.00	1930
1931	3.00	3.00	3.75	4.50	6.00	7.00	7.50	8.50	8.50	10.00	1931
1932	3.50	3.50	4.00	5.00	6.00	7.00	8.00	9.00	9.00	11.50	1932
1933	4.00	4.00	5.00	6.00	7.00	7.50	8.25	9.50	9.50	13.00	1933
1934	4.50	5.00	6.00	7.00	7.50	8.00	9.00	9.75	9.75	14.50	1934
1935	5.00	6.00	7.00	8.00	8.50	9.00	9.50	10.00	10.00	16.00	1935
1936	5.50	6.75	7.75	9.00	9.50	10.00	10.50	11.00	11.00	18.00	1936

As Trade-in on Purchase of New Set Listing over \$70

YEAR SOLD	NUMBER OF TUBES										YEAR SOLD
	4T.	5T.	6T.	7T.	8T.	9T.	10T.	11T.	12T.		
1929	\$2.00	\$2.50	\$3.00	\$4.00	\$5.00	\$6.00	\$7.00	\$8.00	\$8.00	\$9.00	1929
1930	2.50	3.00	4.00	5.00	6.00	7.00	8.00	9.00	9.00	10.00	1930
1931	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	10.00	11.50	1931
1932	3.50	4.50	5.50	6.50	7.50	8.50	10.00	11.50	11.50	13.00	1932
1933	4.00	5.00	6.25	7.50	8.75	10.00	11.50	13.00	13.00	14.50	1933
1934	5.00	6.00	7.00	8.00	9.00	10.00	12.00	14.00	14.00	16.00	1934
1935	6.00	7.00	9.00	11.00	13.00	14.00	15.00	16.00	16.00	17.00	1935
1936	6.50	7.50	9.50	11.50	13.50	14.75	16.00	17.00	17.00	18.00	1936

Figures copyrighted by RADIO TODAY, 1938.

# CUSTOMERS THAT GOT AWAY

## Confessions of a radio man who learned his lesson

Offhand we might think of all radio customers as variegated nuts. But, still, they are customers, and bread-and-butter for us radio dealers. It is, of course, inevitable that a percentage of customers will slip away from any dealer or serviceman. Unfortunately, the customer seldom tells you why he discontinued patronizing you. But he does tell his friends. In my own day I have pulled boners that are adequate examples of profound stupidity in dealing with customers. I've seen dealers and jobbers put my humble blunders to shame with gross insults to customers who cost good money to get inside the front door. A few collected cases may prove interesting and instructive. The names employed are fictitious but the incidents are genuine.

### Real McCoy

Case 1. Dennis McCoy, professor of physics, doctor of philosophy, and for seven happy years my Number One buyer of radio gadgets.

"Mr. Phillips, there is a bit of a barrel tone in that new radio you sold me, I think it cuts the high notes and unnaturally accentuates the lows. Could you fix it?"

I laughed and led him over to the set just like his, next to the front window of the store. Reaching behind it, I loosened the reflector back of the speaker cone. Instantly the tone of the receiver changed. "Do you like it like this?" I asked.

"Splendid!" The poor nut was jubilant.

Back to its original position went the reflector. "You wouldn't have the radio in your house if it sounded like that all the time," I opined.

Dennis McCoy was red-headed and he started to argue. Blunder number 2 was that I argued with him. I felt that I knew him well enough to caution him against a mistake which he would sooner or later realize. He hasn't been in since, and that was twelve months ago.

### Engineer Martin

Case 2. George Martin was an engineer with a large automobile concern. I had sold him a small radio and he brought it in for repair. My serviceman is a young genius. With a pair of headphones and a few tools,

an old crystal set and a neon bulb he can fix any radio set worth fixing. Martin stood by while my expert did his stuff. I should have seen the meaning of the gleam in Martin's eye. My boy fixed the set and made it play as good as new. But what did Martin do but take it right across the street in plain sight of yours truly and let that dumb cluck they have as a serviceman apply an oscillograph, two signal generators, a vacuum-tube voltmeter and an assortment of voltmeters and all the junk he has on the service bench to that set. Naturally my competitor, the dirty louse, told Martin a tall story about the value of all those gadgets and Martin must have fallen for it because he doesn't come in any more. I didn't need all kinds of test equipment because I had a good boy. But after a while I woke up and bought everything that would look flashy on the bench. I've got other customers like Martin who might go high hat on me.

### Motorman Teets

Case 3. George Teets, Interurban motorman, dresses flashy, slangy in speech, hands invariably greasy. George dropped in while I was selling the cashier of our bank a new 11-tube afc, automatic tuning job. After writing up the order, I turned to George. "What'll you have, Teets?"

"I want one of them afc sets, Charley—one like you was just selling to that guy from the bank."

"You don't want that set, George. It costs over \$200. It would take you two years to pay for it and our contracts only run nine months." I thought I was doing him a favor to

---

## FOUR MORALS

Always assume the customer wants a quality better than I think he can afford.

Let the appearance of my store and especially my service department inspire confidence in the customers.

Give special care to the assorted nuts who want something special to boast about on their radio.

Quit worrying over lost customers but worry over why they went elsewhere.

---

tell him that. Yea, that's what I thought.

"To hell with you, big stiff, I'll go across the street and get me one—for cash, see!" And he held up a roll that would choke a cow. "I picked the right parlay at the Washington track yesterday afternoon and I'm buying the best radio made, before I shoot the roll on some other nag." I lost a cash sale and the customer.

### Lady Gray

Case 4. Mrs. Henrietta Gray, widow, living frugally at the edge of the town on an old-age pension. Mrs. Gray tried my competitor first. He knew her as well as I did. He offered her a \$10.98 midget set she didn't like, then a \$12.72 job which had a strange name, then a \$15.95 special marked down from \$24.50. She didn't buy and this was her story.

"He thinks he can pawn off his cheap sets on me, Henrietta Gray. I knew his mother when she did our washing. He thinks I'm cheap. Why I've been saving up for two years to buy a good radio, and I want to see the best you have, Mr. Phillips."

If she had visited my store first, I would have done the same as my stupid competitor across the street, but as I have always said, let the customer do some of the talking.

### Mrs. Cartwright

Case 5. Mrs. Belle Cartwright, leader of society, chairman of the Community Fund Drive, one-time candidate for Congress on the wrong party ticket, and nobody to be sneezed at. She used to patronize my competitor across the street. This day she sailed into my joint with both eyes popping and a thin upper lip, like a good, high-spirited horse that has just been cut with a whip.

"If you can show me a good radio without asking how my children are, what my husband is doing today, or if I've recovered from my auto wreck, I'll write you a check for it."

"There is only one radio in my store in keeping with your lovely home, Mrs. Cartwright. It is this one by the window at \$277.50, complete with a new aerial."

"Excellent, deliver it this afternoon, please. What are your initials, Mr. Phillips? I'll write you a check immediately, and you're lucky, too, because I was determined to buy that set in the window across the street, until that jackanapes thought I was making a social call on him, the impertinent ass!"

I silently agreed with her; she expressed my own thoughts much better than I could have done.

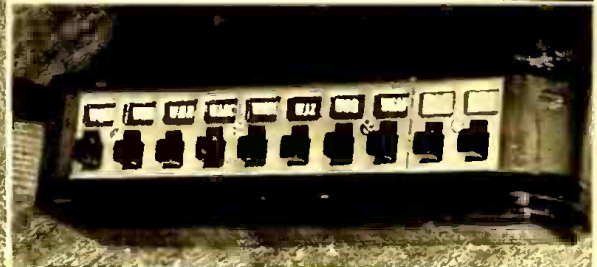
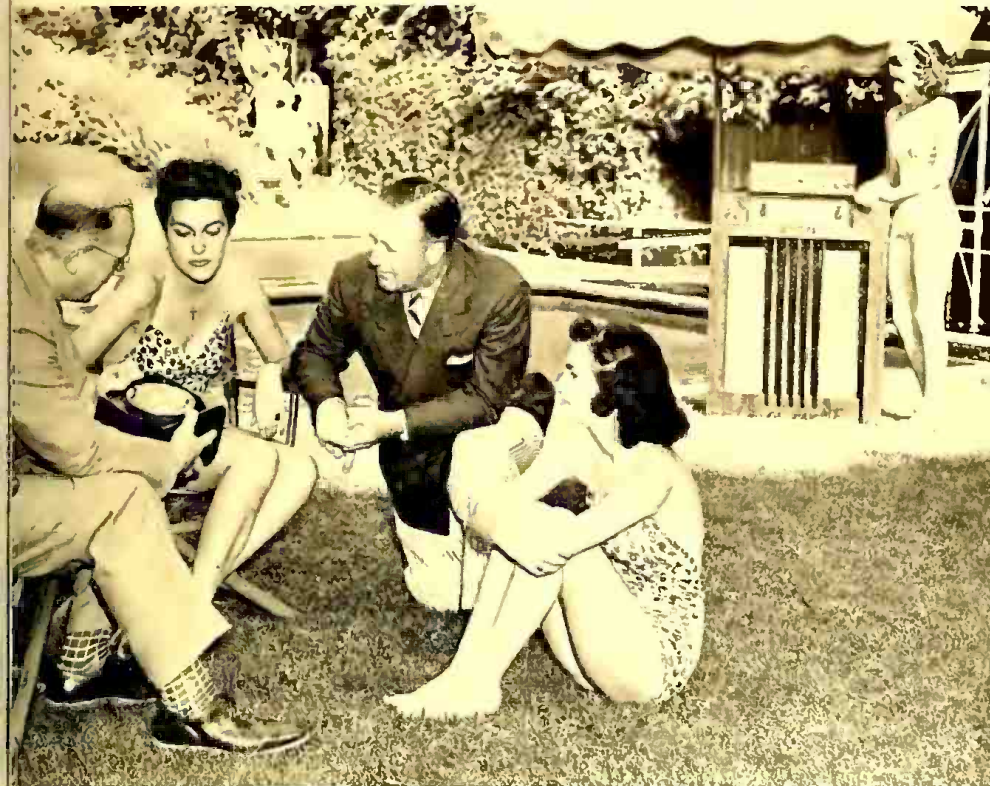


Admiral's laydown model with slide-rule dial.

# AUTUMN ARRIVALS

Novel ideas in new merchandise for Fall

Any school letter or any combination of colors is Stewart-Warner's come-on for the varsity crowds.

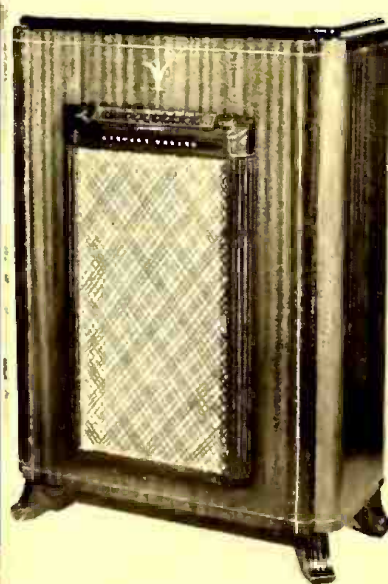


Philco's Mystery Control has a workout in California sunshine, tuning set at right.

Sleek new remote-control box by Stromberg-Carlson.



A self-powered Philco draws street crowds in Syracuse, N. Y.

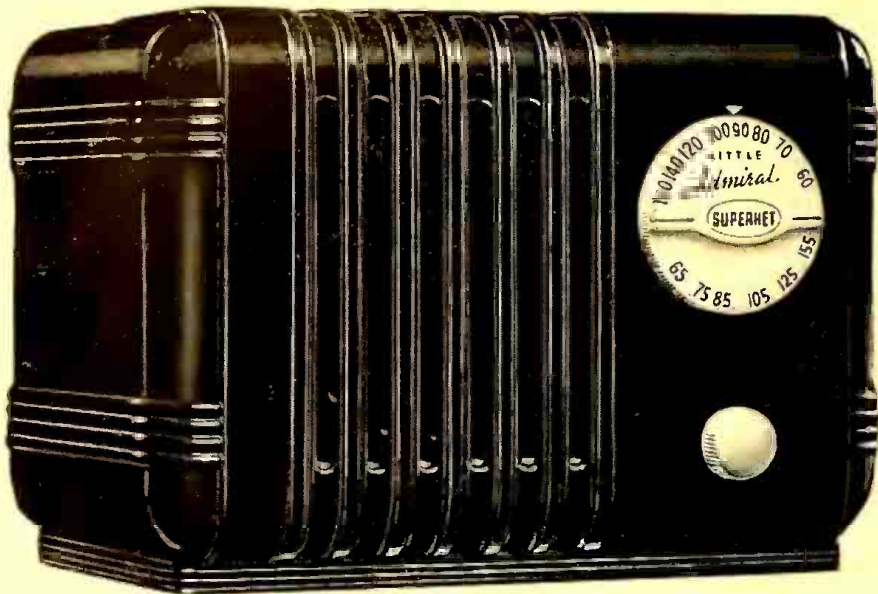


Metropolitan model, Stewart-Warner.



Motorola "time-tuning" pleases Washington jobbers.

# AGAIN in '39 Admiral



...IN PRICE...

\$ **9.95**

MODEL  
123-5E  
BLACK

Model 124-5E—walnut } Pri  
Model 125-5E—Ivory } 3  
Model 126-5E—Red } \$12

## NEW 1939 ADMIRAL CONSOLES 7, 8 & 11 TUBE SUPERHETERODYNES



**Left—Model 137-8G, 7 tube A.C. Console** with permeability tuning. Includes 3-gang condenser . . . new electric eye . . . large, easy-to-read slide rule dial . . . push button tone control . . . full A.V.C. . . . heavy duty dynamic speaker. Three bands cover American broadcast and foreign stations, police, amateur, aviation, ships at sea.

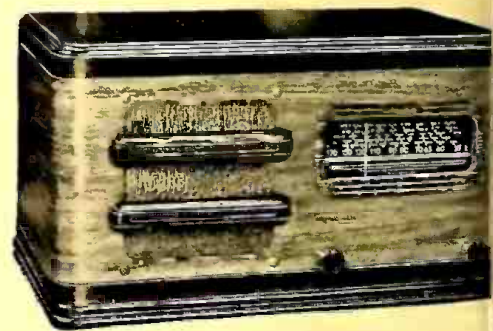
**Right—Model 139-11A. A.C. Superhet Console Grand** with tilt-tuning dial . . . electric automatic tuning . . . gold calibrated slide rule dial . . . push button off-on switch . . . push button operated tone control plus manual base compensation to give 42 tone variations. Has 10 watts output . . . full A.V.C. . . . AFC . . . pre-selector . . . 12" electro dynamic speaker . . . 3 bands. Tunes American broadcast and foreign stations, police, amateur, aviation, ships-at-sea.



### BATTERY RADIO

With Sensational New 1½ Volt Tubes

**Model 141-4A, 4-tube Superhet Table Radio** operates for almost a year from one "AB" battery. Single plug-in connection does away with messy wires. New superhet circuit gives 6-tube performance. Tuning range 535 to 1735 KC. Tunes American broadcast and police stations. Has slide rule dial . . . full A.V.C. . . . 6" P.M. dynamic speaker.



**36 Models to Choose From!**  
**4 to 16 Tubes—See Your**  
**Jobber or Write Us**

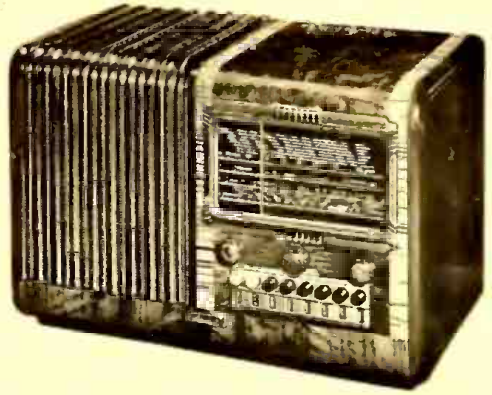
**CONTINENTAL RADIO & TELEVISION CORP., 3800 W. Cortland St., Chicago**

# RULES THE AIR-WAVES!

## PERFORMANCE... DESIGN

Meet "Price Competition" with the Little Admiral  
A Full 5-Tube AC-DC Super as Low as \$9.95

You can depend on Admiral to keep one step ahead of the parade . . . in price . . . performance . . . design. Here's a new 5-tube super that will help you get your share of the midget radio business. Has 5 working RCA metal tubes in improved superhet circuit to give 7 tube performance . . . automatic volume control . . . pilot light . . . range 535 to 1735 KC. Modern one-piece molded plastic cabinet available in four attractive colors



### NEW ADMIRAL 8-TUBE AC TABLE RADIO for 1939

**Model 134-8A. 8-Tube A.C. Superhet Table Radio.** Has push button off-on switch . . . automatic push button tuning . . . continuously variable tone control . . . full A.V.C. . . . and 8" electro dynamic speaker. Three bands. Tunes American broadcast and foreign stations, police, amateur, aviation, ships-at-sea. The biggest buy in 8-tube AC table radios today!

## NEW 1939 ADMIRAL RADIO-PHONOGRAPHS



**Above—Model 520-5C 5 Tube (including ballast) T.R.F. Radio-Phonograph.** Has 5" electro dynamic speaker . . . 2 watts output . . . 1 stage R.F. Tunes American broadcast and police stations (535 to 1735 KC range). Phonograph has new light weight crystal pickup . . . 78 R.P.M. quiet electric motor . . . plays up to 12" records

**Model 520-5F Table Radio-Phonograph.** 5-tube AC superhet radio with tuning range 535 to 1735 K.C. Has 5" electro dynamic speaker. Phonograph and cabinet same as model 520-5C above. Underwriters approved.

**Left—Model 521-5C 5 tube (including ballast) T.R.F. Radio-Phonograph** with 5" electro dynamic speaker . . . 2 watts output . . . one stage R.F. . . . tuning range 535 to 1735 KC. Tunes American broadcast and police stations. Phonograph has new light weight crystal pickup and 78 R.P.M. quiet electric motor. Plays up to 12" records with top closed.



**Model 521-5F A.C. Superhet Table Radio-Phonograph.** 5-tube 110 volt radio with tuning range 535 to 1735 KC. Has 5" electro dynamic speaker. Phonograph and cabinet same as Model 521-5C Underwriters approved.

**Above—Model 142-8A Radio-Phonograph Console.** 8-tube AC superhet radio with permeability push button tuning. Has large, easy-to-read slide rule dial . . . continuously variable tone control . . . full A.V.C. . . . extra heavy electro dynamic speaker. Three bands. Tunes American broadcast and foreign stations, police, amateur, aviation and ships-at-sea. Phonograph includes automatic record changer which plays 10" or 12" records automatically in mixed sequence. Has top loading crystal pickup with automatic needle cup and triple sealed crystal cartridge.



# AGAIN in '39 Admiral

...IN PRICE... PERFORMANCE... DESIGN

\$ 9.95

MODEL  
123-5E  
BLACK

Model 124-5E—walnut, \$12.95  
Model 125-5E—Ivory  
Model 126-5E—Red \$12.95

# RULES THE AIR-WAVES!

Meet "Price Competition" with the Little Admiral  
A Full 5-Tube AC-DC Super as Low as \$9.95

You can depend on Admiral to keep one step ahead of the parade... in price... performance... design. Here's a new 5-tube super that will help you get your share of the midget radio business. Has 5 working RCA metal tubes in improved superhet circuit to give 7 tube performance... automatic volume control... pilot light... range 535 to 1735 KC. Modern one-piece molded plastic cabinet available in four attractive colors.



## NEW ADMIRAL 8-TUBE AC TABLE RADIO for 1939

Model 134-8A, 8-Tube A.C. Superhet Table Radio. Has push button off-on switch... automatic push button tuning... continuously variable tone control... full A.V.C. ... and 8" electro dynamic speaker. Three hands. Tunes American broadcast and foreign stations, police, amateur, aviation, ships-at-sea. The highest buy in 8-tube AC table radios today!



## NEW 1939 ADMIRAL CONSOLES 7, 8 & 11 TUBE SUPERHETERODYNES

Left—Model 137-8G, 7 tube A.C. Console with permeability tuning. Includes 3-gang condenser... new electric eye... large, easy-to-read slide rule dial... push button tone control... full A.V.C. ... heavy duty dynamic speaker. Three hands cover American broadcast and foreign stations, police, amateur, aviation, ships-at-sea.

Right—Model 139-11A, A.C. Superhet Console Grand with full-tuning dial... electric automatic tuning... gold calibrated slide rule dial... push button off-on switch... push button operated tone control plus manual base compensation to give 42 tone variations. Has 10 watts output... full A.V.C. ... H.F.C. pre-selector... 12" electro dynamic speaker... 3 bands. Tunes American broadcast and foreign stations, police, amateur, aviation, ships-at-sea.

### BATTERY RADIO

With Sensational New 1½ Volt Tubes

Model 141-4A, 4-tube Superhet Table Radio operates for almost a year from one "AB" battery. Single plug-in connection does away with messy wires. New superhet circuit gives 6-tube performance. Tuning range 535 to 1735 KC. Tunes American broadcast and police stations. Has slide rule dial... full A.V.C. ... 6" P.M. dynamic speaker.

36 Models to Choose From!  
4 to 16 Tubes—See Your  
Jobber or Write Us

CONTINENTAL RADIO & TELEVISION CORP., 3800 W. Cortland St., Chicago

## NEW 1939 ADMIRAL RADIO-PHONOGRAPHS



Above—Model 520-5C 5 Tube (including ballast) T.R.F. Radio-Phonograph. Has 5" electro dynamic speaker... 2 watts output... crystal and police stations (535 to 1735 KC range). Phonograph has new light weight crystal pickup... 75 R.P.M. quiet electric motor... plays up to 12" records.

Model 520-5P Table Radio-Phonograph. 5-tube AC superhet radio with tuning range 535 to 1735 KC. Has 5" electro dynamic speaker. Phonograph and cabinet same as model 520-5C above. Underwritten approved.

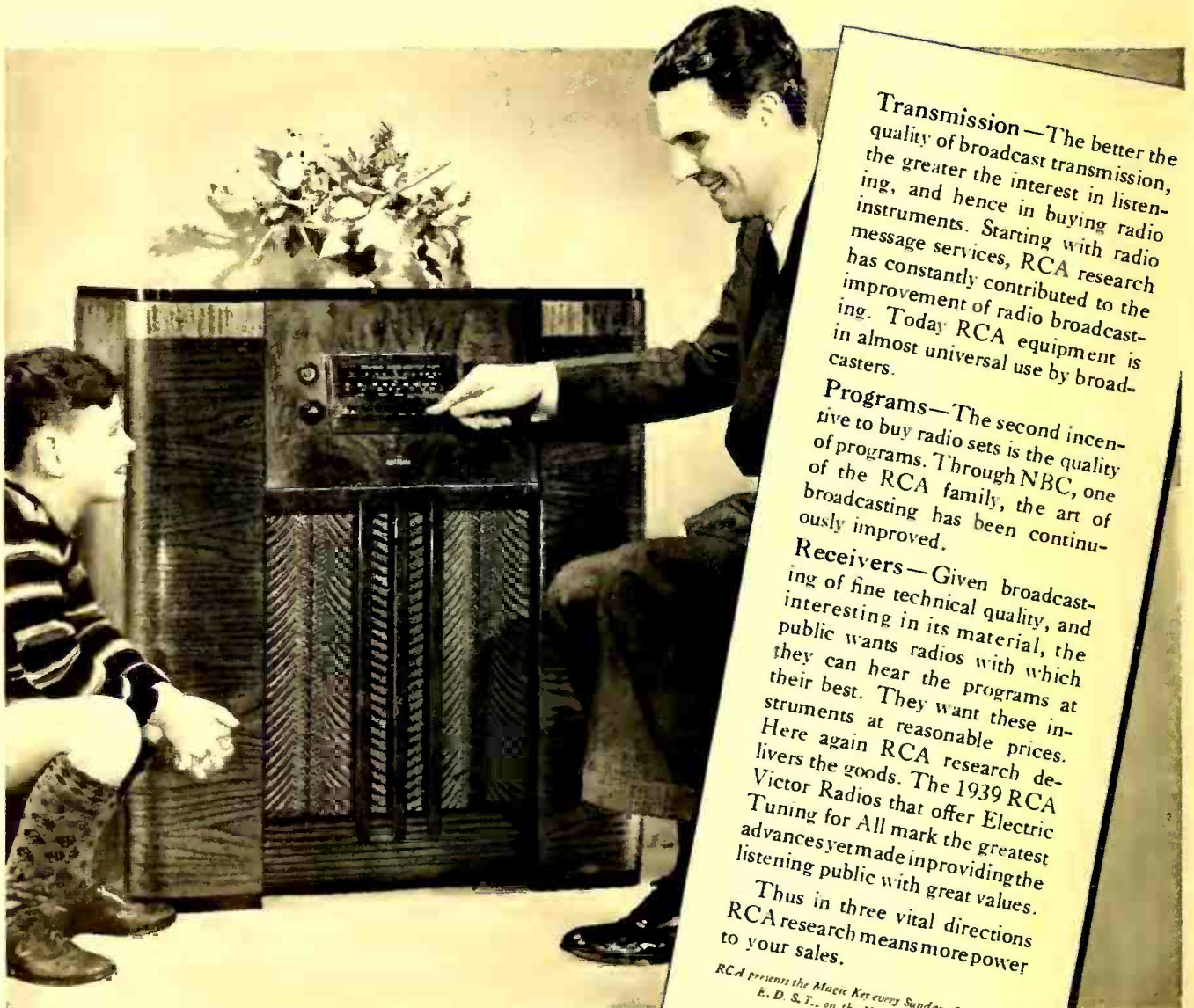
Left—Model 521-5C 5 tube (including ballast) T.R.F. Radio-Phonograph with 5" electro dynamic speaker... 2 watts output... one 6" R.F. tuning range 535 to 1735 KC. Tunes American broadcast and police stations. Phonograph has new light weight crystal pickup and 75 R.P.M. quiet electric motor. Plays up to 12" records with top closed.

Model 521-5A A.C. Superhet Table Radio-Phonograph. 5 tube 110 volt radio with tuning range 535 to 1735 KC. Has 5" electro dynamic speaker. Phonograph and cabinet same as Model 521-5C. Underwritten approved.

Above—Model 142-8A Radio-Phonograph Console. 8-tube AC superhet radio with permeability push button tuning. Has large, easy-to-read slide rule dial... continuously variable tone control... full A.V.C. ... extra heavy electro dynamic speaker. Three hands. Tunes American broadcast and foreign stations, police, amateur, aviation and ships-at-sea. Phonograph includes automatic record changer which plays 10" or 12" records automatically in mixed sequence. Has top loading crystal pickup with automatic needle cup and triple sealed crystal cartridge.

# More Power to Your Sales!

In three vital directions  
RCA serves the men who sell radio



Shown above is the extremely popular 1939 RCA Victor Radio Model 97KG, in the new Console Grand cabinet, price \$85 (f.o.b. Camden, New Jersey).

**Transmission**—The better the quality of broadcast transmission, the greater the interest in listening, and hence in buying radio instruments. Starting with radio message services, RCA research has constantly contributed to the improvement of radio broadcasting. Today RCA equipment is in almost universal use by broadcasters.

**Programs**—The second incentive to buy radio sets is the quality of programs. Through NBC, one of the RCA family, the art of broadcasting has been continuously improved.

**Receivers**—Given broadcasting of fine technical quality, and interesting in its material, the public wants radios with which they can hear the programs at their best. They want these instruments at reasonable prices. Here again RCA research delivers the goods. The 1939 RCA Victor Radios that offer Electric Tuning for All mark the greatest advances yet made in providing the listening public with great values.

Thus in three vital directions RCA research means more power to your sales.

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



## Radio Corporation of America

RADIO CITY, N. Y.

RCA MANUFACTURING CO., INC.    RCA INSTITUTES, INC.    RCA COMMUNICATIONS, INC.  
RADIOMARINE CORPORATION OF AMERICA    NATIONAL BROADCASTING COMPANY



# GET SETS READY FOR WINTER

Clear up interference sources, replace tubes  
National Antenna Check-up Week, Oct. 15-22

Some forty million radio sets in this U.S.A. need to be gotten ready for broadcasting's biggest season, which starts this month. With new features—music, drama, comedy, news and information—crowding the airways, this is the time to see that every listener has his set "in A No. 1 condition," with fresh tubes installed, defective parts replaced, proper antennas installed, and all interference eliminated from local reception.

Here's work for every radio man and his service helpers, to get all the radios in his neighborhood in shape to bring in radio's brilliant winter programs with maximum clarity and free of annoying interference. Thousands of tube sockets cry out for replacement tubes, to restore the sets to their pristine clarity and sensitivity. Volume controls that have gotten noisy, need to be renewed. Condensers and transformers may need to be replaced.

## Filter out interference

And the owner's full enjoyment may be prevented because of some electrical interference in his own home or in some neighboring premises, which could be promptly eliminated by means of one of the simple plug-in filters now available. Too many listeners go on month after month, suffering interference and enduring it, all because some radio man has not demonstrated how simply and inexpensively such noise can be prevented.

Of course, it is in the antennas of the nation, that greatest improvement might be made in radio reception. For no radio, however costly, can be any better than its antenna. The electro-magnetic waves in the ether must first be picked up, before they can be amplified in the radio set. And so "fixing the antenna" gets back to first principles. For all radio listening starts with the listener's antenna.

## To tell the public

It is appropriate therefore that a National Radio Antenna Check-up Week is scheduled for Oct. 15 to 22, to remind the general public of the importance of getting their antenna installations overhauled or replaced

with modern scientific antennas. Sponsored by the Belden Manufacturing Company, which will publish full-page announcements in the *Saturday Evening Post*, *Collier's*, and other magazines, prior to the period, National Antenna Check-up Week is expected to result in improved reception for millions of listeners, and to produce valuable earnings for thousands of service men. To 50,000 radio men Belden will also mail out window banners, lapel buttons, and instruction books to aid in selling modern antennas for replacing old installations.

## Clear channel reception

For many new and important developments have been made in antenna design in recent years and even months. A review of some of these new outside antenna features will be of interest to radio readers, bringing them up-to-date on the new improvements now available.

Clear channel reception is featured in the new Belden all-wave antenna system which provides uniform signals from 400 to 22,000 kilocycles. The transmission line is unusual in that two conductors with an outer

shield are used, the shield being a common conductor. On short waves one conductor is employed with the grounded outer shield, while on the broadcast band the other conductor is used with the grounded shield.

Separate antenna and set coupling transformers are provided for high and low frequencies, so that each channel can work at maximum efficiency. The circuit with iron-core couplers provides 60 per cent more efficiency than conventional systems, and is shown in the accompanying illustration. System will operate up to four receivers with little loss in signal strength.

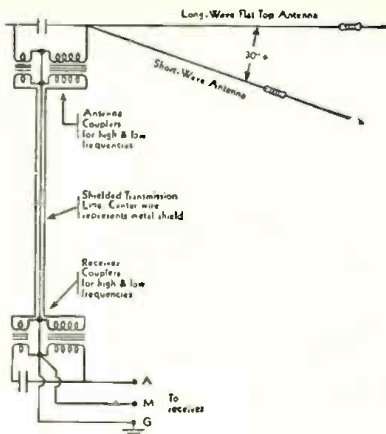
## Cancel noise

Another new antenna is the RCA-Victor "Master" for use in private homes. In addition to the usual doublet with its double-wire transmission line, the antenna uses a counterpoise placed parallel to the transmission line, but slightly shorter than the line. (see accompanying diagram).

Outstanding feature is that the counterpoise on the broadcast band picks up "noise" which is fed into an adjustable set coupling trans-



To open up profitable antenna-installation jobs for servicemen, Belden Mfg. Co. is sponsoring National Antenna Week next month, and will publicize it to millions of radio owners.



Schematic of the Clear Channel antenna system showing use of separate facilities for long and short waves.

former where it cancels out noise picked up by the flat top or doublet. Thus, claims the manufacturer, the antenna flat-top can be quickly erected without the need of finding a "quiet" location on the roof. On the short-waves this antenna performs as the usual doublet-type of antenna, with noise reducing properties.

### Doublets

A still popular type of antenna is the conventional doublet which in the past few years has been much featured for short-wave reception. These doublet antennas are found in many forms and available from all manufacturers. Doublets are manufactured with self-selecting matching transformers which automatically operate at all frequencies. Other doublets require the operation of a change-over switch when going from the broadcast band to short waves. Then,

too, some of the radio sets are equipped with built-in matching transformers and change-over switches which operate from the receiver wave-change switch.

Doublets are made with both equal and unequal legs on the flat top. Equal legs give balanced operation on short-waves, with an additional reduction in noise. Unequal doublets give more uniform response over a large band of frequencies as well as stronger signal strength on the broadcast band.

Some of the all-wave antenna systems provided for noise reduction on the shortwaves only, so that the antenna works similar to an ordinary wire and lead-in on the broadcast band.

### Magic wave; beamscope

The RCA magic wave antenna is a noise-reducing transmission line with matching transformers that can be operated with any length of antenna or vertical rod. With suitable matching or coupling transformers, this antenna will operate up to 16 receivers, though primarily designed for a single radio set.

Another important antenna development is G-E's beamscope. This is an electrostatically-shielded loop built into certain G-E models that provides for noise reduction on the broadcast band. However, for short waves a "standard" antenna is needed.

Especially effective in certain installations are the double-doublet, spider-web doublet, tuned doublets, antennas with open-wire feeders. Generally, these antennas either require too much space or cost too much for ordinary installations.

## RSA PRESENTS 48 CHARTERS

The National Office of the RSA, on behalf of the Board of Directors, takes great pleasure in announcing that charters have been approved for every one of our forty-eight chapters as of record August 1, 1938. These charters will be presented personally by the Executive Secretary in every case possible as rapidly as necessary details can be arranged. RSA feels that this measures a milestone in the progress of the Radio Servicemen of America, and definitely assures the future welfare of its members.

