RADIO and Television REPARTING

7C

HOW TO MAKE THE MOST OF THE SEASON

SELLING COMPACTS UP

IF IN ANSWERS THE DOORBELL ITS YOURS

TAKE THEIR MIND

MODEL RECORD SHOP

PORTABLE BATTERIES

SERVICE ESTIMATINE

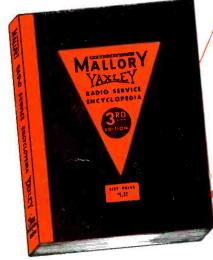
TELEVISION FRAINING

and other features

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MCERAW-HILL Publication

You Can't Afford to Do Without MALLORY Supplemental MYE Monthly Technical Service



Covering combined Receiving Tube characteristics with complete Tube charts.

> Complete engineering data on dry electrolytic copacitors.

> > Useful

formulae.

servicing

Important Notice. The 3rd Edition MYE is published wholly for the use of technicians engaged in radio servicing. Its contents are valuable to them alone.

Mallory Supplemental MYE Monthly Technical Service is designed for anyone interested in Radio.

If you are a radio service engineer and do not own a copy of the 3rd Edition MYE, see your Mallory-Yaxley distributor. He may still be able to supply you with a copy.

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Enclosed is \$1.50 Do not send check, cashie	cash or stamps—use personal { r's check, Postal or Exp. M. O. {
which entitles me to receive 12	issues of the Mallory Supple-

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At a cost of less than ½ a cent a day . . . less than 15c a month—It's the Biggest Bargain You Ever Bought! Look at the monthly releases scheduled—starting with October and through to January of 1940.

←SUPPLEMENT No. 1 OCTOBER 1st

Every new tube that's been released this year is included—and that's quite a bunch. It's information you'll need to use daily. The only compilation of its kind.

← SUPPLEMENT No. 2 NOVEMBER 1st

Vital facts you should know to use the new types of condensers. Greater progress has been made in the condenser art in the past 18 months than ever before. A 44-page booklet—not only a valuable reference, but a volume you simply cannot do without.

-SUPPLEMENT No. 3 DECEMBER 1st

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New

SUPPLEMENT No.4 JANUARY 1st

A service no progressive radio service engineer can do without. Considerably over 1500 sets analyzed. Information on current sets when you need it . . . not a year later.

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Mallory research work is carried on every single day of the year. Mallory Supplemental MYE Monthly Technical Service is your only means of keeping up to date.

Whether student, "ham," or radio amateur, you won't want to miss a single issue. Use the coupon and mail your order today.



A McGRAW-HILL

PUBLICATION

SEPTEMBER 1939

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SALES STATIC . . . As a little special this month we are giving away four theatre seats with every television set!



BIG VALUE - - BIG PROFIT UNITS DID IT!

In 1938 when industry sales fell back, Stromberg-Carlson unit sales jumped above those for 1937—and they were big profit sales for distributors and dealers, averaging \$109. This year, 1939, the remarkable value built into Stromberg-Carlsons is forging Stromberg-Carlson unit sales even farther ahead; has sent them up 20%, compared with the first 7 months of 1938.

You gain, in profits, when you pick the Stromberg-Carlson team, a powerful line of values backed up by an unfailing quartet — *Exclusive essentials for natural tone* like the Labyrinth and Carpinchoe Speaker; *Authentic designs* in varied woods; *Bigger units* that carry worthwhile profit; and *Aggressive merchandising*.

THE WAVE WIZARD Provides Plug-in operation, without ground or aerial wires, of any radio. The Wave Wizard is non-directional and is not affected by metal objects. \$2.50*



RINTH RADIO. Carpinchoe Leather Speaker. Electric Flash Tuning. Bi-focal Tuning Indicator.

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



Electric-Flash Tuning, Bi-focal Tuning Indicator. Stromberg-Carlson 12 inch Speaker. Plays and shifts 10 inch or 12 inch records.

There Is Nothing Finer than a Stromberg-Carlson

245 Carlson Re	ortson Telephone Mfg. Co. oad. Rochester, N. Y.
Send full infor	mation on Radio's Finest Line.
Name	
Street	
City	State



Blasting their way through the back hills of the Southwest, modern geologists hunt oil deposits with charges of dynamite and delicate amplifiers to measure the sound waves returned from underground rock formations.

Firms like the Geophysical Supply Company of Houston, Texas, supply RAYTHEONS to the major oil companies for this equipment. Because RAYTHEONS are the one tube they have found that can take the terrific jarring and pounding of trucks driven cross-country, yet function in the circuit with laboratory efficiency! RAYTHEONS are almost always used in the "tough spots."

Where it is difficult for a tube to stand the work. RAYTHEONS are expected to come through—and they do. Yet the trade prices of RAYTHEONS are no more than tubes that will merely "get by" in easy home set conditions.

That is why you will find RAYTHEON tubes on the shelves of the serious servicemen and dealers—those who are making a successful business of servicing and replacement. They know they must give their customers the best.

BEWTON, MASS. . NEW YOFK . CHICAGO . SAN FRANCISCO . ATLANTA

"WORLD'S LARGEST EXCLUSIVE RADIO TUBE MANUFACTURERS"



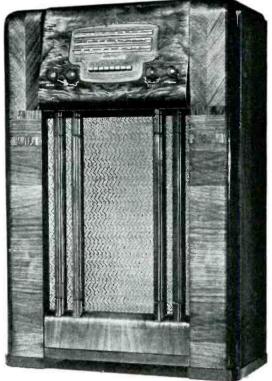
THE LINE IS HOT!

PRACTICALLY EVERY DEALER who has seen the Farnsworth Line for 1940 has over estimated list prices from 10 to 20 dollars per set. Model for model, feature for feature, Farnsworth is simply more radio for the money — every model in the line is "HOT".

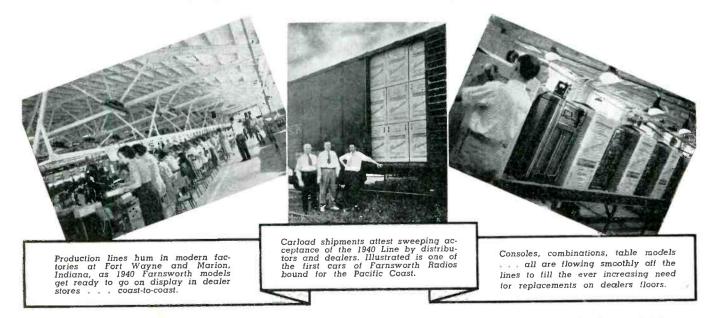
Everyone Was Amazed For example, at the sensationally low price of the impressive console model illustrated. (AC-70), tall and stately, of richly figured rare woods, it brings a note of distinction to any home. 8-tube superheterodyne circuit; Flo-Lite dial; three wave bands, 540 to 1600 KC; 1.6 to 5.5 MC; and 5.5 to 18.1 MC; six station push-button tuning; statically Bilt-In-Tenna; automatic volume control; continuously-variable tone control; 12-inch electro-dynamic speaker; phonograph and television-sound connection (Television Bridge). Dimensions: Height 40"; Width 27"; Depth 12½". It isn't matched in any line!

ORDERS ARE PILING IN

ENTHUSIASM shown by distributors when Farnsworth's 1940 Line was introduced in August has spread like wildfire among dealers from coast to coast . . . Orders are piling in . . . Production lines



are in high gear at Farnsworth factories in Marion and Fort Wayne . . . The outstanding VALUE of Farnsworth Radios is today's BIG NEWS in the Radio Industry.



PAGE 4





PRODUCTION BOOKED Solid Through October

The facilities of the Farnsworth factory at Marion are already going at top speed to keep up with orders that are pouring in as a result of universal enthusiasm on the part of dealers who have seen this startling new line.

TERRITORIES BEING CLOSED RAPIDLY

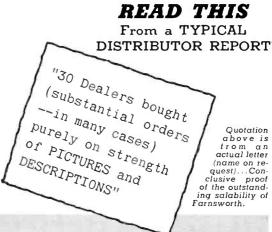
The fast pace set by Farnsworth in closing distributor territories is being duplicated by distributors closing dealer franchises throughout the nation. This flood of orders continues to keep the Fort Wayne office open long after normal hours — YES, Farnsworth is going strong! and there is no lessening of the pace that has aroused the interest of the entire industry.



LOW LISTS-WITH WIDE MARGIN FOR DEALER

Another big reason why dealers are so enthusiastic about the new Farnsworth Line is that their tremendous high values at low lists are matched by margins that enable a dealer to make a real profit on every sale — there are no "duds" in the line — every model stands out as a real profit maker. If you haven't investigated this new profit opportunity DO SO TODAY — see your distributor or write

FARNSWORTH TELEVISION & RADIO CORPORATION FORT WAYNE and MARION, INDIANA



Thanks to You MR. DEALER FOR YOUR VOTE OF Confidence

COME, JOIN US IN OUR STORY: It's Easy to Stay Young It's Easy to Stay Young ELECTRICALLY!

... and build your Radio Activities around this theme

• We hope you, too, will tell your customers it's easy to stay young electrically . . . an appeal close to the heart of every woman.

We hope you, too, will tie in your own G-E Radio activities with our vast promotional efforts. For this Fall activity of General Electric's is huge in every way:

19 vital, brilliant color pages in national publications between now and December 18th. Many with generous panels devoted exclusively to General Electric radios (see the ad reproduced). Others with prominent space for smaller models. All of them planned to quicken interest in General Electric appliances.

YOU'LL WANT YOUR G-E TREASURE ISLAND, TOO!

Many radio merchants—keen to sense the scope of this campaign—have already ordered one or more of our sales-making, interest-creating Treasure Island displays. This Island takes only 6 feet of floor space, yet it displays more appliances than could be crowded on 15 sq. ft. of counter space.

Make use of ALL the material...a big book of merchandising suggestions, ready-to-run advertisements for your local paper, reprints, streamers, ideas for store display. Be sure to see your distributor at once. Get behind one of the most fascinating stories General Electric ever told.



THIS COPY TELLS YOUR CUSTOMERS:

- 1. G-E appliances help end fetigue
- 2. It's easy to own modern appliances
- 3. G-E appliances pay for themselves
- 4. The G-E Full Line story
- 5. Electrical rates are low
- 6. Specific merchandise is featured
- 7. Headlines intrigue



40% Minimum Discount on 63 Models from \$7.95 to \$99.95

20 ca a TUK

The Greatest Advertising and Promotion Campaign in Radio History

Watch for Huge Broadside with Details

Describing Magazine, Newspaper, Radio, Direct-by-Mail and Point-of-Sale Dealer Promotion

Call Your EMERSON Distributor Now!

EMERSON RADIO AND PHONOGRAPH CORPORATION . . . NEW YORK, N. Y. World's Largest Maker of Small Radios

americanradiohistory co



Are Bringing the Console Business Back with a Terrific Bang!

Get your share of this Big Set, Big Volume, Big Profit Business by pushing these sales naturals!

JUST when a good many folks were reading the console out of the radio picture, RCA Victor comes up with three consoles that are selling like hot cakes. No longer need you mourn the loss of the big set business...just get behind K-80, K-60 and K-50 and you'll think you're back in the heyday of the console.

Yes ... America still buys value whether it's in big packages or little. Just rub your eyes ... look at the features ... look at the values from cabinet to speaker! Then go out after the profts!

For finer radio performance —RCA Victor Radio Tubes. Trademarks "ECA Victor" and "Magic Eye" Reg. U. S. Pat Off. by RCA Mfg. Co., Inc.



GOLD MINE!

Everything big, everything modern! No outside acrial needed...has built-in antenna ... 7 tubes plus Famous RCA Victor Magic Eye ... 3-Band Radio ... Plug-in for Television Attachment or Record Player ... 8 Push-Buttons...12" Electrodynamic Speaker. Cabinet 42-1/2" high, 28" wide, 14-11/16" deep.

A ONCE IN A LIFE-TIME SENSATION!

K-60 No outside aerial needed ... designed for use with Television Attachment! New 3-Band, Super-sight Streamlined Dial! 6 RCA Victor Tubes! Push-Button Tuning for 8 Stations! Plug-in Connection for Television Attachment or Record Player! Many other features!

A BONANZA! K-50

Built-In Loop Antenna... no outside aerial needed...Push-Button Tuning for 6 Stations... Large Full-Vision Dial ... Powerful 12" Dynamic Speaker... 4 Watts Oatput... Plug-in for Television Attachment or Record Player.

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

RADIO and Television RETAILING, SEPTEMBER, 1939

Designed for Use with TELEVISION ATTACHMENT

Designed for Use with TELEVISION ATTACEMENT



12 .

SEPTEMBER

Next Ninety The next ninety days should bring

at least 40 per cent of the year's total radio set business into retail stores, for the industry's natural peak selling season is at hand. People are now dropping outdoor sports, are more inclined to gather around the family fireside. Bigtime programs are resuming on the air, recapturing millions of listeners. Radio's already strong replacement appeal will shortly be supplemented by gift buying.

While radio sales actually begin to pyramid all by themselves at this time of the year, no dealer should be content with that. Hence the reminder on our cover and a feature story in this issue showing the precise importance of the October, November and December market.

The trade should follow the lead already given by manufacturers and distributors, strain every muscle and brain cell to *make the most of the season*. The time to go after business the hardest is when there is really big business to be had.

Up or Down? Now that the fracas in Europe is under way there is much speculation as to what the actual outbreak of hostilities might mean to American business. Many people with whom we have talked this month, in dealer, distributor and manufacturer's circles have asked for our opinion—so here it is:

Regardless of the present Neutrality Act, or any future revision of it, orders for foodstuffs, raw materials and equipment will bolster up our production very materially. In the cities that means more jobs, more filled pay envelopes. In the country it gives growing crops assurance that they will find a market for all they can grow and at better prices.

1939

Aside from broad improvement of all lines of business, the radio industry will have the very important benefit of sky-rocketing public interest in what is coming over the air. That will mean more set sales, more repairs, more tube and part replacements. (British news agencies report heavy demand for American-made shortwave receivers).

Radio's sales experiences during the 1936 presidential campaign supply what this writer considers a fair measuring stick for what might be expected now.

Shortwave Highspot Stiff with

disuse, the shortwave switches of many receivers in the hands of men discerning enough to realize the tremendous informative value of news broadcasts direct from European capitols during the latest international crisis were thrown to the important dx bands.

American broadcast stations did a masterly job of reporting, throwing commercial revenue overboard without hesitation when news warranted it, securing the cooperation of newspaper correspondents and technical personnel in foreign lands at all hours of the day and night for exciting three and four-way relays. Shortwave broadcasts picked up direct by listeners, avid for still more news, filled in the gaps, their general tone providing critical ears with an additional insight into European morale.

People, who had old radios without the shortwave feature and those.



BIG THREE—In October, November and December demand for home entertainment is at its peak, broadcast programs are at their best, purchasing of radios as holiday gifts also begins. At least 40 per cent of 1939's business should be closed in this last quarter. This is the time to make the most of the season!

who had modern sets and could have tuned in Europe during the crisis but didn't, very definitely missed something."

Convenient A-C Likely to be seen on the back of many sets designed from this date forward are convenient a-c outlets. Thus sets may be plugged into single wall or base receptacles in place of lamps and the lamps, in turn, plugged into the extension outlets provided on the backs of the sets themselves.

A-c outlets on the backs of sets are, further, convenient for supplying current to associated recordplayers and other accessories. The whole idea adds another "extra" which, even though it costs little in production, helps sway sales when effectively dramatized by the salesman.

Powerful Portables It would be hard

to overestimate the influence of portable set popularity on business through the summer months just behind us. Huge quantities of these sets were shipped at a time when radio business ordinarily is

WAR NEWS BROADCASTS have so stimulated listening that dealers everywhere report unprecedented demand for radio service as this issue goes on the presses.

Part and tube stocks are being rapidly depleted by the unexpected windfall of business and in some instances customers are impatiently waiting three and four days for repairs.

at its lowest ebb, and rumor has it that one factory that brought out such a set early in July had shipped over 35,000 by the 10th of August.

We've seen portables operating on innumerable boats in and around Long Island, turning out sweet music (believe it or not) in crowded subway stations during the rush hour, entertaining entire families of a week-end in local parks, at beaches and at nearby inland resorts. We believe portables have become a permanent fixture in most lines and sales possibilities multiply as manufacturers develop new batteries that cost no more, last just as long and yet are materially smaller and lighter.

Next year portables should be at least as big a factor in wiping out summer slump.

Package Deal In the throes of a new package deal arranged by a manufacturer and a Utility are dealers in a large eastern city who have been through the mill with similar propositions regularly for the past two or three years. Chief difference between this particular deal and previous ones is the fact that the "package" comprises just one item in our field, where before radio was the piece de resistance surrounded by minor electrical appliances and lighting accessories. Another important difference is the timing-this latest deal breaking right at the beginning of the Fall selling season.

There is considerable diversity of opinion regarding the probable broad effect of the campaign. Unquestionably it will sell sets. It will move more phonograph records. It will increase the power company's load. It will bring to some dealers business that they might not otherwise obtain. It may even stimulate demand for the particular type of merchandise featured, and so open up a market for other manufacturers, distributors and dealers.

Conversely, there are those who feel that such a deal is never good for the industry as a whole, and that this is the worst possible time for it. Certain to follow in its wake, some say, are price-cuts on comparable merchandise made, distributed and retailed by radiomen not involved in the deal. Several moves have already been made in that direction.

Just exactly what the industry's gains and losses will be cannot be appraised until after the four-month campaign has farther run its course. It is just ten days old as this is written.

Justified Crowing Crow-

ing are Milwaukee distributors and dealers about Wisconsin's legislative bill 241-S, which on July 1 made factory "group buying" illegal, preventing purchasing agents of large industrial plants from shortcircuiting retailers by buying at wholesale for company employees and friends of company employees.

Their crowing is justified since through their Association for years they have been fighting this battle which now is won. Numerous news items have been carried in this publication concerning the efforts of this group to stamp out a profitstealing system, and we have published several feature articles giving details of how the Association carried the fight direct to large employers through the mails.

Chalk up one more for cooperative effort.

Going Up The three major r a d i o n e t w o r k s chalked up some handsome gains in billings last month — National Broadcasting Co.'s August, 1939 was 12.6 per cent over the same month of 1938, Mutual scored a 24.7 per cent increase, and Columbia sky rocketed to a 64.2 per cent gain over August, 1938.

Broadcast programs are the lifeblood of the whole radio industry. and the better the programs, the greater is the public interest in them, with resulting increased use bringing more set, tube, parts and service sales.

Hence those records of increased network billings are good news, for they will be reflected in better sponsored and sustaining programs. and that's what we want, to make the radio business better.

Number Nine If a vote of 11,142 families

can be accepted as a criterion, the desire for a new radio set this year ranks ninth, while automobiles lead the list of what people plan to buy next and rugs, vacuum cleaners, furniture, refrigerators, clothing, linoleum and dishes take precedence. These facts are gleaned from a survey just concluded by the Research Bureau of De Paul University.

Ninth place is somewhat farther down the line by comparison with much more prosaic items than radio has been in recent years. A lag in the industry's effort to develop new merchandise rendering older sets obsolete during a period of preoccupation with price is considered the chief reason for the slip and it is predicted that models now coming on the market will produce a noticeable "lift" in radio's position in the next survey.

Concentration on the business of convincing the public that their old sets are obsolete should be the industry's major objective in the coming months.

Careless Credit Major topic of conversation among distributors these past few months has been the difficulty of keeping collections up, even among dealers known to be in good financial position. Many retailers, it seems, got into the habit of stalling bills during a time when distributors fully cognizant of the need for an extremely liberal credit policy went the limit and sometimes beyond to help their trade. Now, with business definitely on the upgrade, they find it hard to eradicate the habit.



Unitsoflarger diameter supplied with selfcontained feature for universal mounting...either vertical or horizontal. All leads st one end.

В

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

> FP (Fabricated Plate) CAPACITORS Compact and trouble-free with exceptional range of application.

EVIALUX U source with so wide a line of condensers for every replacement need

P.R. MALLORY & CO., Inc.

nly

NO other line approaches such complete coverage. No other line has been developed around such an exhaustive study of the millions of condensers in use as original equipment. For example . . .

Mallory Tubular Condensers offer over 50 ratings, with common anode, common cathode and separate sections too. Multiple separate section units are included in the line wherever size permits . . . and all types afford exclusive efficient mounting facilities that are real time savers.

Mallory FP—Fabricated Plate (NOT etched construction) Capacitors bring a new high in efficiency and performance. Well on their way to the second million used for original equipment by leading set manufacturers, Mallory FP Capacitors give you features not duplicated by any other condenser. Smaller sizes, unusually low R. F. Impedance, surge proof construction, improved seal against heat and humidity . . . are just a few of the features of Mallory FP Capacitors.

Mallory Type BB Condensers are Fabricated Plate Construction in tubular types. Encased in a heavy, one-piece, drawn aluminum can, they give you every advantage of Fabricated Plate Construction. They are insulated with an attractive cardboard tube well marked for easy rating identification. Strong internal construction eliminates troublesome open circuits.

> Remember only Mallory makes Fabricated Plate Condensers for replacement work. Get your copy of the new Mallory Condenser Catalogue from your Mallory-Yaxley distributor today!



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

americanradiohisto

TYPE BB CONDENSERS

Offer all the advantage

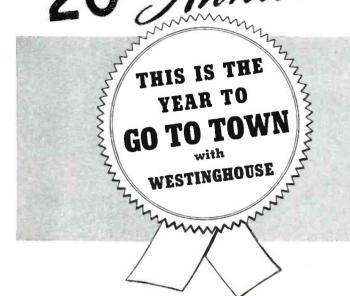
of Fabricated Plate Construction in tubular types.





WESTINGHOUSE RADIOS

niversary Series th



You can celebrate this year with unprecedented sales by stepping out with the celebration radio line ... the Westinghouse 20th Anniversary Series!

Here is an entirely new line of radios specially designed, constructed and priced to celebrate the 20th Anniversary of the first radio broadcast from Westinghouse Station KDKA. Every model in this 1940 group was developed to be particularly worthy of this important radio event! In appearance, performance, and value they are truly distinguished radios offering you a most attractive profit opportunity!

The style of each model was created by the foremost designers of radios in America today. Cabinets were constructed of exquisitely grained, carefully matched woods. Their distinctive beauty attracts instant attention and admiration.

Then too, these 20th Anniversary radios have been engineered and constructed for superior, dependable performance. Simplified chassis design, improved assembly, and high quality, precision-built parts give each model results well above its price class. Here is demonstrable performance that helps build sales, satisfied customers and repeat business.

It will pay you to investigate these Westinghouse 20th Anniversary Series radios. Celebration prices enable you to offer "more-for-your-dollar" values, yet make a substantial profit for yourself. Get complete details and de luxe Sales Book from your distributor today!

MODEL WR-470 A five tube table model radio-phonograph combination with push-button tuning for six stations.



MODEL WR-274 A seven tube table

model with edgelighted slide-rule dial and push-button tuning for six stations.



MODEL WR-374

Eight tube console with 12-inch dynamic speaker, edge-lighted slide-rule dial, and push-button tuning for six stations

MODEL WR-474 A deluxe eight tube radio-phonograph console combination with automatic record changer, 12-inch dynamic speaker, edge-lighted sliderule dial, and pushbutton tuning for six stations.













Modern PIED PIPER

O TOM CARMICHAEL, radio and home appliance manager for the Hopper-Kelly Music Company of Seattle, goes the palm for perfecting the most effective portable set sales routine seen this month. To lovely, 18-year-old Ruth Carlyle goes the credit for supplying precisely the right kind of personality needed to make it click.

