

RADIO

*and
Television*

RETAILING

NOVEMBER • 1939

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TUBE PLAN REACTION

LAST MINUTE NEWS

LATEST NEW PRODUCTS

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NEW TESTER LISTING

CIRCUITS OF THE MONT

MARINE RADIO DOPE

and other featur

RADIO Solves the CHRISTMAS GIFT Problem (Story on page 1

A
McGRAW-HILL Publicati
Price 25c





*Don't be decoyed
by a condenser
that just looks like an*

***FP (Fabricated Plate) CAPACITOR**

TRADE MARK
REG. U. S. PAT. OFF.

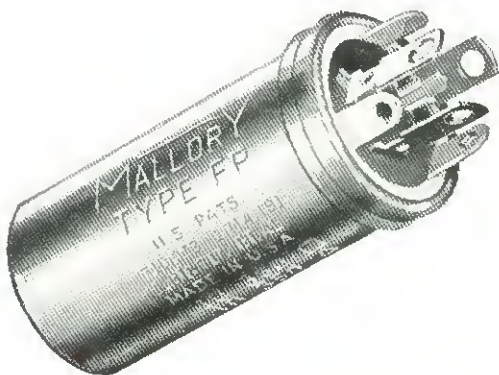
You can no more expect FP (Fabricated Plate) Capacitor performance out of any other condenser . . . no matter how much it may look like an "FP" . . . than you could expect flight from a wooden duck.

It was only natural that the success of FP (Fabricated Plate) Capacitors would invite imitation in appearance. But the *real* difference *cannot* be imitated. FP (Fabricated Plate) Capacitors are constructed by a patented process that involved great investments of time and money to develop. The result is a capacitor that sets a new high in characteristics and performance.

Low R. F. Impedance . . . better filtering efficiency . . . surge proof construction . . . smaller sizes without a sacrifice of safety or efficiency . . . freedom from corrosion . . . these are just a few of the revolutionary features of FP (Fabricated Plate) Capacitors.

**Over a Million Now in Use
As Original Equipment**

Best evidence of the superiority of FP Capacitors has been their prompt adoption by leading set manufacturers. In addition to the million already in use, future schedules call for the use of millions more. You'll be seeing them in all leading sets . . . and although they are being imitated in appearance, you can identify them by the number (1) or (3) in a circle, stamped on every genuine Fabricated Plate Capacitor.



**Every Desired FP Characteristic
in MALLORY Fabricated Plate
Tubular Condensers.**

Mallory Type HB Condensers are Fabricated Plate construction in a one piece drawn aluminum can. Each is 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 construction for replacement capacitors. The sooner you call your Mallory-Yaxley distributor and place your order . . . the sooner you'll shake hands with better profits.

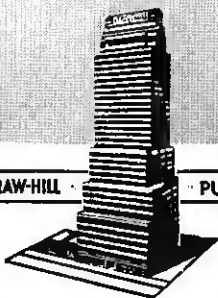
Use
P. R. MALLORY & CO., Inc.
MALLORY
REPLACEMENT
CONDENSERS . . . VIBRATORS

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

Use
YAXLEY
REPLACEMENT
VOLUME CONTROLS

*NOT etched construction

RADIO *and Television* RETAILING



A McGRAW-HILL PUBLICATION

NOVEMBER 1939

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SALES STATIC . . . What do you mean the tubes are old! I just put in new ones two years ago

After an introductory year in which the momentum of the great Philco name, the public demand and trade preference for a Philco product swept us far beyond our first year's quota . . .

PHILCO is Now Ready to Forge Ahead in Refrigeration with the

New 1940 PHILCO REFRIGERATOR

- **AN ENTIRELY NEW REFRIGERATOR**—*new* inside and out—completely redesigned from top to bottom by Philco.
- **PRESENTING** *every* up-to-date refrigerator feature science has conceived.
- **PLUS** brand-new improvements and inventions developed by Philco's refrigerator engineers and presented for the first time in the new 1940 Philco Refrigerator.
- **EYE-APPEAL AND BUY-APPEAL**—the most beautiful refrigerator ever designed, offering the most *complete* service in the refrigerator field.
- **AND NOW NAMED** the "Philco Refrigerator", a full-fledged member of the Philco family.
- **A FULL LINE** of outstanding values to clinch sales in *every* price bracket.

Philco All Year 'Round for Profits All

For 1940 — Isn't THIS the Kind of Refrigerator Proposition You'd Like?

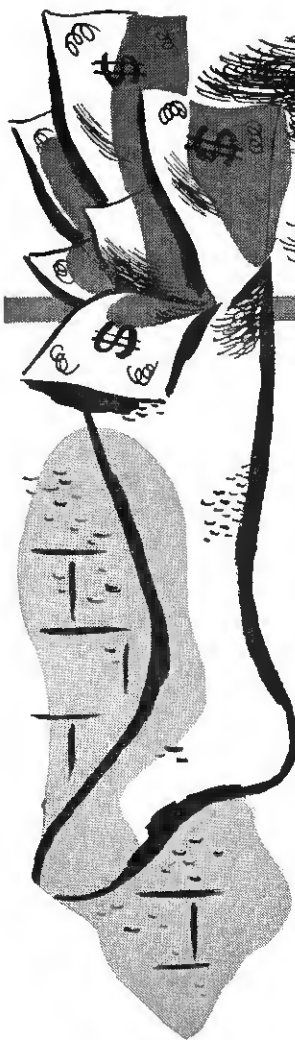
- 1- A superior quality product with new, exclusive, advanced features that your salesmen can "get their teeth into" and your customers instantly see and appreciate.
- 2- A product with a NAME . . . with REAL public acceptance.
- 3- A company behind the product that *knows* the appliance field, that specializes in appliance merchandising, that devotes its *entire* thoughts and activities to *your* problems and *your* profits.
- 4- The backing of a powerful advertising campaign in the national magazines and your local newspapers . . . plus a steady stream of promotional plans and material.
- 5- A strong, aggressive distributing organization that's schooled in merchandizing, experienced in service and not only supplies you with merchandise but goes all the way in local advertising and promotion to help you make sales.
- 6- A price structure that keeps you competitive and a discount policy that gives you the margin to make real money.