National headquarters announces the formation and affiliation of new RSA groups in Tulsa, Okla., and St. Paul, Minn. Several other groups are carrying out the necessary preliminary steps to affiliate with RSA. A chapter of the RSA in Holland has been established under the direction of Mr. A. F. L. de Quant, Secretary of the Netherland Radio Service Association. Applications are pending from Sweden, Ireland, and Switzerland.

## RADIOS IN SCHOOL COLORS—"VARSITY"

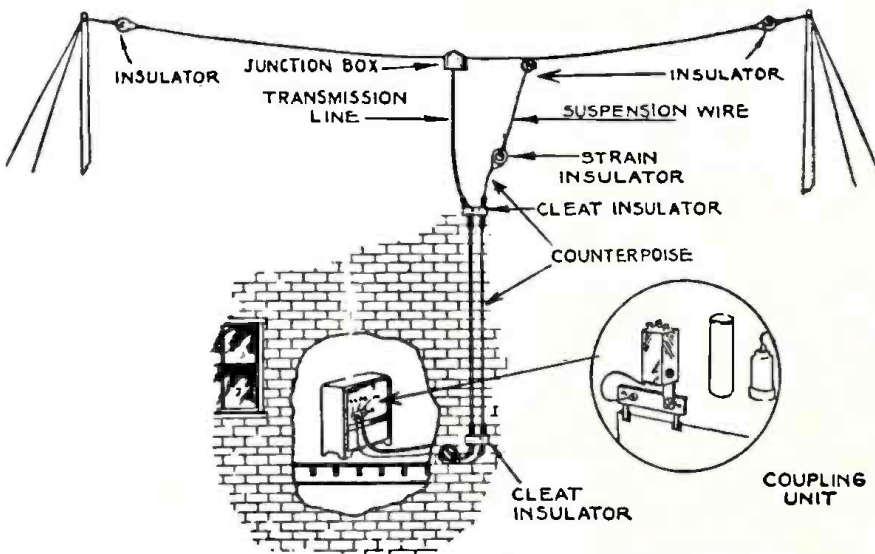
One of the most unique and far reaching merchandising ideas to hit the radio industry has just been announced by Stewart-Warner with the introduction of a new radio known as "Varsity."

This radio has been designed to "show-your-colors" loyalty of undergraduates and alumni of schools throughout the country. It is available in the actual and authentic color combination of a college or university. As an example: The Northwestern model is a purple cabinet with white tuning and volume knobs, push-buttons, speaker grill and screen. The school letter "N" is purple and mounted on the white grill.

The idea has been carefully tested out in the central west states and the possibilities of merchandising a school radio, in school colors, was quickly grasped by dealers everywhere. In Chicago, Lyon & Healy, one of the foremost musical stores in the country, devoted a full boulevard window to display the complete line of Big Ten school models, plus several other schools.

The factory is in full production and shipments are being made to territories representing 91 major colleges and universities all over the United States, according to L. L. Kelsey, radio manager. In addition to those schools for which models are already available, Stewart-Warner is adding new color combinations daily, and eventually will include prep, high and military schools.

The vivid color combinations of the Varsity model are baked on a Bakelite cabinet which houses a five-tube (including ballast) superheterodyne chassis. Four push-buttons are provided for automatic tuning and there is a manual control as well. The speaker is a full five-inch dynamic and the set operates AC or DC with a tuning range of from 540 to 1,720 kc.



For noise-free broadcast reception the RCA Master aerial system uses a counterpoise to pick up an opposing noise to cancel the noise picked up by the antenna itself.

# Selling Sound

## FALL ELECTIONS WILL HIKE PA SALES

Already, the hundreds of candidates who are involved in the Fall elections are touring the country and, via public address, are asking voters to support them.

Political campaigns this year are exceptionally lively, due to the intense interest in President Roosevelt's "purge" activities. Many extra speeches will need to be made, and many extra political meetings will be held by both parties. All this means a nice pickup in the demand for voice amplification.

Campaign committees now have a more formal organization than was present in the primaries—they're easier to reach and they're better pay. Sound men thus find their sales chances considerably improved.

The weather is still generally OK for outdoor political gatherings; later on the demand will be for indoor installations. Throughout it all, the sound trucks which do street work will have more prospects.

## TO SELL SOUND, COOPERATE WITH DEALERS

"We operate on a strictly wholesale basis and cooperate with the dealer to the fullest extent," comments W. D. Jenkins, Radio Supply Co., Norfolk, Va. "We supply to our dealers for demonstration purposes only, sound equipment and inter-communication systems. We insist that such equipment be used only for demonstration purposes and we check very carefully to see that no rentals are received on such demonstrations.

"We believe that by working with the dealer, we can secure more business on sound equipment. By refraining from promoting the sale of the equipment direct to consumers or having a separate sales division to handle retail sound, we do not antagonize the dealer and thus possibly lose a portion of the sound business along with the other business which we would normally receive from the dealer.

"This is a point which we believe is very important," emphasizes Mr. Jenkins. "As time goes on more of our dealers will become interested in the sale of sound equipment and if we are a strong competitor of theirs, naturally they would not be inclined to

## EVERY RACE TRACK AND FAIR GROUNDS NEEDS SOUND



Roosevelt Raceway's 25-watt University Lab speakers, at Westbury, L. I. Sound installation man was Walter Bickmeyer, 116 Main St., Hempstead, N. Y. Speakers are used for announcing to race crowds.

give us their parts and tube business.

"The dealers, knowing that we will not compete with them in sales will purchase their sound equipment and accessories from us as there would be no inducement for them to purchase sound equipment from some of the manufacturers who sell to dealers on what we term jobber's discounts.

### Refer prospects

"Prospects on sound equipment who talk to us are referred to dealers for followups and in instances where more than one dealer is figuring on a

particular job, we will supply the same information to each dealer insofar as his prices are concerned and let him submit his individual bid. We do not interfere in any way with the prices which he quotes other than insisting that he maintain the established list prices which are in effect on the various manufactured items.

"Installation, service, and maintenance charges are left entirely up to the dealer.

"We have an investment in stock at our cost of approximately \$2,500 in sound equipment, speakers, and all other accessories used in sound installation work and are in a position to figure on any job from low powered systems to the centralized systems which run into considerable money.

"The method employed by us has been most satisfactory to us and to our dealers in general and we do not consider making any changes which might jeopardize the respect which we have from the dealers and service men in our territory.

"The sound field has unlimited possibilities and we have hopes that more of our dealers will become interested and enter the field."

## FOR QUALITY RECORDING



A console recorder in handsome woods, also for public address or for straight record-playing—a Presto at \$295.

## CONTACT MIKE IN P.A.

The field that the contact unit opens to the P.A. man and the help that it gives to the musician can be gained from a few typical installations. A ten-piece band for example was using two violins, a cello and a piano—the rest brass and drums; contact mikes were placed on the two violins, the cello and the piano, bringing the output up to that of the brass. The orchestra now sounded as if it were a small symphony of approximately 25 men, whereas before the strings were hardly heard.

# EXTRA LINES FAVORED

Additional sources of profit today

## NEW INTEREST IN RAZORS

The event that most radio men were waiting for, in the electric razor business, has taken place. Led by Packard Lektro-shaver, the leading manufacturers have cut their prices.

In a survey conducted among dealers in seven states, RADIO TODAY found the majority of dealers in this frame of mind: "We can sell more razors if the well-known best-sellers will reduce their prices. In the past, the main difficulty has been that people don't want to pay the current prices for a shaver. As a rule, our radio customers are good prospects for razors."

While the results of the survey are being compiled, the manufacturers of the shavers announced lower prices, so it appears that the dealer group got exactly what it wanted.

Also noticeable in the dealer reports were these items: Prices are not always maintained on this merchandise. And nobody is doing any outside selling on shavers, at the moment.

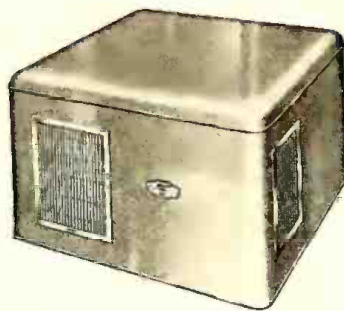
## HAY-FEVER SEASON

The fact that a big part of the U. S. population has a tendency toward hay fever is something for air-conditioner salesmen to remember, according to Larry Gubb of Philco, who has been busy analyzing the market for his firm's new Cool-wave unit.

"While there is no medical cure for hay fever, it has been found that air-conditioning prevents, relieves and often eradicates it by completely filtering room air of all dust, dirt or pollen which is responsible for the disease."

## WHAT IT TAKES TO SELL

The characteristics of "the perfect salesman" have been abruptly outlined by Detrola sales manager "Jim" Davin: (1) He has the curiosity of a cat; (2) the tenacity of a bulldog; (3) the determination of a taxi driver; (4) the diplomacy of a wayward husband; (5) the patience of a self-sacrificing wife; (6) the enthusiasm of a flapper; (7) the friendliness of a child; (8) the good humor of an idiot; (9) the assurance of a college boy; (10) the tireless energy of a bill collector.



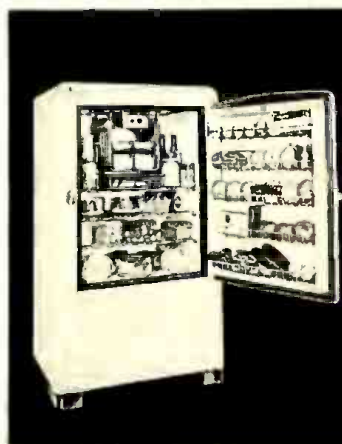
Indian's portable Koolroom model cleans, circulates and properly humidifies the air. List, \$175.

## MARRY AN OVEN

★ A man who knew less than nothing about cooking, a jobber salesman, recently had the nerve to cook four turkeys for a bunch of appliance dealers in Portland, Ore. The dealers were in the room and hungry and they might have been nasty if the dinner turned out badly, but the salesman didn't care.

His name is Ray Mello, of North Coast Electric Co., Crosley distributors in Portland and Seattle. The jobbers had called the meeting to talk about Mystic Ovens and other things, and thought it would be nice if they could prove that cooking could be done without having a housewife mixed up in it. Poor Mr. Mello was picked because he was altogether dumb about scullery tricks.

But there was considerable porcelain and not a few gadgets on Mr. Mello's side, and he emerged from the affair with as fine a dinner as ever came off a high line.



R.F.D. Special by Crosley, 6 cu. ft. season-priced at \$99.95.

Some 40 radio dealers of the NY Metropolitan area lost their 1939 franchises, in a single week, for violations of the radio price structure. At the Aug. 24 meeting of *Electrical Appliance Dealers Association of Brooklyn, N. Y.*, where this data was discussed, radio committee chairman *Percy Peters* reminded the group that they were being "shopped" every day for further price-cutting offenses. He declared that he would read the names of new violators at the next meeting of the organization.

Association committees for 1938 have been named by president *James J. Schmeer*: Finance—*Thomas S. Forker*, chairman; *Max J. Zimmer*, *Percy Peters* and *Meyer Eisenberg*; membership—*Edward J. Dunne*, chairman; *Sam Klein* and *James W. Josephs*; display—*Max Zimmer*, chairman; *Sol Scholder*, *M. Eisenberg* and *Max Hollins*; educational—*George Magno*; fair trade—*Percy Peters*, chairman; *Russell A. Atkinson*, *M. Zimmer* and *Martin A. Tarzian*; by-laws—*T. Forker*, chairman; *R. Atkinson*, *A. H. Grafenstadt*, *M. Tarzian* and *M. Zimmer*; inter-association relations—*R. Atkinson*, chairman; *T. Forker*, *M. Tarzian*, *Percy Peters*, *Ralph Ceriello* and *Albert H. Bernhard*.

The Association elected a full-time executive secretary in the person of *Tom Bolger*, who will establish Brooklyn offices for added service to the members of the organization.

*Peaslee-Gaubert Corp.* will now distribute *Stewart Warner* radios, refrigerators and gas ranges in the Atlanta, Ga., area, according to news from SW sales manager *John W. Ditzell*. Factory branch operations of the *Stewart-Warner Distributing Co.* have been taken over by *Peaslee-Gaubert*, but the plan does not affect the factory branch at Birmingham, Ala. The Atlanta jobber will also handle SW products in the Jacksonville, Fla., and the Louisville, Ky., areas.

New manager of the air conditioning and heating dept. of the *Auto Equipment Co.*, the Denver, Colo., jobbers, is *Harold H. H. Clark*, who takes the post after long experience in the ventilating, heating and air-conditioning industry. After an impressive technical training in Chicago, Mr. Clark spent some time abroad and later worked with *Simplex* and *Norge*.

Large group of retailers and industry officials went to the first "popular priced" golf party sponsored by the *Wisconsin Radio Refrigeration & Appliance Association*, Milwaukee. Plans for the big affair were handled by golf committeemen *E. H. Schaefer*, *W. D. Baker* and *Ray Haasch*.

Radios and refrigerators made by the *Detrola Corp.* are now among the products listed as eligible for financing by the *Electric Home and Farm Authority* of Washington, D. C.

*Benny Ginsburg*, of *Smith-Benny Sales Co.*, 11 W. 42nd St., New York City, eastern representatives for the *Steem-Electric* iron, reports a 500 per cent increase in sales of the product in the last five months.

# EVERY DEALER CAN SELL

*this amazing new*

# STEEM-ELECTRIC IRON

**WILL NOT BURN  
OR SCORCH**  
*The Finest Fabrics!*

Here is a new year-round profit-builder for the radio dealer—new in safety, convenience and SALES APPEAL. It combines the efficiency of electricity with the advantages of steam and operates on the principle used by the finest tailors and laundries.

STEEM-IRON—already displayed and demonstrated in many of the largest and finest stores—is destined to replace ordinary irons as surely as the modern refrigerator is replacing the old-fashioned ice box.

Write at once for the full story of this new merchandising opportunity. See the attractive window and counter displays, consumer literature, etc., all furnished free with initial shipments.



**\$12<sup>95</sup>**

*Complete with approved cord and plug, asbestos pad, funnel, directions and guarantee.*

#### 14 AMAZING FEATURES

- NO SPRINKLING OR ROLLING
- NO MORE MILDEWED CLOTHES
- NO BURNING OR SCORCHING
- NO PRESS CLOTHS
- NO CONSTANT LIFTING
- SAFE TO FINE FABRICS
- SAFE TO SYNTHETIC FABRICS
- SAFE TO HEAVY WOOLENS
- REJUVENATES PILE FABRICS
- BLOCKS FELTS—KNITTED WEAR
- STERILIZES AS IT IRONS
- WEIGHT 6 POUNDS
- OPERATES ON A.C. OR D.C.
- FULLY GUARANTEED

*Approved by the  
Underwriters Laboratories, Inc.*

*Manufactured by*

**STEEM-ELECTRIC CORP.**

1726 Lafayette Avenue

St. Louis, Mo.



# NEW THINGS

Latest news of radio products from manufacturers



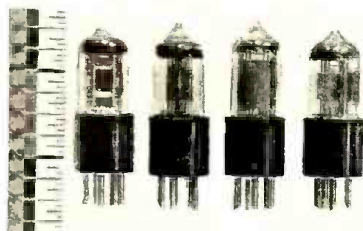
## Delco receivers

★ Line of 3 consoles and 5 table models for power-line operation. Sets feature push-button tuning. Model R-1143 illustrated has 7 tubes, tunes 535-18,000 KC in 3 bands. Phonograph switch and connector. Dual 8-inch speakers—variable tone control. Permeability push-button tuning for 6 stations. United Motors Service, Inc., 3044 W. Grand Blvd., Detroit, Mich.—RADIO TODAY.



## Symphonic phonograph pick-up

★ Inductor-type pick-up using the needle itself for an armature. Has no major or minor resonant peaks. True tangent operation. Only 1½ ounce needle pressure. Heavy die-cast arm. Acoustic compensation. No hum pick-up. High-fidelity and wide-range models for 12- and 16 inch records. Model PH12 for 12-inch records—list \$3.50. Bruno Labs., 30 W. 15th St., New York, N. Y.—RADIO TODAY.



## Miniature tubes

★ Compact tubes designed for hearing aids and other devices where extremely small size is required. Operate on battery no

larger than flashlight type. Filament consumes 70 mills at 1.4 volts. Tube 1½ inches high overall. Available in triode, pentode voltage amplifier, and pentode output amplifier, with or without bases. Hytron Corp., Salem, Mass.—RADIO TODAY.

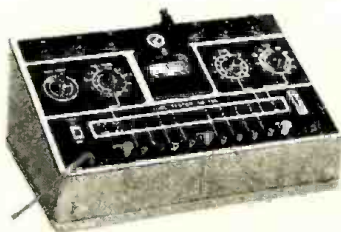
## Belden clear channel antenna

★ All-wave antenna system using shielded two-wire transmission line. Separate coupling transformers provided for short-wave and broadcast reception. Shielded line eliminates need of lightning arrester. Maximum efficiency from 400 to 22,000 KC with no dead spots. Type 8300—list \$6.90. Belden Mfg. Co., 4647 W. Van Buren St., Chicago, Ill.—RADIO TODAY.



## Clough-Brengle tube checker

★ Compact tube tester for speedy, safe checking. Over 600 tube types on chart. Has only 2 switches—function and range. Provides for 29 measurements including capacity, AC volts, decibels. Model 135 Uni-checker. Clough-Brengle Co., 2815 W. 19th St., Chicago, Ill.—RADIO TODAY.



## RCA tube tester

★ Highly efficient tube tester for all types of tubes including the new 1½ volt types. Magic eye tubes also tested for brilliance and eye action. Eleven buttons on panel released or retained automatically as required. Roller chart has easily read figures for setting controls. Tests made according to R.M.A. standards. Type 156-A with carrying case—\$39.95. RCA Mfg. Co., Front St., Camden, N. J.—RADIO TODAY.



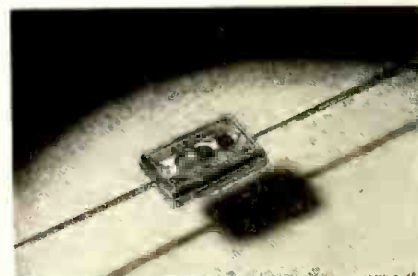
## Crosley console

★ Eleven-tube all-wave receiver with large radio-log dial having call letters of 103 stations. Foreign stations also listed. Eight push buttons for automatic tuning. Plug-in remote control with 25-foot cable available. 12-inch dynamic speaker. Model 1128M. Crosley Radio Corp., 1329 Arlington St., Cincinnati, Ohio—RADIO TODAY.



## Television kit

★ Complete television kit designed for assembly by the buyer. Set uses 15 tubes in addition to 5-inch cathode ray tube. Electrostatic deflection of the cathray tube. Kit of all parts with tubes lists for \$99.90. Designed and marketed by Garod Radio Corp., who reputedly introduced the first all-electric radio. 115 Fourth Ave., New York, N. Y.—RADIO TODAY.



## Silvered-mica capacitors

★ Mica condenser having silver deposited directly on the mica. Condensers have very low temperature coefficient. Molded in low-loss bakelite and impregnated in a high-Q wax. Available in capacity tolerances of 1, 2, 3, 5 per cent. Aerovox Corp., 70 Washington St., Brooklyn, N. Y.—RADIO TODAY.

*Most Sensational  
Home  
Entertainment  
Value ever  
Offered!*

# ONLY RCA Victor GIVES YOU ALL THIS

Look at this amazing 3-WAY OFFER

- |   |                 |
|---|-----------------|
| 1. Magnificent 1939 "Console Grand" Radio   | VALUE \$85.00   |
| 2. RCA Victrola Attachment for playing records  | 14.95           |
| 3. Your choice of \$9.00 worth of Records plus \$2.00 Subscription to Record Review and Membership in Victor Record Society | 11.00           |
| <b>TOTAL VALUE</b>  | <b>\$110.95</b> |

FOR ONLY  
**\$99.95**

SMALL DOWN PAYMENT  
EASY TERMS



**1** \$9.00 Worth of Records—Your Choice! Plus \$2.00 Year's Subscription to Record Review and Membership in Victor Record Society!  
**\$11.00 Value**

**2** RCA VICTOR "Console Grand"  
• Genuine Electric Tuning  
• Victrola B.

**3** RCA Victrola Attachment (as illustrated) Also offered separately with 30 records.

This kind of advertising—running in leading newspapers in September, plus one of the most powerful window displays you have ever seen—plus a sales making array of promotional material—will make profitable sales for you. See your distributor today—and cash in on this sensational 3-way offer!

GENUINE RCA  
ELECTRIC TUNING  
AS LOW AS \$19



SEE YOUR **RCA Victor** DEALER TODAY!

The Magic Key of RCA—Sunday, 1:00 to 2:00 p. m.  
7, O. B. Camden, N. J.

# MORE NEW THINGS



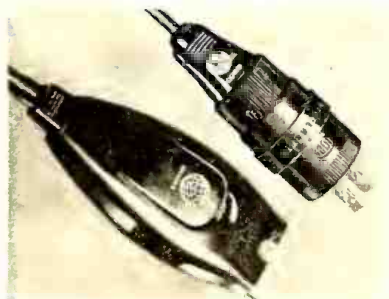
## Oil-filled condensers

★ Capacitors hermetically sealed in round containers. Impregnated and filled with fire-proof Dykanol, a high-dielectric impregnant. Units are well suited for high-power amplifiers and medium-powered transmitters. Fully described in catalog 161. Cornell-Dublier Corp., South Plainfield, N. J.—RADIO TODAY.



## G-E multi-meter

★ Multi-range meter with 2000 ohms per volt sensitivity. Ranges: 0/5/20/100/500/1000 volts DC, 0/8/32/160/800/1600 volts AC, DC milliamperes: 0/½/10/100. Resistance ½ ohms to 4 megs. in 3 scales. Capacity: .0005 to 10 mfd. in 2 ranges. Decibels from minus 15 to plus 59. General Electric Co., 570 Lexington Ave., New York, N. Y.—RADIO TODAY.



## Electric shaver filter

★ Filter unit designed for use with electric shavers. Contained in a bakelite housing 1½ in diameter by 2¾ inches long. Provides an attenuation of 100,000 microvolts in the noise voltage impressed upon the electric power lines by the razors. Listed by Underwriters Labs., Model R-1. Tobe Deutschmann Corp., Canton, Mass.—RADIO TODAY.

## Admiral superhet

★ 6-tube AC table model with push-button for 6 stations. Tunes from 175 to 560 and 16½ to 54 meters. 6-inch dynamic speaker. Cabinet of straight-grain walnut. Illustrated on a preceding page. Model 547-6G. Continental Radio & Television Corp., 3800 W. Cortland St., Chicago, Ill.—RADIO TODAY.



## Low-cost crystal pick-up

★ Phonograph pick-up using crystal element. Solid-wood tone arm in walnut finish. Crystal unit shielded by outer metal shell. Tracking error reduced to 3 to 4 per cent. Output of 2 volts at 1000 cycles. Mellotone model X-78-A-3—list \$5.90. Webster Electric Co., Racine, Wis.—RADIO TODAY.



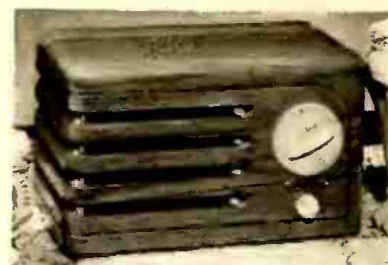
## Operadio amplifier

★ 13-tube 6-stage amplifier with 4 input channels. Volume expansion and compression. Provision for remote controller. Beam-power output tubes. Electronic visual overload and output indicators. Non-resonant equalizer for high and low frequencies. Type 855-R. Operadio Mfg. Co., St. Charles, Ill.—RADIO TODAY.



## Silvered mica condenser

★ Silvered-mica condenser with unusually stable characteristics. Temperature coefficient of .000025 mmf/mmf/°C. Power factor of .04 per cent. Supplied in values from 15 to 2500 mfd. Impregnated and wax sealed in low-loss ceramic case. Erie Resistor Corp., Erie, Pa.—RADIO TODAY.



## Detrola superhet

★ Pee Wee super in solid walnut cabinet. 5 metal tubes. Iron-core transformer. Tunes 540-1720 KC. Beam power output tube. Dynamic speaker—automatic volume control. Model 199W—list \$14.95. Detrola Corp., 1501 Beard Ave., Detroit, Mich.—RADIO TODAY.

## High-frequency resistors

★ Power-type resistors for use at high frequencies. Frequency characteristic essentially flat up to 60,000 KC. Power ratings of 5, 10, 25, 50, 150 watts. Metallized coating applied to a ceramic tubing. Designed especially for terminating resistors in transmitting antennas. Type MP. International Resistance Co., 401 N. Broad St., Philadelphia, Pa.—RADIO TODAY.



## Compact velocity mike

★ Smallest complete velocity microphone ever made. Supplied with output transformer, cable connector, and switch. Output of -70 DB. Frequency response from 60 to 7000 cycles. High and low impedance models. Case of molded rubber with chrome trim. List \$25 with 25-foot cable. Amperite Co., 561 Broadway, New York, N. Y.—RADIO TODAY.

## Metropolitan model radio

★ Magic keyboard radio with pushbutton selection of 8 stations. Designed for true-fidelity reception of local stations. Illustrated on a preceding page. Tunes to broadcast band only. Inverse-feedback audio system for low distortion. Speaker uses peri-dynamic bass reflex system for extension of low frequencies. Model 91-827. Stewart Warner Corp., 1826 Diversey Ave., Chicago, Ill.—RADIO TODAY.



# FINE Quality

Beautifully Styled . . .  
Full-Sized SUPERHETS



**Radio-Phonograph**  
AC Model 88 . . . . . \$39.95  
Fine quality 6-tube superheterodyne. Reproduces both radio broadcasts and recordings beautifully. Plays 10" and 12" records. All in attractive walnut cabinet.



AC Model 78  
\$29.95

Four push button automatic tuning and dial tuning. Provides excellent American and foreign reception. Beautiful walnut wood cabinet.

● These new Arvin table radios are fine quality superheterodynes—built large enough and well enough to give the selectivity, sensitivity and rich tone everyone likes. Their honest-to-goodness performance appeals to those who want fine radio reception at low cost. Five models give you a diversified selling set-up that meets the demand for push button tuning, dial tuning or a combination of both.

Profit-minded dealers are ordering these new Arvin radios in quantities now. They are streamlined profit-builders—engineered and built to satisfy radio users and stimulate sales for you. Every model is a full-sized table set, not to be confused with midget radios.

Don't overlook this Arvin radio opportunity to boost your sales and profits. The Arvin catalog shows the complete line of fine quality Arvin radios priced for every selling bracket. Order from your Arvin jobber. NOBLITT-SPARKS INDUSTRIES, Inc., Columbus, Indiana.

*Prices slightly higher in extreme South and West.*

Distinctive 5 and 6-tube table sets, including all-enclosed radio-phonograph model, in modern plastic and walnut wood cabinets . . . at moderate prices



**Modernistic Gold Foil Display**  
Free with the Arvin No. 30 Deal

Here's a honey of a merchandiser for window or counter, that you get free with an order for 3 Arvin table radios. Ask your jobber about this Arvin profit deal.

## ARVIN RADIO S

*A complete line of console, chairside, table and battery radios*

AC-DC Model 58 . . . . . \$16.95  
Fine quality superheterodyne. Beautiful ebony block plastic cabinet. Dial tuning.



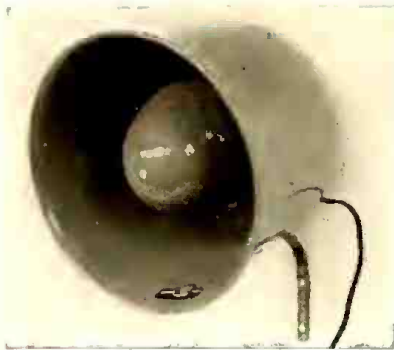
AC-DC Model 58A . . . . . \$19.95  
Fine quality superheterodyne. Striking ivory plastic cabinet and dial tuning.



AC Model 68 . . . . . \$24.95  
Six push buttons with variator for tuning in additional stations. Walnut plastic.



# MORE NEW THINGS



## Midget exponential speaker

★ Folded exponential horn with P.M. reproducer. Will handle 5 watts. Overall depth of only 8 inches. Bell 10 inches in diameter. Frequency response from 100 to 5000 cycles. Designed for use as a speaker and talk-back unit in intercommunicating system. Model WX-5SP—list \$11.50. Atlas Sound Corp., 1451 39th St., Brooklyn, N. Y.—RADIO TODAY.



EXCLUSIVE,  
PATENTED POINT

## Non-skid screw drivers

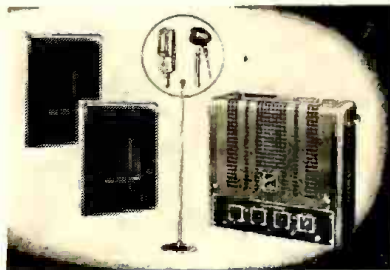
★ Screw driver with small teeth milled in point which keeps screw driver from slipping. Removes screws with less pressure since point does not have tendency to slip out of slot. Prevents injury to screw and exposed surfaces. Special radio designs with insulated handles—magnetized or non-magnetized tips. Bridgeport Hardware Mfg. Corp., Bridgeport, Conn.—RADIO TODAY.



## Clarion sound system

★ 15-18 watt sound system using beam power amplifier with modern fading and mixing facilities. Choice of microphone. Universal output impedances for matching to load. Dual 10-inch P.M. speakers with wall baffles. Mike stand and all cables for installation. Model C414

—list \$104.40. Transformer Corp. of America, 69 Wooster St., New York, N. Y.—RADIO TODAY.



## 60-watt sound system

★ Five-stage 15-tube sound system having multi-stage degeneration, high-speed expander, remote control, dual tone compensation. Four input mixing circuits. Variable output impedances. Output of 60 watts ample for handling outdoor applications with crowds in excess of 20,000 persons. Unit supplied with 2 P.M. speakers and choice of dynamic or velocity mikes. Webster-Chicago model FR60. Webster Co., 5622 Bloomingdale Ave., Chicago, Ill.—RADIO TODAY.



## Low-cost multi-meter

★ Pocket type meter having ranges of 0/5/50/500/1000 volts DC at 1000 ohms per volt. Resistance range of 0/1000/500M ohms. Current range of 0/1 mil. Metal case measures 3¼ x 6 x 2 inches. Net \$7.95. Million Radio & Television Labs., 685 W. Ohio St., Chicago, Ill.—RADIO TODAY.



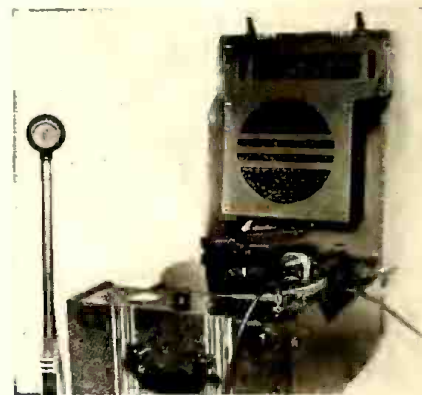
## Co-axial cable

★ Low-loss type of co-axial cable for all purposes including high frequencies. Capacity of only 11½ mfd. per foot. Losses of .0009 DB per foot at 1000 KC. Characteristic impedance of 82½ ohms. Uses low-loss polystyrene base insulating beads. No. 14 solid copper wire conductor. Special coupling connectors available. Type 73—list 60 cents per foot. American Phenolic Corp., 1250 W. Van Buren St., Chicago, Ill.—RADIO TODAY.



## Decca record player

★ Electric phonograph with 8-inch speaker. Automatic on-off switch. Arm lifts vertically and automatically for convenience in replacing needle. Crystal type pick-up. Finished in hand-rubbed walnut veneers, Model DE5—list \$69.50. AC-DC model \$79.50. Decca Records, Inc., 50 W. 57th St., New York, N. Y.—RADIO TODAY.



## Presto recorder

★ Recording machine with the features of the Junior model, plus other improvements. Makes and plays records up to 12-inch size. Can be used as portable P.A. system. Has 10-inch speaker. List \$189. Presto Recording Corp., 139 W. 19th St., New York, N. Y.—RADIO TODAY.



## Simpson tube tester

★ Small-size tube tester weighing only 7-pounds. Five-inch meter with scale marked "good" and "bad." Tests all tubes including plug-in resistors. Double filament switching for special tubes such as 5X4G, 5Y4G, etc. Neon bulb short check. Phone jack for noise tests. R.M.A. standard circuit used. Model 333—net \$26.50. Simpson Electric Co., 5218 W. Kinzie St., Chicago, Ill.—RADIO TODAY.



# Radiotrons

## THE LINE WITH THE LEAST RESISTANCE!



**A** CONSISTENT advertising story over a period of 15 years has given RCA Radiotrons an unmatched public acceptance . . . a public acceptance that will continue!

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

Ask your RCA Radio Tube Distributor for complete details concerning the new "Money Back" merchandising program designed especially for radio tube dealers.



# Radiotrons

THE MICRO-SENSITIVE RADIO TUBES



Over 325 million RCA radio tubes have been purchased by radio users . . . in tubes, as in radio sets, it pays to go RCA All the Way.

# MORE NEW THINGS



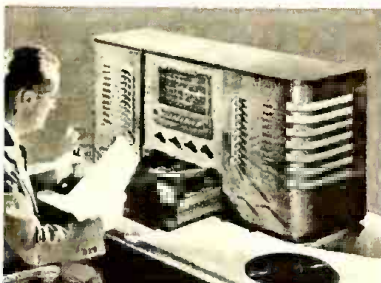
## Philco tube tester

★ Automatic tube tester with accurate push-button testing. Ultra-simplified controls plus automatic selection of voltage applied to tube. Only 2 controls require setting. Revolving chart indicates setting of all controls. Large illuminated meter. Neon tube short test. Model 033—net \$51. Philco Radio & Television Corp., Tioga and C Sts., Philadelphia, Pa.—RADIO TODAY.