Attracted to the shop's window by a colorful, animated miniature circus were passersby. Up to those who appeared most interested in portables arranged just behind the glass slipped Ruth, quietly and without making herself conspicuous, tuning in musical programs on a receiver slung over her shoulder.

mericanradio

Most men, at first, thought the music came from inside. Then they discovered that it was being picked up on the sidewalk near them, found it easy to learn more about the set from a girl who didn't strain the eyes, proved pleasant to talk to and seemed just as naturally friendly as if they had known her all their lives. Turning mere curbstone curiosity into possible business, Ruth actually twok 57 by the arm in the first three days, escorted them inside much as if they were neigh-

Turning mere curbstone curiosity into possible business, Ruth actually twok 57 by the arm in the first three days, escorted them inside much as if they were neighbors to whom she wanted to show something of mutual interest. Salesmen on the floor completed the demonstration while Ruth turned off her set, returned to her smooth sidewalk solicitation.

NO TRIP UP DUR-ING THIS MOP UP

Distinct advantage of new consoles using built-in antennas, dispensing with external aerial and ground wires entirely, is the fact that the housewife may move the sets while cleaning without waiting for hubby's ok. It's an effective extra sales feature during Fall housecleaning





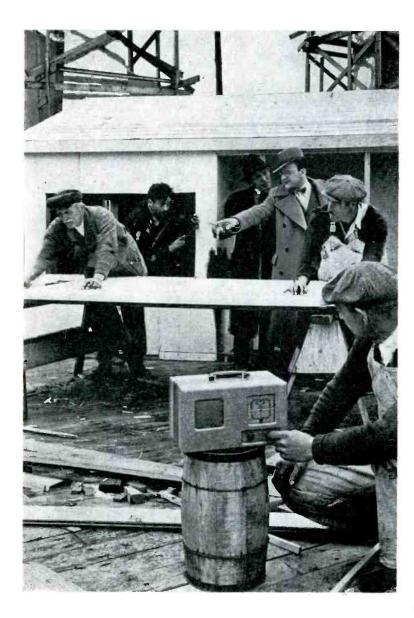
WHITE MAN MAKES HEAP BIG MAGIC

In New Guinea, too, the family gathers 'round the radioman when he calls to service their radio with the aid of modern Supreme test instruments. How'd you like to try and match a new console to the style of this home architecture?

FINAL TEST PAYS DIVIDENDS

More critical than buyers of table-type sets are those who buy the last work in combinations. To avoid possible kickback, New York's Radio-Wire-Television, Inc. instructs installation men to ignore pre-delivery ok, carefully check operation again when the merchandise is in the customer's home







COLD AT THE CURB

Cut into the backseat of C. W. Rauch's car is a Cool-Wave air-conditioner. He parks in front of Mt. Lebanon, Penna. homes, opens the trunk compartment to provide the unit with air, carries a long cord into the house for power

PORTABLE MAKES WORK PLAY

On a construction job (left), one of Pilot's popular portables provides fast music, steps up the carpenter's pace, just as radio has increased production by reducing monotony of routine jobs in progressive factories for years

OUT FOR BRAND NEW REP

Operator of one of the first traveling sales and service shops back in 1936, Parkersburg, West Virginia's W. L. Fuller, Jr. comes along with a variation of the idea. He's now a manufacturer's rep, selling distributors only, plans to make a few initial demos for new accounts with this car



RADIO and Television RETAILING, SEPTEMBER, 1939

TOURING THEIR TERRITORY

americanradiobistory con

Bringing the mountain to Mohammet are Messrs. Abernathy, Chew and Rucks, of Birmingham's Magic City Appliance Company. They're showing new Majestics to dealers right in front of their stores, by means of this swanky new trailer containing a complete display of the entire line



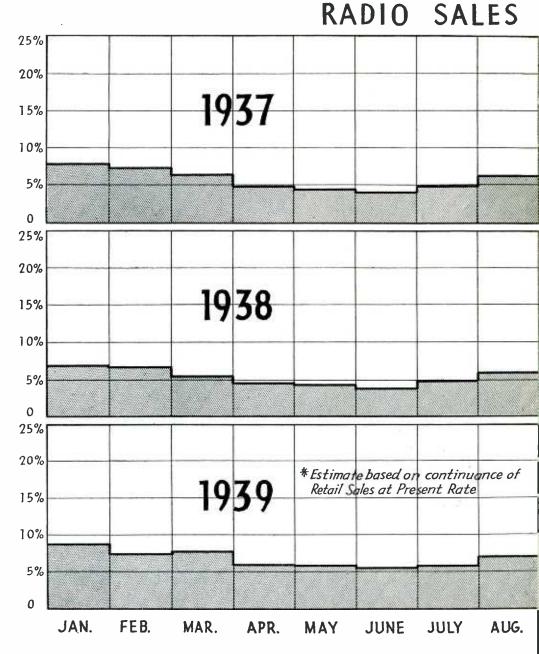
By W. MAC DONALD

ENEATH its belt at the end of the first six months of this year the trade complacently digested gains achieved largely because of the impetus given 1939's initial business by a sharp upturn just as 1938 closed. In July the promotion of portables provided earned nourishment, few dealers finding it necessary to tighten up a notch until August. And as this issue goes to press reports from the field indicate that the advent of stay-at-home Fall weather and resumption of many big-time chain programs (plus keen consumer interest in news broadcasts relative to the international situation) is once again stepping up set sales.

Prepared solely to indicate the probable importance of the year's last quarter by showing the percentage of unit sales by months in the two previous years, the chart in these pages cannot in any way be considered indicative of the actual comparative volume achieved in these years. (Sales totals for 1937 appeared in the January, 1938 issue and 1938 sales were recorded in the statistical issue printed in January, 1939). It shows, rather, that fully 43 per cent of the radios moved in 1937 went into homes in the months of October, November and December: that 47 per cent of the units sold in 1938 were moved in this same period.

From the standpoint of total sales, 1939 is already far ahead of both previous years and, despite the fact that gains in the first half naturally reduce the slope of the curve later on in the season in a chart of this kind, continuance of business at its present pace would indicate that at least 40 per cent of our set business should be closed in the 90 days just ahead.

A complacent attitude toward promotion could still, however, depress the anticipated dramatic upcurve in the last quarter to a point partially nullifying first half gains . . . which is our cue to suggest at this point



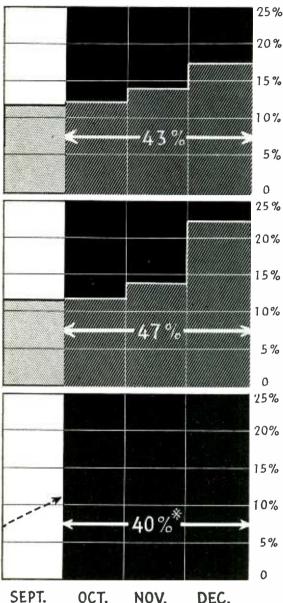
that the industry make the most of the season.

Straight Price Appeals Discouraged

Manufacturers and distributors, by and large, obviously appreciate the importance of hitting the market with everything they have at this time. This explains why "leaders" hitherto given little emphasis even though included in lines announced in June and July, are now being spotlighted, why hot items apparently held back since mid-summer are now everywhere breaking into print, why still other last minute model introductions are likely as late as October in two or three lines.

The job of making the last quarter live up to the promise of the early months of this year now passes to the retail trade, equipped with good weapons which must still be skillfully wielded for maximum effectiveness. The weapons to which we refer are the various items listed in the accompanying panel, considered by most observers to be the logical backbone of fall radio business. It is noted particularly that while most factories are still unwilling (probably with good reason) to stake their all on straight quality appeal, believing that price continues as a major factor in today's market, they are attempting to divert





The NEXT 90 DAYS

FORTY PER CENT of the year's business expected between now and Christmas. First half gains safe under trade's belt. Manufacturers unlimbering reserve big guns to make most of Fall season the consumer's eye from "barepoles" midgets by means of novelty, added convenience, additional entertainment and decorative appeals.

Straight rock-bottom price appeals, never conducive to good business, are at their very worst during radio's natural pre-holiday season and less of this is anticipated than last year. Even in those few big cities where special campaigns are planned by large operators the combination of novelty or doublepurpose merchandise and price, rather than just price alone, seems likely to be the sales-slant.

Last Quarter Sales Suggestions

To the radio retailer, "Livest Dealer in Town," the following reminders are respectfully submitted:

THIS is the time to make certain that your radio stock is sufficiently complete, sufficiently sweetened with 1940-line novelty and "plus" appeals to adequately serve holiday buyers. More money has been lost in past pre-holiday seasons by attempting to sell from catalogs in the face of competition having merchandise actually on hand than the average dealer would care to admit.

THIS is the time to concentrate the bulk of the year's promotion money . . on local broadcast programs, newspaper ads, direct-mail promotion, throw-arounds, store and window displays. Sufficient potential business is in the immediate offing to justify higher than usual promotional expenditures. The time to spend is when there is more than an outside chance to get the investment back.

THIS is the time when outside sales efforts of all kinds are best justified in the radio field. If your particular kind of retail operation is geared for such work canvassing of old customers for replacement business will find them in their most receptive frame of mind toward this item right now.

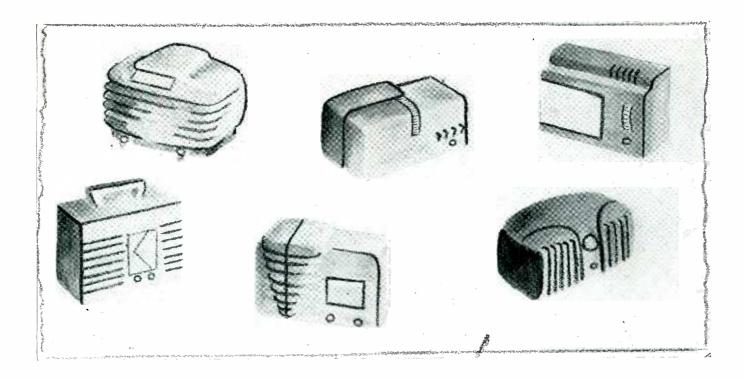
THIS is the time, the months of October, November and December, to try the pet promotion ideas you may have been saving up. THIS is the time, in fact, to use

THIS is the time, in fact, to use every weapon at your command to make the most of the season.

ricanradiohistory co

MERCHANDISE to WATCH

- DOUBLE DUTY PORTABLES Surprise addition of many new models just before cold weather indicates manufacturers' belief that summer sales momentum, plus appeal as second sets for homes, will carry battery portables equipped to work from power lines well into winter market
- NOVELTY COMPACTS Widespread featuring of table types embodying design innovations developed s in c e June seen as effort to lead consumer's eye away from "bare-poles" midgets to sets with slightly higher lists
- COMPACT COMBINATIONS— Destined to be one of the hottest items for pre-holiday selling, table type phonoradios may lead sell-up parade, should simultaneously spur record sales to new high levels
- MEDIUM PRICED CONSOLES— Maximum dollar value is once again concentrated by most makers within this bracket, reflecting a v e r a g e factory's feeling that average buyer may be most readily stepped up through combination of moderate list and wealth of visible features
- CONSOLE COMBINATIONS "White hope" of upperbracket merchandising, such merchandise is likely to effect a substantial sales step-up
- FURNITURE MODELS Already being moved in considerable quantity by department and furniture stores, furniture models are beginning to make up in dollar volume what they might lack in unit sales



COMPACTS Can Be

Nour article last month on techniques for selling consoles, we left a yawning gap in many small living rooms and under many kitchen shelves; a vacant spot in Junior's bedroom and a bathroom that's calling for better music than "Sweet Adeline," rendered between strokes of the razor.

This month we give you annunition which marketwise dealers have found useful in selling compacts into empty places where consoles won't go.

Get Personal

First we're going off on an apparent tangent to make an important point.

It happens again and again in selling merchandise which is particularly personal in nature that something—like the *cellophane raincapes* of a year or two ago—catches on with the public and sells far beyond the wildest dreams. Portable radios, in our own field, have just left the industry slightly goggleeyed and happy.

Three of the reasons why such merchandise does click are, first, that it does a job just a little bit "Personal" models and clever new designs with a little bit of extra styling or convenience divert the consumer's eye from "bare-poles" midgets

By J. H. AVELING

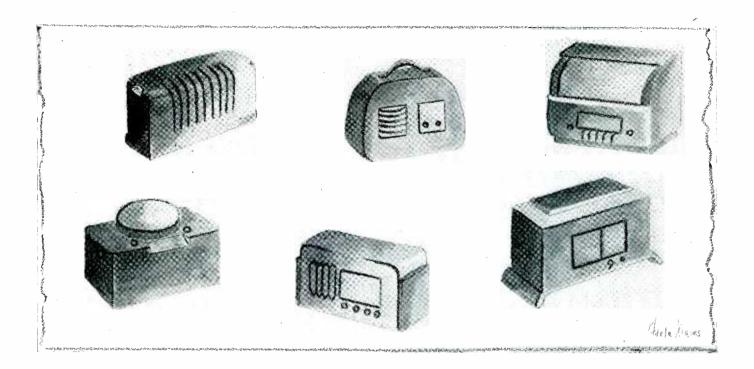
better and more conveniently than that particular job has ever been done before. Secondly, that piece of merchandise is of such distinctive appearance that when it appears in public it virtually advertises itself. Third, it answers the present day needs of a wide variety of people.

. When thinking of "personal" radios—and by that we mean compacts which are purchased to give their owner an "exclusive" on favorite programs, which are bought as secondary sets for use in a bedroom, play room, bathroom, by a favorite chair in the living room or den—it is important to remember that the sales features which make *other* personal merchandise sell likewise operate in determining the market for radios.

If you slant your sales talk toward models which do something extra well and advertise themselves by their appearance, you will have at least two strikes on the buyer before you start.

Effective Extras

In interviews with a number of dealers that fact has been emphasized again. They say that, for volume sales, models sell best which are of more or less standard size. If to those basic requirements, however, are added one or more "plus" values, it is easier to make a sale in *higher price* brackets.



Sold Up TOO

Crisp, clean styling within the limits of accepted sizes, loop antennas, carrying handles, the luxury effect which ivory plastic adds, and attractive natural wood finishes have proved particularly popular. That is where you find the majority of your sales, and offerings of this sort are particularly fine in the 1940 models.

But buyers are varied and crotchety, and you are sure to hit the prospect who isn't satisfied with the usual thing. It is to handle that kind of buyer, to penetrate to places where radio would otherwise never go, that manufacturers are bringing out in increasing numbers what might be called "specialty" setstreasure chests-World's Fair models-special colors-kitchen setschildren's radios-those with monograms, with leatherette cabinetssets adapted to every conceivable type of setting from the attic to the basement, and designed to fit a wide range of personal preferences.

These sets have a very important place in any selling, or selling-up, program which concerns compacts. For promotion and display purposes they are immediate attention-getters. Because of their distinctive appeal, they establish a slightly higher price level, and whether the final sale is a standard model or a specialty, it is excellent selling technique to have a sharply contrasting cabinet style to *turn from* in making a sale.

Featured for 1940

In a review of manufacturers' lines for 1940 it is amazing to see the variety in styling of models offered within the limits of conventional size. Illustrated are some of the most decided compact design modifications.

Experiments with cabinet outlines have taken two directions first toward softening the sharpness of square corners. In some cases this is carried to the point where the front panel is curved to continue as the top of the case. Occasionally the rectangular is completely deserted by sloping the sides to a broader base. The other trend is toward emphasizing sharp rectangularity in cabinet shape. Everything possible is done in handling color, controls, grille openings, to give the feeling of sharply cut design.

The conventional balance of

speaker opening to the left with dial and control knobs to the right is, in some cases, being varied by grilles to either side or recessed controls mounted on the top of the cabinet.

Models in some lines combine radio and electric clock, a continuation of a trend which started in a small way last year. One model, interestingly, discloses the radio dial only when the set is "on."

Leatherette covered cabinets appear often enough in manufacturers' offerings to make it clear that today texture, as well as shape, has its important place in radio merchandising.

One grouping of small sets features squarely chiseled lines with decorative elements such as rope handles to give a nautical effect. Figured chintz is, in another, used as grille cloth for sets with maple finishes. Experimenting has been done in incorporating scenic designs into the front panel.

Variety has been introduced into another cabinet by a step-down in the top, making an excellent spot for mounting push-buttons. A halfmoon dial adds to the novelty of

(Continued on page 72)

GREATEST PUBLIC ACC the No. 1 Pro

DEALERS PREFER TO SELL PHILCO!

Reasons given by dealers in a national survey

*1. Greatest Public Acceptance

2. Most Widely Advertised

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

The reason we go heavy on Philco is this: Philco has sways been a set that the public wants and we believe the public will be more responsive than ever to Philco for 1940. It's a great line. DAVEGA CIT RADIO, Inc., New York, N. T.

Customers ask for Philco Redios by name, and when they are demonstrated, the performence is convincing. SCHWEIG-ENGEL COMPORATION, St. Louis, Mo. MB Sunger

Have sold Philco for ten years. Philco has the greatest public acceptance, and to prove it ... over twelve million Philco owners "CAN'T BE WEONG". COLIMAN RADIO ELECTRIC, Johnson, Neb. Wirhur Gallman

With more sets in use than any other make, Fhilco has the greatest public acceptance and we naturally prefer to push this line.

STATE RADIO & ELECTRIC (D., Philadelphia, Pa.

When you have spent 15 years in the radio game, handled most good lines, been in charge of wholesale and retail houses, you will naturally go to Philco. It is the one set that people will ask for, even if you sell others. SNYDER RADIO SEOF Springfield, Ohio

Coldelatt BROTHER chicago, 11.

we find it profitable to push Philoo sets because they are acceptable to, or preferred by, more of our prospects. C. W. FATE, Samson, Alm. C. W. FATE

We find it profitable to promote Philco because of the present public acceptance and the splendid performance of Philco merchandise. For bigger volume and profit, decide now to push the line that most people ask for and the one that most people prefer.

Dealers everywhere have been stirred to action by Philco's 1940 improvements, beauty and new low prices.

Philco leads with the trade as it leads with the public! An impartial survey recently made in all parts of the country shows again that radio dealers look to Philco as their No. 1 opportunity for profit.

With big dealers, medium size dealers and small dealers in every type of market, it's the same story. Philco leads in every factor you need to give you the most salable, most profitable radio proposition . . . over the long pull and over the short pull!

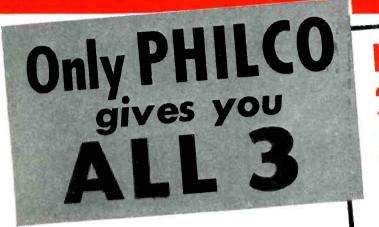
Check over the list of dealer comments made in the national survey. Read the excerpts from letters written by men who say what they mean. Match those statements against your own knowledge of what it takes to *make money* in radio.

Every one of those 14 points has made Philco the overwhelming radio leader for 10 straight years. And now, for 1940, Philco offers the greatest line in its history ... exclusive features, unmatched performance, sensational cabinet designs, bigger values at lower prices. And from every corner of the country comes the emphatic conclusion:—

It's Philco again for 1940 . . . the one line to concentrate on for volume and for profit!

Philco All Year 'R .the Most Profitable Fi

EPTANCE*makes PHILCO fit Opportunity in Radio!



"PLUG IN and PLAY" CONVENIENCE No aerial or ground wires to install. Plug in anywhere ... and play.

• **NEW PURITY OF TONE** Greater freedom from power line • noises and man-made static. More enjoyable reception even in noisy locations.

3. SUPER-POWER Even gets foreign reception without an outside aerial. Amazing performance?

You Get ALL 3 with the Philco Built-in Super Aerial SYSTEM

Philco Anniversary Specials

Brand new models, just announced . . . price leaders—traffic builders—sales makers! And they're the *feature* of the biggest nation-wide fall radio promotion ever staged. If you're not sharing the profits of this great Philco Anniversary Celebration Sale, get in touch with your Philco distributor—quick!



PHILCO 158F A new value leader! Has costly R.F. Stage, never before offered in a console priced so low. 6 Loktal Tubes — all working! Undreamed-of power and purity of tone. For use with Philco Utility or attached wire aerial. Handsome cabinet.



PHILCO 165K Just out! Has built-in Super Aerial System that eliminates messy aerial and ground wires. Twin-Loop Aerial and triple-power Television Tube give clear, powerful American and foreign reception, even in noisy locations. Electric Push-Button Tuning. Walnut cabinet.



Celebrating

IO STRAIGHT

YEARS

PHILCO 525 Radio-Phonograph. A triumph of tone, operation and performance at a moderate price. Automatic Record Changer for 12 records. Special phonograph circuit with doubled sound output. Built-in Super Aerial System. Electric Push-Button Tuning. Lovely cabinet.

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

ound for Profits All Year 'Round Inchise in the Radio and Appliance Field!

If IT Answers the Doorbell It's YOURS!

By

CASWELL ODEN

F a salesman can be constantly supplied with sufficient leads to keep him busy, and at the same time it is possible for all these leads to be on prospects for radio, then that man will do well to concentrate his efforts on radio exclusively.

Constant practice makes for aptitude. Nobody can successfully dispute this fact.

But an outside salesman who must *canvass* for his prospects, or a supervisor with men who must canvass, should in my estimation be in a position to sell every major household appliance for which a woman can ask.

Two Kinds of Specialization

There are two kinds of specialization. There is specialization in selling *technique*. And there is specialization which has to do with concentrating our efforts on one *product*.

Specialization in selling technique, concentration on either canvassing or closing, is the specialization which gives us the greatest possible benefit of our man-power, both experienced and inexperienced. Specialization which has to do with concentrating our efforts on one product is a kind of specialization which often *passes up business* on other related home items.

As far as selling *technique* is concerned, a man should either canvass or close—and specialize in one or the other. He can't (with best results) wear himself out talking to a lot of women who don't want to buy anything—and then try to sell somebody something.

Mr.

The slow, confident, talking style which gets the name on the contract will not keep the door open when you have pushed the doorbell, cold. Nor will the alert, hair-trigger, probing talk of the expert canvasser, which, along with his disarming gestures and magnetic gaze, keeps the door open (without using the foot) while he discovers what the lady needs, cause her to buy anything. One technique is as different from the other as night is different from day.

A good salesman can do both, of course. In this way: He can canvass in January, and close in February. But he can't canvass Wednesday morning and close Wednesday night. Or Thursday night, for that matter—not with maximum efficiency. For he is constantly *switching* his technique.

Diversity Builds Volume

So much for the specialization in technique. Now let's talk about the specialization which has to do with concentrating our efforts on one specific item.

Well, you may ask, if specialization in selling technique is so important, why a man concentrating

RADIO DEALERS whose canvassing unearths prospects for refrig-

erators, washers, cleaners and other related items for the home, have

wasted their time unless they can cash in on this plus business

on one appliance won't become very proficient at selling that one appliance? He will!

But what of his *prospects?* Is he *combing* a neighborhood for *business?* The point I wish to make is that while he is selling that one appliance with such finesse he could be selling several appliances with equal finesse; and, because he would have more items to sell, would consequently produce a larger volume of business.

He would sell several appliances with equal finesse, after acquainting himself with them, because: While switching from one selling technique to another is harmful to each technique, switching from one *appliance* to another is *not*. After a man learns to sell a radio, he can sell it. After he learns to sell a refrigerator or a washing machine, he can sell it. And he uses the same selling *technique* to sell all three.

He would produce a larger volume of business because: Dealing with canvassed prospects, a woman in the market for *any* appliance would engage his attention, where this isn't true of the man concentrating on one appliance.