Coming Soon!

Year 'Round

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

More Christmas Profits



FARNSWORTH RADIOS are moving . . . *and how!* Farnsworth dealers are making money *now* . . . will make more this Christmas!

Here's one of many enthusiastic comments that have poured in from dealers all over the United States:

"I have had the Farnsworth Line in for only two weeks. I put it on the floor, right beside two other radio lines in my stock. I can tell you, honestly, this new line *is the hottest thing I've ever handled.* I'm selling more Farnsworth Radios than both of the other lines combined."

Christmas is just ahead

The Farnsworth Line offers you the biggest Christmas opportunity in many years . . . with outstanding radio gifts for every purse and purpose. A small table model for children *to hear their own programs.* A second model for bedrooms. Portables to send back to school with the children. Superb radio-phonograph combinations that make a

wonderful group-gift for the entire family. Study the representative models and their superlative features on the opposite page.

Prices are competitive

Set a Farnsworth Radio beside any comparable competitive model on the floor and its easy-to-see value will get the sale every time. And **YOU** get a *proper margin of profit!*

Turn Christmas into cash!

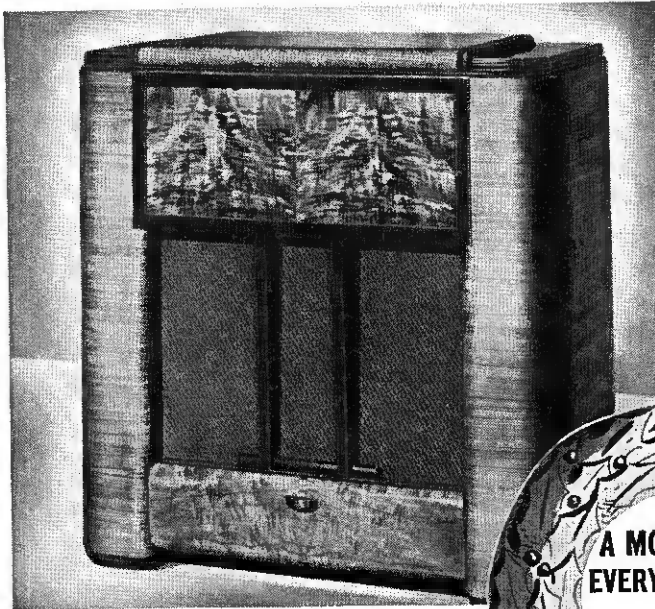
See your Farnsworth distributor now. Get the special Farnsworth Christmas display material.

Build your Christmas business around a representative window and floor display of Farnsworth Radios. Tag them . . . "For Dad" . . . "For Mother" . . . "For Sister" . . . "For Brother" . . . and so forth. Push this Farnsworth gift idea for the holidays ahead . . . and your cash register will ring with the merry jingle of Christmas profits.

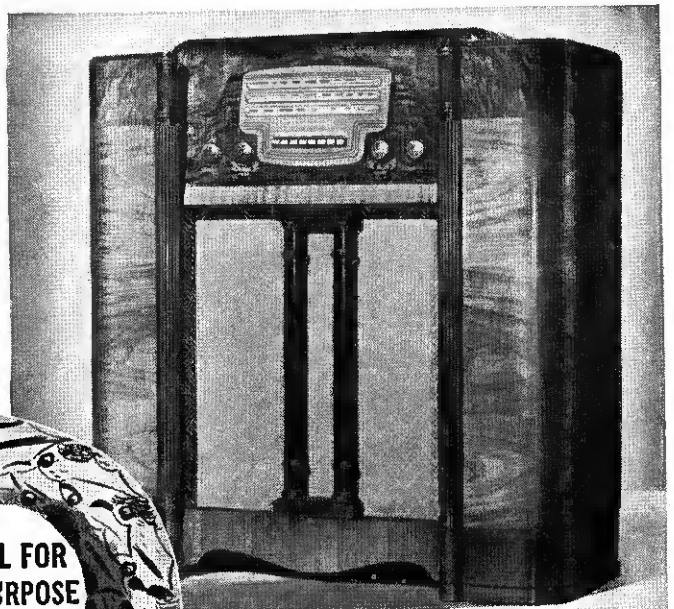
FARNSWORTH TELEVISION & RADIO CORPORATION, FORT WAYNE AND MARION, INDIANA

with Farnsworth

★ **A WONDERFUL GROUP-GIFT** for a family to chip in and buy. Every line of this beautifully proportioned radio-phonograph combination (AK-76) sings "What a buy!" 8 tubes. Flo-Lite dial. 3 wave bands. Shielded loop Bilt-In-Tenna. Push-button tuning. Compartment for records. Capehart record-changer. Television sound-connection. The low price will surprise you!