## Bogen recording machine

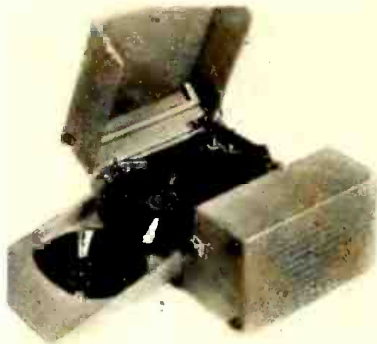
★ Dual-action control does away with complicated adjustments, lowering recording head to record surface and automatically engaging drive screw. Eliminates record spoilage and needle breakage. Cast-aluminum turntable is dynamically balanced. For 10- and 12-inch records at 78 r.p.m. Optional change-over to 33 r.p.m. Model R12P with carrying case—\$149.50. David Bogen Co., 663 Broadway, New York, N. Y.—RADIO TODAY.



## RCA school sound system

★ Table model sound system for schools requiring a low-cost unit. Control cabinet houses a radio set, phonograph turntable, monitoring loudspeaker, switch controls for 20

classrooms. Provision made for adding 20 more rooms. Two-way communication provided from classrooms to office. RCA Mfg. Co., Cooper St., Camden, N. J.—RADIO TODAY.



## Automatic phonograph

★ AC-DC portable-electric phonograph with automatic record changer. Four-tube high-fidelity amplifier with power output tube. General Industries record changer with true-tangent crystal pick-up. Handles eight 10-inch or seven 12-inch records. Model 90-F with fabricoid covering—list \$99.50. Model 90-C in cowhide—\$115. Portomatic Corp., 1013 Madison Ave., New York, N. Y.—RADIO TODAY.



## Portable sound system

★ Universal powered sound system. Power output of 20-30 watts on both 6 volts and AC. Beam power output tubes. Three input channels with electronic mixers. Variable tone control. Phono turntable with crystal pick-up. Choice of mikes, dual 12-inch speakers and aluminum baffles. Supplied ready to operate. Lafayette model 817T. Wholesale Radio Service Co., 100 Sixth Ave., New York, N. Y.—RADIO TODAY.

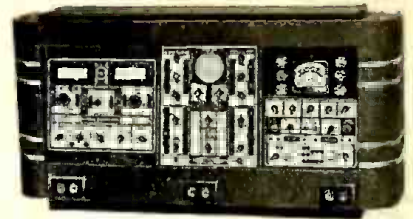
## Voltage dropping power cords

★ Resistance-type cords for AC-DC sets. Each cord made up of 3 conductors, enclosed in a heavy braided covering. Tie cord at chassis end relieves strain. Eight types handle all standard 110 volt sets. Clarostat Mfg. Co., Inc., 285 N. 6th St., Brooklyn, N. Y.—RADIO TODAY.



## Master recorder

★ Recording machine for high-fidelity recording on wax and all types of instantaneous discs. 16-inch turntable weighs 100 pounds and driven by belt at 33 $\frac{1}{3}$  and 78 r.p.m. Self-starting synchronous motor. Turntable heat-treated and aged to prevent any possible warping. Universal Microphone Co., Inglewood, Cal.—RADIO TODAY.



## Hickok show lab

★ Radio service panel to aid servicemen in merchandising tube sales and set service. All instruments are in line and at eye level for accuracy in reading scales. Six convenient receptacles with fuses. Long lumaline lamps inset at top. Rack holds one to 3 instruments. Panel only with lamps—list \$23.40. Hickok Electrical Instrument Corp., 10514 DuPont Ave., Cleveland, Ohio—RADIO TODAY.

## Plug-in resistors

★ Two types of plug-in resistors to replace most of the R.M.A. types having an octal base. Base of the ballastron has two removable pins and a thin metal strip which can be cut at one or more colored dots. User refers to R.A. type number required on instruction sheet. List \$1. Micamold Radio Corp., Flushing Ave., Brooklyn, N. Y.—RADIO TODAY.



## Chassis jacks

★ Adjustable chassis jacks for supporting radio set when in upside-down position on bench. Will fit all types of radios. Made of metal and finished in wrinkle paint. Model CJ2—per pair, net \$1.25. General Cement Mfg. Co., Rockford, Ill.—RADIO TODAY.

# PHONOGRAPH-RADIOS

## Today's Opportunity

For months, now, radio men have been looking for some new feature that will encourage the public to spend more money on receiving sets—some new "plus" to make people want to replace their old radios with fine new 1939 musical instruments.

And obviously the answer is the phonograph-radio "combination."

### *When he wants it*

For a combination furnishes so much that the listener wants—and supplies it at the instant when he wants it.

A combination doubles the original enjoyment of the radio. Through the magic of recorded music and amplified pick-up, the listener's favorite mood can be recaptured at any moment and enjoyed again at will.

### *Double pleasure*

With "double pleasure" thus to be expected from the modern phonograph-radio combination, it is not surprising that Mr. and Mrs. Purchaser readily justify expending for it far more money than they would ever outlay on a radio set alone.

Recent years have seen the average price of radio sets sink steadily. Starting ten years ago around a hundred dollars, the radio-set average

has slumped progressively through \$75 and \$50—until it now stands somewhere around \$35.

### *Record sales soar*

If radio merchandise is to be lifted out of this \$35 level and back again above the \$100 line, combinations can be depended on to do it.

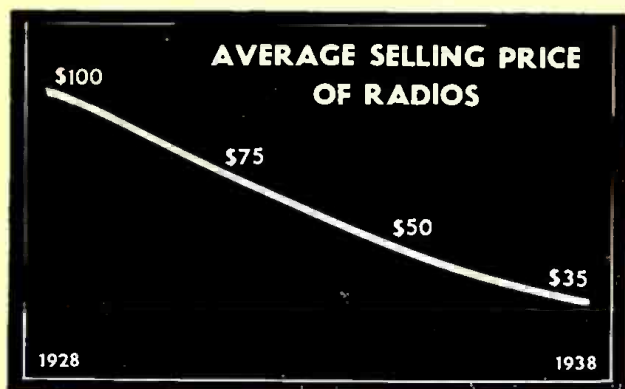
Records and record-playing devices of all kinds are in demand today. Sales of records have jumped 40% above a year ago. Combinations are offered in increasing numbers of models by more and more manufacturers. In short this is going to be a combination year.

No home will be complete this season without a record-playing instrument to supplement the wonderful programs on the air.

### *Every home a prospect*

So it becomes a matter of combing over lists of past radio purchasers to turn them into prospects for combinations. Customers who come in to purchase lower-bracket radios should be shown how much more entertainment satisfaction they can buy in a combination. Sales of combinations can thus lift radio selling back to prosperous levels. That is why every radio man must help make 1938-1939 a combination year!

And remember, every combination sold means more pleasure to the owner, more profit to the dealer.



Radio Today, September, 1938

# SALES SUCCESS ON COMBINATIONS

Profit-making methods used to move phonograph-radios and records

Scores of modern "ways to sell" have been used by the go-getting dealers who are out after the phonograph-radio business, combined with the sale of records.

To move this merchandise, there are some interesting adjustments to be made in the promotion schedule of radio stores. Mostly, these changes are simple and inexpensive, once you get an idea of what kind of skill is involved.

A prize example is furnished by Good Housekeeping Shops, Detroit, who, after 20 years of successful merchandising of appliances and radio, have recently added combinations and records. The report from Detroit:

"That a large and constantly growing portion of the public wanted records and phonographs had for some time been the growing conviction of Frank W. Hackett, general manager. This conviction was based upon his personal observation of his friends and family and their attitude towards radio entertainment. His personal observation was further confirmed by what he saw in the trend of Good Housekeeping Shop's radio sales.

"Having decided to go into the record and phonograph business, he adopted as his guiding principle that everything was going to be done right or not at all. Therefore, no false economies were tolerated. Starting

from scratch, a complete department, including shelving, counter and three booths were constructed, everything new and of good quality, no attempt being made to adapt old store equipment to the peculiar needs of this new department.

"The booths are sufficiently large, completely sound-proofed by means of double walled construction, air-conditioned and furnished in the very best of taste for the convenience of the public using them.

## Peak comes in December

"After less than six months of operation in this new enterprise, Good Housekeeping Shop indicates definite and satisfactory progress in its record and combination department in spite of adverse business conditions. Another important point to bear in mind is that the record and combination business has a definite seasonal trend, being peaked at about December or January, with the lowest point about May. So the firm started in the record and combination business when the business was at its lowest ebb for the year. Definite figures show that they have had a consistently increasing volume of business, week after week, with no exceptions. The hundreds of new customers who now visit the record departments of the several

branches of Detroit's Good Housekeeping Shop regularly have had a very direct and beneficial effect on appliance sales. The sale of a very important number of refrigerators, ranges, ironers, and washers is directly attributed to the increased volume of store traffic which a record department creates.

## Stocking up

"The main store proudly boasts that they have the most complete selection of records in the State of Michigan, going even to the extent of carrying in stock some of the best and most outstanding HMV records imported from England. The importance of this in attracting record buyers cannot be over estimated. The branches carry complete stocks of all the latest records and all the 'best sellers' in the Red Seal and Album class. If the branches get a record customer whose tastes extend beyond this the records are obtained for him or he is referred to the main store where he can be assured of finding what he wants.

## Definite system needed

"Right from the start the so-called 'green stock envelope' system of handling the stock and ordering was used. This method was developed by and recommended by RCA-Victor. It is difficult to understand why many record retailers attempt to operate a department without this or any other definite system when the inevitable result of the proper use of the 'green stock envelope' system is lower inventory, greater turnover, and much better service to customers.

"Every album set in stock is removed from the factory wrappings and can be heard by a customer for the asking. This is in direct contrast to the attitude of some retailers, who acting upon misguided motives, are not very enthusiastic about opening an album set for a customer to hear unless they practically have definite assurance in writing that he is thinking seriously of buying it. The comparatively small percentage of people who will abuse this privilege by constantly dropping in for free concerts

At the left, the display-studded record department at Gimbel Bros., Pittsburgh.





Philco's "mystery control" captures everybody's interest. Even Atlantic Manager Peter Kain and Vice-president Sayre Ramsdell, can't stop dialling the little mystery box which, without wires, controls the set at left.

cau soon be spotted and discouraged in a nice way. On the other hand, regular customers should be encouraged to listen to as many records as possible. That's the only way they can be sold.

#### Hiring salespeople

"Most new record dealers when looking for sales people for their record department assume that a knowledge of music is of primary importance. While Good Housekeeping Shop did not for a moment overlook or under-rate this important factor, they did make it secondary to the fact that first of all they wanted honest-to-goodness sales persons behind their record counters. Sales girls who could constantly keep in mind that their primary purpose in being there was to sell records and not to indulge in long-winded esthetic discussions of music, except, of course, when good business indicated that they should.

"It is not uncommon to come across that type of record salesgirl who can and will, at the slightest provocation argue with their customer, regarding a difference of opinion concerning a composition, composer, conductor, or particular interpretation. In matters of this type the customer should always be right. The wise record clerk will catalog a customer as a buyer of certain types of music and then sell him more records of that type, rather than to attempt to educate him musically, which a customer naturally resents unless he has specifically indi-

At the right, the Good Housekeeping Shop, Detroit, features convenience and comfort for customers, in a compact corner.

cated that he desires the opinions of the clerk in selecting his records. With these principles in mind Good Housekeeping Shop selected and trained its personnel.

#### Starting promotion

"Coincidental with the opening of the store the public was informed by radio, large newspaper ads, direct mail, and telephone that Good Housekeeping Shops were selling records and combinations. As a special added attraction record buyers were informed that by dropping in at any of the record departments they would be given free a copy of the latest record catalog in a special leatherette cover imprinted with the customer's name. There was a very large demand for these catalogs and placed the store in

direct contact with hundreds of people who were definitely enough interested in recorded music to take the time and trouble to come in and ask for one.

"Since the opening of the main store Good Housekeeping Shop has been on the radio three times a week over a local Detroit station. This program comes at the dinner hour and features all types of records, particularly the latest ones, and points out to the listeners where they may be purchased and also reminds them of the obvious advantages of owning a combination instrument for home entertainment.

"Without a lapse Good Housekeeping Shop has also carried out a consistent program of newspaper advertising, including tie-ins with national ads on records and also with the Sunday record review columns of the local newspapers.

"Greatly effective use has also been made of direct mailings to special groups, such as the symphony and opera subscription lists, doctors, musical organizations, schools, etc.

"One of the most effective and yet one of the most neglected promotional methods which can be used to sell records is a consistent and logical use of the telephone. This method is also being profitably used with good results.

#### Calling personally

"Last, but not least, and somewhat of an innovation is personal calls. A certain number of people can be sold records in this way, who ordinarily do not have the time or the inclination to come in and buy. Single calls of this type have actually resulted in orders for dozens of album sets amounting to hundreds of dollars.

"The Good Housekeeping Shops  
(Continued on page 46)



# LIFE

## Survey Proves It!

LIFE Magazine recently sent a questionnaire to thousands of its readers, asking questions of great importance to you. Look at the answers. They definitely prove two things:

1. That public interest in Victor Records and Victrolas soars higher every day — creating a highly profitable market for you to take advantage of.

2. That Victor Records and RCA Victrolas are the line for you to stock — for volume sales and profits!

### LIFE ASKED

1.

Have you purchased any phonograph records in the past year? . . . If so, what brands?

**80.6%**

answered  
"VICTOR!"

2.

If you were to purchase an instrument that combined radio and record entertainment, what make would you most likely buy?

**52.7%**

answered  
"RCA VICTOR!"

Brand "A" received 8.3% of the votes, Brand "B" 4.0%, Brand "C" 2.3%.

# Public Interest ZOOMS

America grows more record conscious every day! More and more newspapers and magazines have "Record Reviews" as a steady feature! Nightly Victor Record Radio Programs attract huge audiences. And the desire of millions to play Victor recordings, plus the sensational values, amazing sales features of the new RCA Victrolas, and tremendous advertising and promotional plans, give you an unequalled profit opportunity!

RCA Victrolas are the vogue! And that means more profit to you! Because with new thousands from coast to coast becoming enthusiastic record fans, the market for the new 1939 RCA Victrolas grows larger and larger all the time. And every RCA Victrola sale means future record business, too, with steady profits coming your way month after month.

That is why it will pay you — as it has hundreds of other money-making dealers — to stock and feature the new RCA Victrola line. It has everything the consumer demands — it is the greatest value RCA Victor has ever offered — and it brings you what you want, *more sales and profits.*

**Only RCA Victor gives this Victor Record Society bonus to help make sales!**

When you stock RCA Victrolas, you can offer your customers this extra inducement to buy! With the purchase of most RCA Victrolas, they receive either \$9.00\* or \$4.50\* worth of Victor Records of their own choosing, a \$2.00 year's subscription to the Victor Record Review and membership in the Victor Record Society — all without extra cost! That's a value they'll go for — and they can get it only on an RCA Victrola!

\*Amount depends on price of Victrola purchased.

**SOON . . . A 40th ANNIVERSARY  
PROMOTION THAT WILL BOOST YOUR SALES  
EVEN FASTER. WATCH FOR DETAILS**





# in Records and Victrolas

## RCA VICTOR Overwhelming Choice!

### 15 NEW 1939 RCA VICTROLAS



**A BIG  
PROFIT LINE  
FEATURING :**

- Automatic Record Changer
- Electric Tuning Radio
- Top Needle Loading
- Beautiful Period Cabinets

**RCA Victrola Model U-134-A**  
18th Century Cabinet Style, High Fidelity Electric Magic Voice, Crystal Pickup, Automatic Record Changer for 10" and 12" records, Top Loading Needle Socket, and has 16-tube, 7-band Electric Tuning Radio. \$355\* in walnut, \$365\* in mahogany.

← **RCA Victrola Model U-119**  
A handsomely designed instrument of modern design with self-starting motor, Crystal Pickup and 6-tube, 3-band Electric Tuning Radio. \$79.95\*

For Finer Radio Performance—  
RCA Victor Radio Tubes



**RCA Victrola Attachment R93-B**  
which has proved so popular with thousands. Easily attached to any AC radio, it plays records through the radio. (list price) \$14.95

\*All prices f.o.b. Camden, New Jersey subject to change without notice.



↑ **RCA Victrola Model U-128**  
Offers such outstanding features as Gentle Action Automatic Record Changer, Crystal Pickup with Top Loading Needle Socket, and has a 10-tube, 3-band radio with Electric Tuning. . . . \$185\*

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



# RCA Victrola

RCA MANUFACTURING  
COMPANY, INC.  
Camden, New Jersey

A Service of the  
Radio Corporation of  
America

# LIFE

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**52.7%** answered "RCA VICTROLA!"

Brand "A" received 8.3% of the votes, Brand "B" 4.0%, Brand "C" 2.3%.

# Public Interest in Records and Victrolas ZOOMS!

America grows more record conscious every day! More and more newspapers and magazines have "Record Reviews" as a steady feature! Nightly Victor Record Radio Programs attract huge audiences. And the sale of millions to play Victor recordings, plus the sensational values, amazing sales features of the new RCA Victrolas, and tremendous advertising and promotional plans, give you an unequalled profit opportunity!

RCA Victrolas are the vogue! And that means more profit to you! Because with new thousands from coast to coast becoming enthusiastic record fans, the market for the new 1939 RCA Victrolas grows larger and larger all the time. And every RCA Victrola sale means future record business, too, with steady profits coming your way month after month.

That is why it will pay you — as it has hundreds of other money-making dealers — to stock and feature the new RCA Victrola line. It has everything the consumer demands — it is the greatest value RCA Victor has ever offered — and it brings you what you want, more sales and profits.

## Only RCA Victor gives this Victor Record Society bonus to help make sales!

When you stock RCA Victrolas, you can offer your customers this extra inducement to buy! With the purchase of most RCA Victrolas, they receive either \$9.00\* or \$4.50\* worth of Victor Records of their own choosing, a \$2.00 year's subscription to the Victor Record Review and membership in the Victor Record Society — all without extra cost! That's a value they'll go for — and they can get it only on an RCA Victrola!

\*Amount depends on price of Victrola purchased.

SOON . . . A 40th ANNIVERSARY  
PROMOTION THAT WILL BOOST YOUR SALES  
EVEN FASTER. WATCH FOR DETAILS



## 15 NEW 1939 RCA VICTROLAS



A BIG  
PROFIT LINE  
FEATURING:

- Automatic Record  
Changer
- Electric Tuning  
Radio
- Top Needle  
Loading
- Beautiful Period  
Cabinets



**A**  
RCA Victrola Model U-128  
Offers such outstanding fea-  
tures as Gentle Action Auto-  
matic Record Changer, Cryst-  
tal Pickup with Top Loading  
Needle Socket, and has a 10-  
tube, 3-band radio with Elec-  
tric Tuning. . . . \$185\*

RCA presents the "Music Key" every  
Sunday, 3 to 5 P. M., E. D. 3 T., on  
the NBC Blue Network.



RCA Victrola Model U-134. A  
18th Century Cabinet Style,  
High Fidelity Electric Magic  
Voice, Crystal Pickup, Auto-  
matic Record Changer for  
10" and 12" records, Top  
Loading Needle Socket, and  
has 10-tube, 7-band Electric  
Tuning Radio. \$355\* in wal-  
nut, \$385\* in mahogany.

**A**  
RCA Victrola Model U-119  
A handsome table instrument  
of modern design with self-  
starting motor, Crystal Pick-  
up and 6-tube, 3-band Elec-  
tric Tuning Radio. \$79.95\*

For Finer Radio Performance —  
RCA Victor Radio Tubes



RCA Victrola Attachment B93-B  
which has proved so popular with  
thousands. Easily attached to any  
ACradio, it plays records through  
the radio. . . . *List price* \$14.95  
\*All prices f.o.b. Camden, New Jersey  
subject to change without notice.

RCA MANUFACTURING  
COMPANY, INC.  
Camden, New Jersey

A Service of the  
Radio Corporation of  
America

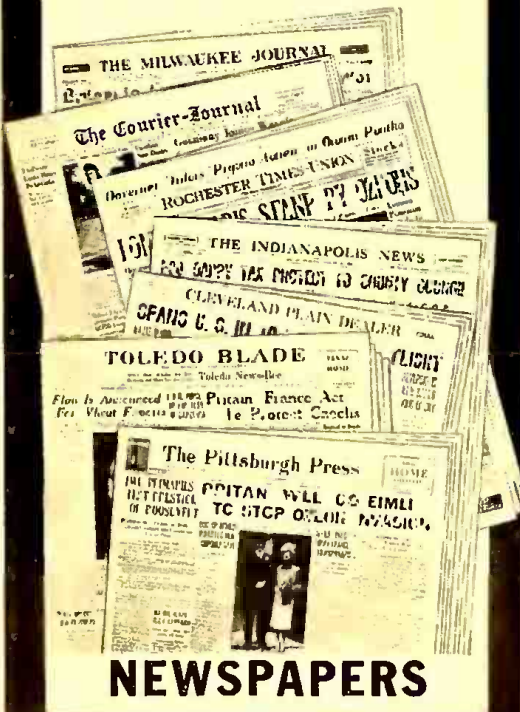
# RCA Victrola



**RADIO**



**MAGAZINES**



**NEWSPAPERS**

**107 Radio St  
Leading News**

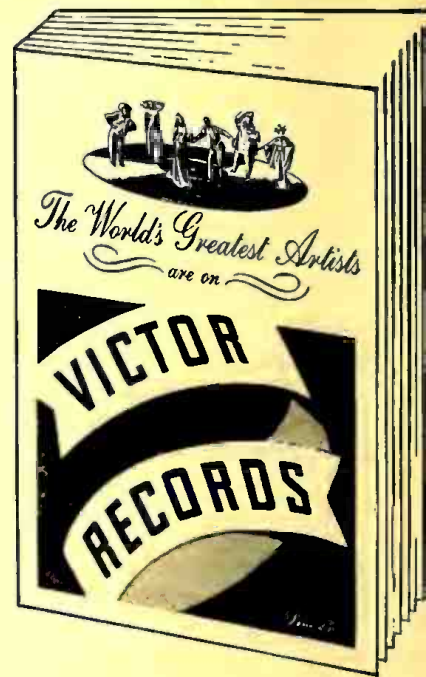
**Victor Rec**

**The World's Greatest  
Salesman of Record-  
Playing Instruments**

The Victor Record Catalog is often called the world's greatest encyclopedia of recorded music... the world's greatest salesman of Victor Records. But it is also the fundamental approach to sales of RCA Victor record-playing instruments. Your best prospects for RCA Victrolas are the growing army of people who are buying Victor Records. Now that the record business is booming, this fact is more important than ever: the world's greatest artists are on Victor Records—and that's no idle boast!

FOR FINER RADIO PERFORMANCE—  
RCA VICTOR RADIO TUBES

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



**The World's Greatest Artists are on Victor Records**

Only Victor Records offer you the definite sales advantage of "Higher Fidelity!" Because only Victor Records are produced by the world-famous Higher Fidelity process—the recording method that enables the records to capture and preserve the full range of beauty from low to high. In addition, only Victor enables you to sell the recordings of the world's greatest artists because the world's greatest artists are on Victor Records. And these highly important sales points are sound reasons why it will pay you to stock, feature and sell Victor Higher Fidelity Records!

**RCA Victor**

RCA MANUFACTURING COMPANY, INC., Camden, N. J. • A Service of the Radio

ions .... 22 Magazines ....  
pers .... tell millions about

# ds and Victrolas

"The Magic Key of RCA" Program... nightly Victor Record Programs... national magazine and newspaper advertising... powerful sales promotion material—all combine to bring millions from Maine to California the sensational story of the amazing new RCA Victrolas... and to sell them the joy of having "The Music You Want When You Want It."

BUILDING  
SALES  
ON THE  
AIR

SALES  
MAKING ADS  
IN NATIONAL  
MAGAZINES

COOPERATIVE  
ADVERTISING IN  
YOUR OWN CITY...  
POWERFUL SALES  
PROMOTION  
PLANS

## RESULT!

RCA Victrola Sales are  
Currently Running  
58.4% ahead of last Year!



la  
n of America



**RADIO**



**MAGAZINES**



**NEWSPAPERS**

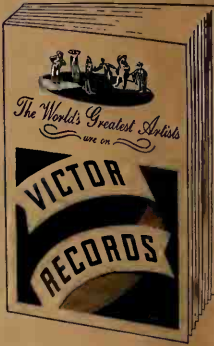
**107 Radio Stations....22 Magazines....  
Leading Newspapers....tell millions about**

# Victor Records and Victrolas

## The World's Greatest Salesman of Record-Playing Instruments

The Victor Record Catalog is often called the world's greatest encyclopedia of recorded music... the world's greatest salesman of Victor Records. But it is also the fundamental approach to sales of RCA Victor record-playing instruments. Your best prospects for RCA Victrolas are the growing army of people who are buying Victor Records. Now that the record business is booming, this fact is more important than ever: the world's greatest artists are on Victor Records—and that's no idle boast!

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RCA VICTOR RADIO TUBES  
RCA presents "Magic Key" every Sunday,  
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The World's Greatest Artists are on Victor Records! Only Victor Records offer you the definite sales advantage of "Higher Fidelity!" Because only Victor Records are produced by the world-famous Higher Fidelity process—the recording method that enables these records to capture and preserve the full range of beauty from low to high. In addition, only Victor enables you to sell the recordings of the world's greatest artists—records. And these highly important sales points are sound reasons why it will pay you to stock, feature and sell Victor Higher Fidelity Records!



# RCA Victrola

RCA MANUFACTURING COMPANY, INC., Camden, N. J. • A Service of the Radio Corporation of America

"The Magic Key of RCA" Program... nightly Victor Record Programs... national magazine and newspaper advertising... powerful sales promotion material—all combine to bring millions from Maine to California the sensational story of the amazing new RCA Victrolas... and to sell them the joy of having "The Music You Want When You Want It."

**BUILDING SALES ON THE AIR**

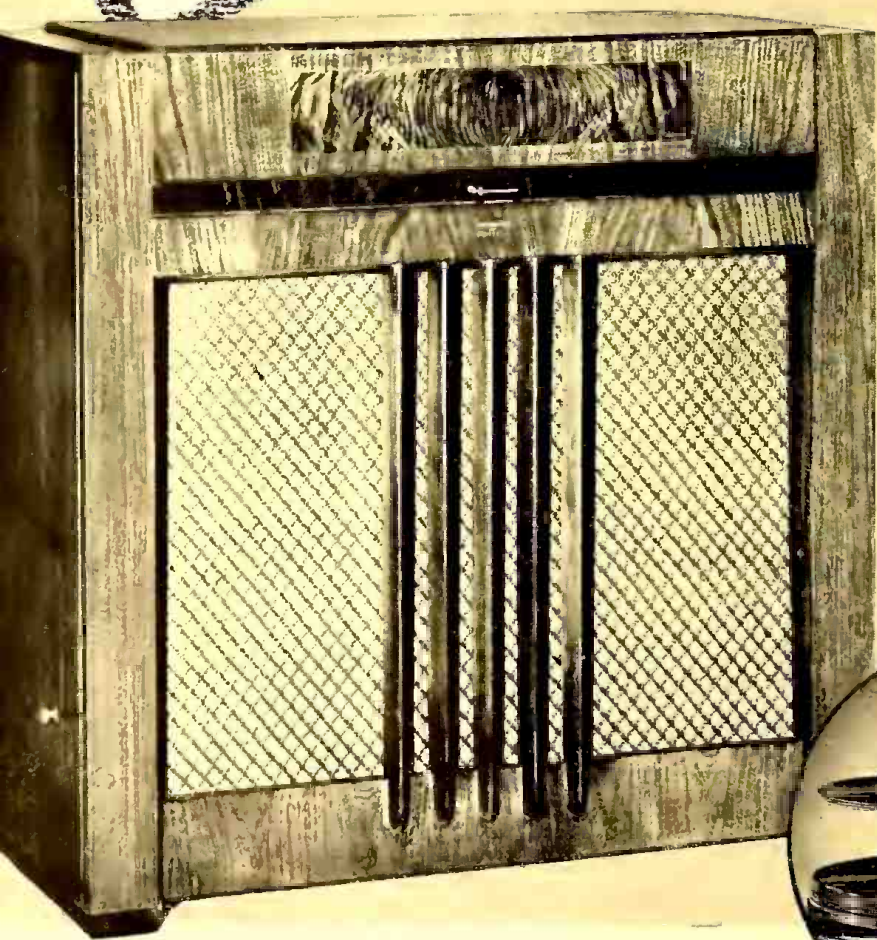
**SALES MAKING ADS IN NATIONAL MAGAZINES**

**COOPERATIVE ADVERTISING IN YOUR OWN CITY... POWERFUL SALES PROMOTION PLANS**

**RESULT!  
RCA Victrola Sales are  
Currently Running  
58.4% ahead of last Year!**



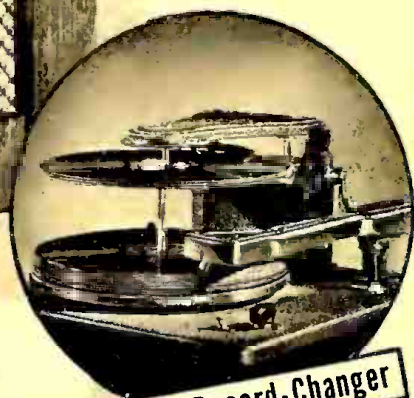
# HERE'S THE *One* LINE OF COMBINATIONS THAT **PHONOGRAPH WITH PHILCO**



## New 1939 PHONOGRAPH WITH PHILCO Automatic Record-Changer Model 35 PCX

You get greater Volume and greater Profit from this model! Famous CAPEHART Automatic Record-Changer plays and changes ten 10- and 12-inch records automatically . . . PHILCO plus CAPEHART for easier selling! With PHILCO INSTANT Electric Push-Button Tuning of 8 stations. American and foreign radio reception.

LIST PRICE  
**\$225\***



Automatic Record-Changer  
 by *Capehart*

## A FAST SELLING MODEL IN CLASS — QUICKER TURNOVER!

PHILCO—the greatest name in radio—now take full advantage of the big demand for radio . . . with PHONOGRAPH WITH PHILCO! Exclusive features plus the famous PHILCO name and quick turnover . . . more volume and more profit from your business. And PHONOGRAPH WITH PHILCO gives you the best of 1939 models . . . a model in every price class with outstanding value! Cash-in on this new and profitable business . . . and cash-in with PHONOGRAPH WITH PHILCO the way to take full advantage of your radio—display, demonstrate, and sell PHONOGRAPH WITH PHILCO distributor at once . . . PHONOGRAPH WITH PHILCO selling power to the radio-phonograph.

## Easier to Sell! PHILCO

The PHILCO name by itself will sell this new PHONOGRAPH WITH PHILCO more to sell! PHONOGRAPH WITH PHILCO combination and sales-producing Automatic Record-Changer . . . for greater profits.

## New! Exclusive REPRODUCER in

Only PHONOGRAPH WITH PHILCO new Semi-Automatic feature . . . the turntable motor, close the lid automatically! Lift and close the lid automatically! 100% perfect.

10 New PHONOGRAPH WITH PHILCO  
 PHONOGRAPH WITH PHILCO RECORD  
 SEE YOUR PHILCO DISTRIBUTOR

\* Prices slightly higher in the West.

# AS Everything PHILCO

RY PRICE  
EATER PROFITS!

es it possible for you to  
onograph combinations  
fast-selling phonograph  
formance means quicker  
every dollar you invest!  
complete line... 11 new  
... and every model an  
table radio-phonograph  
WITH PHILCO! The fastest  
onograph prospects is to  
WITH PHILCO! See your  
WITH PHILCO brings real  
business!

plus CAPEHART!

make demand merchandise of  
PHILCO line! But you get even  
PHILCO gives you the repu-  
er of the famous CAPEHART  
feature you can "grade-up"

EMI-AUTOMATIC  
w-Priced Models!

Dealers will profit from this  
to demonstrate... just start  
and the record plays auto-  
ond the record repeats itself  
ing!

Models \$49<sup>95</sup> to \$395\*  
LAYER \$25.00  
BUTOR TODAY

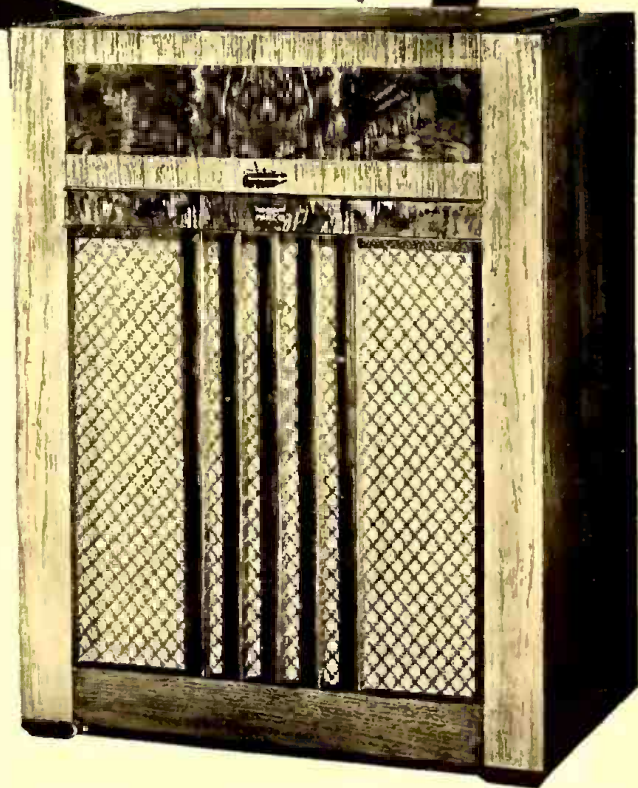
Only PHONOGRAPH WITH PHILCO  
GIVES YOU ALL THIS TO SELL!