Why Pass Up Pushovers?

There are men who sell radio exclusively. There are refrigerator salesmen. There are men who go out to sell washers. There are men who sell cleaners, and cleaners are all they think about.

And, what's more, some of them are doing it *successfully*. So I'm not trying to say this can't be done. I am merely pointing out the advantage of selling a more complete line, of cashing in on *every* prospect you run across, of cashing in on every doorbell that you push that turns up a prospect for *any* home item.

Let's take the vacuum cleaner

RADIO and Television RETAILING, SEPTEMBER, 1939

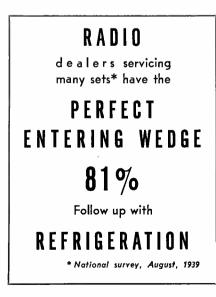
salesman first. We're not interested in him? We are if he gives us good leads on *our* merchandise.

I remember when I was selling vacuum cleaners, the first appliance I ever sold. Inasmuch as vacuum cleaner salesmen today, with rare exceptions, do the same thing I did then, let's take myself. I had nothing else to sell, naturally, because I was working for a vacuum cleaner company. So I concentrated on vacuum cleaners.

When I tell you that I passed up sales, that I passed up pushovers, on other appliances, I *mean* that I passed them up. I'd be demonstrating the cleaner and the woman would say, "Yes, it's very nice, but I'm going to get a washing machine first." (Or a box, or a radio, etc.) Not even "I need," mind you, but "I'm going to get."

And what would I do? I'd go right on trying to convince her that she needed the cleaner worse than the washer!

Now let's go from one extreme to the other. Let's take a good all-



around home appliance salesman. What would he do if he was talking to a woman about a radio or a box, for instance, and she said, "Yes, I know, but I've got to get a washing machine first?" Heigh-de-ho! The washer is as good as delivered.

He'd sell the washer. Then he'd get credit checked. Then he'd go back and probably sell her both, after showing her how small the monthly payments were on the combination. At any rate, he'd sell the lady something—even if it had to be what she wanted!

To Sell You Must Stock

What does all this mean to the radio dealer? The departmentalized dealer not carrying a full line of appliances? It means very little if he has no outside salesmen. It means a great deal—if he has outside men, even though they sell only what he has to sell. (After all, maybe his men *would* sell the other merchandise, if he *had* it). It means *plenty*—if his outside salesmen are alert, thinking men, anxious to cash in on every prospect they run across.

And so, as I said at the outset, a man who pushes doorbells every day, or a supervisor who directs such men, should have the full line of household appliances to sell. That is what you call combing a neighborhood for business. Not cutting down your prospects to a minimum, because you have too little to offer them.

You see, the man pushes the doorbell. And inasmuch as that is something so many men *don't* want to do, he's really entitled to a commission on any household appliance that anybody in that house wants to buy. One of these days a radio canvasser is going to turn up a prospect for a *house and lot*. And, if he's working for me, I'm going to see a real estate man and see if I can't get a cut on it!

Take their mind off Price

One way to do it is to use custom-built "conversion" jobs as leaders

THE papers have been full of that story about the New York World's Fair hamburger which, dressed up in a long Hungarian name, sold for \$1.50 to patrons eager to sample a little exotic cooking.

In Oak Park, Illinois, Tunnis Brothers has been using a similar stratagem on the customer who wanders from store to store trying



to find out just how cheaply he can buy an advertised radio.

A little more than six months ago a man wanted a radio in maple. It turned out that his home was finished in maple, and while he wanted to buy the radio wholesale, he wanted maple pretty badly. It so happened that Tunnis Brothers were one of the few dealers who had exactly the cabinet he wanted. He bought the set and paid list.

"All of which gave us the idea that if we had something in the store that was different than the shopper was encountering, we could probably throw him off his trolley and sell him something unusual," says John S. Tunnis. "All men are different and their tastes cannot be standardized. So we bought some



YOU'LL ADMIT THIS AD IS DIF-FERENT—It has a consumer slant attractive to many overlooked in the trend toward mass production

CONSTRUCTIVE IDEALIST—John S. Tunnis, past president of the Illinois Radio and Electrical Dealers Association

special cabinets and transferred radios from table sets to them. One of our most profitable models has been a table set costing us \$6.50 which becomes a \$29 cabinet job at a cost of two or three hours time and a little cabinet. It doesn't cost more than \$2 or \$3 to make the changeover, and it fairly knocks their eyes out."

Tunnis Brothers have three men in their service department and these fellows put in their odd time working on changeovers. On the first job, it took more than a half day to fix it up, but after getting the hang of the thing, the boys can turn them out rather quickly.

The chief difficulty is in getting cabinets, as very few manufacturers produce specials in small numbers. Of late Mr. Tunnis has been running a drive on making old radios into record players.

The growing demand for outfits that will play records is finding a responsive vein among customers and his advertising, "Let us change your old radio into a record player," is meeting with a brisk reception.

The whole of Tunnis' energy is being set in these directions because he feels that industrial selling is ruining the retail radio business. Slowly but surely the public mind is becoming infiltered with the idea that "only chumps pay retail." Feeling that industrial selling represented an unsound trend, Mr. Tunnis a couple of years ago was first in Chicago to establish a two price setup. On one side of his store he piled radios in original cases, and offered them at wholesale or near wholesale, without benefit of installation, service or guarantee. On the other side of his store he carried a regular retail line. Each radio was tagged with wholesale and retail price. It was up to the salesman to show the prospect that the 40 per cent that the dealer got was substantially represented in the value purchased.



MAJESTIC'S NATIONAL ADVERTISING AND 8 MILLION ENTHUSIASTIC OWNERS MAKE HOT NUMBERS HOTTER

★ Here's one line that has every one of the four profit-making fundamentals for dealers! Already, in this complete 1940 line, Majestic has proved its ability to turn out red-hot "scoops." These hot numbers are backed up by a solid national advertising campaign ... Life ... Liberty ... Collier's ... Saturday Evening Post-with more to come! Majestic's production methods allow larger margins than you've ex-

pected. And, finally, Majestic's policy is "No quotas." We know some numbers are hotter than others, in various territories-and we realize that you know how to sell your trade better than anyone else! Majestic gives you every feature, every talking point that sells radio today-and gives you a free hand to use these points to your most profitable advantage! You can't ask for more than that! Write today for details!





MAJESTIC RADIO AND TELEVISION CORP. 2604 W. 50th St., Chicago, Illinois Cable Address, "Majestico, Chicago"



Miniature Broad-casting Station. Plays records through radio or 4-tube phono os-cillator amplifier. Improved crystal pickup;Self-start-ing constant syn-chronous-speed motor with auto-pariscips Model ticstop.Model W0.



12 intermixed. No wired for television





No Aorial, No Ground. Permesbility-type automatic tuning; Majestic Hi-Q Loop Anterna, Majestic Static Hi-Pass. 6 tubes. 2 wavebandi; Standard U. S., s. 2 wavebands; 1 720 I.c. and forei 2c64. Ask your your



Plastic. voical tic Hi-O Loop and

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

www.americanradiohistory.com



THRILLING ON THE GRIDIRON TRAGIC IN YOUR BUSINESS

If you as a radio tube dealer are losing sales to cut-price competition —you need the Tung-Sol plan which provides interference FOR you not AGAINST you! **Q**You qualify under this *protected profit* setup and secure an adequate supply of Tung-Sol tubes without buying them—

IF, you now operate a growing radio service business free from interference with already established Tung-Sol dealers . . . can turn over a profit-protected tube stock three or four times a year . . . will make use of attractive displays and other advertising material for increasing sales . . . and have a reputation for maintaining standard prices.

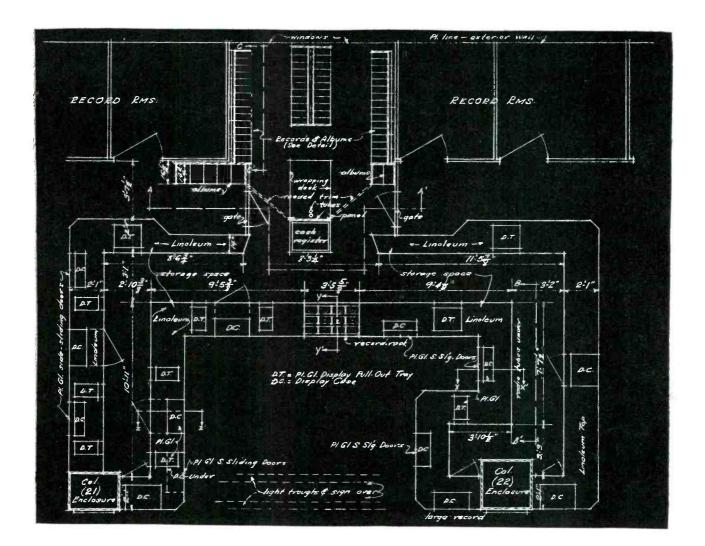
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IF YOU HAVE "WHAT IT TAKES"—WRITE US TODAY

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

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



PLAN for Model RECORD SHOP

THREE months ago the Famous-Barr Company, St. Louis department store, completed a new record shop widely recognized as a model of efficiency and eye-appeal. Store architect, I. E. Safier, planned, designed and executed the job. Department manager, S. E. Gross, says it produced an immediate and almost phenomenal increase in disc sales.

Outstanding feature from the customer's viewpoint is ample space at the counters, with standing room for more than 75 shoppers. Installed in these wooden counters are a number of small showcases which permit record-players, featured discs and radio tubes to be prominently displayed. The glass in these small showcases is installed both in the front and on the top, so that shoppers not only see the merchandise while approaching the counters but also look down at it when they

By HOWARD BARMAN

finally arrive up at these counters. On top of all counters are display pull-out trays with glass tops, into which lists of popular record numbers furnished by manufacturers may be inserted.

Arrangement Speeds Sales

Directly in the center of the shop, on the main counter, is a record rack containing spaces for 12 numbers of the current week's Hit Parade.

Above the entrance to the shop are twenty-inch wood letters identifying it, illuminated indirectly from a light trough. Also in illuminated wood letters on the columns left and right of the entrance are inscriptions reading: "Classical Rec-

www.americanradiohistory.com

ords" and "Popular Records."

The record stock room is located in the middle of a row of audition rooms and right in its entrance is the wrapping table, hidden from public view by a panel. Before this panel is the cash register. Clerks may remove discs from the stock room, pass through gates left or right to audition rooms. Record albums are given open display in cabinets which offset the disc stock room on both sides of its entrance.

Record cabinet shelving is convertible for the storing of both 12inch and 10-inch records. The cabinets are $12\frac{1}{4}$ inches deep and $12\frac{3}{4}$ inches high but, with the insertion of a specially built sham, a 10-inch record can be stored flush with the face of the cabinet. The sham has a horizontal panel placed about $1\frac{3}{4}$ inches from the rear end of its removable converter and this stops 10-inch records short of the back.



AL DONAHUE Vocalion



OSSY RENARDY Columbia Blue Label



MATTY MALNECK Columbia Popular

HIMMIE LUNCEFORD Vocalion

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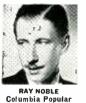
HORACE HEIDT Columbia Popular

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SIRTHOMAS BEECHAM Columbia Blue Label

















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RADIO and Television RETAILING, SEPTEMBER, 1939

COLUMBIA SOLVES PROBLEM OF VOLUME AT A PROFIT!

NOW AT LAST comes a popular record so good that its amazing value price wins customers at once. Yet this price builds volume faster, and profit, too-a profit that will pile up at the end of the month, at the end of the year, into really important money for you.

The Quality Record People Have Wanted!

Here is a new quality popular record-true, realistic recordings of the newest music by favorite artists-recordings that will stay true and realistic through countless playings. That means satisfied customers - customers who will return to the dealer's regularly for more Columbia Popular Records.

Complete Record Service for Your Customers!

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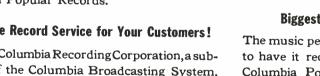
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L'TATRO.	819	(1)247 (2)	(2)267 ((1)4826 (2)3017	(1)462	(2) 3003	(1)4F (2)B30	30 (1)742 (2)762	(1)4F1	(2) V30B	(1)P94 (2)P305	(1)P94A (2)P5303	(1)634 (2)624	(1)4816 (2)6218
MAGNAVOX	41			(1)4826 (2)3017	(1)462	(2)3003	(1)4F (2)B30		•		(1) P94 (2) P305	(1)P94A (2)P5303	(1)634 (2)624	(1) 4816 (2) 6218
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MANTOLA			:						(1)6F1	(2)V30B				
MISSION BELL	500 501			$\begin{array}{c} (1)4824 & (2)3017 \\ (1)4824 & (2)3017 \end{array}$	(1)660 (1)660	(2)3003 (2)3003	(1)4FA (2)B30 (1)4FA (2)B30	30 (1)#6 (2)762 30 (1)#6 (2)762	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	$\begin{array}{c} (1) P96 & (2) P305 \\ (1) P96 & (2) P305 \end{array}$	(1)P96A (2)P5303 (1)P96A (2)P5303	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	(1)4814 (2)6218 (1)4814 (2)6218
MOTOROLA	41D 41S 51D	(1)147 (2)267		(1)4824 (2)3017	(1)660	(2)3003 (2)3003 (2)3003	(1)6F (2)B30 	0 (1)743 (2)762 0 (1)743 (2)762	(1)6F1 (1)2F1 (1)6F1	(2) V 30B (1) V 20AAA (1) V 34AAA (2) 230B (2) 230B	(1) P96 (2) P305	(1) P96A (2) P5303 (1) P96A (2) 5303	(1)637 (2)624 (1)637 (2)624	(1) 4814 (2) 6218
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рнпсо	40-74 40-81 40-88 40-504										(1) P94 (2) P305 (1) P41A4FL (1) P60A4L (1) P94 (2) P305			
PIERCE-AIRO.	408			(1)4829 (2)3017		:	(1)6F (2)B30	30		•		- - - - - - - - - - -		(1)4819 (2)6218
PILOT.	H11 MTH11 MTH12	(1)147 (2)	(2) 267 ((1)4829 (2)3017	(1)860	(2) 3003	(1)6F (2)B30	10 (1) 741 (2) 762	(1)8F1 (1)4F1 (1)4F1 (1)4F1	(2)V30B (2)V30B (2)V30B (2)V30B	(1)P96 (2)P305	(1) P96A (2) P5303	(1)637 (2)624	(1)4819 (2)6218
PORT-O-MATIC	U17A U17C	$\begin{array}{c} (1)247 & (2) \\ (1)247 & (2) \end{array}$	(2)267 ((2)267 ($\begin{array}{c} (1)4826 & (2)3017 \\ (1)4826 & (2)3017 \end{array}$	(1)462 (1)462	(2) 300 3 (2) 300 3	$\begin{array}{c} (1)4F & (2)B30 \\ (1)4F & (2)B30 \end{array}$	30 (1)742 (2)762 30 (1)742 (2)762	(1)4F1 (1)4F1	(2)V30B (2)V30B	$\begin{array}{c} (1) P94 & (2) P305 \\ (1) P94 & (2) P305 \end{array}$	(1) P94A (2) P5303 (1) P94A (2) P5303	(1)634 (2)624 (1)634 (2)624	(1)4816 (2)6218 (1)4816 (2)6218
RADIO PRODUCTS	4D			(1)4829 (2)3017	(1)860	(2)3003	(1)6F (2)B30	30	(1)8F1	(2)V30B	(1)P94 (2)P305	(1)P96A (2)P5303	(1)634 (2)624	(1)4819 (2)6218
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SEARS ROEBUCK	6266	(1)247 (2)	(2)267 ((1)4826 (2)3017	(1)462	(2)3003		(1)742 (2)762	:				(1)634 (2)624	(1)4816 (2)6218
SENTINEL	151BL 178BL	$\begin{array}{c} (1)247 & (2) \\ (1)247 & (2) \end{array}$	(2)267 ((2)267 ($\begin{array}{c} (1) 4829 & (2) 3017 \\ (1) 4829 & (2) 3017 \end{array}$	(1)860 (1)660	(2)3003 (2)3003	$\begin{array}{c} (1)4F & (2)B30 \\ (1)4F & (2)B30 \end{array}$	30 (1)741 (2)762 30 (1)743 (2)762	(1)8F1 (1)8FL	(2)V30B (2)V30B	$\begin{array}{c} (1) P94 & (2) P305 \\ (1) P96 & (2) P305 \end{array}$	(1) P94A (2) P5303 (1) P96A (2) P5303	$\begin{array}{c} (1) \ 634 (2) \ 624 \\ (1) \ 637 (2) \ 624 \end{array}$	$\begin{array}{cccc} (1)4819 & (2)6218 \\ (1)4819 & (2)6218 \end{array}$
SETCHELL CARLSON.	55	(4) #2 (2)	(2)267	(4) #102 (2) 3017	• • •	•	(4)#4 (2)B30	30 (4) #950 (2) 762	(4)#D	(2)V30B		(4)#4 (2)P5303		(4) #1511 (2) 6218

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americanradiohistor

RADIO and Television RETAILING, SEPTEMBER, 1939

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PAGE 31



CZAR LANDIS — He spoke (above) into Cooperstown Electric's sound system mikes as well as those provided by big broadcasters during baseball's centennial celebration

BASEBALL BEGAN HERE — Note placque commemorating the event on the wall (right) just behind the Kniskerns' soundtruck

IN THE BLEACHERS-These four speakers (right) covered the entire park

BIRTHPLACE of baseball, Cooperstown, N. Y., celebrated the national game's 100th anniversary June 12, awarded the contract for an elaborate sound equipment rental job to the Cooperstown Electric Company.

Planned and widely publicized well in advance, it occurred to the Editors that here was a job that must have taken careful and clever estimating and selling to cop in the face of keen competition. So, for the benefit of readers going after similar public functions, we wrote the firm's Raymond Kniskern, asked him for sales and installation details. Back came the following enlightening letter:

Aimed High

"We first approached the Centennial Board by personal call and made our bid for the use of the system for the entire season. This

Playing Ball Sells SOUND

Close personal contact with local bigwigs gives neighborhood dealer competitive advantage when bidding on public functions





proposal was not accepted as they wished to have a separate bid made for each game at the ballpark since some were due to bring larger crowds and hence give the committee more money to play with on these days.

"We found ourselves competing against several other firms but had the advantage since we, as local merchants, had bought shares in the Celebration. Many of the Board members had heard our 'Clarion' systems at other setups so no questions were raised as to performance and as to the quality of their tone. "After several weeks of continued personal contact with members of the committee we finally got the contract. I would say that we owe the sale very largely to the reputation of our equipment and our known ability to install and operate it properly.

Planned Installation

"Four 'Cinaudagraph' speakers were mounted above the bleachers, back of third base. The amplifiers themselves were mounted in a small room forming an entrance to the center grandstand roof. Wire cables were run in conduit to a 4 by 9 metal box located in the center box seat of the grandstand. We connected mikes from that point right and left, also used a hand mike in back of home plate. We used line transformers, 2,000 ohms at the speakers and 250 ohms at the amplifiers.

"To guard against possible failures which could easily jeopardize future jobs we installed separate leads to speakers so that if one gave out we could place a duplicate in use without delay."

BUILDS CUSTOMER CONFIDENCE FOR YOU . . .

Model 1612 TUBE TESTER

> A counter model that is as impressive to customers as it is ''advanced'' in engineering . . . complete for only \$29.84

RED ● DOT Lifetime GUARANTEE

Impressive, 7-1 n c h Measuring Instrument carries RED • DOT Lifetime Guarantee, which protects you for all time against defective materials and workmanship and is your assurance of the finest quality in instruments.

CUSTOMERS PATRONIZE THE UP-TO-DATE SHOP

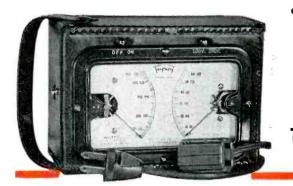
ROLL-DEX ...

SPEED CHART

36 Readings at a Single Glance . . Entire Chart Covered in 10 Seconds

www.americanradiohistory.com

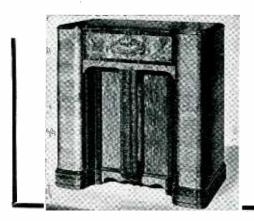
WITH the Triplett Model 1612 on your counter, your place of business immediately is brought up-to-date. For here is a "customer acceptance" tube tester that is impressive in the quick "readings" it gives with its fine, business like appearing 7" meter which permits the customer to read along with the clerk. No matter what tube your customer has, a quick spin of the Illuminated Roll-Dex Speed Chart will give you the settings in a flash. All tube references on entire chart can be scanned in 10 seconds. With all tube sockets including Loctals and new Bantam Jr., you can test any tube and customer can read the results himself on the seven-inch sapphire jeweled instrument. High Voltage series tubes including 117Z6G are provided for. Ample provision for future tubes is provided by filament voltages in 20 steps from 1 to 110 volts. Noise test jack and separate line voltage control meter. Silver Grey and maroon case and panel is suede finish over heavy, streamlined seamless steel . . . Chrome trim . . . Dealer Net Price...\$29.84.



NEW PORTABLE APPLIANCE TESTER •

Model 2000 is a simplified portable tester combining a Triplett Wattmeter and Voltmeter in Leather case. 130 and 260 Volt Ranges— 750 and 1500 Watts... Reads Line Voltage and Wattage Simultaneously. Switch Protects Wattmeter during Starting Period. Light and compact... Ideal for field use in servicing radios, refrigerators, fractional H.P. motors and all types of household appliances. Dealer Net Price...\$19.34.

THE TRIPLETT ELECTRICAL INSTRUMENT COMPANY Section 209 Harmon Ave., Bluffton, Ohio



FARNSWORTH

MODEL AK-95-Ten tube superhet phono-com-bination with Capehart record changer. Three band, tuning from 540-1600 kc., 1.6-5.5 mc., 5.5-18,1 mc. Flo-life dial; push buttons for 6 stations; shielded rotary loop; 12 inch electro-dynamic speaker; bass compensation; provision for tele-vision.



MODEL AT-15—AC-DC superhet using 5 tubes; tuning from 540-1730 kc.; push button tuning on 4 stations; Built-In-Tenna; 5 inch P.M. speaker; moulded plastic cabinet. Farnsworth Television and Radio Corp., Ft. Wayne, Ind.



EMERSON

MODEL DF-306—Universal self powered portable for ac-dc or battery use. Contains Miracle Tone Chamber: Inner-Ceptor loop: eye ease dial. Uses beam output tube; 6½ inch P.M. speaker; velvet drive tuning assembly; 6 tubes; price \$29.95.



MODEL CS-268—Housed in walnut plastic cabi-net; 6 tube superhet; Miracle Tone Chamber;

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Preview of

61/2 P.M. speaker; tunes 540-1730 kc. and 5.6-18 mc. Litz wire coils; beam output; television ter-minal; velvet drive tuning; price \$22.95. Emer-son Radio and Phonograph Corp., III Eighth Ave., New York.

G-E

PORTABLE — Model HB-504 three-in-one carry-about may be used on a.c., d.c. or battery. Housed in washable pigskin finish case with leather carrying handle. Weight 163/4 lb. Auto-matically switches to power operation when side compartment door holding line cord is opened; built in beam-a-scope, tuning range 540-1600 kc. General Electric Co., Bridgeport, Conn.



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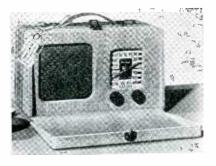
PHILCO

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MODEL 525—Six tube superhet with built in Super Aerial system. Record changer accommo-dates 12 ten inch or 10 twelve inch records. Lid opens for access to record player. Six push buttons, pentode audio system automatic volume control and illuminated dial.