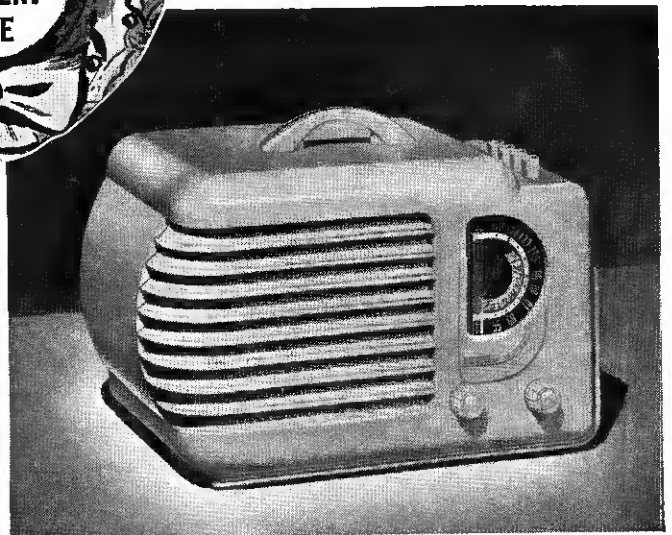
★ **A SPLENDID PRESENT FROM HUSBAND TO WIFE.** A charming low-boy console (AC-91) in a modern interpretation of period decoration. 10 tubes. Flo-Lite dial. 3 wave bands. Automatic volume control. Shielded rotatable loop Bilt-In-Tenna. Push-button tuning. Beam power output. Phonograph and television-sound connection. A model that's made to move fast—right now!



A MODEL FOR
EVERY PURPOSE
FOR EVERY
PURSE



★ **FOR A SON OR DAUGHTER AT SCHOOL.** Or for family outings. Smart portable model (AT-31)—takes entertainment wherever your customers go. 5 tubes. AC-DC current or battery operation. Bilt-In-Tenna. Dial light on both AC and DC operation. At a price that makes customers want to pick it up and take it with them.



★ **FOR THE SMALL SON** who wants to hear his cowboy program. Suggest this plastic model (AT-15) as an ideal gift for his room. Just as convenient and attractive for the master bedroom. 5 tubes. AC-DC superheterodyne circuit. Push-button tuning for 4 stations. Bilt-In-Tenna. A lot of radio for a little money.

45 VOLTS THAT

LONG-LASTING, SENSATIONALLY SMALL



Actual size

EVEREADY
TRADE-MARKS
MINI-MAX
BRINGS THE
"B" BATTERY
BACK INTO
BIG
TIME

JOLTED AN INDUSTRY

28 PORTABLE MANUFACTURERS now building 1940 sets around "MINI-MAX" 45-volt "B" battery... a real break for "EVEREADY" dealers and distributors!

IMMEDIATELY upon the introduction of the "Mini-Max" 45-Volt "B" battery, 28 manufacturers of portable radios made a decision that vitally affects "Eveready" dealers.

They decided that the "Mini-Max" was to be the basis for their 1940 plans . . . they decided to build their portable sets around this amazing new battery. It's a cinch to know why . . .

"Eveready" "Mini-Max" offers the same number of listening hours as the conventional battery twice its size! And size for size it gives double the hours of service of conventional batteries!

Lastly—and most important—the compactness of the "Mini-Max" battery makes possible a portable that's really portable—and really practical!

No "Eveready" dealer has to look twice to see a tremendous, permanent market for this outstanding battery. For replacement alone it can efficiently power the majority of more than 300 models of portables, thousands of which are already in use. The "Mini-Max" "B" battery is *so good* . . . so

completely alone in its combination of small size, lighter weight ($\frac{1}{3}$ less), and long life . . . that no other replacement battery can touch it. And no consumer who has used it will touch anything else!

Here are some of the Top-flight portable radio Manufacturers using the "Eveready" "Mini-Max" "B" Battery:

ARVIN	GAROD	SONORA
CLIMAX	GENERAL ELECTRIC	SPARTON
COLONIAL	HOWARD	STEWART WARNER
CROSLEY	KADETTE	STROMBERG CARLSON
DEWALD	MAJESTIC	TRAV-LER
EMERSON	MISSION BELL	TROY
ESPEY	PACKARD BELL	WESTINGHOUSE
FADA	RCA	WILCOX-GAY
FARNSWORTH	SENTINEL	<i>And Others!</i>
GALVIN (MOTOROLA)	SKY CHIEF	

NATIONAL CARBON COMPANY, INC.

General Offices: New York, N. Y., Branches: Chicago, San Francisco

Unit of Union Carbide  and Carbon Corporation

The words "Eveready" and "Mini-Max" are registered trade-marks identifying products of National Carbon Co., Inc.

The IDEAL GIFT is ANY Emerson

See and Hear these Brilliant New Additions to the 1940 Quality Line



"3-WAY" PORTABLE

1. Plays on A.C.
2. Plays on D.C.
3. Plays on Its Own Power—Anywhere (No Plug-In)

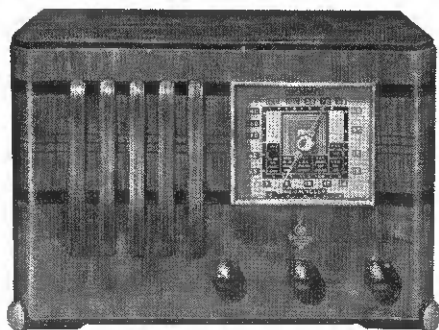
Model DJ-310—With "Miracle Tone Chamber"

Choice of Three Colors—Blue with Ivory Trim; Ivory with Brown Trim; Simulated Pigskin.

Standard Broadcasts • 6-Tube Superheterodyne • "Inner-Ceptor" Loop Antenna • Permanent Magnet Dynamic Speaker.