- ✓ A Complete Line—11 New Models!
- ✓ Greater Value in Every Model!
- ✓ PHILCO Performance and Quality!
- ✓ Sensational New Mystery Control!
- ✓ Exclusive Phonograph Features!
- ✓ Famous CAPEHART Record Changer!
- ✓ Exclusive Semi-Automatic Reproducer!
- ✓ New Cabinet Styling in Every Model!

## New Chairside Model 19 PCS

LIST PRICE \$89<sup>50</sup>\*

Here's the special-purpose model your customers will want instantly! With Semi-Automatic Record reproduction... just close the lid and the needle automatically finds the first groove and the record starts to play. PHILCO INSTANT Push-Button Tuning. American and foreign radio reception!



## Automatic Record-Changer Model 19 PA

An amazing value that will move fast! Auto-  
matic record-changing phonograph plays  
eight 10-inch records automatically, 12-inch  
records manually and repeats them! INSTANT  
Push-Button Tuning PHILCO Radio. American  
and foreign radio reception.

LIST PRICE  
\$139<sup>50</sup>\*

HERE'S THE *One* LINE OF COMBINATIONS THAT HAS *Everything*  
**PHONOGRAPH WITH PHILCO**

- Only PHONOGRAPH WITH PHILCO GIVES YOU ALL THIS TO SELL!**
- ✓ A Complete Line—11 New Models!
  - ✓ Greater Value in Every Model!
  - ✓ PHILCO Performance and Quality!
  - ✓ Sensational New Mystery Control!
  - ✓ Exclusive Phonograph Features!
  - ✓ Famous CAPEHART Record Changer!
  - ✓ Exclusive Semi-Automatic Reproducer!
  - ✓ New Cabinet Styling in Every Model!

**A FAST SELLING MODEL IN EVERY PRICE CLASS — QUICKER TURNOVER! GREATER PROFITS!**

PHILCO—the greatest name in radio—now makes it possible for you to take full advantage of the big demand for radio-phonograph combinations . . . with PHONOGRAPH WITH PHILCO! Exclusive fast-selling phonograph features plus the famous PHILCO name and performance means quicker turnover . . . more volume and more profit from every dollar you invest! And PHONOGRAPH WITH PHILCO gives you the complete line . . . 11 new 1939 models . . . a model in every price class . . . and every model an outstanding value! Cash-in on this new and profitable radio-phonograph business . . . and cash-in with PHONOGRAPH WITH PHILCO! The fastest way to take full advantage of your radiophonograph prospects is to display, demonstrate, and sell PHONOGRAPH WITH PHILCO! See your PHILCO distributor at once . . . PHONOGRAPH WITH PHILCO brings real PHILCO selling power to the radio-phonograph business!



**New 1939 PHONOGRAPH WITH PHILCO**  
**Automatic Record-Changer Model 35 PCX**

You get greater Volume and greater Profit from this model! Famous CAPEHART Automatic Record-Changer plays and changes ten 10- and 12-inch records automatically . . . PHILCO plus CAPEHART for easier selling! With PHILCO INSTANT Electric Push-Button Tuning of 8 stations. American and foreign radio reception.

LIST PRICE  
**\$225\***



Automatic Record-Changer  
 by *Capehart*

**10 New PHONOGRAPH WITH PHILCO Models \$495 to \$395\***  
**PHONOGRAPH WITH PHILCO RECORD PLAYER \$25.00**  
**SEE YOUR PHILCO DISTRIBUTOR TODAY**

**Easier to Sell! PHILCO plus CAPEHART!**

The PHILCO name by itself would make demand merchandise of this new PHONOGRAPH WITH PHILCO line! But you get even more to sell! PHONOGRAPH WITH PHILCO gives you the reputation and sales-producing power of the famous CAPEHART Automatic Record-Changer . . . a feature you can "grade-up" to for greater profits.

**New! Exclusive SEMI-AUTOMATIC REPRODUCER in Low-Priced Models!**

Only PHONOGRAPH WITH PHILCO Dealers will profit from this new Semi-Automatic feature! Easy to demonstrate . . . just start the turntable motor, close the lid, and the record plays automatically! Lift and close the lid, and the record repeats itself automatically! 100% perfect tracking!

**New Chairside Model 19 PCS**

LIST PRICE **\$89.50\***

Here's the special-purpose model your customers will want instantly! With Semi-Automatic Record reproduction . . . just close the lid and the record automatically finds the first groove and the record starts to play. PHILCO INSTANT Push-Button Tuning. American and foreign radio reception!



**Automatic Record-Changer Model 19 PA**

An amazing value that will move fast! Automatic record-changing phonograph plays eight 10-inch records automatically, 12-inch records manually and repeats them! INSTANT Push-Button Tuning. PHILCO Radio. American and foreign radio reception.

LIST PRICE  
**\$139.50\***





L. E. Gubb, Philco



J. H. Clippinger, Admiral



P. Crosley, III., Crosley



B. Abrams, Emerson

# WHY WE ARE PUSHING "COMBINATIONS"

## Industry leaders tell promotion plans for Fall

### GREAT BOON TO DEALERS

By L. E. Gubb  
President

Philco Radio & Television Co.

We look to the radio-phonograph combination business as a great boon to all radio dealers. The amazing rise in the sales curve on all record lines shows a buying interest in combinations on the part of the public never before equalled in the industry's history. Aggressive dealers throughout the country are taking full advantage of this remarkable consumer demand to substantially increase their average unit of sale by pushing radio-phonograph combinations. The new Phonograph-with-Philco line will give the dealer full benefit of this increasing demand, backed by sound advertising, merchandising, and sales promotion plans. New and exclusive features on Phonograph-with-Philco models give greater performance and value than ever before.

### ENTHUSIASTIC AT OUTLOOK

By Ernest H. Vogel  
Manager Radio Division  
General Electric Co.

The General Electric Company has always been sincerely interested in the sale of radio-phonograph instruments and has consistently carried a number of such instruments in its line.

In 1937, there was definite evidence of increased interest on the part of dealers and consumers for this type of instrument and we believe the Fall of 1938 will open up still greater opportunities for the sale of complete musical instruments for the home.

Our line this year reaches into all of the list price brackets, offering a table model radio-phonograph combination in the \$40 bracket, a splendid non-automatic lowboy console under \$150 and an automatic record-changing lowboy radio-phonograph combination well under the \$200 mark.

miral's efforts towards the development of this comparatively new phase of radio industry are reflected in complete range phonograph combinations with fine reproducing qualities and at prices making them within everyone's reach.

### TRADE INTEREST TRIPLES

By John F. Ditzell, Sales Manager  
Radio & Appliance Division  
Stewart-Warner Corp.

The reasons why we feel that radio-phonograph combinations will be an outstanding success this year are quite tangible in that our initial introduction of these models resulted in more than three times as many orders from our distributors as we had anticipated, and it has already become necessary for us to make four additional production releases.

We consider that tangible evidence of the interest on the part of dealers in the radio-phonograph combination, (Continued on page 47)

### GREAT DEMAND

By Powel Crosley, III  
Vice President, Crosley Radio Corp.

There is a great demand for radio-phonograph combinations for a number of reasons—the jitterbug craze, the desire for better education in foreign languages, the need for controlled education of infants. Many people have favorite pieces they like to hear when they want to. To enable our dealers to get this extra business, we are supplying them with a complete line of radio-phonograph combinations at prices which can be promoted by forceful advertising and sales aids.

### FINE MUSIC IN THE HOME

By J. H. Clippinger, Vice President  
Continental Radio & Television Corp.

Admiral believes that everyone is interested in enjoying fine music in home and is entitled to the opportunity through medium of recordings. Ad-



E. H. Vogel, General Electric



J. F. Ditzell, Stewart-Warner

1939 will be a great year for every **CROSLEY** dealer

**CROSLEY**  
PUSH BUTTON  
YEAR★

428 SOLD FROM ONE AD

FASTEST SELLING RADIO IN MANY MARKETS



at \$9.99

Crosley offers a traffic builder that rolls up amazing sales totals. AC-DC. Push button and knob tuning. Electro-dynamic speaker.

at \$24.95

Crosley will win a great market with this portable push button electric radio-phonograph. Beam Power tube delivers greatly improved record reproduction. New self-starting motor and high impedance pick-up. Leather strap on flush cover makes it easy to carry. Radio is tuned by knob or by instantaneous positive push buttons.

Compare Crosley radios with all competitive models and note the reason dealers are making more sales is better tone, better performance, more tubes, bigger speakers and better circuits AT ALL PRICE LEVELS.



at \$19.99

Crosley presents a value in a superheterodyne 6 tube regular and shortwave receiver (the "SIXER") even greater than the famous "FIVER". 5 push buttons for quick, positive tuning in addition to conventional knob tuning. 5-inch dynamic speaker. Brown plastic cabinet. Out-performs anything in its price class.

at \$49.95

Crosley presents a CONSOLE ELECTRIC RADIO PHONOGRAPH of beauty and great efficiency. Power transformer with Beam Power tube delivers exquisitely true record reproduction. Illuminated Radio Log dial. Push button radio tuning as well as conventional knob tuning. Simple walnut-finished cabinet suggests elegance. Thousands will buy now that such quality is at this price level.

Prices slightly higher in South and West

NOTHING LIKE IT FOR THE MONEY

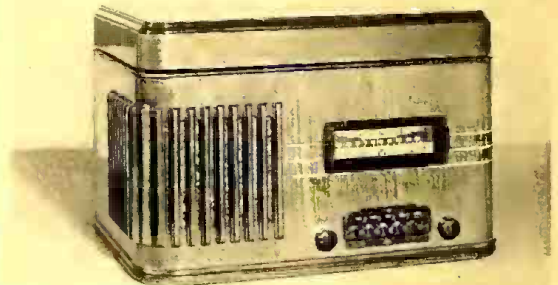
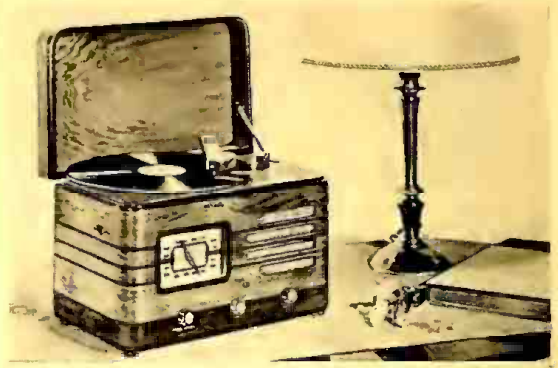
TODAY'S VALUE SENSATION

Other console, table and auto models equally fast sellers and profit makers

★NOW, MORE THAN EVER...

You're there with a **CROSLEY**

THE CROSLEY RADIO CORP., CINCINNATI • POWEL CROSLEY, Jr., Pres. • Home of "the Nation's Station"—WLW—70 on your dial



In the upper right corner is the Westinghouse WR472, a 5 tube AC superhet with 5 inch speaker.

Directly above is the new Stewart-Warner 91-649 combination, with Magic Keyboard, vertical grill.

At the left is Ansley's "piano of the future"—combined radio, record-player, electronic piano, \$595.

## STRIKING SALES FEATURES AMONG NEW PHONOGRAPH-RADIOS

At extreme right, Brunswick's "Sheraton" combination, \$124.50.

Center right, Wilcox-Gay's A-57 record-player at \$29.95.

Directly at right, Motorola's 59F1 atop record cabinet.



At extreme right, a top combination by General Electric.

Center right, one of Emerson's Symphony Grand models, \$129.95.

Directly at right, Fada's 6A80APC combination at \$229.50.





## FOR VOLUME RADIO SALES IN '39

✓ **CHECK**  
 THE WESTINGHOUSE  
 FEATURES THAT CLOSE SALES!

✓✓ **DOUBLE CHECK**  
 THE WESTINGHOUSE  
 MERCHANDISING PROGRAM  
 THAT PULLS PROSPECTS!

Here's a radio line and advertising program specially planned to sell radios f-a-s-t . . . in volume . . . at a profit! Never before has Westinghouse offered such radio values . . . packed with features easy to demonstrate, easy to sell. They're the talk of the trade! New, Instantaneous, Push-Button Tuning! Styling by America's foremost radiodesigners. Furthermore, Westinghouse offers you a new

and effective merchandising program designed expressly for your local use! Cooperative newspaper advertisements! Colorful floor and window displays! 2-color Selling Book. Consumer literature and other profit-building helps. It will pay you to check and double check this unusual business-getting proposition. Call your local Westinghouse Representative *today*.

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

# Westinghouse Precision RADIO

# READ EVERY WORD OF THIS

*It means New  
Business for You*

THIS month Presto will launch the first national advertising campaign ever devoted to home recording . . . advertising directed to your customers, to get business for you.

SPACE will be used in six national magazines reaching over 2,000,000 of the wealthier homes where recorders are used for entertainment . . . six additional magazines reaching musicians, actors and executives in the business, advertising, educational and entertainment fields . . . men and women who make important uses of sound and recording equipment.

THIS advertising will bring scores of new customers into your store. BUT YOU WON'T SELL THEM UNLESS you have a Presto recorder on hand at your store to demonstrate the marvelous quality obtainable from Presto recordings.

*Why not be ready to handle this profitable business? Here is all the demonstration equipment you need.*



One Presto, Jr., recording phonograph .....	\$149.00
One dozen steel cutting needles..	3.00
One hundred steel playing needles	.75
Ten 10 in. blank discs.....	8.00
Window and counter displays, promotional material, sales and operating instructions .....	N/C
<b>TOTAL \$160.75—less regular dealer discount.</b>	

*Send in your order for this equipment today. Be the first in your community to profit from the fastest growing business in the radio and music industries.*

**PRESTO RECORDING CORP.**  
137 W. 19th STREET, NEW YORK, N. Y.

## SALES SUCCESS ON COMBINATIONS

(From page 35)

are looking forward to a constantly increasing record and combination business. 'I believe,' says Mr. Hackett, 'that a straight radio is no longer a complete instrument for home entertainment, but the combination phonograph and radio is. Both radio and phonograph fill a definite need in home entertainment and one cannot supplant the other. The degree of perfection which has been reached in present day record reproduction plus the advantage of having 'The Music You Want When You Want It' has an appeal to music lovers which cannot be resisted. The fact that there is now a fine combination instrument available in almost any price class opens a vast new market which has barely been touched. Our selling job is to demonstrate to the public that we have something they want and will enjoy.'

### Let it demonstrate itself

A New York dealer has hit upon a device which nets him a great deal of customer-interest in combinations. It applies to those who come in for a radio. When the sale has been made, this merchant says that it will take a minute to make out the receipts; will the buyer just sit down a minute and listen to some music?

At this point, the dealer starts a likely-priced combination on a record, and leaves the patron alone. The statement about the receipt is pretty much of a gag, but the dealer feels that too much obvious "selling-up" will often lose sales. This device lets the prospect develop his own interest in a record-playing instrument. And in many cases he is sufficiently impressed by the quality of the music to make inquiries. Quietly, it starts a whole new line of sales talk.

Also, this dealer has found that customers are impressed by models which change their own records. Therefore he keeps them playing on the sales floor. An instrument which turns out a constant flow of impressive music, without attention, will often draw prospects toward it, automatically.

### A store with a specialty

"During the past ten years, 90 per cent of our total radio volume has been in combinations," is the report from Castellanos Moliua Corp., New York City, where the sales experts have the special merchandising problem of dealing mostly with people of Spanish descent. The exceptional success of this store serves as a les-

son to other dealers—not to neglect the tastes and the buying power of prospects of this type.

This firm sells about \$900 worth of records a month. The sales success is based mainly upon keeping the very latest recordings in stock, a careful and constant understanding of wanted merchandise, consistent advertising in newspapers and on the air, and the stocking of phonograph radios priced altogether within reach of the customer group.

Co-manager Herman Diaz of the company believes that part of the interest in combinations is due to "a hang-over from the old phonograph days." Many people still have an old hand-wind phonograph and a few records; they will readily renew their interest in these matters if you show them what modern record-playing equipment offers. By this time they've had enough experience with radio to know that their entire musical life cannot be rounded out by broadcasting alone.

## WAX WORTH WATCHING

**TOMMY DORSEY** and his Clambake Seven playing A-Ticket A-Tasket and As Long as You Live, both with VR by Edythe Wright—Victor 25899.

**HARRY HORLICK** and his orchestra playing The Merry Widow and Gypsy Princess—Decca 1944.

**FREDDIE "SCHNICKELFRITZ" FISHER** and his orchestra playing 'When They Played the Polka, with VC by Stan Fritts, and Red Wing, with VC—Decca 1929.

**HENRY BUSSE** and his orchestra playing I'm Gonna Lock My Heart, with VC by Skip Morr, and Figaro, with VC by Don Huston—Decca 1924.

**ELLA LOGAN** singing My Bonnie Lies Over the Ocean, and Blue Bells of Scotland, with Perry Botkin and his orchestra—Brunswick 8196.

**LARRY CLINTON** and his orchestra playing My Heart at Thy Sweet Voice and A Pretty Girl Milking Her Cow, both with VR by Bea Wain—Victor 26024.

**SAMMY KAYE** and his Swing and Sway orchestra playing Tu-Li-Tulip Time and Don't Cross Your Fingers, Cross Your Heart, VR by Jimmie Brown—Victor 26013.

**JOSEPH RINES** and his St. Regis orchestra playing Lambeth Walk, with VR by Rines and chorus, and Je Ne Sais Pa Pa, with VR by Fifi D'Orsay and Rines—Victor 26015.

**KAY KYSER** and his orchestra playing Love of My Life, with VC by Ginny Simms, and When the Circus Came to Town, with VC by Simms, Harry Babbitt and Ish-Ka-Bibble—Brunswick 8201.

**PENNY WISE** and her Wise Guys playing Don't Let That Moon Get Away, from "Sing You Sinners," and Side Kick Joe, both with vocal by Penny Wise—Vocalion 4286.

**ELLA FITZGERALD** and her Savoy Eight playing What Do You Know About Love and If You Only Knew, both with VC by Ella Fitzgerald—Decca 1967.

**BING CROSBY** singing Small Fry, from Paramount's "Sing You Sinners," and Mr. Crosby and Mr. Mercer, assisted by Johnny Mercer—Decca 1960.

**JIMMY DORSEY** and his orchestra playing Love Is Where You Find It and Garden of the Moon, both from First National's "Garden of the Moon," both with VC by Bob Eberle—Decca 1970.

**THE MERRY MACS** singing Stop Beatin' Round the Mulberry Bush and Pop Goes the Weasel—Decca 1968.

**TEEDY WILSON** and his orchestra playing A-Ticket A-Tasket and Now It Can Be Told, from "Alexander's Ragtime Band," both with VC by Nan Wynn—Brunswick 8199.

## WHY WE ARE PUSHING COMBINATIONS

(From page 42)

and if the dealers manifest such a lively interest it is only reasonable to assume that the product will be promoted to the retail trade and substantial results obtained.

The dealer who properly demonstrates the radio phonograph combination is the one who will receive the greatest benefits from this type of radio. The dealer should be equipped to show the prospective buyer the "flexibility" of this model, through an intelligent demonstration with records, as well as the radio feature.

Simply playing an ordinary record will not convince the customer of the features in the radio-phonograph combination. Instead, if the dealer will point out the tremendous library of records by favorite artists that is available—and the user can select his own program at any time, in addition to having all that is on broadcast available to him, the customer will be impressed.

In other words, a demonstration of the radio-phonograph combination should actually be two demonstrations: (1) The merits and features of the radio; and (2) the dealer should give the same intelligent type of demonstration of the phonograph feature that was given years ago in the successful promotion of the Victrola.

## RECORD SALES CLIMB

By Henry C. Bonfig  
Commercial Vice President  
RCA Manufacturing Co., Inc.

I am very optimistic about business potentialities in "combination" instruments this Fall for the following reasons:

1. Record sales are now registering a substantial increase for the sixth successive year, as popular interest in recorded music of all types continues to build up. Radio is credited with developing a vast new public of music lovers. This desire for more and better music of both the "classical" and "swing" type can best be satisfied, I believe, by the Victrola, as an adjunct of the radio receiver.

(Continued on page 48)

### FOR THE YOUNGSTERS

Decca lists the discs "most likely to succeed" among the children

BARBAR STORIES, adapted from the "Barbar" books—Frank Luther—997-9.

FRENCH FOLK SONGS FOR CHILDREN—Louis Chartier—23062-64.

FAIRY TALES, stories with sound effects and Celeste—Frank Luther and Company—590-2.

HANSEL AND GRETEL AND THE SLEEPING BEAUTY, as told by the Singing Lady, Irene Wicker—1409-11.

SNOW WHITE AND THE SEVEN DWARFS—Frank Luther and Company—1701-03.

HOME ON THE RANGE, cowboy songs, sung by Frank Luther and the Luther Trio—1427-9.

MOTHER GOOSE RHYMES, vocal with novelty accompaniment—Frank Luther—252-4.

NURSERY RHYMES, vocal with novelty accompaniment—Frank Luther—383-5.

TUNEFUL TALES, by Rose Bumenthal—Frank Luther—593-5.

WINNIE THE POOH AND CHRISTOPHER ROBIN—Frank Luther—1389-91.



## SELL COMBINATIONS FASTER! . . .

PUT the right power in your radio-phonograph combinations and go to town with volume sales. Equip your sets with FLYER Motors, for the utmost in uniform speed, quiet running and long service, with low motor and installation cost. Self-starting governor-controlled induction type. Silent, laminated bakelite gears running in oil. Long over-size bearings. Range in choice to meet your needs. Get your sets worked out NOW.

### Test the Model V

Model V FLYER Motor, priced for large-volume use, has set-screw speed adjustment. Other models, with pointer-and-dial adjustment. Order samples to test out in your cabinets.

The GENERAL INDUSTRIES CO.

3838 Taylor Street, Elyria, Ohio

## RADIO TODAY

- Published the largest volume of radio advertising during the last 12 months.
- Showed the greatest increase in paid circulation during the last 12 months and also the last 6 months.
- Has the lowest advertising rate per thousand circulation.
- Is preferred by large dealers, as proved by reader-interest tests.

22,000 Monthly Guaranteed.

\* Member Audit Bureau of Circulations \*



## Record Changer, Motor, Pickup . . . All One Unit at Low Cost.

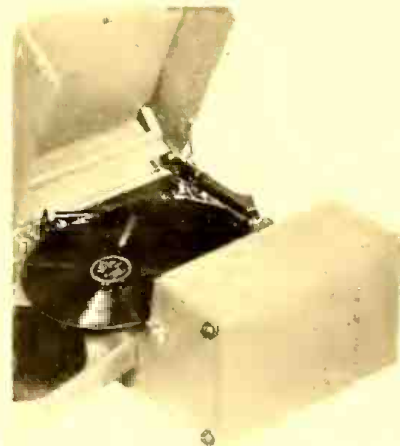
GET the volume business with radio-phonograph automatics that the crowd can buy. Use General Industries record changer units in your sets. Performance as good as from much more expensive machines. Durable, quiet-running FLYER Motors. Changing mechanism of simple, dependable design. High-fidelity balanced pick-up. Choice in styles to meet your requirements.

### Order Samples for Testing.

Get going NOW with automatics that SELL. When ordering, specify voltage and frequency of current you use.

The GENERAL INDUSTRIES CO.

3838 Taylor Street, Elyria, Ohio



## THE MUSIC SCOOP OF THE YEAR

PORTOMATIC  
REG. U.S. PAT. OFF.

### PORTABLE AUTOMATIC ELECTRIC PHONOGRAPH

Plays and changes 10 or 12 inch records automatically. Unbeatable tone. 8 unusual features. AC-DC. List Price \$99.50

Write for details of this magnificent instrument and complete line of portable combinations, etc.

THE PORT-O-MATIC CORPORATION  
1013 MADISON AVE. NEW YORK CITY

(From page 47)

2. RCA Victor's unremitting efforts for the past six years in calling public attention to the advantages of recorded music and to the technical advances in recording and reproduction are bearing fruit at an accelerating pace. We have been progressively increasing advertising and promotion on Victrolas and records. This Fall, our advertising expenditures are about 50 per cent greater than last year. In addition to regular magazine and newspaper advertising and the Magic Key program, records and Victrolas are receiving continuous promotion in the principal markets through 17 stations, six nights a week.

3. Test campaigns in connection with the formation of the Victor Record So-

ciety have established that more than 60 per cent of those who buy or acquire the inexpensive type of record-player are in the market for more expensive combination instruments later.

4. The distribution of musical merchandise to the public is being constantly improved. More and better dealers are being added all the time. Dealers and distributors, too, are contributing more aggressive promotional efforts. In addition, we are conducting musical-merchandise training schools to show dealers how to get the most out of the tremendous potentialities in the current market.

## APPRECIATION OF CLASSICS

By B. Abrams, President  
Emerson Radio & Phonograph Corp.

The ever-growing public appreciation of the classics and the desire to preserve special renditions of music and voice—and to have them available at all times—are important factors in the re-development of radio-and-phonograph business.

Sales of Emerson radio-and-phonograph combinations have been increasing for several years back and the business made exceptional strides during the past year. Emerson is producing a number of different models this year, at prices ranging from \$19.95 to \$219.95, some of them incorporating the automatic record changer.

We are stressing combinations in our literature, our cooperative advertising and in our national campaign—giving them a much greater proportion of emphasis than ever before. It is our belief that the trend toward combinations will increase as time goes on.

## INSTALL TURNTABLE LATER

By Frank A. D. Andrea, President  
Andrea Radio Corp.

To help dealers sell customers who balk at the extra initial expense of combinations, Andrea radio consoles have phonograph compartments in which the turntable and pick-up can be installed at any time, making the console into a genuine combination instrument. Also, we have an Andrea radio floor-plan arrangement by which, from three samples, dealers can demonstrate and sell eight different AC models, from \$111.00 to \$233.50, including both manual and automatic combinations.

## PUSH COMBINATIONS

By J. M. Marks, General Manager  
Fada Radio and Electric Company

The revival of interest by the American public in the new recordings prompt Fada to include six radio-phonograph combinations in the 1939 Fada line. Table, portable and console models in this classification from \$39.95 to \$229.50. Fada radio-phonograph combinations will have a prominent place in all of the forthcoming sales promotion and advertising plans for the 1939 Fada line. Publication advertising, direct mail, displays and cooperative advertising with Fada dealers and distributors will frequently emphasize combinations during the coming season.

## RECORDS THAT EVERY HOME SHOULD HAVE

(From recent such lists released by RCA Victor)

ROUMANIAN RHAPSODY, No. 1 in A Major, parts 1 and 2, by the Minneapolis Symphony Orchestra, Eugene Ormandy, conductor—1701-1702.

LUCIA DI LAMMERMOOR, The Mad Scene in two parts, by Lily Pons—7369.

AH, SWEET MYSTERY OF LIFE and 'NEATH THE SOUTHERN MOON, sung by Nelson Eddy—4281.

TOSCA, Te Deum, by Lawrence Tibbett with Metropolitan Opera Chorus—8124.

FINLANDIA, by Philadelphia Symphony Orchestra, Leopold Stokowski, conductor—7412.

CAPRICE VIENNOIS and TAMBOURIN CHINOIS, by Fritz Kreisler—14690.

CARNEVAL OVERTURE, by Boston "Pops" Orchestra, Arthur Fiedler, conductor—12159.

PRELUDE IN C SHARP MINOR and SPINNING SONG, by Sergei Rachmaninoff—1326.

TRAVIATA, prelude to Act 1, and prelude to Act 2, by the Philharmonic Symphony Orchestra of New York, Arturo Toscanini, conductor—6994.

AVE MARIA and AUFHALT, sung by Marian Anderson—14210.

OL' MAN RIVER, sung by Paul Robeson, and AH STILL SUITS ME, by Mr. Robeson and Elisabeth Welch—25376.

RHAPSODY IN BLUE, by Paul Whiteman and his orchestra—35822.

## CLASSICAL FAVORITES FROM DECCA

UN BEL DI VEDREMO (Some Day He'll Come) from "Madam Butterfly" and LOVE ME FOREVER, sung by Grace Moore—29000.

SYMPATHY and CAN I FORGET YOU, sung by Richard Tauber—23059.

MOUSSORGSKY SONGS, sung by Vladimir Rosing with piano parts by Myers Foggin (6 records with booklet and album)—29020-32.

BEETHOVEN SONATAS, Nos. 5 and 9, Violin—Simon Goldberg. Piano—Lili Krauss. (7 records)—29026-32.

DOHNANYI—SYMPHONIC MINUETS, played by the Queen's Hall Orchestra led by George Stratton, conducted by Sir Henry J. Wood (2 records)—29039-40.

BRUCKNER—OVERTURE IN G MINOR, played by Queen's Hall Orchestra led by George Stratton, conducted by Sir Henry J. Wood (2 records)—29041-42.

CONCERTO FOR VIOLA AND ORCHESTRA, Frederick Biddle with the London Symphony Orchestra conducted by William Walton (3 records)—29043-45.

SONGS OF FAMOUS RUSSIAN COMPOSERS, sung by Vladimir Rosing (5 records)—29046-50.

## COLUMBIA MASTERWORKS

(Outstanding Programs)

FELIX WEINGARTNER and WALTER GIESEKING with the VIENNA PHILHARMONIC ORCHESTRA, playing all Beethoven program: Leonore Overture No. 2 (X96), Symphony No. 3 (285), Concerto No. 5 (243), and Symphony No. 7 (260).

EGON PETRI and JOSEPH SZIGETI, in a piano and violin recital: Handel Sonata No. 4 (17098 and 991), Moonlight Sonata (X-77), Brahms Variations on a Theme by Paganini (X-80), and Brahms Sonata No. 3 (324).

SIR THOMAS BEECHAM and the LONDON PHILHARMONIC ORCHESTRA playing a popular program: Weber's Der Freischütz—Overture (68986-D), Mozart Symphony No. 40 (316), Brahms Symphony No. 2 (265), and the Wagner overture Die Meistersinger (68854-D).

THE PASQUIER TRIO, the ROTH STRING QUARTET and ADOLPH BUSCH CHAMBER PLAYERS in a chamber music concert: Beethoven Serenade in D Major (341), Beethoven Quartet in F Major No. 1 (256), Bach's Brandenburg Concertos Nos. 1, 2, 3 and 4 (249), and Bach's Brandenburg Concertos Nos. 5 and 6 (250).

# RECOTON

## Reduces Price of Famous PHONO-ATTACHMENT



High fidelity reproduction in most convenient form! Goes under or over a radio; pull a drawer and you're ready to play. AC or DC, 12" turntable, high-grade crystal pick-up, walnut cabinet. Write for complete story.

### NEW NEEDLE DISPLAY



10 Plays from each Needle ~ ~ surface noise negligible ~ minimum wear on the record ~ let us demonstrate

Increase needle sales with this striking full-color card. A different display for a different needle. Samples sent on request.

Ask also about Recoton ACOUSTIC needles, especially for Portable and Electric Phonographs

**RECOTON Corporation**  
178 Prince St. New York City

# push-button TESTING

# THAT IS PROTECTED AGAINST OBSOLESCENCE

FOR 1939 SERVICING



Push-Button Testing must have wide flexibility to safely guard against obsolescence. Triplett has protected the service dealer with an unique circuit together with push-button individual selection to balance.

Rotating Chart Shows Correct Buttons To Push

## DYNAMIC MUTUAL CONDUCTANCE

### TUBE TESTER AND VOLT-OHM-MILLIAMMETER

Many misleading names indicate a Dynamic Mutual Conductance Circuit . . . Triplett's is a true dynamic mutual conductance tester in every sense of the word.

Push-button control gives a new order of simplification. The buttons are clearly marked on chart at base. Just rotate the chart to the tube to be tested—then the button to push is indicated in line under each row of push buttons. What could be simpler?

A second revolutionary improvement is the arrangement of the measuring circuit of the dynamic mutual conductance test for amplifiers and power tubes. The tube tested not only shows GOOD or BAD but the percentage of mu to the 100% good condition also is indicated. In circuit sets this permits the service dealer to pick his tubes with confidence. . . . Diodes and

rectifiers are tested for emission according to the latest approved engineering standards. Ballast tube continuity test. Gas test also included.

Rotate chart to Volt-Ohm-Milliammeter settings—push button for D.C. scale; 0-10-50-250-500-1000 Volts at 1000 Ohms per Volt; 0-10-50-250 M.A. 2 to 500 Ohms—300,000 Ohms—1 1/2 Megohms—3 Megohms; 0-10-50-250-500-1000 A.C. Volts at 400 Ohms per Volt; drehel chart furnished to 42 db's. (Ohmmeter is line powered.) Uses two interchangeable plug-in type rectifiers, simplifying replacement in case of unintentional damage. Replacement rectifiers are 100% precalibrated at the factory.

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

Model 1616  
**\$73.34**

Dealer Price

#### MODEL 1615

• Dynamic Mutual Conductance Tube Tester only with Push-Button testing. Same tube tester circuit and push-button panel as Model 1616, but for tube testing only.  
Dealer Price . . . . . **\$63.34**

#### MODEL 1610

• Emission Type Tube Tester with Push-Button testing. Has new R.M.A. approved circuit with every essential for dependable emission test on all type tubes. Testing greatly simplified by Triplett push-button operations. Installed in metal case with removable cover.  
Dealer Price . . . . . **\$39.00**

#### MODEL 1611

• Emission Type Tube Tester with Push-Button Testing and Volt-Ohm-Milliammeter. Similar to Model 1610 above described except Volt-Ohm-Milliammeter added. Ranges similar to those of Model 1616. Complete with accessories.  
Dealer Price . . . . . **\$49.50**



Model 1611

BE SURE TO ENTER TRIPLETT'S \$500.00 RADIO SERVICE PUZZLER CONTEST!