MODEL 82-T—Portable weighing less than 9 lb. incorporates cover to shield dial and knobs when not in use. Equipped with waterproof lug-gage leather and dial showing meters as well as kilocycles. Philco Radio and Television Corp., Philadelphia, Pa.



STEWART-WARNER

MODEL 01-8A7—Eight tube full 3 band set with 10 watts output, 12 inch speaker, 6 station Magic Keyboard tuning record playing connection, tele-vision provision, selectivity switch, built-in an-tenna, automatic tone control.



MODEL 05-5LI--Combination ac-dc battery port-able superhet using 5 low drain tubes and with long life batteries. Stewart-Warner Corporation, 1826 Diversey Pkwy., Chicago, III.



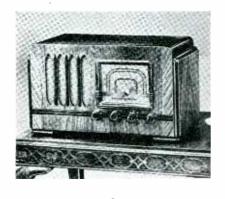
New Products

STROMBERG-CARLSON

MODEL 420-F—Authentic early American Hutch console in solid maple. Electric Flash Tuning; 12 inch speaker; provision for television; automatic drift compensator; Bi-focal tuning indicator; slide-rule dial; 7 tubes; \$79.95 list.



MODEL 412-H—A 3 band 3 gang-condenser receiver using 6 tubes. Designed particularly for listening to the fishing fleet operating between 2300 and 3200 kc. Stromberg-Carlson Telephone Mfg. Co., 233 Carlson Rd., Rochester, N. Y.



INTERNATIONAL

CHART OF THE AIR—An international radio log listing all important foreign and American short wave stations. Listings are compiled alphabetically and by frequency. Gives best listening hours for popular dx stations. Also contains universal time dial for computing time in foreign countries. International Chart of the Air, Liberty, Maine.

MAJESTIC

•

MODEL 2C60P — Automatic phono-combination with self starting and automatic stop. Plays 8 ten inch or 7 twelve inch records, also 10 and 12 inch records intermixed. Six tube superhet with $Hi \sim Q$ loop antenna, automatic tuning, standard broadcast and foreign bands.

RADIO and Television RETAILING, SEPTEMBER, 1939



MODEL ST—With radio off only clock is visible. When radio is switched on dial becomes illuminated. Middlebury electric clock movement. Juning range 538-1720, 5 tubes, 4 inch electrodynamic speaker. Majestic Radio and Television Corp., 2600 W. 50th St., Chicago, III.

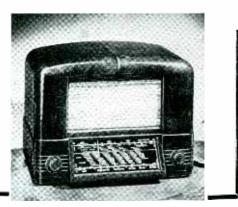


RCA

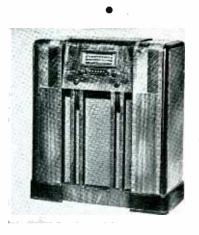
MODEL U-10—Table victrola with new Viscaloid damped pickup, self-starting motor, television provision, 5 tubes, 10 inch turntable, improved automatic tuning, two-tone heart walnut veneer cabinet; list price includes \$2.25 worth of records.



www.americanradiohistory.com



NEW YORKER—Four band receivers designed to cover radio channels assigned to commercial aircraft and ground stations, itinerant aircraft and others. Also receives standard broadcasts and European long wave band. Useful for airline executives, pilots and their families. RCA Mfg. Co., Camden, N. J.



DELCO

MODEL R-1160—Nine tube superhet with 3 bands; self-contained antenna; automatic tuning; r.f. amplifier; push-pull audio; 12 inch dynamic speaker; automatic bass compensation; provision for television and phono; price \$89.95. United Motors Service, 3044 W. Grand Blvd., Detroit, Mich.



LAFAYETTE

MODEL BB-7—Phono-radio console with built-in broadcast and shortwave loop. Pushbutton tuning on 6 stations; slide-rule dial; plays up to eight 10 or 12 inch records; 8 tube chassis tunes from 525 kc. to 22 mc. in three bands; 12 inch dynamic speaker; tuning indicator. Radio Wire Television, Inc., 100 Sixth Ave., New York.

MORE WITH A

YEAR AFTFR YEAR, Stewart-Warner gives you the big "firsts" that make Stewart-Warner dealers the center of radio news. Stewart-Warner gave you the FIRST long and short wave chassis save you are tracs trong and soort wave crassis in a single unit-the FIRST Magic Dial calibrating a single control for long and short waves -the FIRST Magic Keyboard for antomatic tuning-the FIRST real midgets-the FIRST newly-styled smart plastics-the FIRST plastics with natural wood-grain finish-the FIRST radios with television jacks-the FIRST college radios in school colors-the FIRST Dionne Quint radios - the FIRST radio-phonograph with all controls for normal operation outside and dial controis for normal operation outside and diat inside! Cash in with Stewart-Warner "firsts"!



THE "BATTERY STREAMLINER"

• Powered by long-life batteries • 7-Tube, performance superhet

- Latest type low-drain tubes
- Dust-proof 8-inch permanent= magnet dynamic speaker
- High-finish streamline cabis Priced ... of a profit net of hand-rubbed walnut
- Requires only one 1.4 volt "A" and two 45-yolt "B' **batteries**

for you!

THE "BIG EIGHT"

- Wired for television sound
- High-efficiency built-in antenna
- Magie Keyboard automatic tuning
- & Full 12-inch concert speaker
- 3-Gang tuning conderser
- 8 Watts output
- 3 Wave bands
- 8 Working tubes-S-tube performance
- Manual selectivity control
- · Automatic bass compensation
- · Automatic volume control
- 3-Position tone control
- Connection for record player
- Mass ve cabinet of fine wood hand-rubbed to mirror finish
- Priced tat a profit for-you!

STEWART-WARNER CORPORATION . CHICAGO, ILLINOIS



RIGHT off the griddle-and red hot news! Five more Stewart-Warners with the year's biggest radio featurea real profit for the dealer who sells them! They have all the Stewart-Warner features that make sets move-the supervalue that wins sales in any competition -the styling and power and selectivity and tone that distinguish Stewart. Warner design from the field. ANDthey're priced to move ... without taking the difference out of your

a better profit for moving them! That's why thousands of dealers this year are making Stewart-Warner their breadand-butter line, and putting extra dollars in the bank. That's why they'll welcome these five additional Stewart-Warners in the 1940 Silver Dollar line. Get the facts from your Stewart-Warner Distributor - listed on the following page-and you'll get a new slant on what the radio business offers you too!



AC-DC-BATTERY PORTABLE

- Plays anywhere—uses batteries on the move-plugs in light socket at home
- Built-in loop antenna
- 5 Low-drain tubes give 7- to 8-tube performance
- Covers 540-1600 kilocycles • Permanent-magnet dynamic speaker
- Weatherproof luggage-fabriz
- Priced...at a profit for you!



COMPANION, Jr.

- Battery portable for "price" Permanent-magnet dynamic speaker buyers
- Latest-type, low-drain tubes
- 7-Tube performance
- Built-in loop antenna
- Genuine superhet circuit
- tuning •. Weatherproof luggage-fabric' case
- Priced...at a profit for you!



Wired for television sound

• High-efficiency built-in antenna

- Magic Keyboard automatic
- 6 Working tubes-8-tube per* formance
- Big 10-inch concert speaker
- Gets broadcasts, police calls and foreign short wave
- Automatic bass compensation
- Automatic volume control • 3-Position tone control • Connection for record player
- Hand-rubbed cabinet with figured walnut wrap-over control panel

Priced . . . at a profit for you!

Get full details from your Stewart-Warner distributor now! See list on following page!

These Stewart-Warner Distributors Offer Radios

PRICED AT A PROFIT FOR YOU!

ATLANTA, GA.—Peaslee-Gaulbert Corp., 434 Marietta St. BALTIMORE, MD.—David Kaufmann's

- Sons, Charles and Lombard Sts.
- BIRMINGHAM, ALA .- Stewart-Warner Distr. Co., 8 South Thirteenth St. BLUEFIELD, W. VA.—Bluefield Hard-ware Co., 400 Bluefield Ave.
- BOSTON, MASS.-Graybar Electric Co.,
- 287 Columbus Ave. BURLINGTON, VT.—Hagar Hardware & Paint Co., 164 St. Paul St. CHARLESTON, W. VA.—R. H. Kyle &
- Co., 1353 Hansford St. CHARLOTTE, N. CAR.—Shaw Distrib-uting Co., 205 West First St.
- CHATTANOOGA, TENN.— Economy Elec. Supply Co., 1328 Broad St.
- CHICAGO, ILL.—Stewart-Warner Distr. Co., 2438 So. Michigan Ave.
- CLEVELAND, OHIO-The Kane Co., 2621 E. 9th St.
- COLUMBUS, OHIO-Tracy Wells Co., 173 N. Front St.
- DALLAS, TEX.—Radio Equip. Co. of Texas, 939 S. Lamar St. DENVER, COLO.—David C. Dodge, Inc. 1330 Broadway
- DES MOINES, IOWA, Luthe Hardware
- Co., 817 Cherry St. DETROIT, MICH.—Morley Bros., 5943 Second Blvd.
- 5943 Second Bivd. DUBUQUE, IOWA—The Home Supply Co., 1154 Iowa St. DULUTH, MINN.—Kelley-How-Thomson Co., 309 So. 5th Ave., West ELMIRA, N. Y.—Brady Electric Corp., 302-304 Railroad Ave. EL PASO TEX Persona Lumbas 5:

- EL PASO, TEX.—Peterson Lumber & Paint Co., 1630 Texas St.
- EVANSVILLE, IND.—Small & Schelosky Co., 4th & Vine Sts. FRESNO, CALIF.—B. J. DeJarnatt, 1260 Van Ness Ave.

- HARTFORD, CONN.-Wood, Alexander & Co., 555 Asylum St. HOUSTON, TEX.-Houston Wholesale Appl. Co., 910 Calhoun St. INDIANAPOLIS, IND.-Griffith Distr. Corp. 204 S. Pennsylvania Ave.
- JACKSONVILLE, FLA.—Peaslee-Gaulbert Corp., 2401 Main St. KANSAS CITY, MO.—Stewart-Warner-Alemite Co., 2425 McGee Trafficway
- KINGSTON, N. Y.-Canfield Supply Co.
- KINGSTON, N. Y.—Canheld Supply Co. KNOXVILLE, TENN.—House-Hasson Hdwe. Co., 757 Western Ave. LEWISTON, MAINE—Lewiston Maytag Co., 157 Lisbon St. LITTLE ROCK, ARK.—Branden Company, 608 E. Markham St.

J. F. D.

TELEVISION ANTENNAS—Single dipoles and di-rectional systems for ultra high television use. Special ball and socket universal joint is easily tilted for best reception; Standards and cross arms are of hard wood, lacquered; all metal parts such as the brackets and ball joint are of cast aluminum. Rods are cut to frequency so experimenting is unnecessary. Model TA-18 uses a parasitic reflector giving a 3 db. gain. The double dipole type model TA-22 is useful in low signal high noise areas. This consists of two dipoles and two reflectors properly spaced. J. F. D. Mfg. Co., 4111 Ft. Hamilton Parkway, Brooklyn, N. Y.

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- LOS ANGELES, CAL.—Graybar Electric Co., 201 Santa Fe Ave.
- LOUISVILLE, KY .- Peaslee-Gaulbert Corp., 15th & Lytle Sts.
- MEMPHIS, TENN.-W. R. Moore Dry Goods Co.
- MILWAUKEE, WIS.—Shadbolt & Boyd Co., 413 N. Second St. MONROE, LA.-Monroe Furniture Co.,
- 132 N. Second St. NASHVILLE, TENN.-Tafel Electric
- Co., 219 Second Ave., N.
- Co., 219 Second Ave., N. NEW ORLEANS, LA.—Household Appliances Corp., 4121 Magazine St. NEW YORK, N. Y.—Wholesale Radio Equip. Co., 902 Broadway NORFOLK, VA.—Dix-Bowers Co., 1605 Granby St.

- NORTH PLATTE, NEB.—Kunkel Auto Supply Co., 507 N. Jeffers St. OKLAHOMA CITY, OKLA.—Jenkins Music Co., Wholesale Division, 25 E. Reno St.
- PHILADELPHIA, PENN.—Philadelphia Distr., Inc., 240 N. 11th St. PITTSBURGH, PENN.—Brown-Dorrance Elec. Co., 632 Duquesne Way
- PORTLAND, ORE.-Alemite Co. of the
- N. W., 424 N. W. Fourteenth Ave. PORTSMOUTH, OHIO-Hibbs Hard-
- ware Co., Fifth St., near Chillicothe PROVIDENCE, R. I.-Good House-keeping Shops, 79 Sabin St.
- RICHMOND, VA.-A. R. Tiller, Inc.,
- 1800 W. Broad St. SAGINAW, MICH.-Morley Brothers,
- Inc.
- ST. LOUIS, MO.-Brown Supply Co., 2800 Pine St. ST. PAUL, MINN.-Kellev-How-
- Thomson Co., 2295 University Ave.
- SAN ANTONIO, TEX.-Alemite Co. of San Antonio, 201 N. Presa St.
- SAN FRANCISCO, CAL.—Kaemper-Barrett Corp., 246 Van Ness, South SCRANTON, PA.—D. T. Lansing Co., Inc., 342 Gibson St.
- SYRACUSE, N. Y.—City Electric Co., 522 S. Clinton St.
- TROY, N. Y.-H. A. McRae & Co.,
- 137 River St. UTICA, N. Y.-Miller Electric Co.,
- 11 Hopper St. WHEELING, W. VA.—The Front Co., 1117 Main St.
- WICHITA, KAN.—The Stewart-Warner Prod. Co., 415 E. Second St.

GUTHMAN

SEND-CEIVER—Three tube regenerative receiver with 6 bands, 10-700 meters. One tube 3 band crystal controlled transmitter with band switching. Output nearly 10 watts. Three position crystal operation on 3 bands in transmitter circuit and 6 bands when 7C5 amplifier tube is added. Three position lever selects coils covering 5-10, 20-40, 80-160 meters. Space on panel and chassis for adding power amplifier or 1 or 2 tube modula-tor. Key and mike jacks on panel. Ac power supply and 0-150 ma. meter included. In kit form \$49,95 net; wired, \$62.45; amplifier kit \$6.50; modulator kit \$6.00. Edwin 1. Guthman and Co., Inc., 400 South Peoria St., Chicago, III.

BELMONT

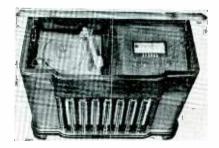
MODEL 793—A 7 tube 2 band automatic phono-combination. Plays both 8 and 10 inch records; a.c. operation; 8 button automatic tuning; 10 isch speaker; height 35 inches, width 34 inches, depth 18 inches. Belmont Radio Corp., 1257 Fullerton Ave., Chicago, 111.



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HOWARD

MODEL 520—Automatic phono-combination plays 10 or 12 inch records or a mixed combination of each. Crystal pickup; self starting motor; 12 tubes; built in loop; frequency range 540-1700, 2.2-7.5 mc., 7-22 mc. Fifteen inch dynamic speaker; provision for television. Howard Radio Co., South Haven, Mich.





SOLDERING IRON—Model number 400 measures only 8 inches overall, weighs only 8 ounces, rated at 60 watts, equipped with quarter inch tip. Escially designed for light soldering and ease of getting into tight corners. Drake Electric Works, Inc., 3654 Lincoln Ave., Chicago, III.



RESISTORS—Approved for operation of fluores-cent lamps from d.c. Constructed to provide maximum heat dissipation in minimum space; insulated wire-wound type. Will operate at a temperature rise from 40 to 50 degrees centi-grade with standard auxiliaries. Encased in spe-cial ventilated metal boxes. International Resist-ance Co., 401 N. Broad St., Phila., Pa.



RADIO and Television RETAILING, SEPTEMBER, 1939

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SEATTLE, WASH.-Domestic Utilities, Inc., 509 Westlake Ave., North



WE HAVE CROSSED THE THRESHOLD OF TOMORROW

For twenty years we here at Wholesale Radio Service Company have blazed new trails in Public Service. Scarcely a phase of the communications field has been left untouched during the years of our growth. Today thousands of discriminating buyers in every land are listed among our satisfied customers. For into every shipment we have always put more than just top-flight merchandise.

It has been this spirit of extra service that has enabled us to grow from a modest shop into a worldwide organization. We operate seven retail branches today, with three giant central distributing points from which flow thousands of shipments daily.

As we have grown however, so too have grown the demands of the people we serve. Industry, for new and better materials; individuals, for finer instruments and forms of reception. We have lived to see many new developments replace the old, many of our former services, once essential, no longer required.

In fact, our very name for so many years perfectly adapted to our business now belongs to yesterday. It does not fit with our plans for tomorrow.

Naturally, we were attached to our old name, but sentiment has no place in progress. And so from now on we shall be known as

Radio Wire Television Inc.

A name selected because it accurately pictures the very business we are engaged in.

What do we mean? Let's look at that name more closely.

RADIO: Up through the years we have grown and expanded with Radio—very backbone of our business. Yet even in the face of today's magic, life-like reception, much remains to be done. So naturally Radio Broadcasting will continue to engage our interest.

WIRE: A new service gaining momentum with each day is WIRE BROADCASTING. Already many of today's entertainment forms are available by means of wire with great fidelity, reliability, and economy. We believe that soon the art of broadcasting by wire will encompass the transmission of both sight and sound. Every current technological development points to this end.

TELEVISION : Third and newest term in our name. Breath-taking is television's power to reproduce for man's entertainment and knowledge, the life and happenings of storied lands afar, the news events that will make tomorrow's headlines. With television a vast new field of human relationship is magically thrown open. Whichever way you choose to receive your television programs, by wire or radio, we will offer the finest services available anywhere.

The new name, thus embodies all of those features which from now on are to camprise the principal part of our business. Radio Wire Television Inc., proposes to extend its activities into every phase of the electronic art. Several associate enterprises which control important patents relating to the entire communications field have already been merged with our com-

pany. With these patents, we hope to throw open a vast number of new services to the general public. Of special interest are plans to expand the number of retail outlets for Radio Wire Television Inc. in order that local branches may be placed at the disposal of all who are interested in finer entertainment services, better products and lower costs.

Radio Wire Television Inc., is licensed by arrangement with Electrical Research Products Inc. under patents of Western Electric Company, Bell Telephone Laboratories. Inc., and American Telephane & Telegraph Company.

Radio Wire Television Inc.

formerly WHOLESALE RADIO SERVICE CO., Inc.

NEW YORK • CHICAGO • ATLANTA • BOSTON • NEWARK • BRONX, N. Y. • JAMAICA, L. I.

RADIO and Television RETAILING, SEPTEMBER, 1939

1



CONSOLIDATED

MIDGET CONTROLS—New volume and tone controls of reduced diameter and overall thick-ness and increased efficiency. Ideal for replace-ment in practically all modern receivers includ-ing peewee and midget sizes. All units equipped with 3 inch shafts with regularly spaced grooves at quarter inch intervals from the end of the shaft to permit accurate cutting of shaft. Avail-able in 5 types with resistance values ranging from 1000 to 2,000,000 ohms; strong tinned lugs

for easy soldering. Consolidated Wire and Assoc. Corp., 514 S. Peoria St., Chicago, 111. .

MALLORY

CONDENSER—Metal cased tubular type BB made with fabricated plate and housed in hermetically sealed one place drawn aluminum cans. Insulat-ing cardboard cover furnished, all units have bare tinned leads. P. R. Mallory and Co., Inc., Indianapolis, Ind.





have you seen THE NEW UTAH SERVICE-PAK?

Everybody is talking about the new UTAH Service-Pak because it's the practical answer to profitable radio servicing. Active service men in all parts of the country are using them. If you don't have one, phone or write your jobberask him to show you the new Utah kit for maintaining a normal stock of essential parts economically.

The Utah Service-Pak will help you make radio servicing pay bigger dividends-it reduces costs-it saves time and space-it safeguards parts-it permits a perpetual inventory to be kept easily.

The attractive Utah Service-Pak is 17" x 39" x 10". It contains a parts stock of recognized essentials and accommodations for additional parts which are basic The following high-grade Utah products ous Resistors, 6 Assorted 25-Watt Adjustable Vitreous Resistors, 16 Assorted Volume Controls, (including the Utah improved silent carbon type), 6 Volume Control Switches, 3 Assorted Chokes, 5 Assorted Audio Transformers, 3 Assorted Universal Output Transformers, 4 Assorted Power Transformers, 1-5' Electrodynamic Speaker. You can add Utah vibrators, condensers, etc., to complete the stock.

THE UTAH SERVICE-PAK IS PRICED SO LOW YOU CAN'T AF-FORD TO BE WITHOUT IT. If your jobber can't supply you-write us.

Sold only through recognized jobbers.

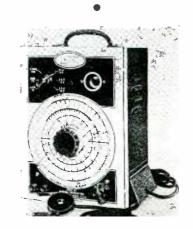
UTAH RADIO PRODUCTS CO., Chicago, III. Cable Address-UTARADIO-CHICAGO





LAFAYETTE

PORTABLE SOUND SYSTEM—Model 458 provides 30 watts output when operated from either 6 volts d.c. or 110 volts. All metal carrying case houses amplifier, phono turntable, pickup, motor generator, with space for storing mikes, cables and records. Uses 10 tubes, 130 db. and 90 db. inputs. Radio Wire Television, Inc., of New York, 100 Sixth Ave., New York.



3

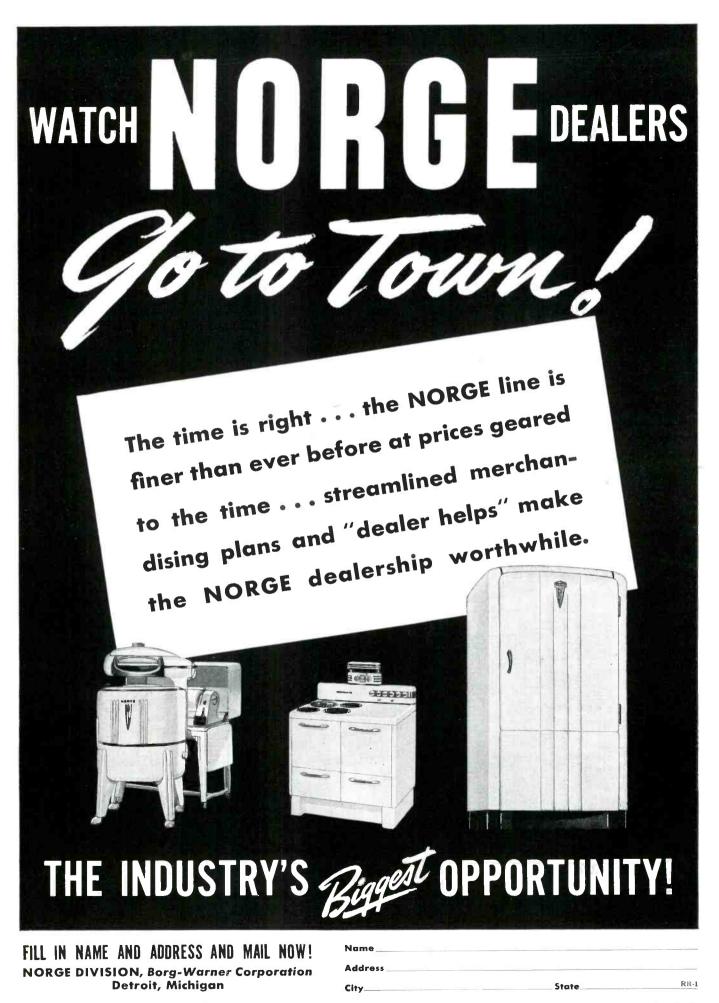
AEROVOX

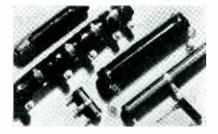
L-C CHECKER—For testing condensers and in-ductances in the radio frequency range. Simple, compact and inexpensive; checks components at their operating frequency. Measures capacity and effectiveness of units without unsoldering from circuit. Aerovox Corp., New Bedford, Mass.