\$24.95

COMPLETE



Deluxe Model CG-318 (Above) With "Miracle Tone Chamber"

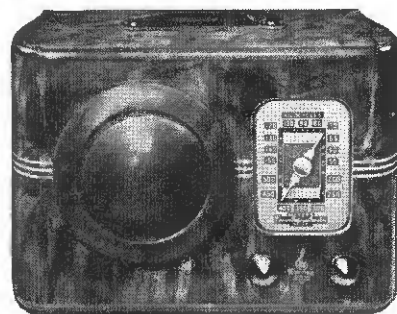
5 Tubes and Ballast • AC-DC Superheterodyne • Standard Broadcasts, All Police Calls, Foreign and American Short Wave • Electro Dynamic Speaker • Cabinet of selected butt walnut.

\$24.95

Deluxe Model CS-320 (Left) With "Miracle Tone Chamber"

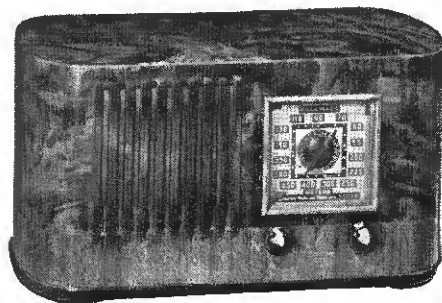
6 Tubes and Ballast • AC-DC Superheterodyne • American, Foreign, Police • 6½-Inch Electro Dynamic Speaker • Television Terminal • Cabinet of Selected butt and striped walnut.

\$29.95



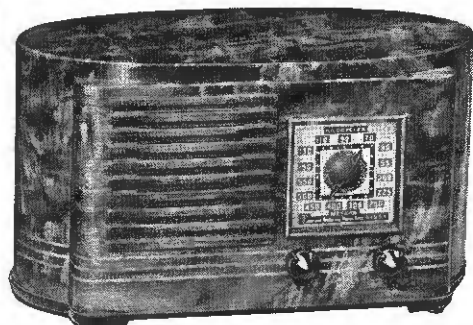
Model DB-315—Deluxe Cabinet with "Re-Flex Miracle Tone Chamber"

Standard Broadcasts • 5-Tube AC-DC Superheterodyne • "Inner-Ceptor" Loop Antenna • Electro Dynamic Speaker • Cabinet \$19.95 of selected matched butt walnut.



Deluxe Model CV-313—With "Miracle Tone Chamber"

5-Tube AC-DC Superheterodyne • Standard Broadcasts • "Inner-Ceptor" Loop Antenna • Electro Dynamic Speaker • Cabinet \$19.95 of selected matched butt walnut.



Deluxe Model CV-316—With "Miracle Tone Chamber"

Standard Broadcasts • 5-Tube AC-DC Superheterodyne • "Inner-Ceptor" Loop Antenna • Electro Dynamic Speaker • Cabinet \$22.95 of selected matched butt walnut.



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

The RADIO MONTH

NOVEMBER

1939

MOST encouraging sign seen on the horizon in many moons was the average **UNIT PRICE INCREASE** clicked off by set-selling dealers during October as against September and reflected in trade reports analyzed elsewhere in this issue. We're just as much impressed by unit sales totals as the next man but like to see that old dollar index keep step Equally encouraging was the almost universal acceptance of **NEW TUBE SCHEDULES** by both distributors and retailers and the "in turn" establishment of uniform discounts by most jobbers. There's not much margin for price-cutting, even for gents so inclined Makers of **SIDE COWL ANTENNAS** have their work cut out for them this season, unless we miss our guess after pre-viewing 1940 cars. A lot of the new gas-buggies now curve their side cowls so that a rod has to have one insulator shorter than the other and diagonal holes to mount. Trick curves at this point of a car's anatomy are not, however, universal so unless antenna makers really get a hot adjustment idea the trade may need double stocks **INTERFERENCE FILTERS** have been going like hotcakes around New York's waterfront lately and we wondered why, discovered that seamen on both trans-Atlantic and coastwise hookers are buying them up so that they can quiet electrical stuff in and around their cabins and listen to war news via shortwaves. Most sailors, we find, are nuts about radio, especially broadcasts from their home country Checking up among the trade to determine reactions to new tube prices and discounts already mentioned

we found quite a lot of discussion about the multiplicity of types now needed to form a decent dealer stock, were often told that simplification or some sort of **TUBE TYPE LIMITATION**, was the next logical step for manufacturers to take. Factories say it is tough to tell where to draw the line without "doing an ostrich" on real technical advances, are still trying to unravel the problem through an RMA committee If your wife has been bitten by the record bug you'll know that storing discs around a home from which suitable cabinets have been absent since the old acoustic phono days is no small problem. That's probably what accounts for the increasing popularity of many new types of **RECORD RACKS** and cabinets coming on the market every day. Accessories like these, right in our own field, should be welcomed with open arms Current issue of "Fortune" throws a nice figure right into our lap. The mag says 79 per cent of the buying public would rather **GIVE UP THE MOVIES** than radio **FREQUENCY MODULATION** receiver introduced by a prominent radio manufacturer this month omits final audio amplification and speaker, plugs into the audio jack of any good standard radio. This stunt was applied to television some months back, is still working out satisfactorily for all concerned, seems a smooth way of dovetailing the present and the future to the advantage of both "Radio Daily" says cars equipped at the factory with radio in 1939 ran: Willys 9 per cent, Ford 22, Chevrolet 22, Plymouth 23, Dodge 33, Nash 33, Hudson 33, Pontiac 36,