**ELECTRICAL INSTRUMENTS**

THE TRIPLETT ELEC. INSTRUMENT CO.  
109 Harmon Dr., Bluffton, Ohio

Please send me more information on

- Model 1616                       Model 1615  
 Model 1610                       Model 1611  
 Details on Radio Service Puzzler Contest.

Name .....

Address .....

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



# PARTS JOBBERS NEED HELP

Manufacturers asked to police distribution  
"Net price" selling is proposed in radio

*Evils of the radio-parts jobbing business were discussed by A. M. Hirsch of Los Angeles, Cal., on page 22 of RADIO TODAY for July, expanding the line of thought already developed by him in recent addresses before the National Parts Distributors group and the Sales Managers Club at Chicago.*

*Further discussion on the needs of the parts jobbing situation, by other well-known radio distributors, follow:*

## LET JOBBERS MAINTAIN SUGGESTED SCHEDULES

By R. W. DEMAREST  
*Radio Supply Co., Los Angeles, Cal.*

The question raised by the Hirsch article is a mooted one of long standing, "Small Profits Realized by the Jobber."

No real good has ever come, so far as we know, of any effort to improve the condition. Whether the present unsatisfactory state is due to greed for business, or lack of trust in one another of those interested in attaining a better basis, we are unwilling to say.

It is obvious that many plans could be offered to create a more substantial profit to the jobber, which he is certainly entitled to. But in our opinion the simplest and most effective

corrective one would be to see all jobbers strictly maintain the suggested discount schedules supplied by reliable manufacturers.

### Put field men to work

The manufacturers, having already provided what we think a reasonable jobber margin, could for their part be of great help by possibly more rigid policing of their lines through their field men. Further, there is a one hundred per cent degree of saturation in every territory throughout the country, and if all merchandise could be distributed through proper jobber connections it would rebound to the benefit of the manufacturer through materially cutting expensive detail he is now compelled to assume, as well as throw a greater flow of business to the legitimate and properly set up jobber.

Also, the jobber should not be called upon to make free deliveries. This has become a vicious and expensive cycle in competition. The jobber has to pay the freight from the factory to his place of business, but cannot charge the expense of free delivery to his customers from his place of business.

This subject is a very broad one that would require a great deal of thought and work, but a correction

can be accomplished if everyone concerned will work together with an open mind, fairness and honesty. Basically, however, we feel jobbers in general would find additional profit and satisfaction if they retained their normal margin and refused to give it away as a means of getting additional business.

## MANUFACTURERS AND DISTRIBS MUST HELP

By E. J. Tydings, Tydings Company,  
*Pittsburgh, Pa.*  
Vice-president NRPDA

The major evils today are threefold:

- 1 The extension of distributors' discounts by manufacturers to concerns that are not really distributors, but only large service organizations.
- 2 The lack of strict supervision by the manufacturer over the factory representative who, without thought of his better accounts, sneaks around the corner and sells at distributor prices the lines his main outlet or outlets cannot handle, thereby setting up competition that the larger distributor cannot meet, due to overhead, policy, etc.
- 3 The granting by the manufacturer of the same discount regardless of quantity purchases, thereby placing the larger account at a decided disadvantage.

### What should be done

- 1 The manufacturer should make all concerns that wish to be listed as parts distributors and receive distributor discounts measure up to certain qualifications. I would define as a distributor, one who does at least 80 per cent of his business at wholesale, carries adequate stocks in the lines he distributes, is recognized by at least ten leading parts manufacturers as a distributor, and does no service work, as this is the main subterfuge used as a wedge to get distributor discounts.
- 2 More strict factory supervision by the manufacturer over the factory representative.
- 3 A balanced discount schedule giving

(Continued on page 67)



Nifty new home of the Radio Supply Co., 950 S. Broadway, Los Angeles

# NEW THINGS

(Continued from page 32)

## 1.4 volt tubes

★ Line of dry-cell tubes operating from 1½ volt battery. Types available are 1A5G output pentode, 1A7G pentagrid converter, 1C5G output pentode, 1H5G triode with single diode, 1N5G r-f. pentode. All types operate with B battery of 90 volts. Ken-Rad Tube & Lamp Corp., Owensboro, Ky.—**RADIO TODAY.**



## Low-priced trouble shooter

★ DC type multirange meter. Measures 0/5/50/500/1000 volts, 0/1/10 milliamperes, 0/500/50M/500M ohms. Weighs only 24 ounces. Self-contained dry cells. Model 432—net \$5.95. Radio City Products Co., 88 Park Place, New York, N. Y.—**RADIO TODAY.**

## Table type cabinets

★ Line of table cabinets for radio sets and interphones. Available in sizes from 9¼ inches to 18 inches wide. Packed in individual cases. List \$3.40 to \$7. Edwin I. Guthman & Co., 400 S. Peoria St., Chicago, Ill.—**RADIO TODAY.**

## Convertible battery radio

★ Table type radio for battery and AC operation. Tunes down to 14 meters in 3 bands. Uses 5 tubes—vibrator power supply for 6 volts. Rotary switch on back of set provides instantaneous change-over. Model 310-H. Stromberg-Carlson Telephone Mfg. Co., 100 Carlson Rd., Rochester, N. Y.—**RADIO TODAY.**

## 75-watt rheostat

★ Potentiometer type rheostat with 75-watt rating. Vitreous enamel binds entire assembly to porcelain core. Shaft and bushing insulated from electrical circuit. Diameter of 2¾ inches. Tapered windings can be supplied. Type G. Ohmite Mfg. Co., 4835 Flournoy St., Chicago, Ill.—**RADIO TODAY.**

## All-wave signal generator

★ Six-band all-wave test oscillator tuning 50-60,000 KC. 6E5 tube used as output indicator. 400 cycle audio modulation. Cast aluminum case compartments for individual circuits. Equipped with jack to operate with oscilloscope. Three-section attenuator controls both high and low output. Model 36-A. Dayco Radio Corp., Dayton, Ohio—**RADIO TODAY.**

**“Reasons why”**  
**IS THE BIGGEST SELLING**  
**CAPACITOR LINE**

**QUALITY BUILT**  
**EXPERIENCE TESTED**  
**ECONOMICALLY PRICED**

**TYPE BR**

The type BR “Blue Beaver” is a typical example of the C-D “experience-tested and quality built” capacitor line. Hermetically sealed and vented, they eliminate drilling of chassis, use of pal nuts and washers as well as minimize assembly operations. You’ll like the results you get from C-D’s NEW Blue Beavers.

**TYPE TJ-U**

Type TJU fireproof Dykanol transmitting capacitors come hermetically sealed in sturdy steel containers. These are the capacitors practically every broadcast and government station in the world uses today. Standard equipment too, with tens of thousands of “hams” who will buy nothing else but C-D Dykanol units.

**TYPE DT**

C-D famous “Dwarf-Tiger” paper tubular capacitors are non-inductively wound and specially sealed. Extensively used by leading set manufacturers, C-D has produced many hundreds of millions of these tubulars—more than any other company in the world. Type DT is a real quality capacitor at the lowest price ever offered.

**CATALOG NO. 161**  
**NOW OFF THE PRESS! Have You Enough Copies?**

**CORNELL-DUBILIER ELECTRIC CORPORATION**  
 1022 Hamilton Boulevard, South Plainfield, New Jersey

# DYNAMIC CHECKING OF LOAD IMPEDANCES

The effect of load impedance in output amplifiers and how to detect mismatching of the load in triodes

By VINTON K. ULRICH  
*Service Editor*

Just as important as knowing in what stage distortion occurs is knowing what part of the stage is responsible for the distortion. Methods of localizing the distortion either by ear or by the oscilloscope were described in the July and August issues of *RADIO TODAY*. Also in the August issue a series of tests were described to help the serviceman put his finger on the exact cause of audio frequency discrimination or amplitude distortion in audio amplifiers.

Because so few servicemen understand the need for proper load impedances in output amplifiers, this month's

article will discuss distortion caused by improper load impedances and describe a test that can be quickly made on triode amplifiers. While it may appear to some that we are putting undue emphasis on the subject, recent discussions with servicemen indicate the need for this material.

The basic circuit for an amplifier is shown in Fig. 1-A. When simplified it takes the form of 1-B, the load impedance of the tube and its internal impedance in series, with a hypothetical AC source having a value equal to the grid swing  $E_g$  multiplied by the amplification factor ( $\mu$ ) of the tube.

The grid signal takes the form of a sine wave (that is what the test oscil-

lator delivers) and is shown in Fig. 2-A. The signal has a peak value of 28 volts and the tube has a negative grid bias of 30 volts. The curve shows the instantaneous variations in grid potential for one cycle. Note that for any instant, the grid potential is the sum of the signal potential for that instant and the grid bias. When the signal is 28 volts positive (point C) the grid potential for that instant is 28 - 30 or -2 volts.

Fig. 3 shows the family of characteristics of a typical triode type tube. Point O is the operating point when no signal is applied to the tube. The bias is -30 volts, the plate voltage is 268 volts and they can be measured by a voltmeter when the tube is in the circuit.

If the signal shown in Fig. 2-A is applied to the grid of the tube, for point A, the instantaneous grid voltage becomes -20 volts. This means that the instantaneous operating point for the tube is somewhere along the curve for "grid voltage equals -20 volts."

### Plate load explained

From the curves† shown in Fig. 3 and previous knowledge, it is obvious that if the grid voltage is changed, the plate current will also change. As the grid voltage becomes more positive (less negative), the plate current rises. Since originally a potential of 268 volts was on the plate, and the plate current has increased, it follows that there is an additional voltage drop through the plate load resistor or impedance because of the increased current. If it is known that a plate load of 3400 ohms is employed, one would expect that each additional 10 mils of plate current would cause an additional 34 volts drop across the load resistor. (By Ohms Law:  $E = 3400 \times .010 = 34$ .)

Knowing that each 10 mil change causes a 34 volt drop, one can draw in a line through point O with a slope that satisfies the stated condition. Where that line intersects the curve for -20 volts on the grid is point A, which is for 230 volts on the plate with a current of 46 mils. Point O is 268 volts and 35 mils. The change is 11 mils and 38 volts. By Ohms Law that means approximately a 3400 ohm resistance, which is a check on the work above.

Having determined the position of the load line on the family of tube characteristics, the grid swing can be traced on the curves as shown by points B, C, and -A, -B, -C, all of which must lie on the load line. (The

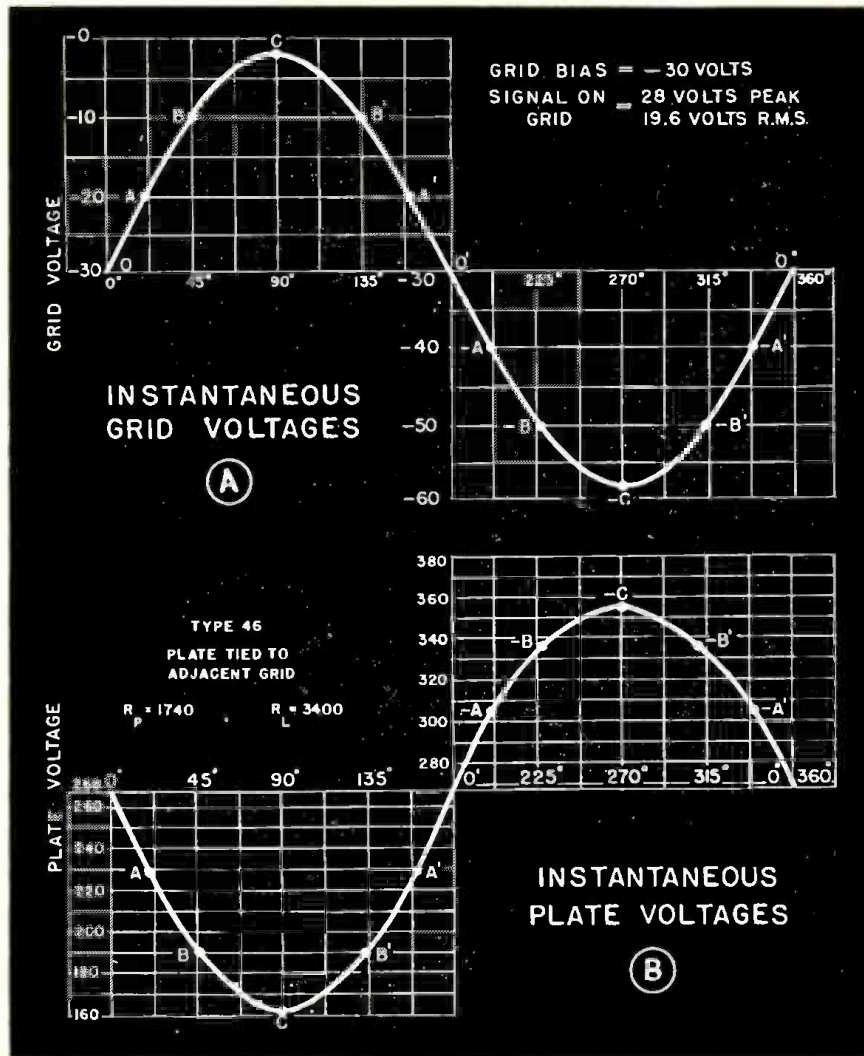


Fig. 2—Instantaneous grid and plate voltage swings in a vacuum tube amplifier. Note that while the plate voltage supply is 268 volts, the plate potential instantaneously drops to 162 volts and rises to 357.

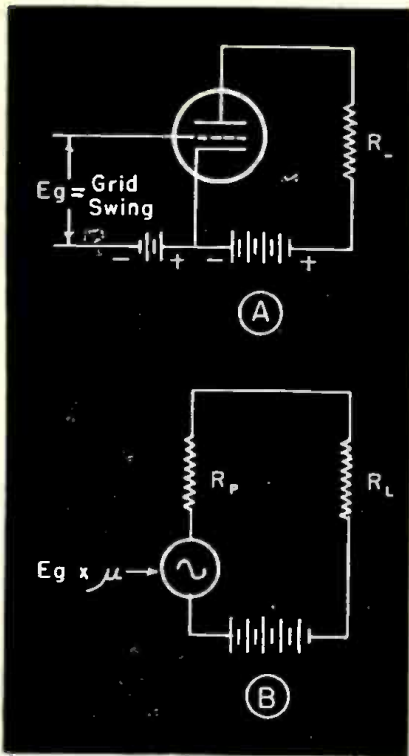


Fig. 1—Basic circuit of a power amplifier.

load line shown is any one of an infinite number that could be taken.) The purpose of drawing the load in is to determine on what part of the characteristics the tube is operating. Operation along this line is the *dynamic* operation of the tube. The voltage changes across the load resistor are those voltages observed on the cathode ray oscilloscope. Note that the plate voltage instantaneously drops to 162 volts for point C and rises to 357 for —C.

### Voltage induced in plate load

The tube can be thought of as a device in which the plate current is controlled by the grid potential. Then the

change in plate current induces or causes a change in the voltage across the load impedance. Since the voltage is dependent not only upon the change in current, but the value of the load impedance, the significance of the load becomes apparent. With zero load impedance, there just isn't any voltage output—and consequently the power output is also zero.

By taking the points O, A, B, C, —A, —B, —C along the load line in Fig. 3 and plotting them for *grid voltage vs. plate current*, the result is the *dynamic* characteristic shown in Fig. 4. Note that no plate voltage is stated, since the plate voltage is not constant. This dynamic characteristic is somewhat easier to follow since there is only one curve to consider, but it is good for only one specific value of load impedance. The variations in grid voltage are projected up to the  $E_g-I_p$  curve in the usual manner and then projected to the right for the plot of change in plate current.

### Dynamic tube characteristic

Contrary to what some servicemen believe and to curves shown in the current radio press, this dynamic characteristic is a straight line for small values of both positive and negative grid voltages. The bend that occurs is in the vicinity of plate current cutoff, which occurs for high values of negative grid bias.

The instantaneous values of plate voltage can be calculated from Fig. 4 by multiplying the change in plate current (upper "sine" wave) by the value of load resistance. Since we also have this information on Fig. 3, we have taken it and plotted it point by point as shown in Fig. 2-B.

In the May issue of RADIO TODAY on pages 30 and 31 there was a discussion of how the tubes cause distortion, and it pointed out that various loads on the tube required various operating potentials. Conversely, if the plate and grid voltage on the tube are established, there is an optimum value of

load resistance for maximum power output with minimum distortion.

Figs. 5, 6, and 7 show three different values of load impedance for the same values of grid bias and plate voltage. No load condition with the speaker voice-coil circuit opened is shown in Fig. 5. The actual value of this load is about 30,000 to 50,000 ohms since the output transformer has some losses, even under no load. Note that for full swing of the grid, a very high plate voltage swing is obtained. (Points A and B in these figures refer to maximum and minimum values of grid swing.)

When the load impedance is equal to the plate impedance, the voltage across the load or plate swing is much less as shown in Fig. 6. In fact, by referring to Fig. 1-B and using Ohms Law, one finds that if  $R_L$  were many times greater than  $R_p$ , practically all the applied voltage would appear across  $R_L$ . If  $R_L$  equaled  $R_p$ , then only half of the voltage would appear across  $R_L$ . This phenomenon is predictable from the characteristic curves and is also measurable at the radio set.

### No load vs. open circuit voltages

With Class A triode type amplifiers, it then becomes practical to make measurements of the plate load impedance by taking measurements of the voice coil voltages on no load and with a load. In order to eliminate the possibility of distortion at high levels affecting the accuracy of the measurements, the grid signal is limited to a small value, as indicated by X and Y on Figs. 5, 6, and 7. Note in Fig. 6, which would give high distortion at full grid swing, that the curves for high grid voltages become closer together in the region of point B. In other words, the length A—O and O—B are not equal in Fig. 6 and for a full grid swing, one-half of the output wave would be greater than the other.

By reducing the swing to one-third or one-quarter of its full value, the  
(To page 56)

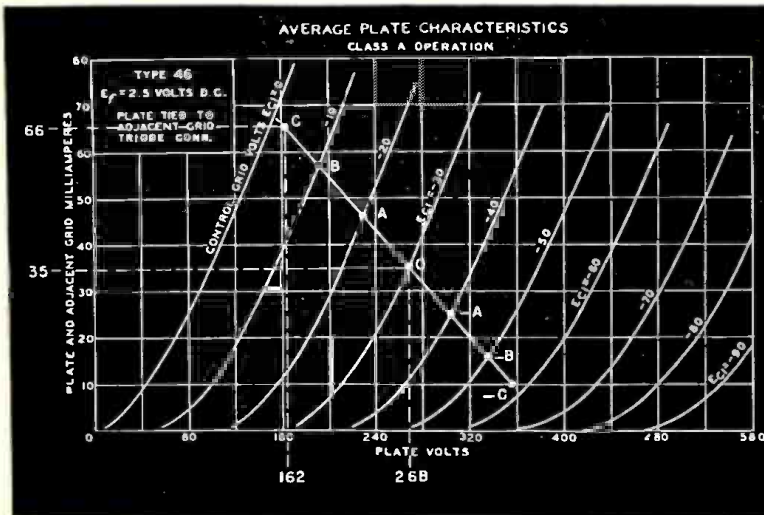


Fig. 3—The slope of the straight line is equal to the plate load resistance. Plate voltage and plate current swing can be obtained from these curves.

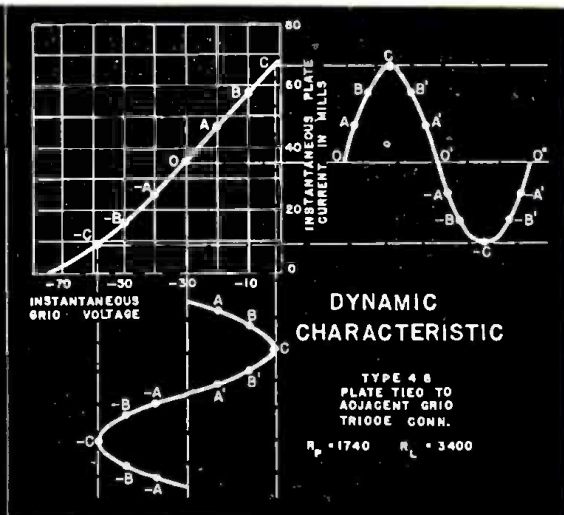


Fig. 4—The dynamic characteristic is obtained by plotting the points A, B, C, O, —A, —B, —C from Fig. 3. Points correspond with Fig. 2.

Beware! Instruments without jewels! Corrosion soon leads to gross inaccuracies. Readrite has built a reputation for reliability since 1904. There are no Readrite orphans.

**QUALITY TESTERS  
at LOWEST PRICES**



Positively Checks Radio Receiving Tubes According to Latest Recommendations of Tube Engineers.

**NEW  
MODEL 432**

**TUBE TESTER Only \$21.60**

- Separate Plate Tests on Diodes and Rectifiers
  - Neon Short and Leakage Tests
  - Ballast Tube Continuity Test
  - Uses attractive Triplett Direct Reading Instrument 3" size. (GOOD-BAD) Scale
  - Line Voltage Adjustment
  - New Improved Low Loss Switch
- Complete in attractive, sturdy quartered-oak case; suitable for counter or portable use. Stopping etched panel of silver and black.

**MODEL 431 ..... \$15.90**

Checks all receiving tubes. (No ballast test.) Tester uses dependable Readrite Meter. Quartered-oak case same as for Model 432.

**A.C. and D.C.  
VOLT-OHM-MILLIAMMETER**

Sturdy molded case with rounded corners, accessories included.



**Model  
736  
only \$12.00**

READRITE METER WORKS  
919 College Avenue, Bluffton, Ohio  
Please send me more information on  
 Model 432;  Model 736;  
 Send catalog

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

**RSA CHICAGO CHAPTER TO HOLD  
TEST EQUIPMENT SHOW**

The Chicago Chapter of RSA announces a test equipment show and round table discussion to be held at the Stevens Hotel in Chicago, September 28th. All of the outstanding test equipment manufacturers have signified their intention of participating in this opening meeting of the 1938 Fall season. Such outstanding figures in the industry as Mr. John F. Rider, Mr. Walter Weiss, Mr. O. J. Morelock, Mr. Paul Jackson, and many others who have been contacted have signified their intention of participating.

Newark—The first annual outing of the Radio Servicemen of New Jersey was held at Farchers' Grove, Union, N. J., on August 21st. More than fifty radio servicemen attended. For our first meeting in September, Chairman Rauber will address the group on "How to Increase Your Income by Servicing Allied Appliances."

Decatur—The Decatur Chapter of RSA has started a series of round table discussions, using a different subject each week, at which each member turns in a brief written statement of his personal views. These are discussed at the meeting. We expect to have a test equipment lecture the latter part of September by Mr. Walter Weiss of Hickok.

Fremont—On August 22nd Mr. Mohaupt of Radio Training Assn. addressed the Fremont Chapter on the use of the signal generator in service work. A large turnout was present and everyone felt he had gained something from the meeting.

**BIGGEST ADV. CAMPAIGN  
IN EMERSON HISTORY**

Starting in October issues of such top-flight magazines as *American Weekly*, *Saturday Evening Post*, *Collier's*, *Life*, *Esquire*, the Emerson Radio and Phonograph Corporation is planning the most intensive and aggressive advertising and sales promotion program in its history. Featuring all of the new 1939 models, from \$9.95 to \$219.95—in full-page, full-color advertisements in some publications, with liberal sized space in others—the campaign is designed still further to augment the growing popularity of Emerson in all markets.

Supplementing the magazine advertising, there will be a vigorous campaign in local newspapers, with tie-in copy, together with new window and store displays. A series of illustrated broadsides, bulletins and other promotion is being planned for the trade. Divisional distributor and salesmen meetings will be held at intervals throughout the intensive campaign period.

Commenting on the campaign's 1938-39 promotion plans, Mr. Max Abrams, treasurer of Emerson, stated that "although sales for the entire 1939 Emerson line have already exceeded all expectations, we are going

ahead with our campaign in keeping with our agreements with Emerson distributors and dealers. Because of the new styling, the new values, which our mass production has made possible, Emerson is in a stronger position than ever before to capitalize the second-, third- and fourth-set-to-a-home market. We have every reason to believe that this campaign will greatly stimulate such additional sales for the trade."

Complete details of Emerson's 1938-39 advertising campaign will be furnished to dealers by Emerson distributors.

**RHINE PLANS  
'SUPER-SERVICE' GROUP**

Arthur E. Rhine, well-known leader in the New York radio-service field, is planning a new service organization, to operate under a well-advertised name in the metropolitan territory. Individual service men who co-operate will be enabled to retain their own identity, but will benefit from improved locations, broadcast advertising, increased volume, lowered overhead, and quantity production, according to the announcements.

"Radio men who have long been seeking some method by which the radio repair business can be made to pay returns appropriate to their experience and efforts required, should investigate this plan," comments Mr. Rhine, whose own business headquarters are at 158 W. 230th St., New York, N. Y.

**NEW WESTERN MANAGER  
FOR RADIO TODAY**



Dick Fitzpatrick

Richard (Dick) Fitzpatrick has been appointed western manager of Radio Today, with headquarters at 201 N. Wells Street, Chicago. Mr. Fitzpatrick was formerly in the eastern territory for the W. P. Woodall Company, which manages and operates the direct-mail lists of Radio Today. He will continue to represent the Woodall lists in Chicago.

RCA Victor

TIME-**SAVING**, PROFIT-PACKED

**Phone SYSTEMS!**



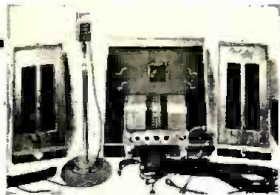
Two types are available—a wireless system for instant 2-way inter-office communication... a wired system for 1 to 5 channel communication! Both sell at reasonable cost—assure you worth-while profits.

Designed to meet the time-saving requirements of modern business, these RCA Victor phones will appeal to a tremendous market—a market you can sell.

Practically every place of business is a prospect. Auto dealers, banks, dentists, doctors, factories, hospi-

tals, police stations, schools, and dozens of others!

Not only do these two RCA systems offer many excellent sales features, but both are moderately priced. Order your supply now—and climb aboard this plus-profit wagon!



RCA PG-112 PORTABLE P. A. SYSTEM

... another money-making item!

Illustrated above, this system is universally adaptable. Operates from 110 AC or 6-volt storage battery and dynamotor. Permanent or mobile installation, 12 watts output. Two powerful dynamic speakers with RCA Velocity Microphone. This highly efficient system is excellent for scores of locations where good sound is paramount. Besides its many selling features, the PG-112 is low in price—only \$199.50.

Have you secured your copy of RCA's new sound catalog? If not, be sure to get it from your distributor, or write direct to us in Camden, N. J.

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

Any sound system sounds better equipped with RCA Radio Tubes



*Commercial Sound*

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

This Combination Means **MORE PROFIT** FOR *You!*



**ARCTURUS DEALER HELPS!**

If you have not yet received your copy of the ARCTURUS DEALER HELPS folder, send for it today! Here's everything you need to win the big sales contest that goes on right in your own store—every day! New displays; new, up-to-the-minute sales promotional items; new office and store necessities; new electros and mats... most of them absolutely FREE to ARCTURUS dealers! Use these tested sales-builders to bring new customers into your store and to keep the old ones coming to you again and again.

**RADIO'S FINEST TUBES!**

When you sell ARCTURUS TUBES you sell top quality. ARCTURUS' outstanding achievements in tube design... skillful workmanship... careful inspection... make ARCTURUS TUBES the finest engineered tubes on the market today. That means satisfied customers and increased tube sales for you!

The **IMPROVED ARCTURUS EQUIPMENT DEAL!**

Better, more complete than ever—with a new assortment of the very latest models—the ARCTURUS EQUIPMENT DEAL enables you to equip your shop with the most efficient test equipment money can buy... at almost no cost to you! Lower Down Payments... Low Tube Requirements... Tubes at Standard Prices... Immediate Delivery of the equipment you select! ARCTURUS actually gives you EXTRA PROFITS in the form of this valuable, modern equipment!



**GET THE FACTS!** Send for your FREE copy of the ARCTURUS DEALER HELPS folder and full details on the new items just added to the ARCTURUS EQUIPMENT DEAL. DON'T DELAY... put this profit-making combination to work for you at once! Mail the Coupon!

**ARCTURUS**

ARCTURUS RADIO TUBE CO., Newark, N. J. T-11  
Without cost or obligation, send my copy of the ARCTURUS DEALER HELPS Folder and details of your new equipment deal.

Name.....

Street.....

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

I am a dealer  I am a serviceman My jobber is.....

For your convenience this coupon can be pasted on a penny postcard

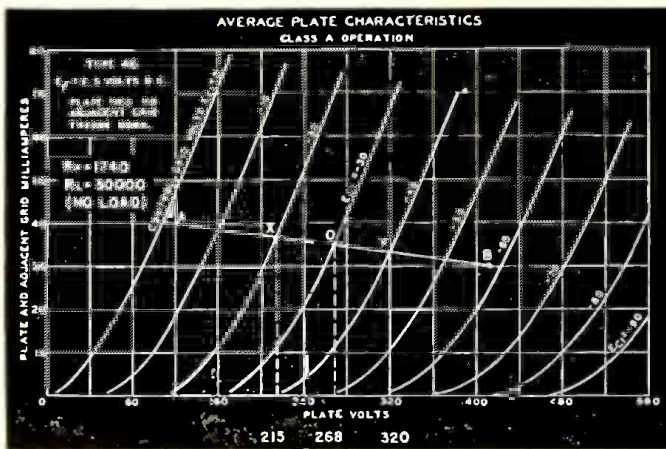


Fig. 5—A plate load of 30,000 ohms is shown by the straight line A-B. This is for open circuit conditions.

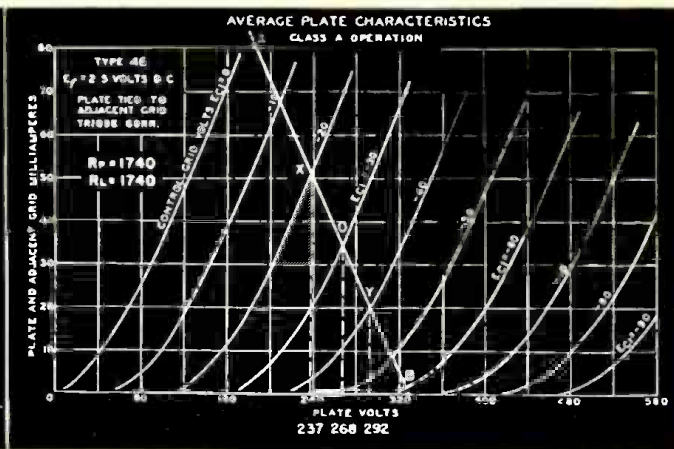


Fig. 6—When the plate load is equal to the plate resistance, the load line has the same value of slope as the tube characteristic.

operation is limited to a fairly linear range. In Fig. 6 (which is for plate load equals tube impedance) for a 10 volt grid swing, the plate swing is 268—237 or 31 and 292—268 or 24. Averaging these two voltages, the peak output is 27½ volts.

In Fig. 5 for no load the output is 268—215 or 53 and 320—268 or 52. The average is 52½ volts peak; 27½ is approximately one-half of that figure. As stated in a previous paragraph, it is to be expected that the voltage will be one-half, when the load is equal to the internal impedance of the tube.

### Proper load for triodes

When the load is equal to approximately two or two and one-half times the internal impedance of the tube, which is about the right ratio for most triode amplifiers operating in Class A, the voltage under load should be around two-thirds of the no load value. This condition is shown in Fig. 7. 268—230 is 38 and 305—268 is 37, which gives an average of 37½. This voltage is roughly 70 per cent of the no load, so for all practical purposes it can be stated that with proper load matching, the load voltage will be two-thirds of the no load voltage.

These voltage measurements referred to above can be taken either across the secondary of the transformer or the primary. Because of the lower

power required to operate the voltmeter\* at low voltages, the secondary connection is preferable—also the use of the DC voltage blocking condenser is unnecessary in the voice coil circuit.

The signal input to the tube should be somewhere in the vicinity of 400 cycles, although 1000 cycles will probably be okay with most sets.

Should the voltage be greater than two-thirds, it means that a higher value of load resistance is being used. Since with triodes, higher load impedances give less distortion with but a slight reduction in power output, a voltage under load which is slightly greater than two-thirds is not worth getting disturbed about. Note in Fig. 8 that for increasing plate loads, the distortion falls off very fast while the output power drops off more slowly.

Because push-pull operation of a stage causes cancellation of the even harmonics, push-pull stages often use lower values of plate load impedance than do single-ended output amplifiers. This factor should be taken into account when making measurements.

### Class A output plate current not constant

While on the subject of Class A amplifier operation, it might be well to correct some misunderstandings that

are easily made. For distortionless (0 per cent) operation the plate current of a Class A amplifier should remain constant. However, in radio set output amplifiers there is no such thing as distortionless output—as a result, the plate current of an output Class A amplifier will not remain steady when the signal is adjusted from no output to full output.

The proof of this statement is easily shown by an inspection of the tube characteristics in Fig. 3, which has a load for normal operation. Note that the length of C to O is greater than the length from O to —C. This means that the positive peak of the plate current is greater than the negative. The positive plate current swing is 66—35 or 31. The negative peak is 35—9 or 26. Since the upward swing is greater than the downward swing, the average plate current during full output must rise. This rise in plate current may be 5 to 8 per cent with single-ended Class A output amplifiers. With push-pull amplifiers the increase is even more.