UNIVEX

ENLARGER-Designed specifically for use with candid cameras. Enlarges up to 11 x 14, uses Mercury 3.5 35 mm. lens but may be adapted to use other types. Automatic film pressure release permits sliding film without scratching; double lens condenser; price \$27.50. Universal Camgra Corp., 28-30 W. 23rd St., New York.





WARD LEONARD

RESISTOR — Vitreous enameled wire wound resistor. New enamel is crazeless, withstands humidity, moisture and immersion. Ward Leonard Electric Co., Mt. Vernon, N. Y.

MICAMOLD

KODACAP—New 1000 volt tubulars slightly smaller in size than ordinary 600 volt units of the same capacity. Special process cellulose dielectric used in their construction gives longer life and superior qualities. Ideal for sound equipment, television and other devices requiring high voltage circuits. Micamold Corp., 1087 Flushing Ave., Brooklyn, N. Y.







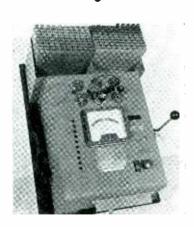
SOLAR

ELECTROLYTIC—Dry capacitor, model DY, for use as original equipment or service work. Incorporates a new type of mounting, with base prongs which fit chassis slots and are fastened by twisting. Solar Mfg. Co., Bayonne, N. J.



CLARION

SOUND SYSTEM---Model C-463 universal 6 volt d.c. and 110 volt a.c. system includes self contained amplifier, two 12 inch heavy duty P.M. speakers, 2 all steel dome baffles with mounting fixtures, military hand mike and 50 ft. of cable; list less phono attachment \$202.67, with phono attachment \$227.36. Transformer Corp. of America, 69 Wooster St., New York.

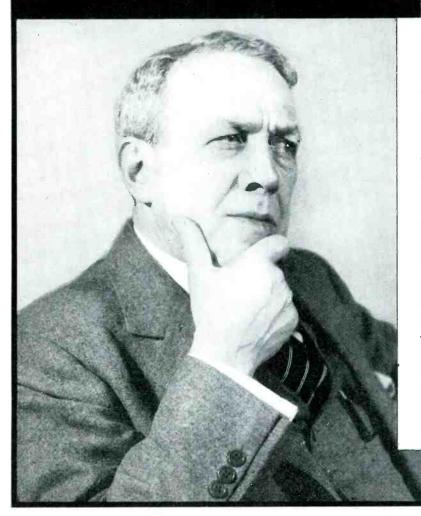


DAYCO

TUBE TESTER—Automatic robot tester model 401 tests any tube in ordinary use automatically. Simply place tube in socket, insert proper punched card from index into slot at front in a manner similar to a time clock and pull lever. Tests shorts, leaks and all important functions; 185 index cards cover 580 tube types. Dayco Radio Corp., 915 Yalley St., Dayton, Ohio.

3 Important Questions

BY A RADIO TUBE RETAILER



1. Can Sylvania give my business the big, dependable *profits* it needs?

Absolutely. Sylvania prices assure you of maximum profit on every sale. One of the world's *most popular* tube lines, Sylvania's quality makes satisfied users . . . repeat customers.

2. What about the product?

Sylvania Tubes are kept up-to-theminute by Sylvania's fine research and development laboratories. Only the finest materials and workmanship are used in their manufacture. And every tube carries a 6-month written factory guarantee—effective from date you sell it.

3. I want *company* dependability back of the tube line I feature. Will Sylvania give it to me?

Yes... for years Hygrade Sylvania has backed its retailers with full technical and sales assistance . . . *plus* sound business policies, designed for *your* welfare as well as Sylvania's.

WHY feature tube lines that can't give you what Sylvania does? Sell Sylvanias and you get full measure on both company and product dependability.

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B L E

What's even more important-Sylvania gives you profit dependability, too! Let common sense be your guide-

Feature Sylvania Radio Tubes!

W

A

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



AMERICAN

DYNAMIC MIKE-Model D8 low impedance moving coil mike suited particularly for sound installations, orchestra pickup, as well as solo work and straight announcing. Weighs only 13 ozs.; 3/4 inches long, 2 inches in diameter. A swivel mounting permits either nondirectional or semidirectional pickup. Also available is the model D8T a high impedance type; actual im-pedance is 38,000 ohms. Both models come with 12/2 ft. cable and plug at microphone end. Sev-eral models of stands and handles may be had; mounting thread is 3/6 inch by 27 threads; plati-num chrome finish. List model D8 \$22.50, model D8T \$25.00. American Microphone Co., Inc., 1915 South Western, Los Angeles, Calif.

HALLICRAFTER

SKYRIDER DEFIANT—Model SX-24 communica-tions receiver designed for hams and others. Uses electrical band-spread with the band-spread dial calibrated directly in kc. Tuning drift is

TAKES

reduced by means of temperature compensated tuning circuits which holds circuits within ap-proximately 2 kc from a cold start. Four selec-tivity positions are provided on the crystal filter; signal-strength meter calibrated in "S" units and db.; automatic noise limiter; continuous cov-erage from 540 to 43.5 kc; beat frequency oscil-lator with pitch control; tone control; provision for remote standby switching; nine tubes. The Hallicrafters, Inc., 2611 South Indiana Ave., Chi-cago, III.

EICOR

ELECTRIC PLANTS—Higher power output, lower cost utilite plants rated at 450 watts a.c. and 500 watts d.c. The a.c. units operate at 1800 r.p.m. and have sufficient current capacity for temporary overloads. Electric push-button start-ing is built-in in conjunction with a 6 volt starter battery which can be charged automatically. Size is 17 inches high, 15 inches wide, 17 inches long. Net weight is 90 lbs. Eicor, Inc., 515 S. Laflin St., Chicago, III.



RCA

TELEVISION TESTERS—Three new test instruments for testing television circuits; 5 inch wide range oscillograph; alignment oscillator; crystal cali-brator. Oscillograph capable of viewing, syn-chronizing and blanking pulses, horizontal and vertical saw-tooth waves and grid and plate voltages on horizontal and vertical oscillators; net price \$147.50. Alignment oscillator especially designed for television, \$130.00 net. RCA Mfg. Co., Camden, N. J.

three to make a profit

- 1 It takes a reliable company—established, foresighted, experienced.
- It takes a reliable product tried, tested, proved.
- 3 And it takes rapid turnover --- consistent, guaranteed.

Cornell-Dubilier has specialized in the manufacture of capacitors for 29 years. Today there are more Consistently Dependable Cornell-Dubilier capacitors in use than any other make.

Profit now — by standardizing on the complete line of C-D Capacitors, Capacitor Test Equipment and Quietone Interference Filters. Available at all leading distributors. Catalog No. 175A on request.

Product of the World's Oldest and Largest Manufacturer of Capacitors



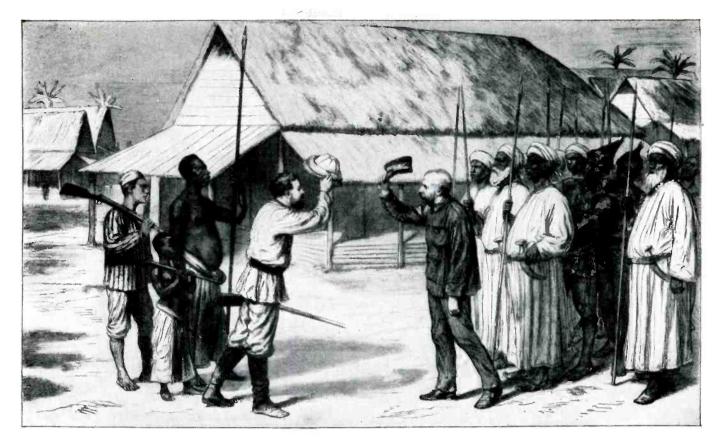
HICKOK

TESTER—Model 900, designed primarily for elec-trical appliance testing. Especially valuable for a.c. trouble-finding as it tests units in operation. Has four wattage ranges up to 2000, four current ranges to 26 amperes and two voltage ranges of 0-130-260. Dynometer meter with specially de-signed current transformer is employed. Hickok Electrical Inst. Co., 10514 Dupont Ave., Cleve-land, Ohio.



UNIVERSAL

CINEMA MIKE—Crystal or dynamic microphone in several impedances primarily designed for movie use with a swivel yoke. Wide range pickup, low background noise, non-climatic, fin-ished in golden gun-metal, with 25 feet rubber cable. Universal Microphone Co., Inglewood, Calif cable. Calif.



IN 1939 *RADIO* WOULD FIND LIVINGSTONE

and save Stanley 8 months of hardships in Darkest Africa



CALLING DR. LIVINGSTONE... CALLING DR. LIVINGSTONE

UJIJI in the interior of Africa, where Stanley met Dr. Livingstone in

1871 after eight months of desperate and difficult searching, is now but a fraction of a second via radio from the great cities of the world. Only about seven years elasped between Stanley's famous "Dr. Livingstone, I presume?" and the beginning of the experiments of Heinrich Hertz which first unlocked the secret of wireless waves. Since then, within the life span of the average man, radio has become one of the most vital forces controlled by man. And in that remarkable development the Radio Corporation of America has played a major role.

Motivating factor in all that RCA does is research in RCA Laboratories. From here come the developments which the various members of the family of RCA utilize in making radio serve the world.

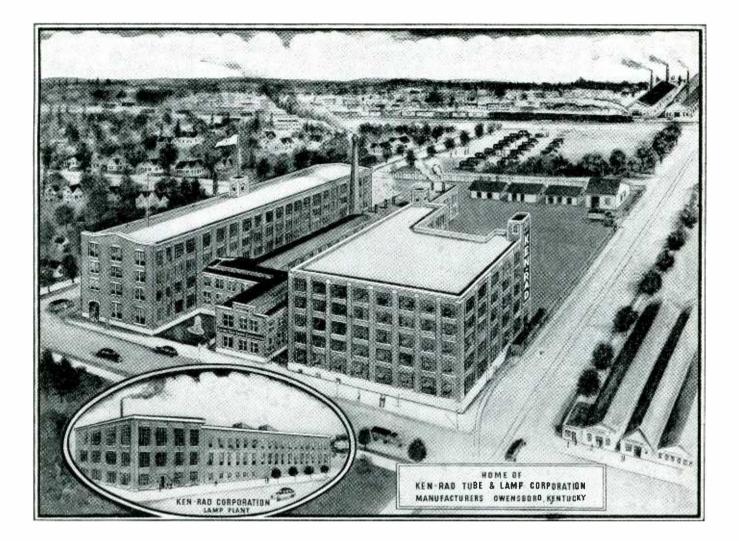
R.C.A. Communications provides communication to and from 43 countries and among leading cities of the United States. The National Broadcasting Company offers entertainment, information, news, and enlightenment to millions. The RCA Manufacturing Company makes RCA Victor Radios, RCA Victrolas, Victor and Bluebird Records, and every kind of radio equipment for broadcasters, laboratories, airplanes, police departments, and for virtually every other known application of radio.

RCA activities are portrayed in RCA exhibits at the New York World's Fair and the San Francisco Exposition. You are cordially invited to visit these exhibits for a more intimate understanding of the ways you can cash in upon the services of RCA.

Trademarks "RCA Victor." "Victor" Reg. U. S. Pat. Off. by RCA Mfg. Co., Inc.



americanradiohistory com



KEN-RAD RADIO TUBES ARE MADE IN THIS MODERN AND EFFICIENT PLANT

The Ken-Rad factory at Owensboro, Kentucky, is a model of present-day efficiency. It was planned, built and equipped to manufacture radio tubes and incandescent lamps of the finest quality. Ideal working conditions and skilled, intelligent workers who have an ambition to excel are vitally important factors in the Ken-Rad success.

The Ken-Rad engineering department is made up of men of outstanding ability in the design and development of radio tubes. In every detail of Ken-Rad production the highest known standards are maintained. Ken-Rad has but one standard of quality. Tubes which fail to meet these rigid requirements are immediately destroyed.

Careful buyers everywhere use and specify Ken-Rad Radio Tubes.

KEN-RAD TUBE & LAMP CORPORATION

Manufacturers of Ken-Rad Radio Tubes and Ken-Rad Electric Lamps Owensboro, Kentucky

www.americanradiohistory.com



SPEAK-O-PHONE

RECORDING TURNTABLE—Rim driven by heavy duty constant speed motor; driving torque is ad-justable; tracking accomplished through dual worm and flat gearing assembly. Turntable ma-chined from one piece aluminum casting. Cut-ting arm may be adjusted to permit recording on acetate aluminum or pre-grooved discs. Speak-O-Phone Recording and Equipment Co., 23 W. 60th St., New York.



UNIVERSITY

CONE PROJECTOR—Model T.W., a two-way cone speaker-projector, incorporates two symmetrical bells on either side of speaker. Said to double acoustic efficiency of speaker. Incorporates new "rubber-tired" rim for elimination of metallic resonance. In four sizes, for 6, 8, 10 and 12-inch cones. University Labs., 195 Chrystie St., New York



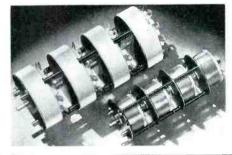
BELL

MOBILE SOUND SYSTEM—Model M-15, a 15 watt amplifier which may be operated from 6 volts d.c. or 110 a.c. Two input channels; p.m. dynamic speakers; separate power switches con-trol turntable amplifier plate and filaments sepa-rately; beam output tubes, inverse feedback; tone compensator. Bell Sound Systems, Inc., 1183 Essex Ave., Columbus, Ohio.

RADIO and Television RETAILING, SEPTEMBER, 1939

OHMITE

TANDEM SWITCHES—Assemblies of 2, 3, 4 or more tap switches for controlling power on heavy-current circuits. Uses standard switch, novel adapters permit ganging. Four sizes of switches are available for current values ranging from 10 to 74 amperes at 240 volts. Ohmite Mfg. Co., 4835 W. Flournoy St., Chicago, III.





BROWNING

FREQUENCY STANDARD—A 100-1000 kc stand-ard in compact form. Adjustment of the 100 and 1000 kc sections entirely independent. Known as Model BL-2FS. Browning Labs, Inc., Winchester, Mass.



- Complete, modern tube tester, set tester, and condenset analyzer in one compact in-strument.
- "Arrow-Way" tube testing, using fast roller chart. A number appears under each arrow-way. Set controls from left to right—just "billow the arrows."
- Correctly tests all tubes including "7," "1.4," "35," "50," "70," "85," "117," "S" (single end tubes) series, loctals, octals, ncn-octals, "G," "MG," "M," "GT" types, gaseous rectifiers, magic eyes, ballast tubes, pi.ot lights.
- Tests tubes 7 ways (1) open filaments, (2) "bot" leakage cathode test, (3) super-sensi-tive "hot" anode leakage test, (4) shorts. (5) opens, (6) overall quality, (7) separate section and plate quality test. Only a GOOD tube will pass.
- Tests made at proper applied anode voltages and rated load for all tube types.
- Only six sockets required for all present and future tubes. No additional instructions nec-essary on the tube chart. You CAN'T place a tube in the wrong socket.
- Patented SUPREME "double floating" Filament Return Selector Push Button System banishes obsolescence. Let filament positions on future tubes change to any possible arrangement—to take care of such changes all ycu do is PRESS A BUTTON.
- Oaly Supreme has the FILAMENT VARI-VOLT SELECTOR circuit. Regardless of what present or future tubes may be—1.4 to FULL LINE VOLTAGE—the varivolt selector will supply the CORRECT heater and filament voltages. supply t voltages.
- "Speed-Way" push button multimeter cir-cuit. Two rows of push buttons control 31 basic ranges and functions.
- 0.1 TO 2500 D.C. VOLTS—7 ranges of 0/5/ 25,'100/250/500/1000/2500.



w americanradiohistory com

- 0.1 TO 1000 A.C. VOLTS—5 ranges of 0/5/ 10/50/250/1000.
- 10 MICROAMPERES TO 10 AMPERES—7 ranges of 0/500 microamperes /2.5/10/50/250 milliamperes /1/10 amperes D.C.
- •0.1 TO 1000 OUTPUT VOLTS—No external condenser necessary. 5 ranges of 0/5/10/50/ 250/1000.
- 0.1 TO 20 MEGOHMS. 3.5 OHM CENTER SCALE-5 ranges of 0/200/2M/20M/2 Meg/ 20 Meg. Self-contained power supply.
- ALL electrostatic capacitors checked—direct reading—for leakage up to 20 megohms on meter.
- ALL electrolytics including high voltage fil-ler capacitors and low voltage—high capaci-ty bypass capacitors, checked at WORKING VOLTAGES.
- 7 individual working voltages of 450, 300, 250, 200, 100, 50 and 25 volts.
- Settings are given for each capacity and working voltage on roller chart and tests made on a "Good Capacitor-Bad Capacitor" English reading scale.
- All ranges except D.C. 2500 volt and 10 amps, operate from but one set of pin jacks.
- amps. operate from but one set of pin jacks.
 New "Perma-grad" temperature compensated A.C. voltmeter circuit with full rectifier protection. Rectifier guaranteed with instrument.
- Ment.
 Marchine Marchi
- Individually, specially selected and aged ceramic resistors used for all voltmeter ranges. Wire wound resistors in all current ranges.
- May be purchased on easy payments—just a few cents a day, no more than the cost of your cigarettes.

SUPBEME INSTRUMENTS CORP., Dept., R-10 Greenwood, Miss. Please RUSH me your newest information on SUPREME 504 and other brand new 1940 Model SUPREME Instru-Name Address



ELECTRONIC

CONVERTER—Designed particularly for operating the new fluorescent lamps and their equivalents from 6, 12, 32, 110 and 220 d.c. voltages. By means of these lamps and converters remote areas

can now have the equivalent of 100 watts of light for the same power as was previously consumed by three standard 15 watt bulbs. Electronic Laboratories, Inc., 122 W. New York St., Indianapolis, Ind.

UNIVERSAL

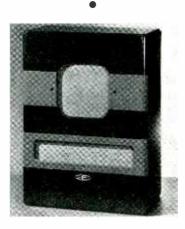
SYNCHRONOUS MOTOR-Condenser type syn-chronous motor for 110-volt, 60-cycle operation. Exact uniform speed without regard to load vari-ation. Available also for 50 or 25 cycle opera-tion. Universal Microphone Co., Ltd., Inglewood, Calif.

NA-ALD

INSULATED TUBE CAPS—Various insulated plate and grid caps for receiving, transmitting, and television use. Prevent accidental contact with



high voltage circuits. Clips of beryllium copper which does not anneal at high temperature. Caps come complete with wire leads. Alden Products Co., 715 Center St., Brockton, Mass.



OPERADIO

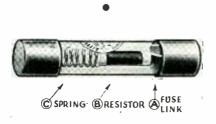
SPEAKER HOUSING — Acousti-Reflex baffle de-signed to use all the power emanating from the speaker cone. Better reproduction of fundamen-tals and increase of bass tones; feedback difficul-ties are greatly minimized and efficiency of speaker increased. Operadio Mfg. Co., St. Charles, III.

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SHURE

COMMUNICATIONS MIKE — Crystal type de-signed for amateur and commercial phone com-munications. Built in r.f. filter prevents burnouts. Stream line desk mount; microphone finished in satin chrome with mount in iridescent gray. Com-plete with built in cable connector and 7 ft. shielded cable. Mike or desk mount may be obtained separately. Shure Brothers, 225 W. Huron St. Chicago. III. shielded cable. Mike o obtained separately. S Huron St., Chicago, III.



LITTLE FUSE

SLO-BLO—Delayed action fuse for use in induc-tive or capacitive circuits where heavy surges are common. On severe overload fuse blows normally but on prolonged overloads a resistor heats and melts a fusible alloy link, opening the circuit. Littlefuse, Inc., 4238 Lincoln Ave., Chi-cago, 111.

YOU'LL HAVE CHANGER SETS THAT BUILD VOLUME SALES

Get This Model M GENERAL INDUSTRIES Record Changer Unit



 G_{ET} volume sales out of the growth in popularity of automatic playing. These moderate priced General Industries changer units include self-starting Flyer motor with turntable; high-fidelity, tangent-tracking pickup; simplified, efficient changer mechanism. All ready assembled for installation. Low in cost, yet they team up with the best in modern recordings. In combinations their modest additional cost over hand-changing assemblies help keep the price down to a profitable, quick-sales level.

Order an Assembly to Test

Model M above plays and changes eight 10" or seven 12" records, repeating the last. When ordering, specify voltage and frequency of current you use.





SMOOTH . . . QUIET . . . DEPENDABLE

"PINCOR" offers the only complete line of "B" power supply equipment for police units, aircraft and radio broadcast service and sound systems. Frames, sizes and capacities to fit any requirement. "PINCOR" dynamotors are the last word in efficiency and regulation. Deliver high voltage current for proper operation of your apparatus with a minimum of A.C. ripple. Compact, light weight. With or without filter. Send for catalog.

PIONEER GEN-E-MOTOR CORPORATION

Dept. R-11, 466 West Superior Street, Chicago, Illinois

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Plug at microphone for quick cable attachment. D8T, 200 Ohm, 500 Ohm, or High Imped-

ance, \$25.00. Licensed by ERPI. Request Spec. Bulletin No. 33.

AMERICAN MICROPHONE CO., INC. LOS ANGELES, CALIF.

Full

Discounts

Aerials Battery, Electric and Portable Models Sentinel Radio Corporation, 2020 Ridge Ave., Dept. RR Evanston, Illinois

pericantradionistory co

Built-In Loop



REJOINS STEWART-WARNER—Just appointed manager of the firm's household appliance division, *Charles R. D'Olive* returns to Stewart-Warner after two-year absence

D'Olive Rejoins Stewart-Warner

Appointed household appliance manager. Was Crosley refrigerator V.P.

CHICAGO—Charles R. D'Olive has been appointed manager of the Stewart-Warner household appliance division. Simultaneously announced by vice president and general sales manager, F. A. Hiter, was the resignation of J. F. Ditzell, former appliance sales manager.

In his new position D'Olive will supervise all phases of Stewart-Warner household appliance merchandising, including sales and engineering. He was connected with the firm from 1933 to 1937 as manager of the refrigerator division, returns to it from Crosley, where he has been vice president in charge of the refrigerator division.

On the Newsfront

Columbia Springs 50c Popular Record Line

35c Vocalions continue. Brunswick Black Labels to fill gap between popular and classical recordings. Columbia Blue Labels stick to Masterworks and Celebrities at 75c to \$2

BRIDGEPORT-The Columbia Recording Corporation, subsidiary of the Columbia Broadcasting System, Inc., has just announced the introduction of a new line of Columbia "Popular" records to retail at 50¢. Shipments to distributors starting September 6 were expected to reach dealer stocks by the 9th of this month, included high quality recordings by (Swing) Benny Goodman, Duke Ellington, Harry James, Gene Krupa, Jack Teagarden, Teddy Wilson, Raymond Scott; (Sweet) Eddy Duchin, Kay Kyser, Horace Heidt, Matty Malneck, Ray Noble; (Vocal) Martha Raye, Mary Healy and Ella Logan. In a broadside announcing the line Columbia execs said the new disc would return dealers a profit of 20¢.