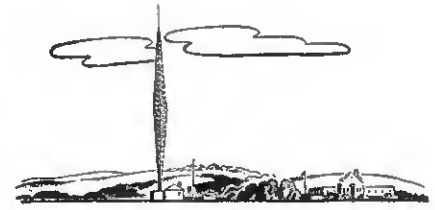
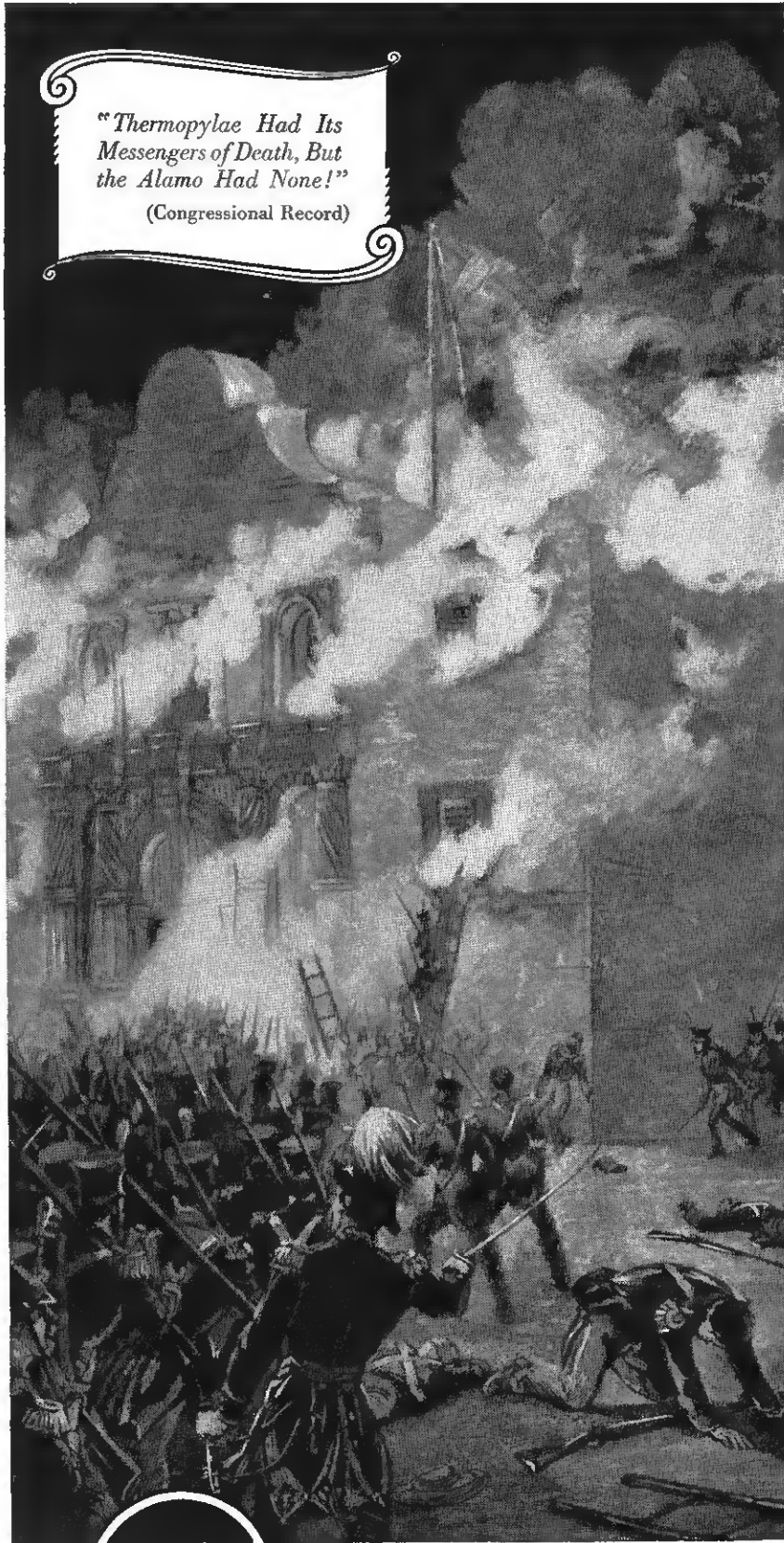
OUR COVER Can't compete with neckties? We know that. But exaggeration seemed one way to dramatize the fact that most dealers are so intent upon getting family replacement radio business at this season, they let gift "gravity" extra set sales go by default to much more commonplace competitive commodities

Oldsmobile 37, Packard 38, DeSoto 40, Buick 52, Chrysler 55 and Cadillac 60, thinks the percentage will up between 10 and 15 per cent next year on **FACTORY EQUIPPED CARS** NBC's October gross billings were up 11.8 per cent over last year, CBS' up 41 and Mutual's up 23.1, boosting the quality and quantity of "raw material" upon which our own business thrives Two thousand consumers in Philadelphia, St. Louis and San Francisco were asked in September what they want for Christmas. **RADIO AS A GIFT** placed sixth with men, fifth with women, same as last year. Only items higher in a field of 17 were clothing, automobiles, jewelry (women) household goods (furniture?) personal accessories and (men) sporting goods **FACTORY PRODUCTION** on all radio items is still up in the clouds as we go to press. What with continued heavy orders from the trade, particularly for certain fast-moving models, and raw material shortages it looks like at least another month before manufacturers in general get out from under.

W. MacD

*"Thermopylae Had Its
Messengers of Death, But
the Alamo Had None!"*

(Congressional Record)



RADIO could have rallied help for the Alamo

The tiny band of brave Americans besieged in the Alamo in March, 1836, by Santa Anna and his 4,000 troops fought a hopeless battle. Shut off from the rest of the world, they perished because they had no means of communicating their plight to their fellow countrymen.