Even though only 5 to 7 per cent distortion is present, the plate current will not remain steady from no output to full output. This is true for both triodes and pentodes. Examination of Figs. 5, 6, and 7 will show that as the plate load impedance is decreased, the negative plate current peak becomes a

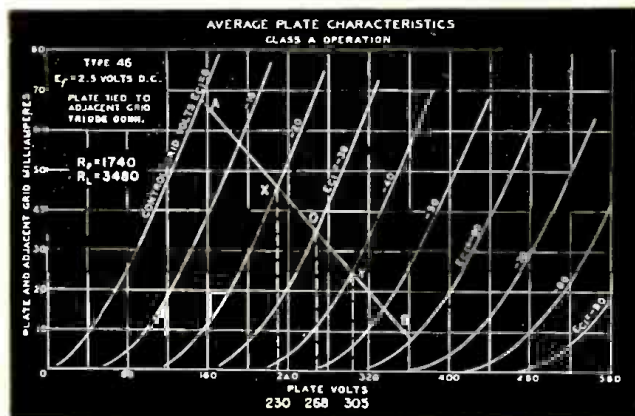


Fig. 7—Plate load is equal to twice the plate impedance of the tube. Note that the voltage swing is greater than in Fig. 6.

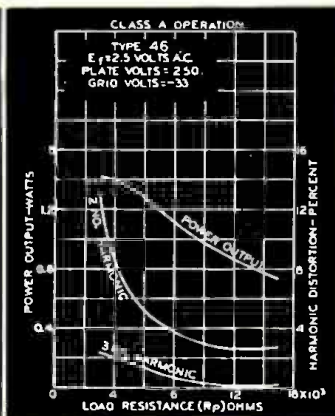


Fig. 8—Power output drops off more slowly than harmonics as the plate load is increased.

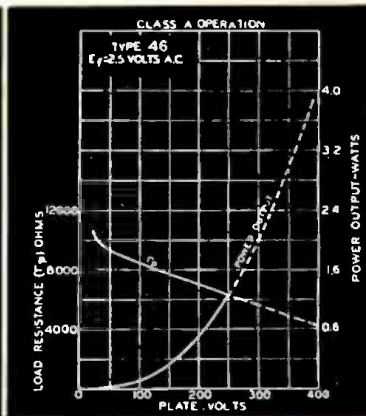


Fig. 9—The power output varies almost as the square of the plate voltage.

smaller percentage of the positive peak, even for constant values of plate voltage and grid bias. Therefore, for low values of plate load impedance with triodes, a greater rise in plate current will be observed at full output.

In the case of Class A voltage amplifiers which have a very high value of load impedance, illustrated in Fig. 5, the plate current will very nearly stay steady up to the full capacity of the tube because operation is limited to the very nearly linear part of the tube characteristic.

Lest the serviceman get too worried about load resistances, it must be pointed out that in voltage amplifiers there is no such thing as matching the load to the tube for maximum power output, since power output is unimportant—it is voltage output that counts. As explained before, high voltage output is obtained by high load impedance.

While one talks of matching the load impedance to the tube, the serviceman should not get the idea that the word "matching" means making it equal. In no instance is the load equal to the plate impedance for proper operation.

This discussion on matching impedances has been in reference to triode type tubes. Pentodes will be discussed later and alternative methods of checking for proper load impedances described.

† Tube characteristics by courtesy of Radio-tron Div., RCA Mfg. Co.

\* A high-resistance AC voltmeter having a multiplicity of ranges is especially desirable for these tests. The Weston 765 unit used has ranges of 1½, 3, 6, 15, 30, 60, 150, etc., to 1500.

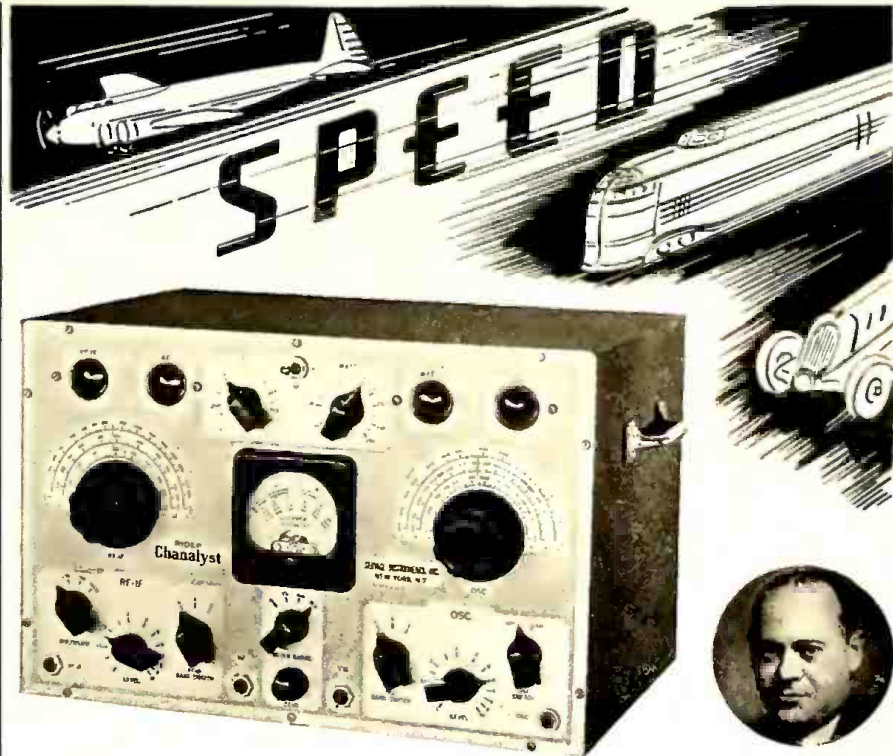
## USE MIDGET ELECTROLYTICS WITH DISCRETION

A word of caution regarding the latest midget metal-can electrolytics is sounded by Charley Golenz, Aero-vox sales executive.

"Please get this straight: the midget metal-can electrolytic is not a cure-all. It's got a place in servicing AC-DC sets, where dollars as well as space are limited. But when it comes to larger sets, particularly costly consoles, go easy on the use of midget electrolytics. They may be used for by-pass functions. But when it comes to filter circuits, particularly the first condenser following rectifier, it isn't wise to stick in a midget. After all, these tiny jobs haven't the foil area, electrolyte and can size for dissipating the heat of heavy-duty service. You can't expect them to do the same work as the full-sized electrolytics.

"Then there's another angle. The set owner who finds one of these tiny electrolytics in place of the original large condenser, can't help but feel uneasy. He doesn't understand how the same working voltage and capacity can be crammed into such a small can. Therefore, he jumps to the conclusion that he's been gypped, and the serviceman has a dissatisfied customer on his hands.

"I speak from first-hand experience.



## The Rider Chanalyst Provides The *Fastest* Method of Trouble-Shooting Ever Devised

JOHN F. RIDER

in whose Successful Servicing Laboratories this revolutionary instrument was developed.

Speed saves time—and time means money in any business! In radio, the serviceman who does faster work leaves his competition way behind. The Rider Chanalyst provides you with a method of testing that is *fast* because it is *logical*. Being of fundamental design the Chanalyst enables you to trace the passage of the signal from antenna to ground and localize troubles in any single part of the receiver. It permits a method of testing offered by no other single servicing instrument. . . . It is the one instrument every progressive serviceman will want to own. See the Rider Chanalyst in actual operation. go to your jobber for a

demonstration. You'll see: How any check of the receiver is made simply by placing the proper probe at the point under test . . . how you can determine, almost immediately, the conditions existing at any point . . . how you can "move" through the receiver as fast as you can switch the probe! Whatever you want to check—grid, plate, cathode, resistor, condenser, coils, voltage, wattage—all you do is apply the probes, without adaptors or plugs and, quick as a wink, trouble is located. You check every point accurately, no guess work, no doubt, no waste motions. See the Rider Chanalyst at your distributors—operate it yourself.

**HOLD EVERYTHING UNTIL YOU READ ABOUT THE CHANALYST**

*Free* 16 Page Booklet

Tells everything you want to know about the Rider Chanalyst . . . what it is, what it does, how it works. Profusely illustrated with diagrams and clear explanations. This booklet was written by John F. Rider in whose Successful Servicing Laboratories the Chanalyst was developed. Send for your copy immediately. Go to your jobber for a demonstration.



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

SERVICE INSTRUMENTS, INC  
404 Fourth Avenue, New York City  
Please send descriptive booklet on The Rider Chanalyst.

Name.....  
Address.....

*The* **RIDER**  
**Chanalyst**

**NOW READY FOR DELIVERY**



# SERVICE NOTES

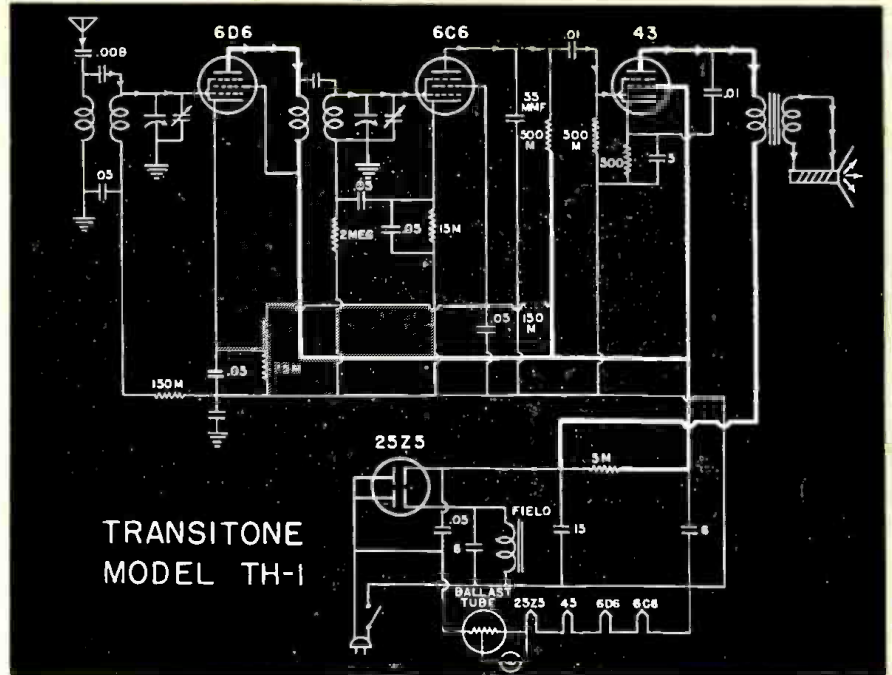
Some time ago we introduced an 8-mike 450-volt electrolytic an inch or so shorter than the usual job. We thought servicemen would like this smaller can. Instead, servicemen ran into customer kicks. Set owners didn't think the smaller unit could be as good. They felt cheated.

"So again I say, go easy on those midget electrolytics. Use them with due discretion, both from the technical and the business angles."

## DYNAMIC TESTING OF RADIO TUBES

★ In RADIO TODAY'S first article outlining dynamic radio servicing in February, 1933, it was stated that the most significant test for a radio tube is in its socket in the radio set. In other words, after a preliminary test in a tube checker shows that there are no serious defects, it is well to check operation of the tube in the set by substituting a new tube or tubes for the old one. In this way tubes in critical circuits can be carefully checked.

Right in line with this idea is the following paragraphs taken from the Technical Section of the *Sylvania News* for May-June. While the excerpt is from an article pointing out the need of better correlations between testing



Schematic of the Transitone TH-1. Note use of separate rectifier section to excite field coil of speaker.

methods and equipment; we feel that it points out emphatically, that after all the real test is in the set—or a *dynamic test*. Here's what Sylvania says:

"In 1929 and 1930 the use of type 27 as a bias detector was quite common.

It was discovered that some 27's worked better than others in certain applications. Investigation showed that there were over fifty different sets of operating conditions that the 27 had to meet in biased detector service. Tubes which were satisfactory in one circuit

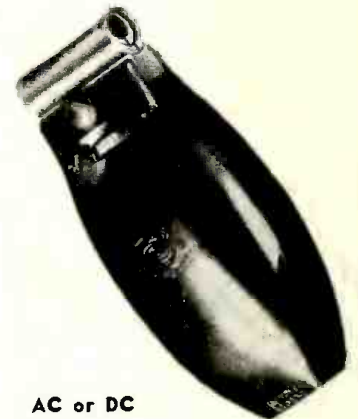
# Sensational New PRICE REDUCTION PACKARD SHAVER

A Million Have Been Sold for \$15

Now **\$7.50** List

"The new Packard price of \$7.50," said a dealer the other day, "is an act of merchandising genius!"

A moment's thought—and you'll agree. For now Packard is the only recognized, established, top-quality shaver available anywhere near its price. The nation knows Packard—knows it always sold for \$15. Feature Packard at this new price! And the thousands of men in your community, who have always wanted Packards but couldn't afford \$15, will flock to your store. Order through your jobber.



AC or DC

REGULAR DISCOUNTS CONTINUE

On orders of one to five shavers, 33 1/3%. On orders of six or more shavers, 40%.

**PROGRESS LEKTRO SHAVE CORP., 521 Fifth Ave., New York City**  
Canadian Dist. Progress Corp. (Canada) Ltd., 55 York St., Toronto, Can.

were not as good in others. Yet all of these tubes met normal specifications for type 27. In later years a similar situation has arisen in the use of type 36 as an autodyne.

"It is frequently necessary to try out several tubes before finding one that would give satisfactory performance in a certain receiver, yet the "unsatisfactory" tubes will work well in some other circuit with different requirements. It is obvious, from these examples, that although tubes test normal there are occasions when a selection must be made."

### SLIPPAGE OF DIAL DRIVE

Where a tuning knob rotates without positive drive to the dial Stromberg-Carlson's service department suggests the following:

- Check gang condenser against obstructions hindering movement or
- Loosen drive assembly screws and shift drive assembly toward dial disc as far as screw holes will permit, or
- Check dial disc for rubbing or binding against dial pan, or
- Replace dial drive if none of above are effective.

When the vernier tuning knob binds or sticks it usually indicates that vernier knob has been pushed too far onto shaft or that large tuning knob is not far enough on shaft, causing knobs to rub together.

### NEW CATHODE-RAY TERMS

★ The rapidly expanding cathode-ray art, particularly as it gets into television, is building up a language all its own. Leonard F. Cramer, sales engineer of the Allen B. DuMont Labs., Inc., Upper Montclair, N. J., supplies the following new terms and their meaning, for the enlightenment of radio workers:

**Oscillotron**—A cathode-ray tube for oscillograph work.

**Teletron**—A cathode-ray tube for television work.

**Phasmajector**—Meaning image emitter or a tube which provides a standard video signal source to aid television experimentation.

**Electromalux**—Meaning electric eye or a photo-electric mosaic pick-up tube for television camera work.

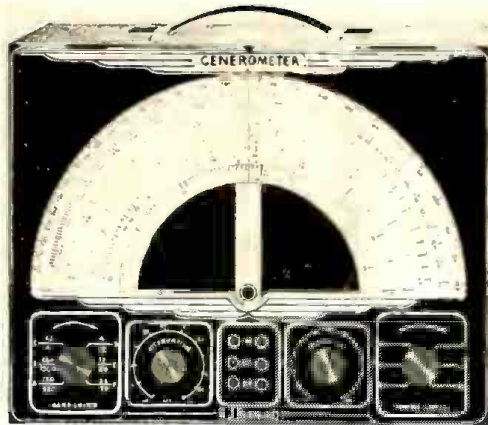
These terms and more to follow, have been derived from the Greek and the Latin, and are coming into general use to cover the essentials of the commercialized cathode-ray art.

### ARVIN STATION VARIATOR

In one of the current Arvin auto radio sets, a device known as the *station variator* is employed to permit selection of stations outside the usual range of push-button trimmers, since the set does not have a tuning condenser for manual tuning.

The circuit accompanying this de-

## MY STARTLING POLICY:



GENEROMETER is a tightly-shielded signal generator of extremely attractive appearance. The controls are band switch (left) delta T pad constant-impedance attenuator; r-f, a-f and wobbler posts; modulation on-off switch and tuning knob.

Greatly simplified circuits and a new factory technique enable me to offer the lowest-priced precision products—Treasure at the Price of Trash!

*H. J. Bernard*

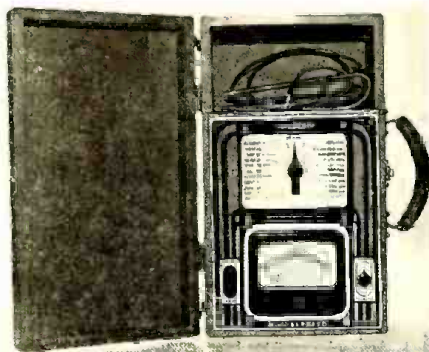
### Signal Generator Goes to 4.3 Meters

A common problem in signal generators concerns high frequencies. The cost of adding an extra band is very small. The problem of sustaining stable oscillation, or any oscillation, on that band is large. In GENEROMETER there is a sixth band, 25-70 mc. That is only one indication of surpassing engineering skill. Another is the solution of the leakage problem, so that the attenuator is effective on ALL bands.

### BIGGEST DIAL OF ALL . . . . 11 INCHES IN DIAMETER!

In six bands GENEROMETER covers 120 kc to 70 mc, all on fundamentals, no harmonics used. Accuracy is 1%, 120 kc-1100 kc; 2%, 1.1-25 mc; 5%, 25-70 mc. It has the biggest dial of all—ELEVEN INCHES diameter—with vernier drive. It combines low price with the perfection found only in costly signal generators. It supplies all the intermediate, radio and ultra frequencies for complete alignment of all types of receivers. Constant impedance output is at 200 ohms and at 10,000 ohms. Separate sine-wave audio output permits checking audio amplifiers, public address, speakers, etc. For 50-60 cycle, 90-130 volts a.c. Size 12½ x 8½ x 6 inches. Shipping weight, 12 lbs. Price, complete with tubes and shielded cable **\$19<sup>90</sup>**

### MULTIMETERS AT 5000 OHMS PER VOLT



In all, 35 services are combined in MAXIMETER (above), with 4½" square Bakelite-cased microammeter, while METERETTE, the pocket instrument at right, provides 14 services, using 3" meter of the same sensitivity. Hence both are 5,000 ohms per volt d.c. These and all other Bernard instruments were designed and engineered on the basis of Bernard's fourteen years' experience in the test equipment field.

**Maximum Ranges But Minimum Price**  
 MAXIMETER'S 35 ranges are provided at only two input posts, and with only two controls, an exclusive feature. They are: 5 D-C VOLT: 10-50-250-500-2500 v. @ 5000 ohms per volt; 5 O-C CURRENT: 1-10-100 milliamperes, 1-10 amperes; 5 RESISTANCE: 3000 ohms (11-ohm center); base times 10-100-1000-10000 to 30 meg.; 4 A-C VOLT: 1.5-15-150-1500 @ 1200 ohms per volt; 4 OUTPUT METER: 1.5-15-150-1500 @ 1200 ohms per volt; 4 OB: minus 10 to plus 55; 3 CAPACITY: 0.2 mfd. (.01 mfd. center), base times 10-100 to 20 mfd.; 3 INDUCTANCE: 30 henries (11-henry center), base times 10-100 to 3000 henries; 1 A-C CURRENT: 1.5 amperes. WATTAGE: 150 watts for line a.c. Model 385, complete with test leads and batteries (self-contained); shipping weight 16 lbs. **\$29<sup>90</sup>**  
 Price . . . . .



METERETTE (above) provides 14 splendid services and, like all other Bernard instruments, has fetching panel, and cabinet of outstanding attractiveness, strength and quality.

The best and smallest switch-type pocket instrument made—panel 3x5 13/16 inches—METERETTE provides 14 ranges. Housed in Philippine mahogany cabinet with removable hinged cover. The ranges are:  
 5 D-C VOLT: 10-50-250-500-2500 @ 5000 ohms per volt; 2 RESISTANCE: 2000-2,000,000 ohms, with 3-v. self-contained battery; 4 O-C CURRENT: 200 microamperes; 10-100-1000 milliamperes (one amp.); 3-AC VOLT: 10-100-1000 @ 1200 ohms per volt;  
 Model 381, complete with test leads, instructions, battery. Shipping weight, 3 lbs. Price. . . . . **\$13<sup>90</sup>**

All Bernard instruments carry a 90-day guarantee against mechanical or electrical defects of the instruments as a whole and all the parts in them.

All Bernard multimeters combine the a-c/d-c switch with the ohms adjuster, thus eliminating the third control present in most other multimeters. Switch stops and dial scales are color-coded.

See Your Jobber—Ask for Circular "T", or Write

# H. J. BERNARD

319-T THIRD AVENUE

BROOKLYN, N. Y.

Export Agent: Pan-Mar Corporation, 1270 Broadway, New York City

# GET THIS TODAY!

The Full Story of

*Halsion's*

amazing new miniature

*The*

## "DWARF"



*Fits into the palm of your hand*

• Here is a brilliant performer and superbly beautiful little set that is a real PROFIT LEADER—not a loss leader.

It is the type of set that will lead your customers away from the snare of cheapness by giving them a far better set for only a trifle more.

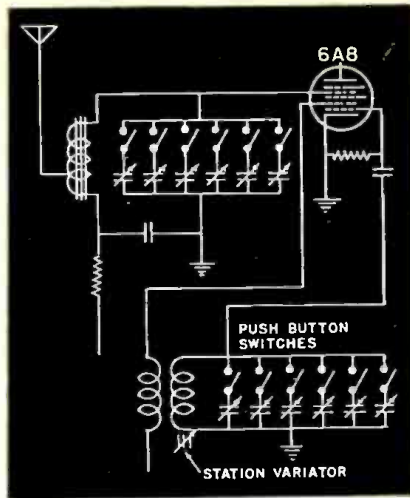
5-tube AC-DC . . . Large dynamic speaker . . . Marvelous tone . . . Broadcast and police calls . . . Exclusive new onyx-like cabinets . . . Red, green or ivory, all priced the same!

**\$15<sup>00</sup>**  
LIST

You can make money and hold the good will of your customers, by selling "The Dwarf"!

Get the whole story of the latest Halsion hit and five other smart table models. Send today—and handle the line that's on its way to record popularity.

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



Arvin station variator.

scription shows that two sets of trimmer condensers are used for selection of six stations. The station variator is built into the oscillator circuit and is an iron-core which is moved in the field of the oscillator coil. Movement of the coil changes the oscillator frequency thereby permitting selection of several nearby stations for each push button.

The antenna circuit remains fixed for each push button. The amount of detuning for stations other than those set up is slight.

The station variator also has the desirable feature that it can be used to overcome slight drift in the oscillator circuit, thereby keeping the set in tune with the station at all times.

### AUTOMATIC TUNERS NEED OUTSIDE ANTENNA

★ In a recent service bulletin Stewart-Warner Corp. calls attention to the need of a good antenna installation on electric tuning sets. Quoting, "All automatic tuning receivers should be operated on a good outside antenna to give maximum signal strength. An inside aerial, while it may permit satisfactory reception for a manually tuned set, will not provide sufficient strength to operate the A.F.C. during automatic tuning.

"Many dealers connect several sets to one antenna in their stores. This is liable to result in poor automatic operation, since it cuts down signal strength."

And on automatic sets not having A.F.C., we have noticed that a short antenna will not always give good reception, since with a slight amount of mistuning a strong hiss results. With a better antenna, even though the mistuning is the same, the signal strength is great enough to override the hiss.

(Continued on page 62)

**STOP!  
LOOK!**



And Read the News About

## RCA'S SENSATIONAL NEW TUBE TESTER!



COSTS ONLY  
**\$37<sup>95</sup>**  
MADE BY 156-A

AGAIN, RCA comes through with a winner! This time, it's the sensational new tube tester—that not only offers you more stand-out features than any other—but which costs only \$37.95 net.

Look at its features! They'll convince you that once more, RCA combines the finest quality with the greatest value!

### Only RCA Radio Tube Tester Offers All These Features

- 1 Test new 1-1/2 volt battery tubes.
- 2 Tests every standard type of receiving tube including all ballast tubes. Also tests cathode ray tubes for shorts and emission. All tests made according to RMA standards.
- 3 Tests four prong and octal base ballast tubes for noisy welds and opens.
- 4 Tests Magic Eye tubes for brilliance and opening and closing of eye.
- 5 Tests voltage drop on all types of Gas Tubes, such as OA4-G, OZ4-G, 874, and others.
- 6 Easily operated. All operating instructions and settings shown on simplified roller chart.
- 7 One Finger Operation. Buttons released or retained automatically as required for testing.
- 8 Shows line voltage up to instant of actual test. Not necessary to set line voltage before inserting tube in socket.

### Easily Portable... Ideal for Service Work!

The large illustration at the top shows the RCA Radio Tube Tester as designed for counter use. Stock No. 156-A, net price \$37.95. The unit is also available with cover and snap-type handle for portable use. Stock No. 156, net price \$39.95.



### RCA 3" Cathode Ray Oscilloscope

This is RCA's newest and finest general purpose 3 in. Oscilloscope. Has many new features—all at an attractive price. Provides an easily read image without requiring expensive accessory equipment of larger tubes. All controls located on front panel. Sensitivity—20 volts (RMS) per inch deflection without amplifier—with amplifier, 0.5 (RMS) per inch deflection.

Stock No. 155—\$63.95 net

Over 325 million RCA radio tubes have been purchased by radio users . . . in tubes, as in parts and test equipment, it pays to go RCA All the Way.

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



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



**BRUSH** introduces  
a high level mike  
with **PRICE** appeal

This new Brush H. L. microphone is sure to gain popular appeal. It's ideal for use with public address systems, amateur radio transmitters—in fact, any place where an inexpensive and high level microphone (minus 46 db) is needed.

The Vari-swiv mounting is another feature. It enables the mike to be used in an upright position or tilted to any angle. Mike obtainable with three prong male plug assembly if specified.

Write for details. Complete with 25 feet of cable—\$23.50.

## THE BRUSH DEVELOPMENT CO.

3313 PERKINS AVENUE  
CLEVELAND, OHIO

### INTERFERENCE ELIMINATION

## Profit-Builders by SPRAGUE



The Sprague Interference Analyzer—a compact, professional instrument 4½" wide x 7" high and 3" deep. Net \$9.75.

The famous Sprague Interference Analyzer combined with the special Sprague Noise Filters gives you the first practical, inexpensive method for eliminating radio noises **AT THE SOURCE**. It tells you exactly what filter to use—and exactly what results you will get.

For eliminating noises **AT THE SET**, try the new Sprague Plug-in Filters. Scientifically designed for the job, you'll be pleasantly surprised at their amazing effectiveness. A real profit-maker!

**KEEP THIS PROFITABLE BUSINESS  
IN THE TRADE!**

Sprague interference elimination materials are designed for radio servicemen—sold **THROUGH** servicemen. We equip you to do a thorough job, help you go after this profitable business. Write today for complete details on the Sprague Radio Interference Elimination plan.

**SPRAGUE PRODUCTS CO.**  
NORTH ADAMS, MASS.



The new Sprague Plug-In Filter—just the thing for stopping noises at the set quickly—effectively. List \$1.00 each.

**A MILLION DOLLAR BABY . . .**  
That Does a Man-Sized Job

Get next to the best! Use Sprague **ATOMS** (the new midget dry Electrolytics) for those jobs where you've got to save space—where you've got to use a really good condenser at a rock bottom price. 8 mfd. 450 V. lists at only 60¢. All replacement capacities including duals.



# it takes

more than a slap on the back



**IT TAKES** a Nationally known and accepted brand

**IT TAKES** a policy of dealer merchandising cooperation

**IT TAKES** insurance against slow turnover and obsolescence

**IT TAKES** protection from cut-price houses

**IT TAKES** guarantee of only *clean* competition

**IT TAKES** a proposition which gives the dealer ample stock without tying up his capital

**IT TAKES** a tried and tested program which is making money for better dealers everywhere

**IT TAKES THE  
TUNG-SOL CONSIGNMENT PLAN  
TO TURN TUBE SALES INTO  
TUBE PROFITS**

*Take time out now and ask the nearest  
Tung-Sol wholesaler or branch office*

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

**TUNG-SOL**  
Flow Radio Tubes

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

## SERVICE TIPS

### Crosley model 42-S Distortion

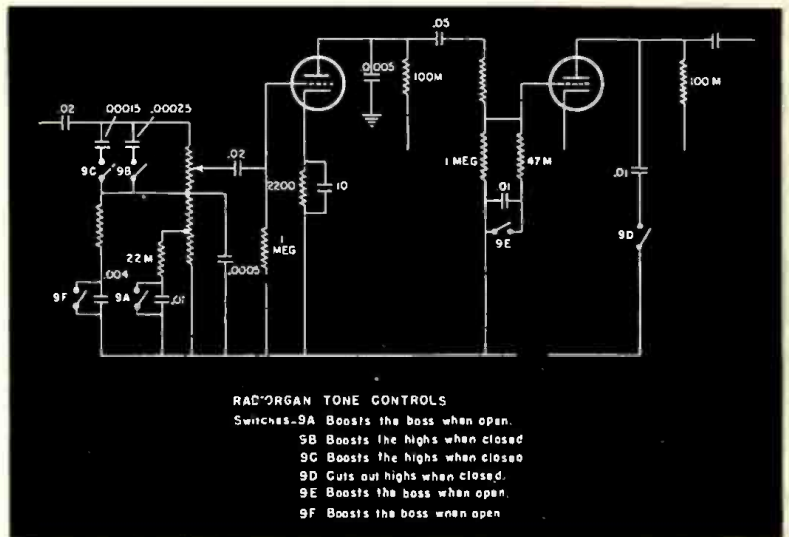
★ There is a dual by-pass unit which is used for the detector, and first audio cathode bias resistors. Sometimes a leakage will develop between these units, causing distortion. Simply replace both of these condensers. Values are .5 mfd.

### Philco model 70 Microphonic howl

★ If this condition occurs when the tone control is turned all the way to the left check the .00025 microfarad phone condenser connected to the plate of the second detector. This condenser has a yellow dot on one side and causes the trouble due to changes in its value or to its becoming open.

### Radiola model 18 Oscillation

★ There is an adjusting screw between the first two tuning condensers. It is accessible through the hole in the condenser frame. The correct adjustment is made as follows: Tune in some station between 1,400 and 1,500 Kc. and turn the adjusting screw clockwise, until you obtain oscillation and then turn it counter-clockwise until the oscillation stops. Selectivity may be improved to some extent by adjusting the R.F. compensating condenser screw slightly clockwise to bring the circuit closer to the oscillation point.



The Zenith radiorgan tone control is a series of separate switches controlling the tone response of the set.

### Silvertone model 1640 Interrupted reception, A-V-C time lag

Replace the .01 mfd. a-v-c condenser with a .01 unit. To overcome undesirable hiss, insert an r-f choke in the red plate lead of the 83 tube. In unusual cases another may be required in the other plate lead of this tube.

### U. S. radio model 26-P Oscillation

Evidenced by extremely high screen voltages, this condition is due to an open screen bleeder resistor (2,560 ohms). Replace with a 2,500 ohm value.

### Edison models R1, R2, C1, C2

### Major weaknesses

The 12,500 ohm series plate resistors and the 1,500 ohm centertapped resistors for bias of the 50 type tubes have asbestos washers at their ends. The absorption of moisture causes these washers to transmit dampness into these resistors, causing corrosion and shortening their lives. Replace with bakelite washers. The 25,000 ohm loss resistor should be replaced with a ten watt unit whether it tests all right or not.

When it comes to electric shavers a radio dealer should handle only the best!

# ROTO-SHAVER

Thousands Have Been Sold for \$18.75

NOW **\$12.50** LIST

WITH 2 HEADS, INSTANTLY INTERCHANGEABLE

A Shaving Head for Him—A Depilator Head for Her



The public is tired of make-shift shaving devices—and is ready and waiting for a shaver that performs its promises. That's the only kind you should carry. Retailers everywhere proved this to themselves with the Roto-Shaver at \$18.75. Now—at the new low price of \$12.50 it represents the greatest electric shaver value on the market. Roto-Shaver shaves as close as a

fine blade razor the first time it's used—won't irritate even the most sensitive skin—is sturdy, easy to clean, doesn't spray "whisker-dust." A hard-hitting national advertising campaign is already building demand. Ride on the crest of this wave. Order a supply today—being sure to mention your jobber's name so we can refer your order to him.

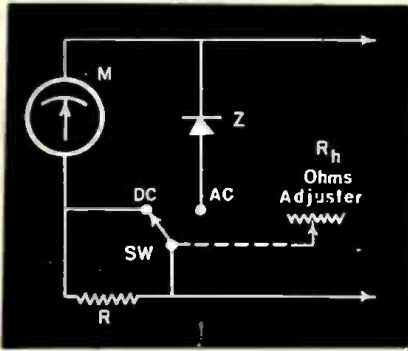
#### REGULAR DISCOUNTS CONTINUE

On orders of one to five shavers, 33 1/3%. On orders of six or more shavers, 40%.

**PROGRESS LEKTRO SHAVE CORP., 521 Fifth Ave., New York City**

Canadian Dist. Progress Corp. (Canada) Ltd., 55 York St., Toronto, Can.

## BERNARD CONTROLS



"An exclusive combination of the ohms adjuster with the AC-DC switch, which confines the controls to two, instead of three, marks the line of Bernard multimeters," according to H. J. Bernard, manufacturer of the instruments. "In addition, the pulsating DC through the meter is rendered negligible, so that the needle provides the same steadiness of reading on AC as on DC.