The management stated that the newly marketed record would add to the Columbia line and not replace or substitute for discs already made by this company. The 35¢ Vocalion line of popular dance, vocal, country dance and race records continues with regular weekly releases. Brunswick Black Label discs continue to bridge the gap between popular and classical recordings, will however drop popular classifications following release #108 beginning in October, will be released monthly instead of weekly, remaining at present prices. Columbia Blue Labels will continue to concentrate on Masterworks and Celebrity recordings priced between 75ϕ and \$2.

A \$600,000 advertising appropriation is planned to tell the story of Columbia Recording Corporation products to the world. Much of this appropriation will be spent at the outset on the new discs over the CBS network and in newspapers. Powerful dealer helps and store displays are also ready.

RMA Meetings Postponed

NEW YORK—Meetings of the RMA Board of Directors and probably of the receiving set, tube and other divisions now are being planned during the first or second week of October at the Hotel Roosevelt. Because of summer vacations and other engagements, these meetings, tentatively scheduled to take place in September as reported in the last issue of *Radio Retailing*, have been deferred.

Rider To Lecture At RCA Meetings

CAMDEN—Arrangements have been made with John F. Rider, nationallyknown author, publisher and lecturer on radio servicing, to personally conduct a nation-wide series of meetings for radio service engineers and technicians in more than 35 principal cities during the Fall months, according to L. W. Teegarden, manager of RCA's Tube and Parts Division. Each meeting will be under the joint sponsorship of the RCA Manu-



PROVIDENCE DEALERS SEE NEW STROMBERG-CARLSON SETS—Gathered at the Hotel Biltmore, they were wined and dined by Tracy & Company, Inc., distributor, were particularly impressed by the large number of combinations in the line, authentic furniture designs and the ability of S-C radios to deliver quality sound when used in connection with accessory televisors

facturing Company and RCA parts distributors in the various cities.

Included in Rider's schedule are the following cities: Boston, New York, Philadelphia, Buffalo, Cleveland, Detroit, Chicago, Davenport, Minneapolis, Omaha, Denver, Spokane, Seattle, Portland, San Francisco, Los Angeles, San Diego, Fort Worth, San Antonio, Houston, Dallas, Oklahoma City, Kansas City, St. Louis, Pittsburgh, Cincinnati, Indianapolis, Louisville, Memphis, New Orleans, Atlanta, Richmond, Washington, Baltimore, Albany, Worcester, Springfield, Hartford, Providence and Newark.

Stromberg-Carlson Drive

Will stage Labyrinth Radio Tone Week September 23-30

ROCHESTER—Stromberg-Carlson has chosen September 23–30 this year to hold its annual "Labyrinth Radio Tone Week," so successful in the past two years, it was made known September 1 by radio sales manager, Lee McCane, who is directing the event.

S-C dealers from coast to coast are planning special advertising and merchandising promotions. Chief center of interest in stores will be demonstrations of special "proving displays" which dramatically show how the Labyrinth absorbs unwanted distortions. Dealers will also demonstrate Carpinchoe leather speakers by comparison with others mounted in actual comparative displays.

G-E Freq. Mod. Xmtr Near Ready

SCHENECTADY — General Electric's new frequency modulated transmitter, under construction, is nearing completion, will be installed atop nearby Helderberg Mountain and is expected to be ready for test transmissions before the end of the year.

Hefter Gets Stewart-Warner Post

CHICAGO—E. G. Hefter, in the radio and allied fields for more than 20 years, has joined the Stewart-Warner Corporation as radio district sales manager for the recently created central west territory.

Marion Fetes Farnsworth

MARION—A civic celebration, sponsored by businessmen of this Indiana city, formally greeted the new factory of the Farnsworth Television & Radio Corp. here August 28.

A special 40-page section of the Marion Chronicle-Tribune on Sunday, August 27, marked the opening of the celebration. The following day Farnsworth radio receivers were displayed by 72 Marion business houses, the factory was thrown open to 4,000 visitors, a banquet was held at which Gov. M. Clifford Townsend and Mayor Carl F. Barney spoke. **U. S. Record Elects Officers**

Hemenway, Oberstein, Mayberry and Gordon get high posts. Herb Young made sales manager

NEW YORK—At a meeting held by The United States Record Corporation in its offices at 1775 Broadway August 15, Charles M. Hemenway was elected president, Eli E. Oberstein became vicepresident, Lowell A. Mayberry was made treasurer and Mortimer S. Gordon occupied the post of secretary. U. S. Record is affiliated with the Scranton Record Manufacturing Company, has an initial catalog of over 700 standard and classical selections, is merchandising 35cent "Varsity" and 75-cent to \$1.25 "Rovale" discs.

The firm's Board of Directors includes Charles Hemenway, Raymond S. Pruitt, Sydney Newman, Wesley Simpson, Eli E. Oberstein, Lowell A. Mayberry and S. VP. Quackenbush. Other men interested include Allan H. Sturges, William L. Hutcheson, Dr. Noble, Weston Scranton and Louis Oppenheim.

Herbert E. Young has been appointed national sales manager for U. S. Record, has in turn appointed William Cone of Boston regional sales manager for New York State and New England.



RECORD PIONEER—Herb Young, just appointed general sales manager for U. S. Record

WOR Files Tele Application

NEW YORK—Alfred J. McCosker, president of WOR, announced August 7 that the Bamberger Broadcasting Service, Inc. had filed application for a permit to construct a 1,000-watt television transmitter in midtown Manhattan at (tentatively) 1450 Broadway. FCC has been asked to assign channels in the 84-90 mc. band.



MIDNIGHT SESSION—Farnsworth execs polishing up plans for the distributor convention held last month at Fort Wayne, left to right: *Ben Boyer, Bud Gamble, Ernie Vogel* and *Pierre Boucheron*



FARNSWORTH DISTRIBUTORS—Here's just one segment of the attendance at the shindig, widely recognized as one of the most successful conventions of the entire season

icanradiohistory

Clough Heads Western Group

Belden exec elected chairman of Sales Managers Club, Western Division

CHICAGO-H. W. Clough, sales manager of the Belden Manufacturing Company, has been elected chairman of the Sales Managers Club, Western Group, serving for one year and succeeding Edgar S. Riedel of the Raytheon Production Corporation.

John L. Robinson of Crowe Name Plate was elected vice-chairman. Miss H. A. Staniland of Quam-Nichols remained in office as treasurer and Kenneth C. Prince continued as executive secretary.

Warren-Norge Adds Two Radio Men

NEW YORK — The Warren-Norge Company, distributor, has appointed Ed Dimin and Paul Fielder to its sales staff, covering Brooklyn and Manhattan respectively in behalf of the Farnsworth line.

Lehr Auto Shows Majestic Line

NEW YORK—The Lehr Auto & Electrical Supply Company, distributor, staged a showing of the Majestic radio line August 22, 23 and 24 in the display tower of the Park Central Hotel, served



PROMOTE 26 NEW PHILCOS—Ernest B. Loveman and Sayre M. Ramsdell, on the platform in Philadelphia, show 150 field representatives one of 26 new Philco radios just announced to provide a keystone for the firm's "Tenth Straight Year of Leadership" promotion. Additional meetings are scheduled for Chicago and San Francisco

a buffet dinner to the many dealers attending.

Exhibit arrangements were made by the firm's Ben Lehr and G. Gandenberger. William B. E. Norrins and Lou Stutz, execs from the Chicago factory, were in attendance.

Sutton and Hanlon Join Forces

SAN FRANCISCO-Lloyd R. Hanlon has joined E. Lloyd Sutton as a copartner in the firm of Sutton & Hanlon of 1355 Market St., representing Majestic Radio, Universal Cooler, Detroit Va-



PAGE 52



SEPTEMBER SPECIALS — Philco's James H. Carmine and Larry E. Gubb agree that the new sets, backed by heavy promotion, should go over with a bang

por Stove, American Ironing Machine and Middlebury Electric Clock. Sutton will shortly open a branch office in Los Angeles.

Erwoods Form Sound Company

John to direct sales while Joe does engineering. Firm will specialize "They Stay Put"

Not only are IRC Type BT Insulated Metallized Resistors

unexcelled in such essential characteristics as stability, low

noise level, low voltage coefficient, but equally important,

they are strong mechanically for protection against vibration and

protection against vibration and rough handling. The exclusive Metallized type resistance element is fully sealed against moisture by a molded phenolic

which also insulates the resistor from end to end. The result

is an integral, solidly constructed unit of the utmost reliability.

BT $-\frac{1}{2}$ ($\frac{1}{2}$ Watt). Net 10c each BT-1(1 Watt). Net 12c each BT-2(2 Watts). Net 18c each

(Prices slightly higher in Canada)

Available from leading radio parts

jobbers everywhere.

I ((R))C

INSULATED Metallized

RESISTORS

CHICAGO—John and Joe Erwood, two of the best known figures in the business, have organized the Erwood Sound Equipment Company with headquarters at 224 W. Huron, will specialize in the field, covering portables of all sizes, fixed installations, institutional and school systems, industrial systems, inter-office communicators, mobile systems and custombuilt installations of all kinds and sizes.

John Erwood, president of the company, will have active charge of its sales work. Joe Erwood, vice president, will be in charge of engineering.

A catalog, covering the company's entire new line of sound equipment is in process of preparation; will be available shortly to distributors and dealers.



JOE ERWOOD-He'll direct the new Erwood Sound's engineering

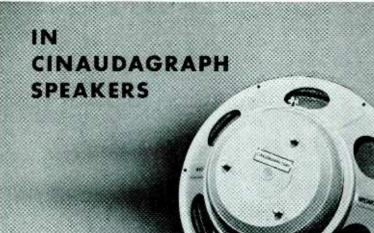
RADIO and Television RETAILING, SEPTEMBER, 1939



Check the radio and electrocics equipment used in the world's most exacting applications and you will find (F 3 Resistors specified as standard in by fai the greater majority. There is, we feel mo better evidence of dependable performance under all conditions of use — performance that is available for your daily radio service work at no extra cost owar that of ordinary resistors and controls.

INTERNATIONAL RESISTANCE CO.

401 N. Broad St., Philadelphia, Pa.



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

f you're any judge of materials and workmanship, you can recognize quality in the Cinaudagraph speaker. But there's more to Cinaudagraph's success than what you see on the surface. Actually, it's what stands behind this complete line of permanent magnet and electrodynamic speakers that counts most. It's the years of research and experiment, of design and assembly and rigid laboratory testing—all performed under one roof by trained engineers expertly supervised every step of the way. *That's* why today, Cinaudagraph is the world's outstanding speaker line.

Profits come biggest where volume sales come quickest. The turnover is rapid on Cinaudagraph speakers because every sale means a 100% satisfied customer. And you know what they say about satisfied customers —"your best advertisement".

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





NORGE'S STERLING — James A. Sterling, just appointed general merchandise manager of Borg-Warner's Norge Division, reporting directly to vice-president in charge of sales M. G. O'Harra

Norge Business Rising

O'Harra, Sterling, Smith and Tenney given more responsibility to meet new trade demand

DETROIT—A concentration, coordination and strengthening of Norge executive merchandising authority to meet expanding business conditions in all lines, is announced by the Norge Division of the Borg-Warner Corporation.

M. G. O'Harra, vice president in charge of all Norge household appliances, is given new and weightier responsibilities, will direct the entire sales activities of the Norge Division. Working directly under O'Harra will be James A. Sterling, who becomes general merchandise manager and is charged with the responsibility of directing merchandising plans for all Norge products, thus centralizing sales, advertising and sales promotion direction.

Charles E. Smith has been made Range Division manager. J. M. Tenney becomes assistant sales manager in charge of all field business development activities.

The primary purpose of the new Norge merchandising program, it is announced, is to secure closer liaison between dealers and distributors in the "front-line trenches" and the sales executives at the home office.

Frigidaire Ups Bratten

DAYTON—P. M. Bratten, former manager of Frigidaire's Fort Worth sales district, has just been appointed head of all activities in the household sales division with headquarters here.

Emerson Reports Sales Rise

Dealer commitments up 20 to 60 per cent following distributor showings of new line

NEW YORK—Reports from distributor showings throughout the country indicate an increase of from twenty to sixty per cent in advance dealer commitments for the Emerson radio line over those received a year ago, according to Charles Robbins, sales promotion director of the Emerson Radio and Phonograph Corporation.

Despite the fact that the firm's advertising and sales promotional program is the most extensive in its history, Robbins attributes the jump in commitments to the completeness of the firm's line (Sixty-three models from \$7.95 to \$99.95) and, more particularly, to his concern's policy of giving dealers a long and workable margin of profit even on the lowest priced models. (Minimum 40 per cent discount).

New Post for Cramer

NEW YORK—Leonard F. Cramer, formerly general sales manager for the Allen B. DuMont Laboratories, has been appointed general sales manager of the Wire Broadcasting Corporation of America.

He will immediately embark upon an active campaign to open up additional outlets, said in a statement released September 1: "I see an unusually close tie-up between the alert radio dealer and the distribution problems of Wire Broadcasting."



HEADS DUMONT SALES—Checking latest "Televents" dealer display posters is *Mark B. Lajoie*, newly appointed general sales manager of the Allen B. DuMont Laboratories. Succeeding Leonard F. Cramer, resigned, Lajoie has for some time sold for DuMont in New Jersey, has been in the radio business since 1922 with such firms as National Carbon and Philco



Announcing a **D U R A L I T E** recording disc for school and home recorders.

8 West 47th Street MUSICRAFT RECORDS, Inc. New York City

Weathermen Wanted

PHILADELPHIA-The United States Army Weather Service (Air Corps) reauires the services of fifteen young men between the ages of 18 and 35 years, with the following qualifications:

the following qualifications: (A) At least high-school graduates. (B) Possessing a working knowledge of elements of electricity and principles of radio communication through special-ized study or practical application. (C) Knowledge of International Morse Code with working speed of 15 to 20 words per minute C. W. telegraphy, preferably licensed as an anateur or commercial radio operator by the FCC.

Enlistment is for a period of three years. Pay ranges from \$21 to \$157.50 per month, plus lodging, board and clothing. Those detached from Air Fields for weather observation receive \$60 per month in lieu of lodging and board.

Advice concerning these openings comes from Lt.Col. F. Schoenfeld, Headquarters Philadelphia Recruiting District, U.S. Army, 607 Custom House, Philadelphia.

Luzerne Servicemen Organize

WILKES BARRE-From secretary Edward Buckman of 20 Oxford Street comes word that radio servicemen of Luzerne County have just formed an organization to be known as "Radio Servicemen of Luzerne County."

Forty members have been signed up to date.



HERE IT IS! MODEL 432-A

Has RED • DOT Lifetime Guaranteed Triplett Instrument with Two Highest Quality Sapphire Jewel Bearings . . . Sockets for All Tubes . . . Filament Voltages from I to IIO-A Safeguard against Obsolescence . . . Separate Line Control Meter . . . Neon Shorts Test . . . Etched Panel of Outstanding New Design ... Approved RMA Circuit . . . Rich Black Leatherette Covered Portable Case—Professional in Appearance.



PAGE 56

\$17.85 NET



For Tubes of Today and Tomorrow—the outstanding tube tester value-Checks Loctals, Single Ends, Bantam Jr., Gaseous Rectifier, the New High Voltage Series (including 117Z6G) and others recently announced. Also has Ballast tube continuity test. Direct Reading GOOD-BAD Meter scale. Will not deactivate 1.4 volt or other type tubes.



6 MONTHS, 19,000 MILES - Radio writer, Alfred A. Ghirardi, has just returned to his office following an extensive tour of the country visiting dealers and servicemen. He bought this rig at Cody, Wyoming

John Meck Industries Formed

CHICAGO-John Meck Industries has been formed with offices at 430 W. Erie St. John Meck, formerly president of Electronic Design Corporation and before that sales manager of Clough-Brengle, is president.

The new organization will specialize in high quality sound equipment for specialized applications. Included in the line, for example, will be automatic record changing portable sound systems for funeral directors, single unit speech reinforcing equipment for hotels and specially designed sound units for use by hotels and cafes.

Sales are to be handled through regular iobber-dealer channels.

Farnsworth Offers CCC

FORT WAYNE-Farnsworth Television and Radio Corp. has announced completion of arrangements with the Commercial Credit Company of Baltimore for the financing of dealer sales of Farnsworth products. Financing will be available for the entire radio line, while in the Capehart phonograph-radio division, the same service will be available at the dealer's discretion.

Bullock G-E Ad Manager

BRIDGEPORT - B. W. Bullock has been appointed advertising manager of the General Electric Company's Merchandise Division, in charge of radio and home appliance advertising.

Wisconsin Trade Plans Radio Show

MILWAUKEE-The Board of Directors of the Wisconsin Radio Refrigeration and Appliance Association is studying a proposal to stage its sixteenth exposition concurrently with this city's annual food show, to be held at the Milwaukee Auditorium during the week of October 9-14.



UPPED BY GUTHMAN-Eddie Dillon, just appointed general manager of the Edwin I. Guthman & Company's amateur division

Rider's Tenth Out

NEW YORK - Volume X of Rider's "Perpetual Trouble Shooter's Manual" was issued August 19, three months earlier than schedule. It contains circuit diagrams of 30 per cent more models than the previous number, over 2,600 in all.

Featured is a new "How It Works" section, advance information on television and facsimile and electronic musical instruments. Also included is a completely revised index for all ten Rider volumes.

Future manual editions, according to the management, are to be published twice yearly, the next coming out in February 1940.

Renewal Tubes for Metzner

OWENSBORO - Russell W. Metzner, sales manager of Ken-Rad's Lamp Division, now also supervises sales of the Renewal Tube Division.



CLOTHES MAKE THE FISHER-MAN-Seagoing Beau Brummel is Charlie Kierulff, who distributes National Union tubes in Los Angeles. He skippered the winning yacht "Contender" in the recent Honolulu races

RADIO and Television RETAILING, SEPTEMBER, 1939

SOUND MEN. Join the BIG money makers C. I. S. E. PLAN IS DOING FOR HUNDREDS OF OTHERS ... HOW IT SENT SOUND SALES SOARING OVER 500% IN 1938 . . . WHY IT CAN HELP YOU INCREASE YOUR BUSINESS AND PROFIT!

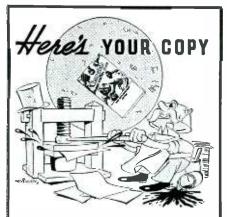
Two years ago this company introduced the C.I.S.E. "Sound" merchandising plan. The plan caught on instantly, spread like wild-fire up and down the land.

Why? Because C.I.S.E. "goes to bat" for the sound man, because it's a logical merchandising plan - packed with profit and protection because, finally, it is the only plan that offers the sound man the profits he so rightly deserves.

"CLARION INSTITUTE OF SOUND ENGINEERS" PUTS MONEY IN YOUR POCKE You buy sound equipment direct from the



ericanra

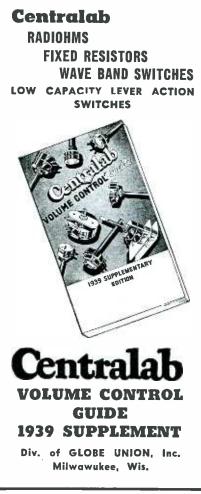


Old Man (Call me Gutenberg) Centralab is busy in YE OLD PRINT SHOPPE pulling impressions of the new 1939-40 CENTRALAB SUPPLEMENT . . . an 80 page opus that

brings the new replacements out into the light and reveals the "goings on" in the world of new Volume Control assemblies.

No well-regulated service shop can afford to be without one . . . yours for the asking at your jobber.

Don't—for goodness sakes let 'em stump you when they bring in a new 1940 model.





LIKE OLD-FASHIONED HEAD-CLAMP-Lovely clothing models stood within U-shaped rings, centering them before the pickup cameras at Bloomingdale's department store in New York August 23, when the "Tele-Sales" method of wired television projection of fashions throughout the building went into regular use

Distribution News

MAJESTIC — The Graybar Electric Company has taken on this line for distribution from Pittsburgh, Albany, Syracuse and Rochester branches, held meetings for dealers late in August at Albany, Syracuse and Rochester and planned at least three more as this issue went to press. Scheduled for September were dealer showings at the Utica Hotel in Utica, the Arlington at Binghampton and the Mark Twain at Elmira. Dates had not been set at press time.

In accepting the distributorship for the Majestic line in the territories noted above Graybar officials expressed enthusiasm over the many sales advantages characterizing new models. Majestic officials simultaneously expressed their high appreciation of the Graybar organization.

U. S. RECORD—*Ed Denham*, at one time with the Victor Talking Machine Company and later a rep for RCA-Victor, has joined this firm as regional

sales manager for the southern territory.

STANCOR—*Bill Carduner*, with offices at 296 Broadway, New York, has been given exclusive rep rights on Standard Transformer Corporation's line in that city, the Philadelphia, Baltimore and Washington territories.

WARD-LEONARD — 11. W. Groctzinger of 1500 Cooper Ave., Pittsburgh, represents this line in western Pennsylvania and all of West Virginia.

FADA—*Eastern Electric Supply* of Newark and the *Bauman Company* of Minneapolis have been appointed Fada distributors.

STROMBERG-CARLSON — Appliances, Inc. of Cincinnati, headed by H. F. Bruckhardt, has the southern half of Ohio and several counties of northern Kentucky, maintains a branch at Columbus. Northern Radio of Seattle will serve most of the state of Washington, including all the western part. Home Appliance of Butte now has the western portion of Montana.



Radio Exports Decline

RMA set figures for fiscal year ending June 30 show 5 per cent reduction in units, 19.7 per cent loss in dollar volume

WASHINGTON - From the Radio Manufacturers Association comes word that radio receiver exports in the fiscal year ending June 30 totalled 499,021 units valued at \$10,567,204, a reduction of 5 per cent in units and 19.7 per cent in dollar volume by comparison with the previous fiscal year. It is pointed out, however, that exports in the previous fiscal year ending June 30, 1938 had been the highest on record for the radio industry.

Units sold each month in the compared fiscal years were recorded as follows:

	'37-'38	'38-'39
July	45,768	31,001
August	50,973	29,735
September	56,735	37.385
October	63,046	48,602
November	64,297	54,414
December	49,002	55,001
January	28,809	35,081
February	33,528	32,419
March	37,220	42,378
April	30,632	39,774
May	33,911	41,605
June	31,181	51,626
	525,102	499,021

Comparing the same two fiscal years, tube exports in the last report were indicated as being down 8.9 per cent in units and 9.1 per cent in value. Speaker exports dropped 5.3 per cent in number and 14.3 per cent in value. Parts and accessories dropped 18.9 per cent in value.



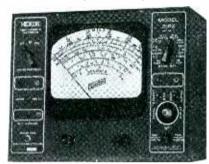
REAL BIRDIE—Portland, Oregon's Bargelt of United Radio Supply watches a stuffed one supplied by IRC's Fairbanks (left) and Killam (right) for photographic purposes

SUPER SERVICE HICKOK TESTERS NEVER BEFORE AVAILABLE !! NEW TODAY!

ALL PURPOSE APPLIANCE **TESTER NO. 900**

A.C. VOLTS - AMPERES - WATTS Tests A.C. Sets and all electrical appliances including refrigerators, washers, ranges, etc. Also measures power consumption of such appliances as electric clocks, hell ringing transformers, etc.

Ten Ranges for Full Coverage WATTS: 0-20-500-1000-2000. CURRENT: 0-260 ma. 6½- 13- 26 amps. VOLTS: 0-130-260. Tests both two and three wire circuits. Available in 60 cycle and 25 cycle models.