Today Radio would carry the news as instantly as it brought the world news of Europe's new cataclysm.

R. C. A. Communications provides radio communication to and from 43 countries and among leading cities of the United States. This great communications system has already played a stellar part in keeping the world enlightened about the present critical events in Europe.

The National Broadcasting Company, another service of the Radio Corporation of America, has thrown the resources of its two nation-wide networks into the cause of making and keeping America the "best informed nation in the world."

Discoveries made in RCA Laboratories are incorporated in equipment manufactured by the RCA Manufacturing Company so that America can have at its command the most advanced means of radio transmission and reception.

The services RCA renders to radio offer unmatched opportunities for dealers. By helping make radio great . . . RCA helps to increase your volume of business and your profits. Experience proves it pays to go "RCA All the Way."



Radio Corporation of America
Radio City, New York

RCA Manufacturing Company, Inc.
National Broadcasting Company

Radiomarine Corporation of America
R. C. A. Communications, Inc.

RCA Laboratories
RCA Institutes, Inc.

RAYTHEON
 HELPS REVEAL THE SECRETS
 OF THE
 AFRICAN JUNGLE!



**Raytheon-equipped Transmitters and Receivers
 Are Used on the Gatti Expedition . . .**

Into the heart of the African Jungle, the famous Gatti Expedition is pushing its way through virtually unexplored territory, peopled with little known savage tribes and more savage animal life. Radio is the sole link with civilization!

Tubes do not grow on trees in Africa, and space being very limited, Commander Gatti experimented until he found *the tube he could rely on*. Like almost all scientific expeditions—it was RAYTHEON.

They are identical tubes—taken from stock—which otherwise you might have used as a replacement in Mrs. Jones' radio set! That is the kind of tubes RAYTHEONS are. *One quality. Judged by scientists everywhere—the best in the world!*

Get started now giving your customers the best. You will be surprised how it will increase your prestige, turnover, profits and goodwill. By acting now you can have all these advantages without costing you any more than tubes scientists brush aside.



RAYTHEON

"WORLD'S LARGEST EXCLUSIVE RADIO TUBE MANUFACTURERS"

Compare them with any other combination



You'll agree these two new

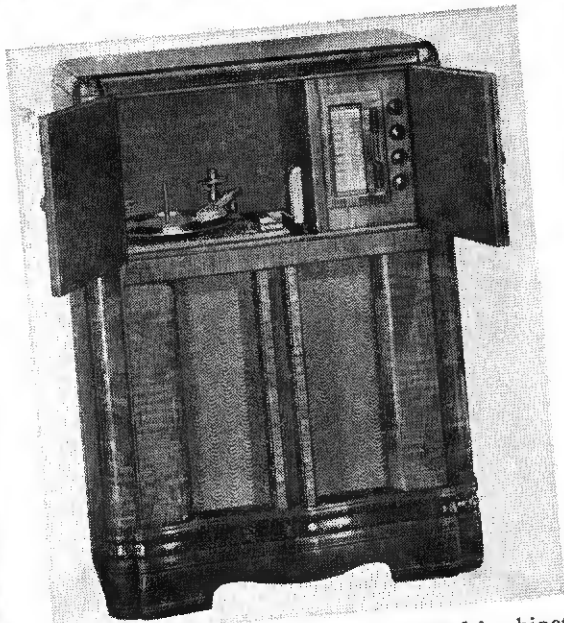
1940 RCA Victrolas

are unmatched

★ IN BEAUTY

★ IN PERFORMANCE

★ IN VALUE



RCA Victrola Model U-42 has a delightful cabinet with doors opening from front; Protecto-Tone Seal which closes turntable compartment *sound tight* so that only the pure Victor Tone is heard. Phonograph features Automatic Record Changer, bass and treble tone control, newly designed tone arm for quick, easy needle changing. 7-Tube Push-Button Tuning radio (plus Magic Eye) provides reception of American and Foreign stations, has Magic Loop built-in Antenna, Push-Pull Amplifier and 12" Electro-Dynamic Speaker for full, rich tone. Plug-in for Television Attachment and Television-Victrola Switch.
 For finer radio performance - RCA Victor Radio Tubes
 Trademarks "RCA Victor" and "Victrola" Reg. U. S. Pat. Off. by RCA Manufacturing Co., Inc.



RCA Victrola Model U-40 is an outstanding value. Phonograph has Automatic Record Changer, Improved Viscaloid Damped Pick-up, 6 watts Push-Pull Output, 3-position bass-treble Tone Control, top needle loading tone arm, and other fine features. Radio has Push-Button Tuning for 6 stations, Built-in Loop Antenna, Plug-in for Television Attachment. Receives American and Foreign stations.

For best results, use Victor Needles



RCA Victrola

RCA Manufacturing Company, Inc., Camden, New Jersey
 A Service of the Radio Corporation of America

RADIO *and Television* RETAILING

NOVEMBER, 1939



PRIVATE APARTMENT—Patrons of the hotel who have conventional radios get the programs by tuning in on them just as they tune in broadcast stations

HOTEL CLOSET—Telephoned music modulates this miniature transmitter pumping r.f. signals directly into the customer's master antenna system

"Community" Record-Player

CRoss between wireless record-playing and wired radio was the service demonstrated by *Wire Broadcasting Corporation of America* October 19 in New York's "Essex House."