"The basic circuit of this simple scheme is shown in accompanying diagram. M is the DC meter, R is a limiting resistor, Z a copper-oxide rectifier, and Sw is a single-pole, double-throw switch. Following the sense of the diagram, when the switch is thrown to the left it opens the rectifier circuit and at the same time shorts out the limiting resistor, so that the meter is free for introduction of the usual DC voltage multiplier and DC current shunts, whereas when the switch is thrown to the right the limiting resistor is brought into circuit, as is the rectifier. Thus meter and resistor form a DC voltmeter, and the combination measures the pulsating DC across the rectifier.

"The main selector switch, the only other control used, picks up separate voltage multipliers for DC and separate ones for AC. Since there is also an ohms-adjusting rheostat, Rh, the S.P.D.T. switch is made mechanically a part of that control, and thus single control of the two functions is established."

## FAIRBANKS-MORSE STRESSES TONE

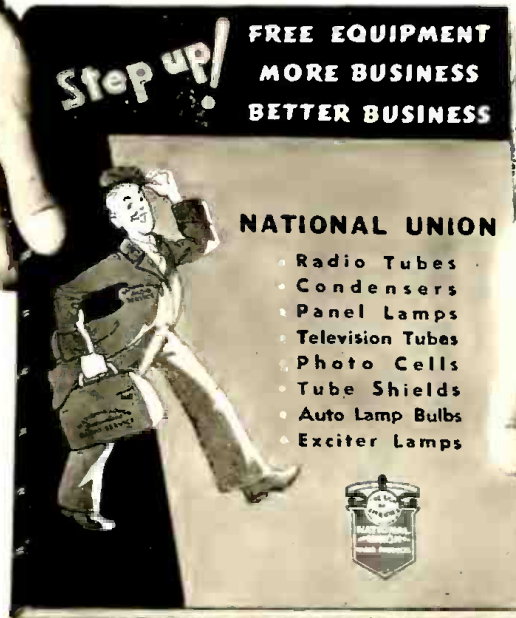
"A review of our 1939 line will indicate that we are eliminating the real low-priced sets from the Fairbanks-Morse line, and are being rather conservative as to the number of sets included," comments Earl L. Hadley, manager of advertising and sales promotion, home appliance division, Fairbanks, Morse & Company, Indianapolis, Ind.

"We are stressing quality and performance, plus startlingly realistic tone. The line includes table, console and console grande models with 7-, 9- and 12-tube chassis. Features are as follows: instant electric tuning, acoustic-sealed tone chamber, monitor panel, complete permeability tuning, cabinetry of highest quality with interlocking construction, and clearer and stronger short-wave reception."

# BE SURE YOU SEE THIS BIG NEW CATALOG!

Ask your Jobber to show it to you  
Get the equipment you need to  
do More business . . . better  
business this year FREE with your  
purchases of . . .

## NATIONAL UNION RADIO TUBES AND CONDENSERS



For nearest Distributor's name write:  
**NATIONAL UNION RADIO CORP.**  
Newark, New Jersey

## NEW "MARINE MIDGET" P. M. REPRODUCER and "TALK-BACK" UNIT

All of the exclusive Storm-Proof features of the larger Atlas "Marine Horns" are included in the new "Marine Midget." The reproducer is ideal for all types of sound installations, including inter-communication and "talk-back" systems. The inverted reflex design offers high efficiency directional characteristics, and absolute weather and mechanical protection.

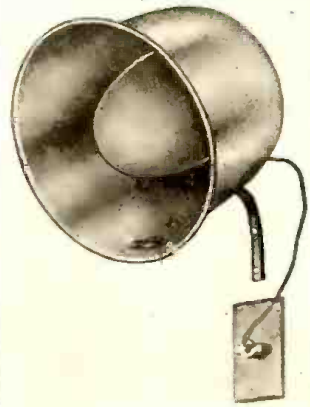
It's compact and easy to install. (Bell diameter 10", depth 8") Mounting bracket included. All aluminum construction, battleship grey enamel finish.

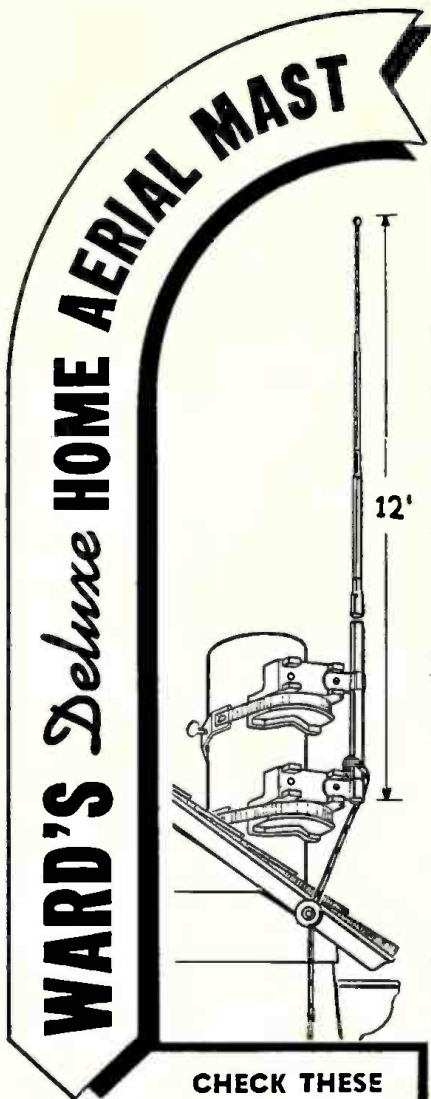
Model WX-55P Complete with Speaker **\$11.50** LIST

SEND FOR FREE CATALOG . . . Write now for technical description of the new "Marine Midget" and other high powered "Marine Horns" for large P. A. installations. New 1938 Fall Catalog contains 161 P. A. accessories. Widest selection of Microphone Stands, Baffles, P. M. Horn Type Units, Trumpets, Speaker Enclosures.

**ATLAS SOUND**  
CORPORATION

1454 39th Street Brooklyn, N. Y.





**WARD'S Deluxe HOME AERIAL MAST**

**CHECK THESE "ALL-STAR" FEATURES!**

- ★ **PROVIDES BETTER RECEPTION.** Operating on same principles as modern broadcasting stations with their vertical antenna masts, WARD'S new home aerial assures better pick-up, better reception than old style "clothesline" aerials.
- ★ **GUARANTEED RUSTPROOF.** Constructed of attractive, nickel-plated, super-sized bronze tubes. 4 sectional. 12 ft. in height.
- ★ **EXTRA SAFE.** Lightning Arrester on WARD'S new home aerial houses a .002 MFD condenser for additional capacity required by old and new sets.
- ★ **EASY TO INSTALL.** No poles, supports or guy wires required. Everything needed for installation comes packed with aerial. WARD'S new home aerial mounts vertically to soil pipe, or against chimney, cornice, window frame, garage, etc.

**FREE!!** Write or wire today for free catalog of WARD'S complete line of low priced, fast-selling aerials for car and home.

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

**C-D LAUNCHES BIGGEST CAMPAIGN**

A sales promotional campaign of extra size has been announced for this fall by Cornell-Dubilier Corp., South Plainfield, N. J. Counter displays, direct mail and publication advertising will all be included in the big drive which sales manager Leon Adelman describes as "excelling the other plans used during the previous years."

**ADDITIONS TO ARCTURUS DEAL**

A cash and change register, an electric clock, a new dealer's Neon sign, and various test instruments from the Weston, Precision and Supreme lines, have been annexed to the equipment deal offered by Arcturus Radio Tube Co., Newark, N. J. The company points out that its complete list of dealer helps now includes all business necessities for the radio merchant, from business stationery to technical equipment

**EMERGENCY STOCK OVERCOMES AEROVOX STRIKE HANDICAPS**

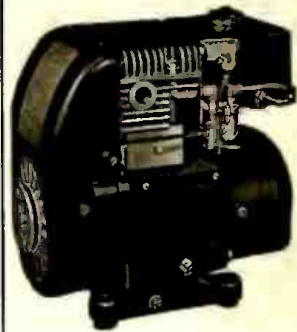
An emergency stock of standard types of condensers, set up in the Middle West, is now available to jobbers for the prompt filling of their orders during the Aerovox C.I.O. strike in the Brooklyn plant. There will be no shortage and no delay in taking care of jobber business, reports the Aerovox management.

"During April, May and June, when business was more or less at a standstill among set manufacturers," states S. I. Cele, president of Aerovox Corporation, Brooklyn, N. Y., "we received much less business from that source than usual. However, rather than lay off our employees, we concentrated on the manufacture of jobber stock. As a result, we have a tremendous stock of all jobber items on hand to take care of requirements for the balance of this year at least. Most of this stock has been transferred to a Middle West warehouse, and shipments from that point are already rolling. The strike is having no adverse effect whatsoever on the normal handling of our jobber business.

"With regard to the C.I.O. strike, the facts are:

"For two and a half months we diligently carried on negotiations with the C.I.O. Union, endeavoring our utmost to avoid a strike, but without success. In our previous contract there was a clause to the effect that the Union was not to make any other contract at lower terms than we had. The Union did not live up to this, and within the last month gave a competitor in this same district lower terms. We wanted the same deal but the Union refused, and wouldn't tell us why—your guess is as good as ours as to the reason for such dealing. At a meeting held by the State Mediation Board, it was suggested to us that we let things remain *status quo* until an agreement could be worked out. This we agreed to, provided someone from the Board would sit in. The Union insisted on a strike."

**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**  
595 Royalston Ave., Minneapolis, Minn.

**FREE! Allied's 1939 RADIO CATALOG**  
Ready Now—Send For It!

Every Radio Dealer, every Service Dept. needs this big guide to Everything in Radio at lowest prices! Over 14,000 exact duplicate and replacement parts; all leading lines of Test Equipment, including new Push-Button Testers; newest Sound Systems, Kits, Amateur Gear, books, tools, etc.—and 62 amazing 1939 KNIGHT Radios—sets for every purpose—ideal price-leaders as low as \$6.95! 180 pages of values—write today for ALLIED'S new 1939 Catalog.

**NEW SETS**



**NEW P. A.**



**NEW TESTERS**



**FREE!**  
Send Coupon!

**ALLIED RADIO CORPORATION**

Dept. 15-J-9, 833 W. Jackson Blvd., Chicago, Ill.  
Send me your 1939 Catalog—FREE

Name   
Address

# "PINCOR" POWER SUPPLY UNITS

## DYNAMOTORS GEN-E-MOTORS CONVERTERS

"PINCOR" dynamotors, gen-e-motors and rotary converters provide the last word in power supply units for air craft, police, marine and auto radios; also for public address systems. Now widely used by leading air lines and municipal and federal agencies throughout the world. Available in a wide range of capacities for every requirement. Compact, light weight. Sturdily constructed to assure long dependable service. Write for catalog and complete information.

**PIONEER GEN-E-MOTOR CORP.**  
Manufacturer of "PINCOR" Products  
Dept. R-21  
466 W. Superior Street, Chicago, Illinois

### OTHER "PINCOR" PRODUCTS

BLUE DIAMOND and GOLD CROWN gas-engine driven electric light and power plants, up to 5000 watts; alternating or direct current; air or water cooled; remote control. Send for literature.



# AGED.. FOR EFFICIENCY

No better vibrator is made than the Meissner. But to our knowledge no other vibrator—even the other well designed ones—are aged at the factory to guarantee their uniform efficient operation! Lying on a jobber's shelf, the several metals used in any vibrator undergo slight metallurgical changes which may seriously affect its efficiency and life. Only Meissner goes to the extreme of aging vibrators at the factory and re-testing them to eliminate those where the efficiency has deteriorated. Order Meissner from your parts jobber and know that you can always guarantee a replacement.



*Meissner* MT. CARMEL ILLINOIS  
**VIBRATORS**

## RCA INSTRUMENTS DO A BIG JOB AT SMALL COST



**NEW RCA 2" CATHODE RAY OSCILLOGRAPH**... uses the RCA-902 2" cathode ray tube... Has new, easily-read, tilt-mounted screen. All controls on front panel. Amplifiers, both horizontal and vertical—gain 50—sensitivity 0.5 (RMS) per inch... Has built-in, saw-tooth oscillator.  
Stock No. 151-2. **Net Price \$49.95**



**RCA BEAT FREQUENCY AUDIO OSCILLATOR**... range—30 to 15,000 cycles. For testing loud-speakers, P. A. systems, etc. Three output impedances. Has large, easily-read dial.  
Stock No. 154... **Net Price \$49.95**

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

Over 325,000,000 RCA radio tubes have been purchased by radio users... In tubes, as in parts and test equipment, it pays to go RCA All the Way.

**RCA Parts FOR PROFIT**  
RCA Manufacturing Co., Inc., Camden, N. J.  
A Service of the Radio Corporation of America

**I'D RATHER HAVE  
A BOTTLE OF  
BEER...**

• Customers are grateful for good service work. Some do express their appreciation by gratuities... all by continued patronage. That is how a business is built up. The use of Ward Leonard Replacement Parts goes a long way toward giving satisfaction. They are conservatively rated... so stand up.



**WARD LEONARD ELECTRIC CO.**  
40 South Street, Mount Vernon, N. Y.

Please send me Price List Bulletin 507 A.

Name .....  
Street .....  
City ..... State.....  
Jobber .....



Six more new jobbers have been announced for *Stromberg Carlson* by distributor manager *Fred N. Anibal*. They are: *Cloud Bros. Co.*, 902 S. Michigan St., South Bend, Ind.; *Radio Studios, Inc.*; 136 E. Broadway, Salt Lake City, Utah; *The Killian Co.*, Cedar Rapids, Iowa; *Rogers Maytag Co.*, 1415 Fifth Ave., Moline, Ill., and *Electric Sales & Service*, 198 Walton St., N. W., Atlanta, Ga.

**TWO GOOD REASONS**



**WHOLESALE RADIO SERVICE CO. INC.**  
 100 SIXTH AVE., NEW YORK, N. Y.  
 CHICAGO, ILL. • ATLANTA, GA. • BOSTON, MASS.  
 BRONX, N. Y. • NEWARK, N. J. • JAMAICA, L. I.



Sales heads of Steem-Electric Corp., 1726 Lafayette Ave., St. Louis, Mo., make promotion plans for their "successor to the electric iron." Left to right, Benny Ginsberg, L. Cooper, L. Gershon, president E. F. Pohl, L. Wiener and H. Smith.

## JOBBERS

Appointment of new distributors for the exclusive sale of *Wilcox-Gay* record players and radios has been announced by sales manager *Warren Hasemeier*: *Clary-Marsu, Inc.*, Birmingham, Ala.; *United Radio Supply*, New Britain, Conn.; *Sechtman Hardware Co.*, Hartford, Conn.; *Capital Paper Co.*, Indianapolis, Ind.; *H. E. Sorenson Co.*, Des Moines, Iowa; *Union Supply Co.*, Burlington, Iowa; *Warren Electric Co.*, Sioux City, Iowa; *Lincoln Sales Corp.*, Baltimore, Md., and Washington, D. C.; *Duggert Distributing Co.*, Grand Rapids, Mich.; *Disco Distributing Co.*, St. Louis, Mo.; *H. C. Noll Co.*, Omaha, Neb.; *Weule Electric Co.*, Binghamton, Rochester, Elmira, and Buffalo, New York; *Herringer Distributing Co.*, Cincinnati, Ohio; *Standard Radio Parts Co.*, Dayton, Ohio; *Hood Electric Co.*, Youngstown, Ohio; *Elliott-Lewis Electrical Co.*, Philadelphia, Penn.; *Tydings Co.*, Pittsburgh, Penn.; *Tennessee Val-*

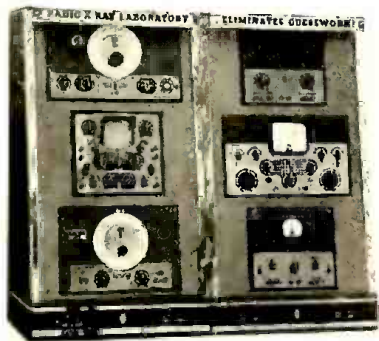
*ley Appliances, Inc.*, Nashville, Tenn.; *Monsen-Dunnegan-Ryan Co.*, El Paso, Tex.; *McLendon Electric Co.*, Waco, Tex.; *Sound Systems, Inc.*, Huntington, W. Va.; *Bluefield Hardware Co.*, Bluefield, W. Va.

Following the debut of the 1939 *Admiral* line, some 23 distributors have been named. The list includes: *Marshall Wells Co.* of Portland and Seattle, whose sales manager is *Warren Hartwell*, and radio department manager is "Monte" Ward; *Birmingham Electric Co.*, Birmingham, Ala.; *Gambill Distributing Co.*, Nashville; *H. E. Sorenson Co.*, Des Moines; *Electric Supply Co.*, Oakland, Calif.; *The Bauman Co.*, Minneapolis; *Reid Motor Supply Co.*, Quincy, Ill.; *Stallman of Ithaca*, Ithaca, N. Y.; *Southern Bearings & Parts Co.*, Charlotte, N. C.; *Harbison & Gathright*, Louisville; *Atlantic Electric Supply Co., Inc.*, Richmond, Va.; *Englewood Electrical Co.*, Chicago; *Felt Radio Co.*, Salt Lake City; *Hinsdill Electric Co.*, Troy, New York; *Philadelphia Light Supply Co.*, Philadelphia; *Radio Television Co.*, Phoenix, Ariz.



## Modernizing Sets Pays Better than Trading

QUALITY STANDARD OF THE  
 RADIO INDUSTRY



Auto and Home Radio Service Laboratory

### Experts Make More Through Stepping Up Tone of Old Receivers by Audio Dynatesting

FIGURE trade-in loss, overhead, cost of selling, installation and free service, and what you've got left out of selling a \$100 receiver is a fraction of the clear profit from a \$15 to \$20 audio modernization job, requiring not more than three hours to perform, by modern dynamic method.

Is it any wonder that experts who boast the needed equipment and knowledge of how to use it are making money, while less skilled service men are having a hard time getting by?

"Complete Dynamic Testing, Step-by-Step, with Time-Saving Cathode Ray,"

by Kendall Clough, president and chief engineer, is the key to top notch service profit through teaching how to diagnose, in quickest fashion, any trouble in any receiver, including audio deficiencies, and so to apply swift and sure correction. Best of all, it takes no college degree to learn, but can be put to work by anyone able to read receiver diagram, in quick time.

Supplied free with the purchase of any C.B. instrument. Also sold by leading jobbers, or mailed direct anywhere for 50c. See your jobber, or write, enclosing stamps or coin, TODAY!

2827 W. 19th. St.

**The CLOUGH - BRENGLE CO.**

Chicago, Ill., U.S.A.

Simon Distributing Corp., Washington, D. C., jobbers for Motorola, were recent hosts to local dealers at an advance showing of 1939 merchandise. President J. H. Simon and his assistants Al Harris and "Bill" Hartmeyer led the demonstrations. Prominent dealer guests included Sun Radio Corp., Manhattan Auto Radio, Georges Radio, etc.

General Electric has established a direct factory distributing branch at 700 Commonwealth Ave., Boston, for the area formerly served by W. L. Thompson, Inc. C. M. Wilson is manager and V. W. Brown, operating manager. The Boston and Buffalo, N. Y., sales districts have been combined, with the Buffalo man J. A. Ramsey named district manager.

Lecture meetings of a semi-technical nature for service engineers and dealers will be held this Fall in 100 of the key cities of the U.S., jointly sponsored by local RCA distributors and by RCA service execs. Service manager Edward C. Cahill of RCA has announced that the September-October-November series will cover radio's newest technical developments.

Vice-president Howard C. Briggs of Howard Radio Co., returning to Chicago from an eastern trip, has news about new distributors. New jobbers for Howard communication receivers include E. J. Tydings, Pittsburgh, and Hatry & Young, Inc., covering Hartford, New Haven, and Bridgeport, Conn. Distributors in Maine are Royal Amusement, Auburn; House Sherman, Inc., Rockland. Those in Massachusetts are H. Jappe Co., Boston, with branches at Worcester, Dover and Manchester in New Hampshire, and Wholesale Radio Co., Boston. T. F. Cushing handles them at Springfield. Aaron Lippman covers Newark, N. J. Metropolitan jobbers on amateur sets are Davega-City Radio Co., Gross Radio, Inc., Harrison Radio Co., Terminal Radio Co., and Harvey Radio Co. New upstate N. Y. distributors are Dymac Radio Co., Buffalo; Niagara Radio Co., Falls City; Ft. Orange Radio Co., Albany; Roy C Stage, Syracuse; E. Berndt Co., Syracuse; and Beaucaire, Inc., covering Rochester.

Radio Accessories Co., distributors at 2566 Farnum St., Omaha, Neb., are mailing to dealers and servicemen in the Midwest, Southwest and West, a new 24-page Spring supplement catalog. RACO bargain list includes a big section of sound equipment.

## MANUFACTURERS AND DISTRIBS MUST HELP

(From page 50)

ing the quantity buyer an equal chance to meet demands at a higher overhead.

All jobbers should belong to the NRPDA or a similar association. Dealers and servicemen should join local organizations which in turn would work with a national association.

These three groups in turn should work with the manufacturers in solving the evils we hear so much about, but about which we do so little.

NEW, finer performance  
... new competitive prices—  
Cinaudagraph speakers are  
America's No. 1 "buy"! Cinaudagraph has long been "tops". Now  
Cinaudagraph offers this same  
fine quality in a complete line  
at the same price you would  
pay for ordinary speakers.  
Extensively used by the ma-  
jority of leading set and P.A.  
manufacturers and servicemen,  
Cinaudagraph speakers will  
be found wherever quality  
and lasting performance are  
a necessity.

A complete line of indoor and outdoor speak-  
ers in both electro-dynamics and permanent  
magnets from 5" to 27" are available. Send  
for new catalog to Dept. 111.

CINAUDAGRAPH CORPORATION

SPEAKER DIVISION  
STAMFORD, CONNECTICUT  
EXPORT DEPARTMENT  
100 VARICK ST., NEW YORK

Number  
One  
Speaker  
Line

QUALITY

COMPLETE  
LINE

COMPETITIVELY  
PRICED



# "TOKFONE"

THE MOST COMPLETE LINE OF INTER-COMMUNICATING EQUIPMENT



Tokfone Jr. Master Station

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. 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.....\$12.95 NET

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



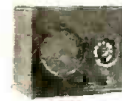
Tokfone Model 142E Remote Station

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 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 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.M. 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 2-6B5 push pull in the output.

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

Three Wire Model 144STV at slight additional charge.

Send for Catalog Showing Complete Line

**REGAL AMPLIFIER MANUFACTURING CORP.**  
16 WEST 17th STREET Cable Address: "Ramcoamp" NEW YORK CITY

# LOOK, MR. SERVICEMAN!

- ★ CHAPTERS *in* 45 CITIES
  - ★ MEMBERS *in* EVERY STATE
  - ★ *and in* ALL PARTS of the WORLD
- . . . . That's the Record of the RSA in  
only 7 Months!

More and more, Servicemen have come to realize that it pays to belong—that the RSA is the one big constructive and progressive organization of Servicemen for Servicemen—that it is genuinely and actively helping every member.

## YOU GET ALL THIS

(Material and Service that's Worth \$75 and more!)

YOU become eligible for participation in the Advanced Extension Course for Professional Servicemen—available to RSA Members only. ★ YOU GET monthly Advertising and Business Promotion ideas to increase your business and make it more profitable. ★ YOU GET a subscription to "The Radio Serviceman"—the Association's monthly magazine. ★ YOU GET the benefits of being included as a "REGISTERED AND QUALIFIED SERVICEMAN" on record at National Headquarters for reference. ★ YOU GET a Certificate of Merit to hang in your shop. ★ YOU GET a pocket card of credentials. ★ YOU GET the assistance of our big expert technical staff as a department in your service business. We will give you the *right* answer to your "impossible" service problems. ★ YOU GET (if you belong to a local serviceman's group) access to our National Speakers' Bureau—famous speakers for your meetings. ★ YOU GET advance technical information on new circuits.

It's as important to you as your job or your business! JOIN NOW and get in on all its benefits.

## RADIO SERVICEMEN OF AMERICA

JOE MARTY, Jr., Executive Secretary, 304 S. Dearborn St., Chicago, Ill.

### MAIL THIS COUPON!

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

Gentlemen:

I hereby make application for membership in the Radio Servicemen of America.

Name .....

Home Address .....

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

Firm Name .....

Address .....

- I am enclosing \$2.00 National Yearly Dues  
(Plus Nominal Local Chapter Dues)
- Bill me \$2.00 National Yearly Dues.

## NEW BOOKLETS

Shure Bros., 225 W. Huron St., Chicago, have brought out a new catalog on ultra wide range microphones, crystal pickups, "communications" mikes, stands and accessories, directional crystal mikes, and vibration pickups.

Zenith Radio Corp. makes the suggestion "add to your radio enjoyment with recorded entertainment" in a new folder featuring Zenith phonograph-radio combinations for every occasion. Ten models are presented. There is also a section on the "Radiorgan" feature.

The F. W. Sickles Co., 300 Main St., Springfield, Mass., has released a new catalog on its quality "Diamond Weave" radio electrical apparatus. Number of this 22-page illustrated booklet is 939.

The latest jobber catalog sheets, bulletins J-11 and J-13, on public address equipment controls, are now available direct from Clarostat Mfg. Co., Inc., 285 N. 6th St., Brooklyn, N. Y. Complete descriptions, listings and application data are included.

Radio & Technical Publishing Co., 45 Astor Place, New York City, will send free a new illustrated circular on Alfred A. Ghirard's newest book for service men, "Radio Trouble-Shooter's Handbook." It gives full information in the 50 sections of the volume, covering all phases of repair service.

"New 1939 Jackson Radio Testing Equipment" is the title of an 8-page booklet released by Jackson Electrical Instrument Co., Dayton, Ohio. Automatic range selection is featured in one section; ways to modernize service shops with Jackson service lab units are suggested in another.

Complete information on the installation of Philco's new Mystery Control receivers has been issued to jobbers in booklet form. This is the first technical dope of any kind to appear on the Mystery Control; it was written by sales engineer Henry T. Paiste, Jr.

All jobbers are invited to write to Triad Mfg. Co., Inc., Pawtucket, R. I., for a supply of the firm's bulletin No. 115 for distribution to dealers and servicemen. The booklet handles the replacement problem in ballast resistors, giving the new numbering system, the base wiring, voltage drop and pilot table.

"Facts About Television" is a new 18-page booklet issued by American Television Corp., 130 W. 56th St., New York City. The five Videor home television receiver models, including the Kinet portable extension, now being marketed by the firm, are shown and described.

Newest addition of "Sound Apparatus Bulletin" has just been published by Sound Apparatus Co., 150 W. 46th St., New York City. It features a new Simplex record-cutting device, and includes general data on sound and recording.

A condensed catalog No. 16 on "Radio Service Equipment, 1939" has been issued by Hickok Electrical Instrument Co., 10514 Dupont Ave., Cleveland, Ohio.

Wright-DeCoster, Inc., St. Paul, Minn., have released a new 12-page catalog, in red, which carries details and illustrations on the firm's complete line of reproducers, and replaces all other catalogs. The company's new line of radio service speakers, for replacement work, is included.

To servicemen who are entering Hygrade Sylvania's Service Shop Modernization Contest, or are otherwise planning shop improvements, there is now available a booklet containing complete specifications of the Sylvania Model Service Shop. The book comes from the firm at Emporium, Pa., at 10c.

Ideal "Thermo-Grips" are presented as the latest in electric soldering tools, is a new booklet issued by Ideal Commutator Dresser Co., 1231 Park Ave., Sycamore, Ill.

Latest edition of RCA's "Wheel Static," prepared for the company's auto radio service network, concerns tire static, including practical service hints and installation data.

All the new wire products and assortments of Alpha Wire Corp. are shown and described in a new catalog, No. 38. Address 50 Howard St., New York City.

Specifications and price sheet on Ohmohm resistors has been released by the Ohm Carbon Co., 12508 Berea Road, Cleveland, Ohio.

"Again in 1939 Admiral Rules the Air Waves" is the title of a new folder released by Continental Radio & Television Corp., 3800 W. Cortland St., Chicago. Tilt Tuning, with the Full Vision Illuminated "Slide Rule" dial, is featured, and the elaborate presentation includes console and table model combinations, and straight radios, auto sets, and battery receivers.

Leotone Radio Co., 63 Dey St., New York City, have released a new booklet on cone assemblies, field coils, speakers, "hard-to-get" parts, pickup and microphone repair services, Balkite service station, and accessories.

Timed to appear with the opening of the fall buying season, Federal Sales Co. will shortly issue a new catalog featuring many special items of radio hardware, notably those used by the manufacturers of sets, interphones, sound equipment, testing instruments, speakers, etc. This line is also a favorite with jobbers because of its variety and completeness. Copies of the catalog should be requested on company stationery, address to 26 South Jefferson Street, Chicago.

Loose-leaf sheets, with concise and complete listings of all Clarostat products, will now be sent to those addressing the company at 285-7 N. 6th St., Brooklyn, N. Y. These are catalog sheets for counter and jobber salesman use.



**SERVICE IS ON THE MARCH!**

—these new Simpson instruments will help you keep up with the parade

Each year service becomes more complex . . . each year adds new models, new circuits and new problems . . . but through it all the Simpson organization has more than kept pace.

The new up-to-the-minute Simpson line of instruments have been designed by men who know every angle of the testing job. Each model has been built to help you do a better job . . . to enable you to make more out of the service end of the business.

A few of the important features of just a small part of the Simpson line are presented below. Give them the once over and then write for complete information. It will pay you to keep up with the service parade and Simpson instruments will help you do it.

**SIMPSON ELECTRIC CO.**  
5202 Kinzie Street, Chicago, Ill.

You have never seen a tube tester the equal of this at a price of \$26.50.

**The New Simpson Model 333**

Tests ballast tubes. Has provision for testing pilot lamp and gaseous rectifiers of the OZ type new double filament switching. Jack for noise test with neon bulb of super sensitivity for checking shorts. Latest R.M.A. standard circuit. Convenient size only 7½"x10½"x5" and weighs 7 lbs.



And now the master of all set testers, the new Simpson Model 440 "Testmaster".



A tube tester of improved design—based on R. M. A. standards, employing double switching of filament terminals for testing special tubes without adaptors or special sockets.

A set tester of tremendous scope—As a set tester the Model 440 has six A. C. and D. C. voltage ranges. Four milli-ampere ranges are provided and there are six decibel ranges and D. C. current range of 0-15 amperes for auto work. Capacity range is 0-30 microfarads. Meter leakage test for all condensers including electrolytics is provided.

It will do more for you at its moderate price of \$59.00 than any tube or set tester on the market.

A midget with a big service range—the Model 230 Volt-Ohm Milliammeter.



The smallest "Pocket-Type" A. C. and D. C. service instrument on the market. Measures only 5½" high by 2¾" wide by 1¾" deep, yet it contains a sufficient number of ranges for the experienced man to do a complete servicing job. Net Price.....\$14.25



Another member of the Roto-Ranger family  
**Model 275**  
10,000 Ohms per volt

Service men everywhere are sold on the Roto-Ranger "direct-reading" convenience. To change from scale to scale the selector switch is moved to any of the markings around it and—presto!—the right scale pops into view . . . a scale that is designed for easy, accurate reading and not one where you have to multiply by 10 and divide by 50 before you guess at the result. Net Price.....\$42.50

**SIMPSON** ASK YOUR JOBBER

Instruments that STAY accurate

Simpson Electric Co., 5202 Kinzie St., Chicago

Send bulletin describing  No. 333  No. 230  
model checked  No. 440  No. 275

Name \_\_\_\_\_

Address \_\_\_\_\_

Announcing  
**RIDER MANUAL**  
VOLUME IX



OUT  
NOV. 19TH  
ORDER TODAY

1650 pages \$10.00

ANOTHER great Rider Manual—Volume IX, covering 1938-39 American-made radio sets. Here is one of the most important volumes of them all. Every serviceman—bar none—will need it. At your finger tips are 1650 pages of the most complete and authentic compilation of service data available in the industry. Rider Manual Val. IX features an entirely new "How It Works" Section—the most "talked-of" feature of Val. VIII. It makes clear by practical example the complicated circuits and baffling service problems which you must cope with in repairing modern radio sets. There is also a new 140-page easy-to-find index included in Val. IX, at no extra cost, which covers all NINE volumes, now containing a total of 11,270 pages.

Remember, Rider Manual Val. IX will be ready for you November 19th. You'll want to put this great volume to work for you right away, so place your order with your jobber without delay.

Vol. IX—\$10.00—Covering 1938-39

Vol. VIII—\$10.00—Covering 1937-38 Vol. IV—\$7.50—Covering 1933-34  
Vol. VII—\$8.00—Covering 1935-37 Vol. III—\$7.50—Covering 1932-33  
Vol. VI—\$7.50—Covering 1935-38 Vol. II—\$7.50—Covering 1931-32  
Vol. V—\$7.50—Covering 1934-35 Vol. I—\$7.50—Covering 1929-31

**RIDER BOOKS  
SAVE YOU TIME**

AFC SYSTEMS—144 pp. Hard Covers . . . . . \$1.00  
CATHODE RAY TUBE—366 pp. 450 illus. . . . \$2.50

Other Rider Books: Servicing Superheterodynes; Aligning Philca Receivers—\$1.00 each. "Hour a Day with Rider" books on AVC Control, an Resonance & Alignment; an A-C Distribution in Radio Receivers; on D-C Distribution—60c for each book.

**JOHN F. RIDER, Publisher**  
404 FOURTH AVENUE, New York City

DID YOU SAY 9?

**YOU NEED ALL 9 Rider MANUALS**

YES, I SAID 9!

For Easy, Correct Tube Testing

use a

## HICKOK DYNAMIC MUTUAL CONDUCTANCE TUBE TESTER

With Illuminated Meter Dial  
Model T53C



The only dual reading unit made indicating Dynamic Mutual Conductance in Micromhos—also Good. Replace. Doubtful. Dynamic Mutual Conductance is recognized by tube manufacturers and engineers as the only exact test.