OTHER HICKOK INSTRUMENTS

TEST SPEAKERS, OSCILLOGRAPHS, VACUUM TUBE VOLTMETERS, TUBE TESTERS, SET TESTERS, CRYSTAL CONTROLLED MULTI-VIBRATORS, CRYSTAL CONTROLLED SIGNAL GENERATORS.

Mail the Coupon for Information.

ADDRESS ALL INQUIRIES TO THE HICKOK ELECTRICAL INSTRUMENT CO.

IDSI4 DUPONT AVE. . CLEVELAND, OHIO, U.S.A.



DISPLAY ZERO CURRENT ANALYZER-Model 210x-

with New Hickok 9" Rectangular Meter Look at These Ranges:

Look at these kanges: D.C. VOLTS; 1000 and 10,000 at 88,888 ohms per volt,—2500 volts at 1000 ohms per volt.—250 volts at infinite ohms per volt. A.C. VOLTS; 2500 at 1000 ohms per volt. D.C. MILLIAMPERES; ½, 2.5. 25. 250. D.C. AMPERES; 2.5 and 25. A.C. AMPERES; 0.5. CAPACITY; Three ranges to 200 microfarads. RE-SISTANCE; Four ranges to 50 megohms. DECIBELS; --10 to +15.

CRYSTAL CONTROLLED MICROVOLTER, No. 19X

Calibrated output in microvolts (0.5 to 100,000) from 100 K C to 30 megacycles. Self-contained vacuum tube voltmeter, power level meter and crystal. Over 250 crystal controlled output from 100 K C to 150 megacycles, modulated and unmodulated, with accuracy better than .01%. Power level meter has three decibel ranges from -6 to +38 db. Gain per stage, selectivity and sensitivity. Calibrated A.F. output .5 microvolts to 1 volt. volt,

The Hickok Electrical Instrument Co., RR 10514 Dupont Ave., Cleveland, Ohio Gentlemen: Please send information on FT 900 🗍 210X 🗌 19X 📋 New Catalog NAME ADDRESS

.....STATE.....

THIS FALL'S PROFIT OPPORTUNITY! **GTC & PORTA-POWER** converts the portable radio into modern home "plug-in" set for Fall and Winter

CITY

NERAL TRANSFORMER CORP. 1254 W. VAN BUREN ST.

months. Fits all battery compartments. Universal sockets to fit all battery plugs. LIST \$7.50 EACH

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PRESTO PRESENTS



A New Low-priced SOUND RECORDER with 5 EXCLUSIVE SELLING POINTS

- Dual speed operation 78 and 33¹/₃ r.p.m. The only two-speed machine in its price class.
- Sensitive microphone and full size adjustable floor stand.
- Rubber-rimmed turntable driven directly by motor pulley. Uses no idler wheels or rubber pulleys. Nothing to wear out.
- Operates as public address system. You can hear your program before you record.
- Safety can lever lowers cutting head gently. Prevents breaking costly sapphire cutting needles.

MODEL 12J RECORDER

Price Complete

\$184.50*

*\$194.50 Denver and West

Write for Literature HOW DEALERS SELL THE PRESTO RECORDER

-This new booklet tells you who your prospects are, how to reach them, why they buy recording equipment. Illustrates form letters, direct mail pieces, newspaper mats, window and counter display material. Describes numerous promotional stunts that dealers have used successfully to sell recorders and personal recordings. A complete merchandising manual that will boost recorder sales for you.

Your Copy is Waiting • Write for Booklet Today



Dealer Helps

COUNTER DISPLAY — Majestic Radio and Television Corporation has a new window and counter display featuring its combination transmitter and wireless record-player. Measures 34 inches high and 30 inches wide, lithographed in five colors, provides cutout space for actual machine.

SET CATALOG—*Majestic* has just released a 56-page catalog with fourcolor cover design, describing new set features and illustrating the entire Majestic line. Includes brief biographies of company execs and personnel, together with view of firm's manufacturing facilities. One section is devoted to available displays and advertising material. Color backgrounds used for sets illustrated throughout catalog.

SERVICE ENCYCLOPEDIA—*Mallory-Yaxley's* third-edition "Radio Service Encyclopedia" (List price \$1.25) is

ice Encyclopedia" (List price \$1.25) is just off the presses, even bigger and better than its widely used predecessors. Contains 264 pages of extremely useful technical information, a yellow registry blank which, when filled in and mailed to the Indianapolis factory by the user, assures a continuous flow of supplements to be released as new material warrants.

As usual, the bulk of the book is given over to a careful and complete listing of radio receivers now in use with information concerning the replacement controls, condensers and vibrators required when repairing these sets.

Released simultaneously by this same company is a 1940 catalog boasting a full-color cover. Thirty-eight pages over all, profusely illustrated, it gives complete details concerning the company's approved precision products.

SET DISPLAYS—Westinghouse Electric Supply has announced a new group of dealer display helps including a "Lady" display (full-size cutout of a woman holding a set for counter use), a single radio display card for the "Personal" type receivers, a streamlined display card holding six WR-166A sets and a special counter display card featuring the "Carryette" portable.

IN THREE LANGUAGES—Clarostat Manufacturing Company has a new four-page folder entitled: "Why Cement-Coated Power-Resistors?", telling the complete story of its latest product. The folder is available in French and Spanish as well as in English.

HAMANUAL — Stancor's latest Hamanual will be available October 1 through company jobbers. Will be printed in two colors, containing many features of unusual interest to the amateur and P. A. man. Describes seven transmitters ranging from 10 to 100 watts and four amplifiers from 14



to 60 watts. Other catalog features include a complete listing of Stancor products, formulae, power supply circuits and many charts.

TUBE BULLETIN-Ken-Rad has a new printed piece entitled: "Essential Characteristics of Metal and Glass Radio Tubes." Gives data on types with 4, 5, 6 and 7 pin bases and octal types and outline drawings of various tubes. Available from distributors or by writing direct to the factory at Owensboro, Ky.

INTERFERENCE ADS — Available at actual cost in mat form are a new series of four ads by Sprague Products Company of North Adams, Mass., playing up the fact that radio noises can be eliminated by the proper application of filters made by the company.

BOOKS, BLUEBIRDS, FILMS-RCA has a new book entitled "Magic Dials," written by Lowell Thomas and illustrated by photographer, Anton Bruehl. Tells an interestingly different story of the history of radio and television. Bluebird records are described in the September edition catalog just released. One classification within this book lists discs of special interest to coin machine operators while another is devoted to dance recordings. Two onereel sound motion pictures produced for RCA by Pathe, titled "Air Waves" and "Television" are now available to schools, churches, clubs and other community groups at no rental charge.

FOOTBALL SCHEDULE-Stewart-Warner has a most complete little folder covering the football schedules in the north, east, south and west. Includes official's code of signals, rules of the game, dope on past performance. Plugs the firm's "Senior Varsity" and "Campus" sets. Provides room for dealer imprint.

VIBRATOR MANUAL—From the Radiart Corporation comes word that if technicians, obtaining copies of the firm's "Vibrator Manual and Professional Serviceman's Auto Radio Guide," neglect to register their name and address with the company by mailing a card provided for this purpose within the book, they automatically cut themselves off from supplements to be issued periodically for the purpose of keeping the Guide right up to the minute.

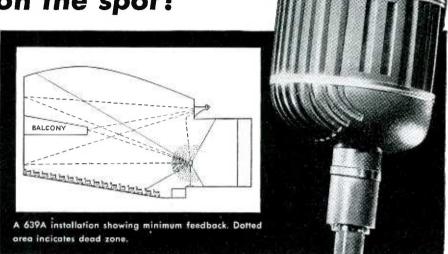
RESISTORS ET AL. — Circular Number 507 has just been released by Ward Leonard, describes this company's line of radio resistors, rheostats, line voltage reducers and other allied products.

IRON DISPLAY-Electric Soldering Iron Company of Deep River, Conn., has a new counter card which holds three "Esico" soldering irons.

RADIO and Television RETAILING, SEPTEMBER, 1939

NEW MIKE is a KILLER

... it puts feedback on the spot!



With the Western Electric Cardioid, you can handle Public Address installations you never thought possible

Western Electric's 639A microphone gives you clarity, fidelity and control you never dreamed of before. It's tops for P.A. work as well as broadcasting.

The Cardioid combines a ribbon mike and a dynamic mike. A 3-way

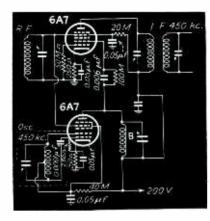
w americanradiohistory.com

switch gives you a choice of either or of both-matched to produce the best qualities of each through a 120° pick-up zone. Its large dead area cuts feedback, makes it ideal for use under the toughest acoustic conditions.

Distributed by Graybar



PAGE 61



Constant Frequency Superhet Oscillator

Usual practice in a superhet receiver is to vary the frequency of the hetrodyne oscillator so that it is equal to the frequency of the incoming signal minus the intermediate frequency. In the novel circuit by B. Dueno shown here, the frequency of the oscillator is always constant and equal to the intermediate frequency. Tuning is accomplished by varying the capacity across the top left tuned circuit and circuit B. Thus the hetrodyne oscillator could easily be crystal controlled for stability purposes.

An analysis of the circuit shows that both tubes are working as convertors although they serve separate functions. Signal voltage feeds into the tuned circuit at the upper left. The signal then hetrodynes with the local oscillator of the lower 6A7, giving a beat note 450 kc. plus or minus the signal frequency.

This beat voltage which can be called the first intermediate frequency, is impressed across tuned circuit B and applied to the upper 6A7. Here it is again mixed with the original signal, resulting in a second intermediate frequency of 450 kc. It then is amplified in the conventional manner by the i.f. stage or stages.

As a further explanation, suppose a signal of 1500 was being received. The hetrodyne oscillator beating against this would cause a 1050 kc. signal to appear across tuned circuit B. Applying this to the upper 6A7, beating with the 1500 signal again, gives us an i.f. of 450 kc.

There are several advantages of the circuit and also some disadvantages. As explained before, the oscillator can be crystal controlled. Since the oscillator is not varied no trouble such as cutting out on the ends of the dial will be experienced. At the same time it becomes necessary to completely shield the oscillator so none of this voltage feeds into the i.f. amplifier. This is possible but difficult in view of the fact that many

Service Department

standard sets have difficulties from "birdies." If shielding and isolation of circuits is carefully planned however, satisfactory operation may be achieved even with oscillator and i.f. on the same frequency.

WHAT THIS BUSINESS NEEDS

By James A. Nash

WHAT THIS BUSINESS NEEDS IS . . . Speaker cones that are not glued to the frame so that leads and tears can be easily repaired. While cement solvents sometimes work, they just as often do not. Cones could be held in place by a ring, screwed in place over the cone.

Radio Retailing will pay \$1 for every published "What This Business Needs". Submitted items must be technical and constructive.

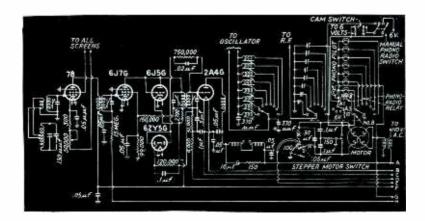
Remote Control Silencer

Remote tuning is used again this year by Philco. The action of the noise silencer in this circuit is particularly interesting; operation is as follows:

Any signal picked up by the control frequency loop is amplified by the 78 tube and fed to the 6J7G through the second control frequency transformer. Assuming that the signal voltage is sufficient to drive the grid of the 6J7G positive on voltage peaks, the grid will draw current through the 1.5 megohm resistor in the grid return circuit. This will cause the grid to bias itself negatively, thus creating its own A.V.C. voltage across the terminals of the .05 mfd condenser shunting the 1.5 megohm grid leak. This bias will tend to lower the plate current of the 6J7G and will keep the output impedance of the tube as high as possible.

A 6J5G serving as a diode is connected across the primary winding of the third control frequency transformer and its 2700 ohm plate supply resistor. Since the plate is negative with respect to its cathode by the amount of the drop in potential across this 2700-ohm resistor, this diode will not conduct until the signal voltage in the 6J7G plate circuit exceeds this negative bias. However, a low-impedance short is placed across the highimpedance plate circuit of the 6J7G by the 615G diode as soon as the signal exceeds the bias voltage, effectively limiting all signals to the predetermined bias voltage level. On this particular model this is approximately 7 volts. It will be noted that since very strong signals reduce the plate current of the 6J7G, the voltage drop across the 2700-ohm resistor will not be lowered, reducing the bias voltage on the diode and forming a lower peak signal voltage limit. Thus. stronger interference signals are met by more positive protection against these signals entering the thyratron grid circuit.

The third control frequency transformer is loosely coupled so that the primary and secondary operate somewhat independently of each other. This is the opposite effect obtained by close



coupling, as shown by the example of a power transformer, where a shorted secondary means a reflected lowimpedance short in the primary. In the case of the loosely coupled control frequency transformer, shorting the secondary produces the same effect as completely removing the secondary winding, resulting in the primary impedance reaching its highest possible value for the constants of the circuit. Thus, if the secondary were shorted, the 6J5 diode, acting as a low-impedance winding, will have a maximum effect in limiting the peak voltage to the predetermined 7 volts.

The 6ZY5G diode connected across the secondary of this third C.F. transformer through two time-constant circuits formed by resistor and condensor combinations, forms a low-impedance short on this secondary immediately, as there is no delay bias until sufficient time has elapsed to charge the condensers of the time-delay circuits. Since practically all noise is continually varying in amplitude and is of insufficient duration to complete the charging of these condensers, noise is effectively removed before it can reach the grid of the thyratron tube and cause operation of the relays.

In operation, the 6J7G, through its A.V.C. action, limits its own plate current and keeps a maximum potential drop of 7 volts (lower on strong signals) across the 2700-ohm resistor in its plate-supply circuit. This keeps the diode in operation as a limiting diode on all signals in excess of 7 volts. Since the third C.F. transformer has a step-down ratio of 2 to 1, the maximum induced voltage in the secondary is limited to 3.5 volts or less. Approximately 2.5 volts are required in this grid circuit to fire the thyratron tube. The signal from the control box, being of sufficient duration and constant amplitude, can operate the relays, but noise, consisting of many single pulses, varying in amplitude, is completely removed by the time constants of the various circuits.

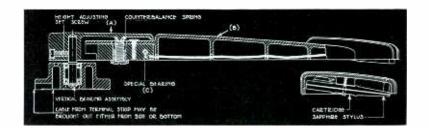
Permanent Stylus Pickup

Using a permanent sapphire stylus and requiring only 15 grams stylus pressure, model PL-50 pickup by Brush claims reduced record noise and wear.

As shown here the new pickup is ball bearing pivoted and pressure counterbalanced. The special bearing at (C) pivots on support (A) offering minimum friction. The moulded bakelite arm and head (B) is light in weight for low inertia.

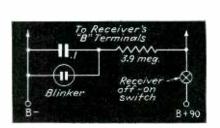
The most interesting part of the

RADIO and Television RETAILING, SEPTEMBER, 1939



pickup is the sapphire stylus and drive assembly. The stylus is permanently fastened to a long drive rod which rocks from side to side in accordance with the record groove. By eliminating the weight of the needle chuck improved performance is attained. The drive rod connects the stylus to the crystal element which in turn converts the mechanical impulses into electrical energy.

The stylus differs from an ordinary needle in that the end is rounded and highly polished. This more evenly distributes the stylus weight preventing tearing of the record groove.



Economy Blinker

Used in the RCA farm model BT-42 to reduce chances of accidentally leaving the set turned on and thereby wasting batteries, is the blinker circuit shown here.

A specially developed neon bulb serving as the blinker tube is connected in parallel with a .1 mfd. condenser. The combination in turn connects in series with a 3.9 megohni resistor to the "B" supply on the set side of the off-on switch.

The circuit of the tube, condenser and resistor form a relaxation oscillation operating at a very low frequency so that each cycle of oscillation causes the neon tube to glow at a visible rate.

If the neon tube were left on continuously it would draw 100 microamperes; when blinking it draws only 5 microamperes, which would have a negligible effect on battery life. In fact, it draws so little current that it has been computed that a standard 748 "AB" pack (disregarding shelf life) contains enough energy to operate the light for 230 years.

In addition to serving as a tell-tale pilot the blinker is also useful for determining when battery voltage is low as it ceases to operate when the voltage drops below 70 volts.

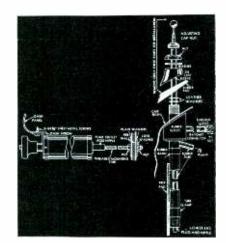
Pneumatic Antenna

The Presto-Matic antenna by Ward employs a two section rod actuated on the pneumatic principle from a hand operated pump on the dash.

As shown, the antenna consists essentially of a double acting cylinder and piston with another piston within the hollow piston rod of the first. In other words, the piston of the one is also the cylinder of the second. Thus both sections of the rod are automatic in operation.

The hand pump is a special unit with a simple push-button valve in the knob which allows motion of the pump rod without creating pressure or vacuum when desired. This was done so the pump could be returned to normal position without affecting the antenna. A rubber tube connects the pump and antenna.

The antenna mounts on the cowl through a single hole. The lower mechanism extends below the cowl near the kick pad.





TRY BOARDING UP THE BACK of old console sets and you will be surprised at the improvement in low frequency response.



OBSOLESCENCE PROOFED INSTRUMENTS HAVE DE-LIVERED A KNOCKOUT BLOW TO OBSOLESCENCE AND HAS RESULTED IN A TREMENDOUS SWING TO DACO BY JOBBERS AND SERVICEMEN. THIS SWING LOOKS LIKE A RECORD IN THE INSTRUMENT FIELD. DACO AND DAYRAD ENGINEERING UP TO THE MINUTE AND INTO THE FUTURE.

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MODEL 303 CV

rocco Finish Portable Models. Two-Toned, Other Colors Available \$2.00 Additional. Counter 16" x 13" x 5³/₄" x 3". Portable 12³/₄" x 13³/₈" x 5³/₄". Shipping Weight 18 Lbs.

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Single Range Visibility, Six Bands, 60 Megacycles to 60 Kilocycles-No Drifting, No Leakage-Each Individually Calibrated-Hand Drawn Chart. Black and Silver Morocco Finish. Price-



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Any Model 303. Tester Price, \$29.90. \$10.00 Down, 10 Months Balance.

Model 421. Signal Generator. Price, \$34.90. \$11.50 Down, 10 Months Balance.

Model 521. AC Operated Volt Ohmeter. Price, \$39.90. \$13.30 Down, 10 Months Balance.

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- TEST ALL TUBES FROM 1.4 to 125 VOLTS
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- Obsolescence Proofed Index Chart Two to Four Spare Sockets
- Black and Silver or Rust and Silver Counter Types. Morocco Finish, Black Leatherette Mo-



1T5-GT-Beam power output tube by RCA designed for low drain battery receivers. Characteristics are:

Filament Voltage	1.4 volts
Filament Current	0.005 amp.
Plate Voltage	90 volts
Screen Voltage	90 volts
Grid Voltage	-6 olts
Peak A-F Grid Voltage	6 volts
Plate Current	6 5 ma.
Screen Current	1 4 ma.
Transconductance	1150 mmhos
Load Resistance	14000 ohms
Total Harmonic Distortion	7.5 per cent
Maximum Power Output	170 mw.

1898-Three inch electrostatic deflection type monoscope by RCA designed for demonstrating the principles of television. Characteristics are:

Heater Voltage	2.5 volts
Heater Current	2.1 amps.
Pattern Type	Girls Head
Pattern Diameter	25% inches
Overall Length	11% inches
Maximum Diameter	3 to inches
Base	Med. 7 pin
Pattern Electrode Voltage	1300 volts
Anode No. 2 Voltage	1200 volts
Anode No. 1 Voltage	500 volts
Control Grid	Never positive

7AP4-Magnetic deflection type Kinescope by RCA with a 7 inch white phosphor screen and short bulb. Capable of producing a brilliant reproduction approximately 41/2x6 inches in black and white. Characteristics are:

Heater Voltage	2.5 volts
Heater Current	2.1 amps.
Overall Length	$13\frac{1}{2}$ inches
Maximum Diameter	$7\frac{1}{8}$ inches
Base	Medium 5 pin
	3500 volta
	1000 volts
	Never positive

connections are: 1—no connection, 2—F plus, 3—pentode plate, 4— pentode screen, 5—pentode grid, 6— triode plate, 7—F minus. 8—diode plate, cap-triode grid.

Pentode Characteristics	are:	
Plate Voltage	90	volts
Screen Voltage	90	volts
Grid Voltage	9	volts
Plate Resistance	0.2	megohm
Transconductance		umhos
Plate Current	5	ma.
Screen Current	ī	ma.
Load Resistance	12000	ohms
Total distortion		per cent
Power Output	200	mw.
Triode Characteristics	are:	
Plate Voltage.	90	volta

Plate Voltage	90 volts
Grid Voltage	0 volta
Amplification Factor	25
Plate Resistance	43500 ohms
Transconductance	575 umhos
Plate Current	1.1 ma.

HY114—High frequency 1.4 volt triode oscillator, r.f. amplifier, de-tector by Hytronic with grid and plate terminals brought out at the top; ratings up to 300 megacycles. Characteristics as r.f. power amplifier or oscillator are:

Heater Voltage	1.4 volts
Heater Current	.12 amp.
Plate Voltage	180 volts
Plate Current	15 ma.
Grid Current	3 ma.
R.F. Power Output	2 watts

RADIO and Television RETAILING, SEPTEMBER, 1939





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□ Please send information on all new models.

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Please ship model — check enclosed.

Service Estimating

By F. W. SMITH

AVING been in this business for some years I believe there are three basic reasons for the meager profit shown by most shops.

The first cause is lack of real business methods, the second is lack of salesmanship and the third is adverse public relations. Let us individually concentrate first on operating our business as a business. whether it is a one man shop or a twenty man department. After that has been accomplished let us learn to sell more of our available serv-

condition. Let us follow two courses to their conclusions. To eliminate all other than business factors we will say two servicemen handle identical situations and that their technical ability is equal. The only difference is in the way the business is handled as follows: Mr. Wrong (serviceman) gives Mr. Jones an estimate at his home. Mr. Right (serviceman) takes the set to the shop and finds the 5Z3 tube is burned out, a 6C5 tube is noisy and the 6A8 oscillator section is low. One filter capacitor is shorted

The Right and Wrong Way To Make a Service Estimate

GUESS ESTIMATE Service charge	* SHOP ESTIMATE Install 2 filters Install 3 bypass Clean and center speaker Clean and balance radio Materials required: 1-16 mfd. 450 V 1-5Z3, 1-6C5, 1-6A8 1-05, 11, 1-10 mfd. 50 V 1-vol. control and sw	\$4.00 5.75 1.75 1.75 4.00 1.30 1.05 4.00 .90 2.00
* Flat rate service charges.	-	\$26.50

ices and materials on each job. Last, but ultimately most important of all, let us establish a demand for our services as skilled workmen, worthy of the public confidence and respect.

Business Methods

As a concrete example of how flat rates can benefit the shop using it, giving the set owner a better understanding of radio repair work, let us take a hypothetical service call from any Mr. Jones.

His twelve tube all wave set is found dead. The 5Z3 rectifier tube is burned out. The input filter capacitor is shorted. The other filter capacitor has a heavy salt deposit on its top. The chassis and parts are heavily covered with dust and lint. Obviously the radio must go to the shop for proper attention and repairs.

At this point Mr. Jones usually wants to know how much the job is going to cost.