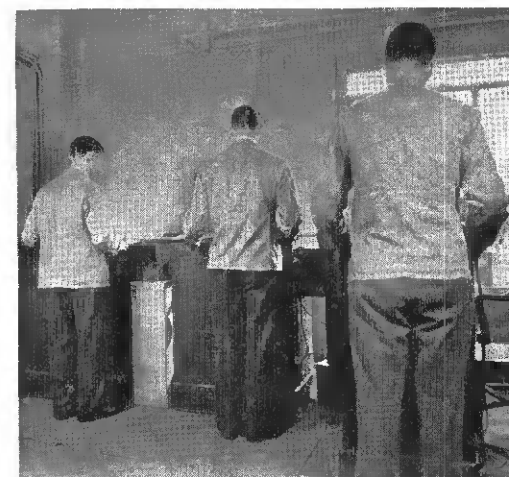
To all 625 patrons of that residential hotel having conventional radio receivers attached to the building's master antenna system, two additional programs automatically became available. One channel provided a straight diet of dance music, the other concert selections. Both programs were continuous from 11 a. m. to 3 a. m. next morning, had been completely shorn of commercial announcements. All residents had to do was tune them in, just as they tune in regular broadcast stations, on their own sets.

Feature of the new system distinguishing it from similar services was the fact that regular radio receivers served the ultimate con-

sumer in the usual way. Neither accessories nor adjustments were required in individual apartments. Nor was it necessary for the hotel management to install additional wiring to the rooms served.

In *Wire Broadcasting's* distant studios operators played special "hill-and-dale" cut recordings on turntables, fed the electrical output of the pickups through audio amplifiers into leased and compensated telephone lines. At *Essex House*, miniature transmitters set up in a closet were modulated from the 'phone lines, fed r.f. signals on 1040 and 1100 kc. by direct connection into the hotel's master antenna system downloads.

Shielding and filters served to avoid radiation by the antenna itself. Signal level was maintained slightly higher than the strongest local broadcast station to minimize extraneous noise.



CENTRAL STUDIO—Programs originate here, in an office building, go out to subscribers via leased telephone lines

The Retail RADIO Picture

ON November 1 radio dealers appeared to be in materially better shape than a year ago.

Set sales in the month just over were reported up 28 per cent in units, up 24 per cent in dollars and the average consumer purchase hovered near \$41. Receiver stocks were barely 16 per cent above 1938.

Retail service income was indicated to be 5 per cent greater in October 1939 than in October 1938.

Replacement tubes clicked off an equally modest but quite acceptable 3 per cent cash gain.

September "Too Good"

Most encouraging development during the month was a noticeable step up in the average sale. \$41 was still a whisker below last year but better than the \$36 figure recorded in September. The improvement is generally attributed to the fact that September buyers were in something of a rush to get war news, were prone to buy cheap radios to meet this unexpected domestic emergency.

Substantially higher than last

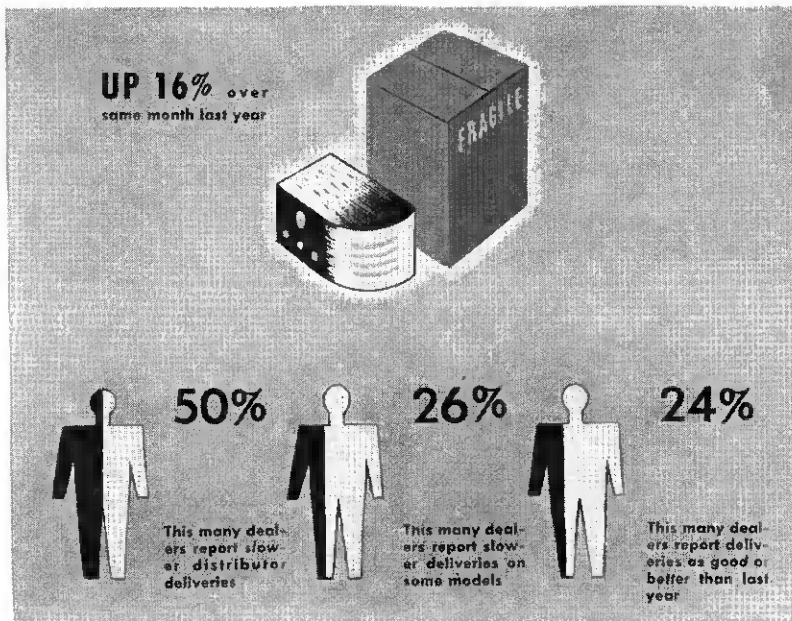
October retail set sales up 28% over last year. Average dollar value slightly under 1938 but well above September. Tubes, service register slight gains but fail to repeat last month's phenomenal spurt

By W. MacDONALD

year, unit receiver sales met most retail expectations but there were dealers who, dazzled by the tremendous jump the month before (See "How the Trade Stands," October issue), expected demand to continue at the same abnormal rate and were moderately disappointed. Despite better service department business than in October 1938 men primarily concerned with such revenues were even more prone to yearn for repetition of September totals for in this month broadcast news importance brought in a veritable flood of orders that tapered to

more normal volume in October. Tube sales, in very much the same category as repairs, likewise failed to live up to the promise of the spectacular September surge insofar as dollar income was concerned although better in October than the year before. In units, the tube picture was actually better than our charted dollar figure at first glance might appear to indicate for in October new and lower lists went into effect, requiring dealers to sell more tubes for a given gross.