Among Many HICKOK Features are:—Checks gas content of the meter; Detects both short and open elements; Elements tested separately in multi-element tubes; Short tests made hot or cold; Only one setting to make. No complications. No customer confusion. There are many other exclusive HICKOK features. Also made in portable style.

MAIL THE COUPON FOR NEW 1939 CATALOG No. 10 giving information about this and all other Hickok Radio Testing Equipment.

HICKOK ELECTRICAL INSTRUMENT CO.  
10410 Dupont Ave., Cleveland, Ohio

HICKOK ELECTRICAL INST. CO.,  
Cleveland, Ohio

Gentlemen: Please send Catalog No. 10 to

Name .....

Address .....

City & State .....

## TRADE FLASHES

Cinaudagraph Corp. has a new sales policy in the New York Metropolitan area. The Stamford, Conn., speaker manufacturers will appoint engineers to contact, direct from the plant, the manufacturing and jobbing customers in the area. The plan is designed for closer cooperation in company-to-customer matters; general sales director D. P. O'Brien will supervise it.

Dr. Ralph L. Power, Los Angeles radio counsellor who for the past five years has been the American representative for some of the leading radio interests in Australia, has been named as U.S. representative for the newly formed Macquarie network, a million-dollar Australian organization. Mr. Power will continue to act as resident buyer for American script and transcriptions, will sell Australian transcriptions in the U.S., and will represent the Macquarie network in the sale of time to American sponsors.

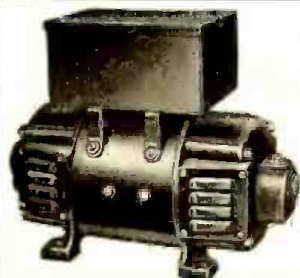
Announced by Freed Transformer Co., 72 Spring St., New York City, are two new representatives: Harry E. Marshall will handle the Pacific Coast area, including the states of California, Oregon and Washington; Vaughn & Co., Houston, Tex., will cover Texas, Louisiana, Oklahoma, Arkansas and New Mexico.

## KADETTE WIRELESS TUNEMASTER

The International Radio Corp. of Ann Arbor, Mich., has just announced its Tunemaster radio. The compact, portable device will control the customer's present radio or any number of radios in different rooms entirely by wireless. The Tunemaster gives instantaneous push-button tuning, plus complete manual control over the entire broadcast band.

According to the manufacturer, it will operate any number of compact Kadette reproducers one-quarter the size of a console, giving commensurate tone quality and volume.

## 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.



● Users of condensers are now offered a more critical and conclusive yardstick of condenser quality in the AEROVOX Capacity and Resistance Bridge. Combines, in a single, portable instrument, the following:

### CAPACITY BRIDGE

Measures capacity 100 mufd. (.0001) to 100 mfd. in 6 ranges; leakage; power factor to 50%, etc., of condensers under actual working conditions.

### RESISTANCE BRIDGE

Measures resistance values of resistors and electrical equipment and circuits. 10 ohms to 1 megohm in 5 ranges.

### INSULATION RESISTANCE

Measures this important factor in condensers and other devices. Meter calibrated directly in megohms. Reads up to 10,000 megohms.

### VACUUM-TUBE VOLTMETER

Consists of amplifier stage and grid-leak detector. Measures minute values 0-2 volts.

### PRECISION METERS

Voltmeter, also for external use, provides 0-60, 0-300 and 0-600 v. meter at 1000 ohms per volt. Also a 60 mv. at 60 ohms millivoltmeter; and milliammeter 0-6 ma., 0-60 ma.

### VARIABLE POWER SUPPLY

Available directly at terminals. 15 to 600 volts continuously variable over entire range.

Ask to See It . . .

● Your local AEROVOX jobber can show you this indispensable instrument. Or write us direct for descriptive literature.



Vice-president *Sherman Reese Hoyt* of *Cinadagraph Corp.*, Stamford, Conn., now has the additional duties of general manager of the firm, following the company's announcement that *Harold W. Harwell* has resigned as vice-president and general manager. Other officers remain the same: *John Sherman Hoyt*, president; and *Howard C. Seaman*, secretary and treasurer.

*Gene Turney*, well known in the New York area as an expert radio and electrical technician, has joined the staff of the *H. A. Marsh Advertising Agency*, 307 Fifth Ave., New York City.

*University Laboratories*, makers of internally-folded air-column trumpets and permanent-magnet dynamic driver units for public address use, have moved their factory and sales offices to new and enlarged quarters at 195 Christie St., New York City.

*RCA Institutes* opened its first courses in television with the beginning of the Fall term, Sept. 6 at 75 Varick St., New York City. For those without previous training in radio engineering, the course requires two years in the day school or five years in the evening school.

## HALSON RADIO MANAGER



*Eric F. Storm*, the new gen'l sales mgr. for *Halsion Radio*, is a widely traveled U.S. Signal Corps Captain with many years of electrical sales experience here and abroad.

*Herb Brennan* has been named sales manager for *Andrea Radio Corp.*, 48-20 48th Ave., Woodside, N. Y. Mr. Brennan was for 5 years the New York



Herb Brennan

representative for *Victor Talking Machine Co.* before he entered the radio business in 1921 as general sales manager for *John Firth & Co.* Subsequently he spent 3 years in radio executive work in Minneapolis, Minn., and later came back east to become a partner in the firm of *Gross-Brennan, Inc.* where he remained for 7 years with the *Stromberg-Carlson* representatives. These interests were later sold out, and Mr. Brennan spent three years as *Norge* representative in the NY area. Thus he now approaches his new post as a sales executive known coast-to-coast in radio and appliances.

Sales manager *Walter Spiegel* of *Regal Amplifier Mfg. Corp.*, 14 W. 17th St., New York City, will shortly announce a new and improved line of "Tokfone" intercommunicators. The new merchandise will be in the lower priced brackets, where *Regal* has specialized. The company has been one of the pioneers in publicizing net, rather than list, prices to the trade.

## Sell BETTER ANTENNAS

National Antenna Check-up Week will stimulate demand for better antennas. Get behind it—and be doubly sure you sell originals; not cheap imitations. When your kits are marked "Licensed by Amy, Aceves & King, Inc.," they are authentic and dependable.

All antenna manufacturers operating under our patents furnish two major types: 1—All Wave Full Noise Reduction, and 2—All Wave Signal Boosting, but not noise-reducing on broadcast waves. Be sure to sell the right one for the job. Full noise-reduction costs a little more and is worth its cost, but cheap kits do not actually provide it. You and your customers are protected when your antennas are licensed by

AMY, ACEVES & KING, Inc.  
11 WEST 42nd ST. NEW YORK

—and don't risk your reputation with cheap, unlicensed outfits.

Get behind  
THE NATIONAL  
ANTENNA  
CHECK-UP Campaign

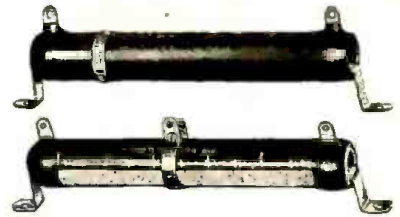
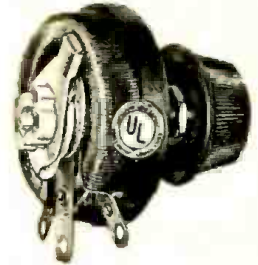


## Lockheed Plane Ohmite-Equipped

Hughes' dash around the world in his *LOCKHEED* Plane adds another "case history" to the service-record of *Ohmite Vitreous-Enameled Rheostats and Resistors*. Their ability to withstand overloads and abuse, shock and vibration, heat and humidity, has made *Ohmite* resistance units standard equipment on such major airways as *Pan-American*, *United Air Lines*, and others, both here and abroad—as well as in the general radio and communications fields.

## OHMITE RHEOSTATS

Time-proved all-porcelain vitreous-enameled construction and practically stepless resistance variation assures permanently smooth, safe, close current control. Underwriters' Laboratories Listed. 9 stock sizes from 25 to 1000 watts.



## OHMITE RESISTORS

Be Right with *Ohmite!* Ask your Jobber for *Ohmite* vitreous-enameled "Fixed" and "Adjustable" Resistors—and of course, the popular wire-wound "Brown Devil" Replacement Resistors.

Write for New Catalog 17.

OHMITE MANUFACTURING CO.  
4847 W. Flourney Ave., Chicago, U.S.A.

OHMITE  
RHEOSTATS RESISTORS TAP SWITCHES

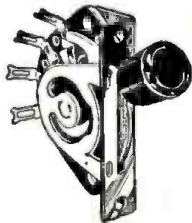
# RADIO AND TELEVISION



## THE NEW Low Capacity LEVER ACTION SWITCH

... for any application where multiple contact, low capacity switches are required to operate at low voltages and currents.

- **BROADCASTING** . . . In control panels for commercial and amateur transmitters.
- **RADIO RECEIVING** . . . Band changing, I.F. selectivity, sensitivity, tone, and similar controls.
- **PUBLIC ADDRESS** . . . Centralized sound, inter-communicator, call systems.
- **TEST INSTRUMENTS** . . . Signal generators, analyzers, tube testers, multi-meters.
- **INDUSTRIAL USE** . . . Electronic apparatus, signalling devices, business machines.



A space-saving lever action switch that may be furnished singly or assembled to an attractive mounting plate with any required number of switches in a group. Each switch will take up to 12 contacts that can be used in countless shorting, or non-shorting switching sequences. Contacts are of the long-lived double wipe type.

Centralab Lever Action Switches are furnished with either two or three positions. Index action can be positive in all positions, or spring return to center from either side.

Send for specification sheet number 028 for further electrical and mechanical details.

## Centralab

Milwaukee, Wis.

BRITISH CENTRALAB, LTD.  
Canterbury Rd., Kilburn  
London N.W. 6, England  
FRENCH CENTRALAB CO.  
118 Avenue Ledru-Rollin Paris XI, France



Commander McDonald with one of his arm-chair receivers, a type which he feels will be the "radio of tomorrow."

## RADIO TOMORROW

By COMMANDER E. F. McDONALD, JR.  
President Zenith Radio Corp.

The editor of RADIO TODAY has asked me to tell:

1. "What I see ahead in radio and its associated arts.
2. "My conception of what the radio business will be, looking a few years ahead and my reasons for my views."

The editor has asked me to speak frankly, and that is what I am going to do.

First, as to radio itself, I see it as an increasingly powerful force for public entertainment, improvement, and education. The big broadcasting companies are doing a noble job of self-regulation and are in addition providing a fine balance of editorial matter of various kinds. Radio advertising has come a long way from the days when the nearest comparison I can think of was the old-fashioned medicine show. First they gathered the crowd by entertaining you. Then they made you sick by talking about your troubles. Then they sold you the medi-

cine that would put you back on your feet again. That's just about what the advertiser does today with the modern radio show. It is the old medicine show but very much streamlined, produced by experts, and written by practical psychologists in the field of advertising and merchandising.

### Many sets per home

The variety of broadcasting available in the home today is so great that each member of the family can find something personal to him or her at almost any time of the day, and this is a good sign for the industry, especially that part of the industry which is making receivers, because it is promoting the use of more than one set in the home.

The industry itself, as a business, will continue to go places if it continues to put its house in order. By that I mean that the radio industry must continue to improve the ethics of selling. It must give greater thought to controlled production and the avoidance of dumps. It must protect the dealer and improve its relations with him if he is to make a profit from his business so that he may survive as a constructive public contact.

## BATTERY OPERATED TUBE TESTER and ANALYZER



AT LAST . . . A RADIO TUBE TESTER DESIGNED FOR RURAL AREAS NOT EQUIPPED WITH ELECTRICAL CURRENT. NO EXTERNAL CONNECTIONS ARE REQUIRED. IT WORKS RIGHT ON THE SPOT.

The STARK RURAL METER is a brand new development and is the only instrument of its kind on the market. **SELF CONTAINED POWER SUPPLY** Enables you to service battery radios in the owner's home . . . no more time loss in carting the chassis to your shop. The RURAL METER contains complete tests for all DC tubes, including new 1.4V series, plus many AC types (over 200 test positions) . . . also resistance and voltage ranges.

**COUNTRY RADIO DOCTORS**—A profitable practice awaits you, as you not only get the chance of increasing your sale of tubes, batteries, etc., but make valuable sales contacts and new prospects, while performing a service for which you are paid!

For complete information see your nearest jobber or write direct.

### STARK

In Canada  
Stark Tube Company  
Toronto, Ontario

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

Foreign Division  
141 W. 45th St., New York  
Cables STAREK

I feel so strongly on the above two points that I have for three years past incorporated controlled production and dealer protection as major policies No. 1 and No. 2 in our own company's merchandising programs. I have insisted that these two policies be rigidly pursued by our executives as far as it is in our power to maintain them against conditions in the field as they exist. Perhaps I am wrong—perhaps I am doing all this too many years in advance, but let me tell you, the dealer appreciates what we are doing, and we know we are building for the good of the entire industry.

### Branding

Thus far the more important manufacturing units of the radio industry have been proud to identify themselves as the makers of the radios which bear their firm name and trade mark. During the present season, however, there has been a decided increase in a practice which I cannot describe in any other way but "false branding." This practice is especially deceptive in cases where a radio manufacturer is willing to allow his name and trade mark to appear on a radio which is made for him by another, more cheaply than he could produce it for himself with his own facilities. An extra profit thus introduced, and manufacturing supervision is removed from the manufacturer's own plant to that of someone else—so it is quite logical to conclude that a radio so made can hardly fail to fall short of that maker's product made in his own plant. Besides which, the money for the extra profit must come from somewhere and usually it comes out of the customer's pocket. Any practice which tends to give the customer less value for his money and a less carefully made product than he could be given, is, of course, to be frowned upon because it represents a step backwards. This is one matter on which the industry should formulate some very definite policies in relation to its public. As the matter stands this season, with a few outstanding exceptions, it presents a decidedly tangled picture to the ultimate consumer. The radio industry of the future will avoid ambiguities.

It is customary, I believe, in a statement of this nature to make a reference to television—in fact it is difficult to avoid that question, because it is always asked. I am happy to say that my company has just been given its

permit to operate a television station and we can now go ahead and build a physical station for experimental purposes. This we shall do. The first station will be on our own factory which is advantageously located in a suburban section of Chicago. Experiments in transmission and reception from this new station will be made as soon as it is completed. In fact we have already been carrying on laboratory experiments in television for some time.

Our cautious advance in the field of television has not as yet altered one of my favorite maxims "Television is just around the corner for the stock salesman only." Television is coming just as surely as steamboats, railroads, automobiles, and wireless itself have come. It would be useless to decry the value of such an improvement in radio technique. Yet, like other similar improvements in the electrical field, the development will be slow but sure. There will be no need for some time to come, for anybody to throw his present radio out of the window, in favor of a television set.

### AMERICAN RADIO ASSOCIATION SEPT. 30-OCT. 2

Walter Schwalge, convention chairman, has announced the program for the American Radio Association service meeting and show, to be held at the LaSalle Hotel, Chicago, Sept. 30 to Oct. 2.

Speakers and their topics are:

"Will Radio Service Ever Become a Man's Business?" John Meck, president Electronic Design Corp.

"Using Photography to Sell Radio Service." J. P. Kennedy, sales manager Triumph Mfg. Co.

"Utilizing Manufacturers' Window and Store Display Material to Produce Profits." Frank Ewing, vice-president Fensholt Co.

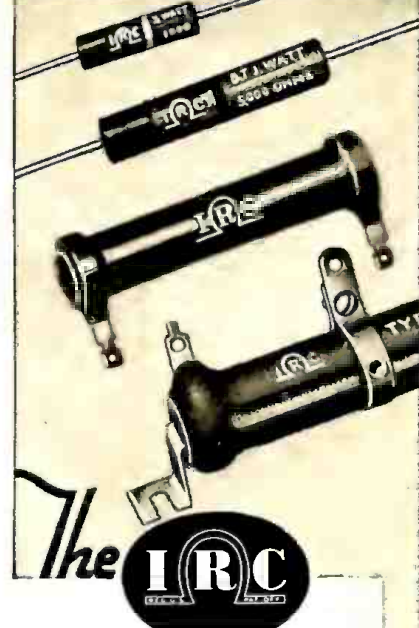
"Value of Insurance in Radio Service Business." T. L. Osborne, Kemper Insurance.

"Fundamentals in Successful Promotion of a Service Business." Marcus W. Hinson, secretary American Radio Association.

"Telling the World About Me." Lorin C. Collins, associate William Hoffman, advertising.

"How to Use Direct Mail to Promote a Service Business." J. S. Older, Buckley, Dement & Co.

# PROTECTION



## The IRC Secret of TROUBLE-FREE RESISTORS

It is a matter of record that nine out of ten resistor breakdowns are caused solely by failure of the protective covering, either in its job of keeping moisture from the element, or in dissipating heat properly.

... It is also a matter of record that the outstanding popularity of IRC Resistors results in no small part from their perfection in this respect. Hand in hand with engineering improvements inside of the resistors themselves, IRC has pioneered and perfected BOTH Molded phenolic insulation for IRC BT Metallized Resistors and other types, as well as the famous Cement Coating for heavy duty power wire wounds.

By whatever test you choose to make—even boiling hot and freezing cold salt water immersion—you'll find these IRC protective coatings supreme.

"They Stay Put"

**INTERNATIONAL  
RESISTANCE COMPANY**  
401 N. Broad St., Philadelphia, Pa.  
In Canada, 187 Duchess St., Toronto, Ont.

**A GOOD NAME  
GOES A LONG WAY**

Satisfied customers bring more customers — more business. KEN-RAD Radio Tubes give complete satisfaction.

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

**KEN-RAD**  
DEPENDABLE RADIO TUBES



# NEW!

Model CC



## CAPACITOR ANALYZER



Incorporates Model CB Features, plus High Capacity Scale, High Test Voltage, Simplified Scales, Sloping Panel

This advanced Analyzer measures Capacity .00001 to 800 mfd., including motor starting condensers; measures Power Factor 0 to 50%, including motor starting condensers; measures Resistance 50 to 2,000,000 ohms; measures Insulation Resistance to 1000 megohms, using test voltages to 600 D.C.; detects leakage and intermittents. A.C. operated.

Cat. No. CC-1-60 (110 v., 60 cyc.) Less tubes—\$24.90 net

Order through your jobber

**SOLAR MFG. CORP. 599-601 Broadway, New York**

## • INDEX • TO ADVERTISEMENTS

	Page
AEROVOX CORP. ....	70
ALLIED RADIO CORP. ....	64
AMPERITE CO. ....	76
AMY, ACEVES & KING, INC. ....	71
ARCTURUS RADIO TUBE CO. ....	55
ATLAS SOUND CORP. ....	63
BELOEN MFG. CO. ....	6
BERNARD, H. J. ....	59
BRUSH DEVELOPMENT CO. ....	61
CENTRALAB ....	72
CINAUDAGRAPH CORP. ....	67
CLOUGH-BRENGLE CO. ....	66
CONTINENTAL RADIO & TELEV. CORP. ....	18, 19
CORNELL-DOBILIER ELEC. CORP. ....	51
CROSLY RADIO CORP. ....	43
EMERSON RADIO & PHONO. CORP. ....	3
FAIRBANKS, MORSE & CO. ....	4
FREED TRANSFORMER CO. ....	75
GALVIN MFG. CORP. ....	Cover IV
GENERAL ELEC. CO. ....	Cover II
GENERAL INDUSTRIES CO. ....	47
HALSON RADIO & TELEV. CORP. ....	60
HICKOK ELEC. INSTRUMENT CO. ....	70
HYGRADE SYLVANIA CORP. ....	2
INTERNATIONAL RESISTANCE CO. ....	73
JANETTE MFG. CO. ....	70
KEN-RAO TUBE & LAMP CORP. ....	73
LEOTONE RADIO CO. ....	75
MALLORY & CO., INC., P.R. ....	1
MEISSNER MFG. CO. ....	6S, Cover III
NATIONAL UNION RADIO CORP. ....	63
NOBLITT-SPARKS INDUSTRIES, INC. ....	29
OHMITE MFG. CO. ....	71
ONAN & SONS, D. W. ....	64
PHILCO RADIO & TELEV. CORP. ....	7, 8, 40, 41
PIONEER GENEMOTOR CORP. ....	65
THE PORT-O-MATIC CORP. ....	47
PRESTO RECORDING CORP. ....	46
PROGRESS LECTRO-SHAVE CORP. ....	58, 62
RADIO CORP. OF AMERICA ....	20
RADIO SERVICEMEN OF AMERICA, INC. ....	68
RADOLEK CO. ....	75
RAYTHEON PRODUCTION CORP. ....	5
RCA MFG. CO., INC., VICTOR DIV. ....	27, 36-39
RCA MFG. CO., INC. ....	31, 55, 60, 65
REAORITE METER WORKS ....	54
RECOTON CORP. ....	48
REGAL AMPLIFIER MFG. CORP. ....	67
RIDER, JOHN F. ....	69
SERVICE INSTRUMENTS, INC. ....	57
SIMPSON ELEC. CO. ....	69
SOLAR MFG. CORP. ....	74
SPRAGUE PRODUCTS CO. ....	61
STARK ELEC. INSTRUMENTS ....	72
STEEM ELECTRIC CO. ....	25
TRANSOUCCOR CORP. (Tilton Elec.) ....	75
TRIPLETT ELEC. INSTRUMENT CO. ....	49
TUNGSOL LAMP WORKS, INC. ....	61
WARD LEONARD ELEC. CO. ....	65
WARD PRODUCTS CORP. ....	64
WESTINGHOUSE MERCHANDISING HQRS. ....	45
WHOLESALE RADIO SERVICE CO., INC. ....	66

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.

# 'BULLET' ELECTRO-DYNAMIC MICROPHONE

IMPROVED MODEL MK-31



- FAMOUS BULLET METAL CASE
- CHROMIUM PLATED
- FREQUENCY RESPONSE FLAT BETWEEN 30 AND 10,000 CYCLES
- SENSITIVITY—55 DB
- HIGH OR LOW IMPEDANCE
- SIZE 2" by 3"
- WITH 25 FOOT CABLE

List Price \$27<sup>50</sup>

Designed and Developed by  
**TRANSDUCER CORPORATION**

Exclusive Distributors  
**TILTON ELECTRIC CORP.**  
15 EAST 26TH STREET NEW YORK  
Ex-Stat Products Bullet Microphones

NEW CATALOG ON REQUEST

## SALES AID

### PRESENTING "PEAKED" TUBES

A window display in three pieces and four colors has been brought out by the Sales Dept. of Triad Mfg. Co., Inc., Pawtucket, R. I., to aid dealers and jobbers in putting over the company's "peaked" radio tubes.

### 10 PLAYS TO A NEEDLE!

Full-colored display card of convenient counter size has been released by Recoton Corp., 178 Prince St., New York City, to show the public that the Recoton needle with the special shaft and rounded point is a quality item. The phrase "10 Plays to a Needle" is featured on the card, which is easel and also punched for hanging.

### FOR FALL TUBE-SELLING

A gayly colored window display unit, which invites people's interest by using a virgorous football theme, has been prepared by Hygrade Sylvania. It ties in with the widespread listener-interest in the coming grid-iron clashes, which begin Sept. 24 and end in December.

Also, the company has released a smaller counter card, with cut-out letters and glistening green foil, to add life to sales counters.

Sylvania has also issued a new giveaway item for dealers, which further cashes in on the football interest. This is a complete 1938 football schedule, a season-long score sheet for over 400 games, in booklet form. It has space for dealer imprint on the front:



blanks for local game scores on the back. Come-in-and-get-one window streamers are furnished with orders on the booklets.



## LEOTONE

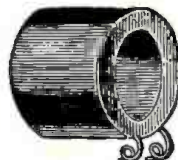
SPECIALISTS FOR 17 YEARS IN  
**CONES and FIELD COILS  
and Hard-to-Get PARTS**

OUR 1939 catalog No. 33 has 36 pages, of which half is devoted to cones and field coils; the balance to hard-to-get parts. Includes replacements for speakers, dials and scales, pickups, mikes, etc. Be sure to get YOUR copy.

We are the oldest and largest manufacturers of cast replacement parts for obsolete and up-to-date receivers. Hundreds of items in our new catalog—hundreds of OTHERS in stock in our 6-story factory. If you need a hard-to-get part, send description or sample. If not in stock, we will duplicate. Our parts are often better than originals.



Curvilinear and paracurve cones for ANY cone-type speaker.



Field coils on bakelite bobbins for all dynamic speakers.



(Freed-Eisemann No. 24-46)

Typical hard-to-get casting—one of thousands that we supply.

**LEOTONE RADIO CO.**  
63 Dey Street New York, N. Y.  
Cable address—Leotone New York

## Cut FREE SERVICE TO THE BONE



Free "Recalls" are where your profits go. Cut them to a minimum by using our complete line of Replacement Transformers. Available in exact duplicate or universal mounting to fit all types of Radio Sets.

### PRICED RIGHT!

We are "there" with the right price, and fast, dependable service when you need it most. Don't fail to send for your Free Catalog showing the complete line.

**FREED**  
THE REPLACEMENT KING



**FREED TRANSFORMER CO.**  
76 SPRING STREET NEW YORK, N. Y.



● Everything you need in radio. It's all in this new 1939 RADOLEK RADIO PROFIT GUIDE. Every repair part for every receiver. Every item guaranteed.

● Over 3000 new items to bring you new ideas in conducting your business. Including amateur receivers and transmitters, new model P. A. systems and amplifiers, latest model radio receivers, test equipment, power tools, electric appliances and toys.

● 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. Send now for your copy of Radolek's Radio Profit Guide.

The **RADOLEK Co.**  
601 W. Randolph, Chicago, Dept. D-23

Send me the new 1939 Radolek Profit Guide FREE.

Name .....

Address .....

Serviceman?  Dealer?  Experimenter?

# The **AMPERITE**

## ACOUSTIC COMPENSATOR

(pat. pend.)

*gives you*

## HIGH OR LOW PITCH

WITH THE SAME MICROPHONE

**BIGGER PROFITS** To be ahead of competition, and realize a larger profit on each job, you must offer added value in new features. Realizing this, Amperite gives you *The Acoustic Compensator . . . at no extra cost to you!*

This is an exclusive feature which enables you to (1) lower or raise the response of the microphone; (2) adjust for close talking or distant pickup; (3) adapt microphone to varied conditions.

### THESE 4 MODELS HAVE THE ACOUSTIC COMPENSATOR

MODEL RBHk (hi-imp); RBMk (200 ohms) Frequency range 40 to 11000 CPS. Output -65 db. . . . Chrome or Gunmetal . . \$42.00 LIST

**NEW!** MODEL RSHk (hi-imp); RBSk (200 ohms) Frequency range 60 to 8000 CPS. Output -68 db. . . . Chrome or Gunmetal . . \$32.00 LIST

All of the above are complete with Acoustic Compensator, Switch, Cable Connector, and cable.

NOTE: Roth Sound Service writes. . . "Your mikes are certainly rugged. I've used them in rain, wind, and on the hottest days, but they've always stood up perfectly".

PUSH UP TO INCREASE HIGHS. PUSH DOWN TO INCREASE LOWS



### IMPROVES ANY "LOW-COST" INSTALLATION ON 4 COUNTS!

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 rain, wind, heat, and rough handling . . . Frequency range 60 to 7500 CPS. Output -68 db. MODEL RAH (hi-imp); with 12' of cable; MODEL RAL (200 ohms) with 8' of cable. . . . \$22.00 LIST

### MAKE EXTRA SALES WITH CONTACT MIKES...\$12.00 LIST

Professional and amateur musicians are delighted with the Amperite Contact Microphone. 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 "lingering noises". . . . Frequency response 40 to 9000 CPS. Output -40 db. 20' of cable.

Models listed below can be used on most radio sets since 1935 and on all P.A. Systems. They operate with either high or low gain amplifiers. Installation is simple . . . no changes in strings or instruments . . . attached without tools.

MODEL SKH (Hi-imp); SKL (200 ohms) \$12.00 LIST  
SKH or SKL with foot-operated volume control . . . . . \$20.00 LIST  
Professional Model KTH (or KTL) \$22.00 LIST

### A COMPACT VELOCITY for hand or stand

Though only a little larger than a match box, this Amperite Velocity has the features of the larger microphones. Good for speech and music. Designed for use on stand but also makes an excellent hand microphone with comfortable pistol grip. Frequency response 60 to 7500 CPS. Output -70 db. Complete with switch, cable connector, and 25' of cable. MODEL ACH (hi-imp); or ACL (200 ohms) . . . \$25.00 LIST

*Sales Aids for the P. A. Man* Amperite offers the following co-operation to P.A. Men

- (1) FREE Window Decal advertising your Sound Service. Size 5 1/4 x 9 1/4 finished in 4 striking colors.
- (2) FREE Window Display, 11 x 17
- (3) Special Sound Equipment Letterheads. Samples and prices on request
- (4) FREE use of cut for printing business cards, etc

Write for these valuable sales helps, and new Illustrated Bulletins, today!



**AMPERITE** ©. 561 BROADWAY, N. Y. U. S. A.

CABLE ADDRESS  
ALKEM, NEW YORK

*Better Systems Specify Amperite*



VELOCITY

# AMPERITE

MICROPHONES

# Remote Control



## May be used with any receiver

Push-Button selection of 7 favorite stations *plus volume control* from any convenient location!

Simply connect to the aerial and ground posts of any receiver by means of a special 15-foot cable supplied, and plug into any 110 volt AC or DC outlet! A turn of the fingers sets each button to a station—permanently.

Each Remote Control comes, complete with tubes, all tested and ready to operate. Housed in a handsome light Walnut cabinet 4½" high, 5⅜" wide, 9¼" long. Retail for only \$26.50.

Write Dept. T-9 for full details on the Meissner Remote Control and Push-Button Converter units.



SERVICE PARTS

VIBRATORS

ANT., R.F., OSC., COILS

ADAPTER KITS

AMATEUR PARTS

COMPLETE RECEIVER KITS

MT. CARMEL,  
ILLINOIS



# Meissner

"A FAMOUS NAME FOR TWO DECADES"

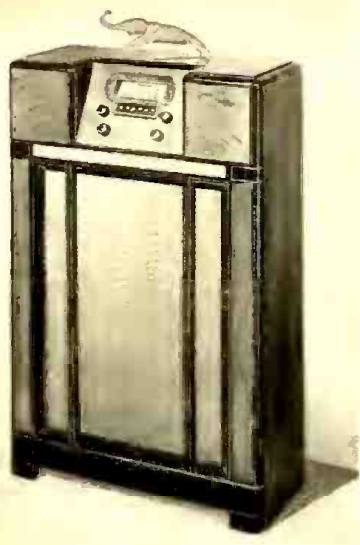
1939's MOST SENSATIONAL FEATURE

*Motorola*  
WITH TIME-TUNING

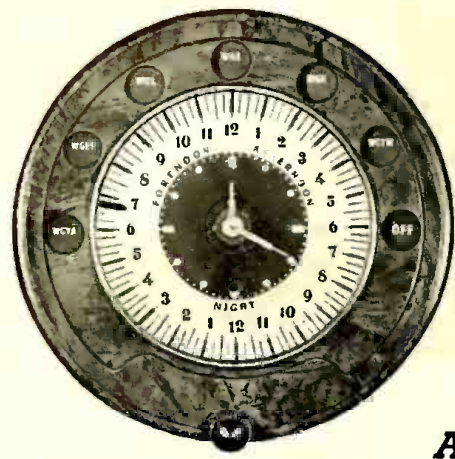
THE RADIO  
THAT TUNES ITSELF!



MOTOROLA MODEL 89K-1



MOTOROLA MODEL 59K-1  
NOTHING TO MATCH IT FOR VALUE  
The Biggest "Package" in Its  
Price Class



Automatically **TUNES ITSELF**  
to **ALL YOUR FAVORITE PROGRAMS**  
**ALL DAY LONG WITHOUT ATTENTION**

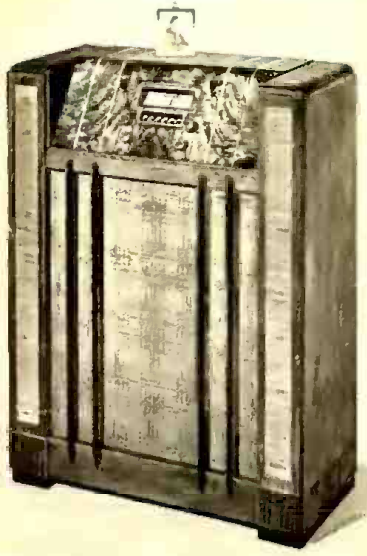
- ★ Will Tune as Many as 96 Different Programs in 24 Hours by Itself
- ★ Also Turns Itself On—and Turns Itself Off—Automatically
- ★ Easier to "Set" Than a Clock—Simplicity Itself
- ★ No Switches or Knobs to Turn
- ★ A REAL "3-IN-1" RADIO—Combines TIME-TUNING—"Feather-Touch" Electric Au-

tomatic Tuning—and also Operates Manually

- ★ The Greatest Radio Development in 10 years—Dealers Everywhere Agree It's the "HOTTEST" Demonstrating and Selling Feature Showed This Season

**"ALL-IN-ONE" Remote Control**

Compact—smaller than a pack of cigarettes. Turns set ON and OFF—regulates volume and changes stations remotely—automatically—without turning any knobs or switches at set.



MOTOROLA MODEL 69K-1  
DE LUXE CONSOLE GRAND AT  
A POPULAR PRICE  
Exclusive Push-Pull Audio System—  
10 Watts Power Output

See Your Motorola Distributor

GALVIN MFG. CORPORATION • CHICAGO