Suppose a figure is given after looking over the radio in Mr. Jones' home. Jones assumes this estimate covers everything necessary to put the radio in tip top

and the other is unfit for further use. Both are disconnected and new ones substituted, a 5Z3 tube is put in and the set starts playing.

But how it plays! The stronger local stations overload the set regardless of volume control adjustment. A faulty AVC condenser is replaced temporarily with a new one. Now the volume control proves noisy in operation. After a few minutes of operation the volume drops and a squeal develops. An open cathode bypass unit is disconnected and a new one put in. The radio now seems to operate fairly well except for a condition of poor tone quality. Inspection of the audio channel discloses a defective cathode electrolytic condenser. After replacing it the only major fault is a rattle in the speaker.

Now let us compare the guess estimate with the shop estimate in dollars and cents as shown in the accompanying box. Truly enough, it is not the serviceman's fault that the radio needs more than a pair of filter condensers and a new rectifier tube

As a further advantage of a busi-(Continued on page 70)



CAPACITY BRIDGE

Measures capacity 100 mmfd. (or .0001 mfd.) to 100 mfd., in 6 ranges; leakage; power factor to 50%, etc., of condensers under actual work-ing 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 is calibrated directly in megohms. Reads up to 10.000 megohms.

VACUUM-TUBE VOLTMETER Consists of amplifier stage and grid-leak. May be used externally.

MILLIVOLTMETER

Meter terminals brought out directly. Range: 60 my, to 60 ohms. Can be used with external shunts.

MILLIAMMETER

Meter can be read in milliamperes. 0-6 ma., 0-60 ma. May be used externally.

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 instrument. Examine it critically. Check its many features at first hand. Ask for latest de-scriptive bulletin. Or write us direct.





Despite the wide publicity given the aims and aspirations of the NRPDA, many Dealers and Servicemen have asked "How is this going to affect me?"

Primarily the aim of the Association is to return to the Distributor, the Dealer and the Serviceman the profits which are legitimately HIS! This only can be accomplished by raising the standards of ethics of merchandising within the Industry.

It is the pledge of your Association Jobber to interest himself in Industry problems as they affect your pocketbook. He desires to eliminate conditions which take away profits which are legitimately yours. He desires to sell you only recognized, advertised brands of radio parts at a price which will give *him* a normal profit and you the opportunity to make a decent livelihood. He intends to fight shoulder to shoulder with you in removing destructive price competition.

The only way to accomplish these aims is to deal with Jobbers who display the NRPDA Emblem—"the mark of an Ethical merchandiser of advertised brands." Do it for your own protection! Names of Member Jobbers in your territory will be supplied if you will address the Executive Secretary of the Association.



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5 WEST 86th STREET NEW YORK, N. Y.

Training for Television

IT IS SAFE TO SAY that most servicemen began in radio by tinkering around, building their own equipment, gradually learning the technical ropes. The same smooth pathway to potential profits is open for exploration of the television field and reports indicate that many kits have gone to servicemen having this in mind.

Television kits now on the market fill the bill very nicely. They provide an excellent opportunity for servicemen to learn the practical aspects of the art. When completed, they may in with a colored pencil as you complete it. Then, when you finish the wiring, it will be an easy matter to check back over the circuit for uncolored lines indicating omissions.

Most kits come through with the r.f. tuner unit completely wired and aligned. It is important that the wiring from these tuners to certain critical points be placed as the instruction sheets direct. This will avoid inclusion of stray capacities and inductances which might affect operation. Leads from the tuner should be made as rigid



be used as effective window and shop displays. Servicemen can scarcely lose.

For the benefit of men getting started along these lines we pass along here hints and kinks which will be useful when assembling television kits.

First, we all like to get equipment working as soon as possible. Avoid this urge and carefully plan construction, thus saving much time later and at the same time obtaining the maximum of instruction from the job.

Lay all the components of the kit out on a large table or bench. Read the instruction kit carefully, identifying the parts for future reference as you go along. Then go on to the next step, probably the most important in the entire course of the work. Pick out the proper resistors and capacitors as indicated, looking not only for the correct resistance and capacity but also for the correct wattage and voltage ratings.

Assemble, wire and solder all separate sections of the receiver before mounting them on the main chassis. This greatly simplifies wiring and soldering. Some kits include instructions concerning a recommended plan of attack. These instructions should be checked off as each step is completed. Follow recommended procedures rather than your own.

If you wire direct from a schematic or a pictorial circuit trace each wire

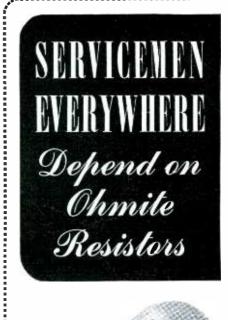
as possible otherwise microphonics or instability may result from vibration of the wiring.

The alignment of the tuner unit should not be touched unless absolutely necessary and certainly not at all until the servicenan has become thoroughly familiar with the critical effect adjustment may have at these frequencies. If reception is weak after checking all circuits thoroughly then and only then should alignment be inspected.

Extreme care should be exercised when working with the high voltages encountered in television equipment. Kits differ in design but those seen so far provide some means of protecting the user from accidental contact with high voltage circuits. Be sure to read the instructions regarding this point carefully before turning on the power. Inspect the interlock switch, if one is provided at the power supply, to see that it is working properly. Remember that filter condensers can retain dangerous charges.

When wiring is completed and inspected, power may be applied. It will then be necessary to align the i.f. transformers, following instructions closely. When the set is operating conditions may arise which are not covered in the instructions. If the image is distorted refer to the typical test patterns shown on page

(Continued on Page 70)



Ohmite Brown Devils



Popular, time-proved, extra-sturdy wire-wound resistors for voltage dropping, bias units, bleeders, etc. Built right and permanently protected by Ohmite Vitreous Enamel. 10 and 20 watt sizes; 1 to 100,000 ohms.

Ohmite Adjustable Dividohms



Mighty handy for quick replacement or change of resistance value. Easily adjusted to exact resistance—or tapped where needed. Ideal voltage dividers. Ratings from 10 to 200 watts. Resistances up to 100,000 ohms.

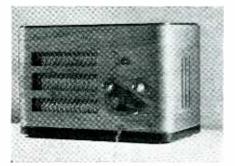
Get Ohmite Parts from Your Jobber. Send now for free Ohmite Catalog 17.



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Systems



CROSLEY CHATTABOX

\$24.50 per pair, consisting of TWO COMPLETE MASTER STA-TIONS.

Complete two-way wireless loud speaking system. Perfect performance. Plug into any 110 volt socket, AC or DC. Equipped with CALL-LISTEN-TALK switch and volume control. Write for information or catalogue.

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Jobbers, Dealers and Distributors write for special quantity discounts.

AMPLIFIERS - DISTRIBUTORS CORP. DEPT. R.R., CHRYSLER BLDG., NEW YORK

Sole Distributors of the



ATWATER KENT 480

Dead on low frequency end . . check bypass in plate circuit of 58 r.f. for leakage.

AUDIOLA 23-S-10

Neon tuning indicator dead . . . check the 10,000 ohm resistor and 1 mfd condenser connected in this circuit.

BOSCH 350

Loud hum . . . poor contact at the rivet grounding the filament of the 2A6. Solder rivet and connection to chassis.

BUICK 130-4873

Blows fuses . . . insulation on shielded grid lead of 6R7 worn through and contacting filament prong.

CLARION 470

Distortion, low sensitivity . . . change 5,000 ohm bias resistor on 2A6 to 10,000 ohms.

CROSLEY 54

Opening of heavy duty resistor in "B" supply network is most common trouble. If set whistles, look for defective volume control.

CROSLEY A-157.

Set stops playing when jarred . install new tube socket for the 6A8G as original unit does not grip the prongs tightly enough.

CROSLEY 644

Dead except for weak signals on high frequency end . . . open 0.1 mfd condenser between anode grid of 6A7 and the band switch.

DETROLA 288 PORTABLE

Oscillation, noisy, frequency jumps. Negative A and B terminals grounded to socket. Solder socket frame to chassis as rivets make poor connection.

MAJESTIC 90, 100

Cuts off to half volume, squeals at full volume intermittently . . . replace both .5 mfd condenser bypassing cathode bias.

MOTOROLA 8-70

Set squeals, cuts out . . . replace .01 mfd condenser and 100,000 ohm resistor in grid circuit of 6V7G. These two parts are contained in one unit.

PHILCO 54

Intermittent . . . check oscillator coil terminals for loose connections.

PHILCO 39-31

Extremely high pitched tone with tone control set at "high" . . . reverse line plug. If condition still persists, change position of wires around volume control leads and grid lead to 75.

PHILCO 39-116

Weak on automatic tuning (mystery control) . . . clean contacts on rotary arm of the stepper relay with carbon tet.

PHILCO 39-40XX

Works on push button, dead on manual tuning . . . check oscillator tuning gang for short in trimmer.





ZENITH 48106 BOAT RADIO

Dead on low frequency end of dial . . . connect 10,000 ohm resistor across 15 tube. This lowers the bias sufficiently to make the tube oscillate.

When too much moisture collects on the coils of this set it often becomes inoperative. To remedy: Unscrew the two nuts holding the oscillator coil and shield close to the chassis, remove coil and shield about 1 inch from chassis.

ZENITH 5704

Oscillation . . . disconnect 6K7 first audio from mutual bias system. Insert 3500 ohm $\frac{1}{2}$ watt resistor bypassed with 25 mfd condenser in cathode circuit. Connect grid return to chassis.

ZENITH 9S262

Whistles when volume control is advanced . . . replace 12 mfd electrolytic across high voltage divider tap.

ZENITH BATTERY SETS

Hash . . . Loose cover on power pack. Hash on automatic tuning . . . automatic tuning touching power pack. Insulate at point of contact.

ZENITH MIDGETS

Due to the small baffle area, lack of bass is apparent. To increase bass response the following notes apply.

On model 5R312 add an .02 mfd condenser across the .02 mfd coupling condenser already in the circuit. Also, a .01 600 volt across the .002 connected between plate and B plus of the power output tube.

In the 6D312 model, add a .01 condenser across the .002 in the circuit. Also, a .02 across the .02 already connected from plate to ground.

In both of the above models, in order that the speaker fits closer to the cabinet, replace the 3 hexagon speaker screws with flat head screws.

A common complaint in the 6D311 and 6D312 models is poor tone and loss of volume after playing a while. This is usually due to a defective 25L6 output tube.

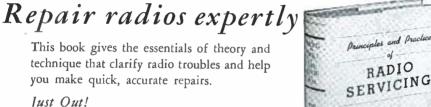
When these models are dead yet all components check okeh and set lights, check the two 50 ohm resistors connected from the switch to ground.

To determine if the a.v.c. of a receiver is working, try grounding the grid return of the first i.f. secondary. If sensitivity does not increase, look for defect in this circuit.

americanradiohistory e







Principles and Practice of **RADIO SERVICING** By H. J. HICKS

Radio Instructor, Hadley Vocational School

300 pages, 6 x 9, 212 illustrations, \$3.00

INCLUDES CHAPTERS ON: --selecting and using test equipment --servicing public address systems --getting and keeping service business 10 DAYS' EXAMIN McGRAW-HILL BOOK CO., I Send Hicks--Principles and Pre 10 days 1 will send \$3.00, plus few accompanied by remittance.)

Shows how to install, test, and repair radio receivers, giving not only instructions in all the servicing procedures, but also plain treatment of the theory of electricity and radio needed for most effective approach to servicing problems. Written in excellent self-study style for servicemen who want to improve their skill and readers who want to learn this practical field from the ground up.

(Books sent on approval in U. S. and Canada only.)

SERVICE ESTIMATING

(Continued from Page 65)

nesslike procedure, suppose Jones, when informed of the total of the shop estimate says, "I cannot spend that much on the radio at this time." Jones should be advised that the radio will play with the present volume control, though it will be noisy as it is turned and will eventually cause fading or will fail to control the volume smoothly. That item would take off \$3.75 from the total charge. The 6C5 tube which proved to be noisy in operation could be left in the set as could the 6A8 which would not oscillate at the high frequency end of the short wave band. This omission would cut the cost another \$2.75. The speaker cone may be left the way it is, if this condition has not been annoying to the owner though he should be advised that there is some chance of the wires being broken from the continual rubbing. Omission of these items and the realigning brings the estimate for specific work at \$14.75.

The advantage of having an accurate estimate to work from, is selfevident. Mr. Jones, after authorizing the work on the \$14.75 basis, does not expect a complete overhaul and will not be calling the shop a few days after the set is delivered to complain about work which has not been done.

It would be remarkable if Mr. Jones did not call the shop within a few months and have the other work done. It would be still more remarkable if he ever called Mr. Wrong again.

TRAINING FOR TELEVISION

(Continued from Page 67)

58 of the August issue. Common troubles encountered in television sets are shown here in terms of resulting images.

Presence of a few "bugs" in a kit following assembly will provide an excellent opportunity to "find out what it's all about" without the necessity for rushing as in the case of actual service jobs to come later. You've assembled the kit yourself and so should have little hesitancy in delving into it, which might not be the case if your first experience occurred in connection with a factory assembled video receiver. That's why assembly of a kit or two offers what we believe to be the best present-day method of *training for television*.

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With KATOLIGHT. Furnish standard 60-cycle AC for operating sound truck equipment, AC radios, transmitters, flood lights, motors, moving picture projectors, etc.

A complete line of light and power plants ranging up to 10,000 watts capacity. Also 6, 12 and 32 volt battery charging plants, Diesel plants, rotary converters, and frequency changers.

List prices \$50.00 and up. Jobbers and Dealers Write For Latest Catalog

Kato Engineering Company **Eim and Front Streets** MANKATO, MINN., U.S.A.



ALL UNIVERSITY loudspeakers and projectors are guaranteed NON RESONANT. EXCLUSIVE reinforced acoustic rubber construction makes speakers NON RESONANT at highest acoustic levels. UNIVERSITY offers distributors the most complete modern line of loudspeakers and projectors, including split range dual-driver loudspeakers. UNIVERSITY loudspeakers have highest possible efficiency (double value for the money). PARTS JOBBERS write for our profit making sales plan. UNIVERSITY LABORATORIES



RADIO and Television RETAILING, SEPTEMBER, 1939

PAGE 71



Retail Wholesalers

While passing the premises of two stores here in New York City the other day I noticed signs in their windows indicating that they sell retail at wholesale prices. Among the manufacturers indicated on their signs are well-known lines known to be distributed by reputable firms and others distributed by manufacturers who really do their own distributing.

It is therefore obvious that the signs do not make truthful statements. These statements are misleading to the public in general.

It is our opinion and suggestion that concerns of this character who use such tactics should be reported to the Better Business Bureau and the Federal Trade Commission. A magazine such as yours can be of great aid in bringing to the attention of the public these false statements. Between the publicity accorded such firms and the follow up of the Better Business Bureau and the Federal Trade Commission conditions of this character can be cleared up.

We hope that you will lend your support toward such an undertaking for the betterment of the industry at large and for the benefit of the consuming public.

H. J. BAITINGER, Baitinger Electric Co., Inc.

NEW YORK

You have our assurance that we deplore the practice of which you write and will do everything within our power to discourage it.

Qualifications of a Mfgrs' Agent

To me through the mails the other day, from a waggish sales reps who shall remain mercifully unnamed, came the following, labelled: "The Qualifications of a Manufacturer's Agent":

of a Manufacturer's Agent": "Must be a man of vision and ambition, an after-dinner speaker, before and aiter dinner guzzier, night-owi, work all day and drive all night and appear fresh next day. Learn to sleep on the floor and eat two meals a day to economize on traveling ex-penses so he can entertain your friends in the next town. "Must be able to entertain customer's wives, sweeties and pet stenographers with-out becoming too amorous. Inhale dust, drive through snow 12-feet deep at 10 be-low and work all summer without per-spiring. "Must be a man's man, a ladies' man, a model husband, a fatherly father, a devoted son-in-law, a good provider (or your fam-ily will be gone when you return from the next trip). a Plutocrat, a Democrat. a Re-publican, a New Dealer, an old dealer and fast dealer, a technician, electrician, poli-tician, mathematician, polytechnician, ma-chinist and mechanic. "Must be a sales promotion expert, a credit manager, correspondent, attend all jobber clinics, dealer meetings, labor union weist customers in hospitals and jails once

a month, contact all accounts every six weeks, in spare time look for new business, contect delinquent accounts, do missionary work and attend factory sales conferences.
 "Sixteen years of age or over, married, single or divorced, sales ability unnecessary, unlimited endurance and stamina, wide range of telephone numbers in all principal cities and villares necessary for entertaining of sales managers.
 "Must have a car or good thumb, at fractive home or lodge (a tent will do), being to all clubs, pay all expenses at home and on road for 5 per cent commission, payable when factory floats a loan Price-fullering and bad-debts will be deducted from monthly commissions, plus 2 per sent chiseling and vad-debts will be deducted from mother presentative will be deducted from mother presentative sales' tax. A per cent clubary of the sales' tax and seltzer water benefit), and 2 per cent "lost sales' tax. All back orders will be deducted from the presentative will be deducted from the per cent clubary of the presentative will be deducted from the per cent clubary and seltzer water bases' to the difference in debits and check for the difference in debits and the check for the difference in debits and the price of the month.
 "Must be an expert driver, talker. Itar, fore, traveler, bridge-player, obker hound, for the mistry, chemistry, archarology, by chology, meteorology, criminal plantstry, chemistry, archarology, dogs, cats, horses and house trailers.

You may be interested in printing this little bit of humor about the parts business. I feel sure a lot of your readers will get a laugh out of it, just as I did.

LEON ADELMAN,

Cornell-Dubilier Elect. Corp. PLAINFIELD, N. J.

Specialty Selling Ethics

It appears to us that specialty merchandising is already the victim of too many subtly deceptive practices such as Caswell Oden seems to indorse in the part of his article which he subheads: 'We Sell Them All," on pages 20 and 21 of the August issue of your magazine.

To our mind, the expedient of promoting the formation of false or misleading impressions in the mind of a prospect could not be encouraged as a part of any sound sales policy and a salesman worthy of the title would not permit this type of thing to become part of his "bag of tricks."

> HORACE H. SMITH, Smith-Hackley

FREDERICKSBURG, VA.

COMPACTS CAN BE SOLD UP

(Continued from page 19)

the cabinet face and reemphasizes its distinctive styling.

In line with the softening of the square corner between cabinet face and top one set features a curved grille cloth which rounds the corner

and combines effectively with severely handled dial, buttons and control knobs.

The squared line of the cabinet top is softened by another manufacturer in carrying the broad base of wedge-shaped speaker louvre а slightly above the cabinet top.

In sharp contrast is one offering where a design which is modern in style emphasizes sharply cut corners, uses contrasting wood colors and severe dial and grille openings to make this even more evident. Another set uses, for the first time, both wood and plastic in its construction.

An ingenious variation used in one group is a sliding tambour top to a table phono-combination, reminiscent of the roll-top desk, in which a decorative panel slides over the phono mechanism when it is not in use.

Louvre openings are more than ever handled as functional to the design. One group of table models achieves really interesting effects with louvres which are carried vertically and bent to run across the cabinet top.

Of designs which are headed straight for the children's playroom, one features the "Quints," handles grille-openings and control knobs in a manner which gives most attractive display to the motif. Another features "Snow White."

One of the most startling departures seen in compact design is partial projection of a speaker out the top of a cabinet. This not only gives novel appearance but again is seen as functional. Technically, it avoids unidirectional effects.

Clever styling of tonal chambers for which improved quality reception is claimed gives these chambers a definite "bulge" in still another line, visually spotlighting a feature and at the same time achieving a difference in appearance.

"Personal" models and clever new designs with a little bit of extra styling or convenience divert the consumer's eye from "bare-poles" midgets.

Compacts can be sold up too!

E-R-G-E-E-Y RADIO

what it takes for 1940"

NEW INNOVATIONS, TELEVISION OUTLETS, BUILT-IN AERIALS, IM-PROVED PUSH-BUTTON TUNING.

ENTIRELY NEW AND AMAZING

DISTRIBUTOR

YOU'RE THERE WITH A CROSLEY

Measured by tube performance you'll give a customer more radio for his money with the Crosley line.

'has

Measured by prestige you're presenting one of the oldest names in radio.

Measured by quality there's no finer radio construction. Check the highest price sets for specifications like these . . . cadmium plated all metal spot welded chassis compensated for all temperature changes . . . switches with silver plated contact points . . . ballbearings in tuning mechanisms . . . etched dials . . . individually balanced speakers.

The startling effect of the

CURVEFLECTOR

tone distributor is that radio has no directional sound. Tone floods the room. One is conscious of greatly increased fidelity. It recalls the finest radio you ever heard, —which was probably the most expensive you ever saw. We feel safe in saying that Crosley CURVE-FLECTOR Radios sound the equal of those twice their price. This definite contribution to radio art is at NO PREMIUM—The Crosley Radios that incorporate it are as ALWAYS the most radio for everybody's dollar.

PRICES PLUS PROFITS

The Crosley line begins at \$7.99, a low priced standard quality set to meet ANY competition—20 low priced, high profit table models for easy step-up from price leaders. 3 consoles from \$39.95 to \$69.95. 3 radio-phonograph combinations from \$49.95 to \$114.50. 2 portables beginning at \$18.50 including batteries. 3 auto radios beginning at \$14.99—8 long-life battery sets.

Prices slightly higher in South and West

THE CROSLEY CORPORATION POWEL GROSLEY, Jr., President CINCINNATI WLW—Home of "the Nation's Station"-70 on your dial.

See the Crosley Building at New York World's Fair



ABOVE — Combination radio-phonograph with Capehart Automatic Record-changer—superheterolyne circuit, push buttons for tuning favorite stations — incorporates new CURVEPLE/CTOR (tone distributor) an amazing sound baffle that provides greatly improved tone. Constant speed motor—bighly sensitive pickup—\$114.50.

BELOW—SEXTETTE bakelite table model—no ground connection required. Push buttons tune favorite stations. Knob tuning with edge lighted etched gluss dial. Design of cabinet and assembly of speaker provides unusual tone for such a small set—\$14.49.



www.americanradiohistory.com



ABOVE—Exclusive Portable radio operating on batteries or AC-DC current that contains automatic changeover switch, (Flug in when near any socket). Sayes batteries. Corticoncealed, As in all Crosley radius—more performance per dollar—S23.95 including batteries.

BELOW—Large 3 band CURVEFLECTOR Console. Radio's greatest value today—improved push buttons tune favorite stations. Big cabinet provides unusual sound baffle for extraordinary tone—\$69.95.



7 TUBE RADIO PHONO WITH AUTOMATIC RECORD CHANGER

COULD DO IT!

mital

The most sensational value in radio-phonographs ever offered! 7 tube AC superheterodyne has automatic tuning (6 push-buttons) ... 12" electro dynamic speaker ... television sound and microphone connections ... illuminated slide rule dial ... automatic volume control. Tunes 2 bands (535-1730 K.C.; 5.65 — 8.1 MC). Automatic record changer plays 10" or 12" records. Smartly styled cabinet is a knock-out in appearance. Admiral leads again!

ONLY

6 TUBE AC-DC SUPER With Automatic Tuning

Model 399-6M—6-tube AC-DC superhet with RF stage of amplification developed for efficient performance in "difficult" localities. Two bands get police, amateur and broadcast programs. Equipped with Aeroscope—no aerial! no ground! no noise! Has automatic volume control variable tone control—automatic tuning (4 push-buttons)—illuminated slide rule dial—5" electro dynamic speaker—television sound connections.

NEW Admiral PORTABLE with 50% more volume

RADIO & TELEVISION

3800 W. Cortland St.

CONTINENTAL

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CORP.

Model 392-