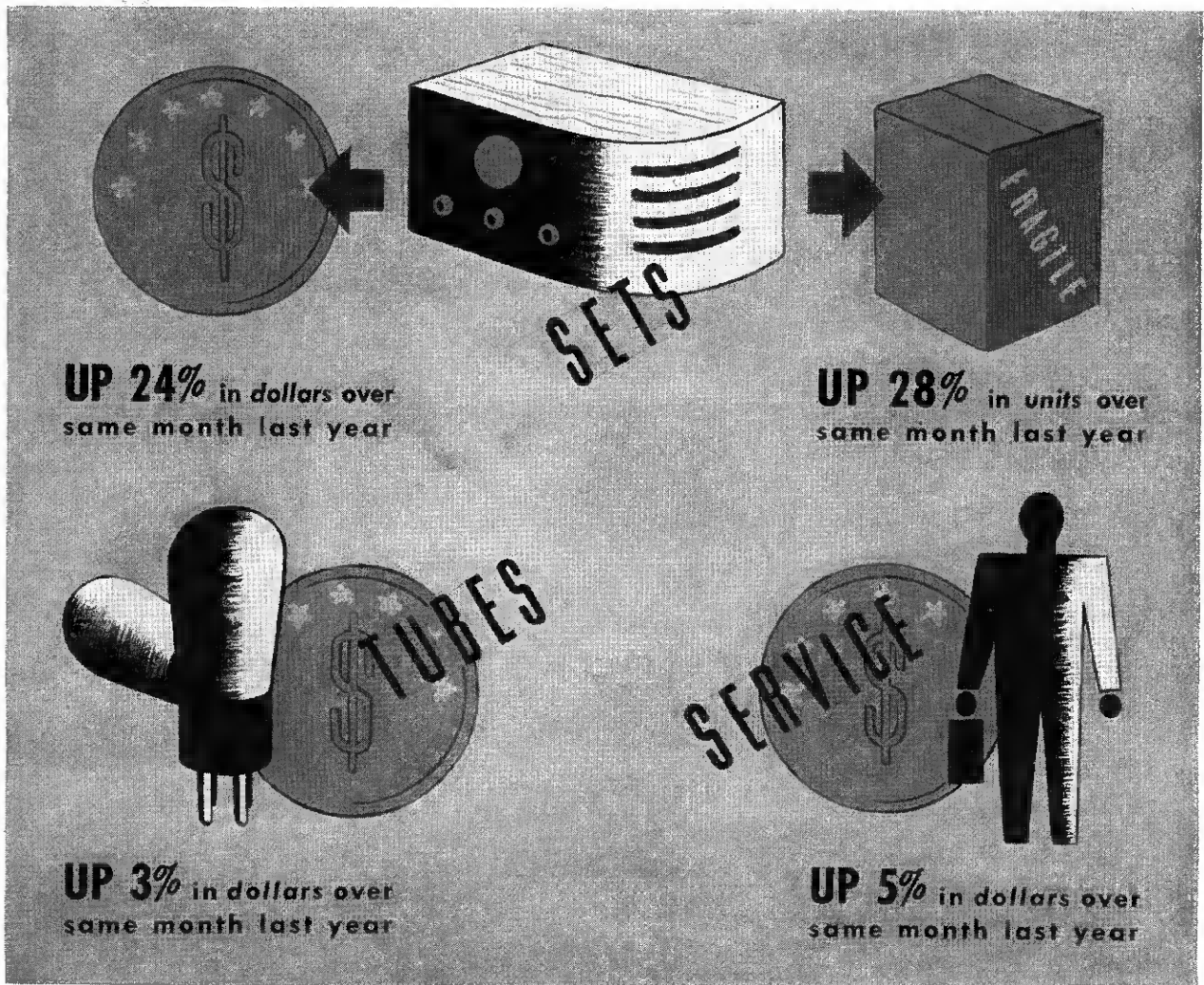
On the basis of these latest figures from the field it seemed obvious at



November 1 Set STOCKS



Future PROSPECTS



October SALES

presstime that retail radio business continued steadily on its way toward more profitable volume levels in October but not at the dizzy September pace.

Triplicate Orders?

Retail receiver stocks were not as high in October (16% above the previous year) as in September (31% over 1938). Dealers apparently made substantial inroads into sets on hand during the month. Or distributor deliveries, reported last month to be satisfactory by 47 per cent of the trade, showed the first broad scale tendency to trail.

Of the key accounts contacted 50 per cent said distributor deliveries in general were not as good as last year and not a few reported loss of some business as a result. Another 26 per cent said they were having trouble getting stocks of specific fast-moving models but could not complain about shipments other

than these. The remaining 24 per cent reported deliveries as good and, in some instances, better than during October 1938.

(Discussed privately among the trade was the possibility that manufacturers, feeling the pressure of heavy distributor orders, might easily over-produce in the month just ahead if not fully aware of the fact that while consumer demand warrants substantial production increases over last year there is undoubtedly a certain tendency among dealers to order in duplicate and even triplicate to make sure of delivery).

"Feeling Fine. Thank You"

No change in dealer attitude regarding the receiver types likely to be in greatest demand in the immediate future was noted. (See "Types in Demand," page 14, October issue).

Again we induced dealers every-

where to commit themselves on the question: "Are you Optimistic or Pessimistic about radio business in the months ahead?" With positively uncanny (to us) uniformity 79 per cent replied: "Optimistic" . . . precisely the same number that looked on the bright side just a month ago.

We asked still another question that has a direct bearing on radio business, particularly this month and next. "Have any of your customers inquired about television, or frequency-modulation, in the last 30 days?" Fully 70 per cent replied with an unqualified "No." 29 per cent said they had had a few inquiries about television but two-thirds of these were classified as "casual." 8 per cent reported a few consumer inquiries relative to frequency-modulation.

Both topics, we note, still much more widely concern the trade than the public.

Christmas GIFT Money..

Methods most successful last year analyzed. Best planned in November, started well before holiday

A LOT OF PEOPLE are sold radios each Christmas but I have a deep-rooted conviction that too often we merely move up to December business that would probably fall into our lap anyway next May.

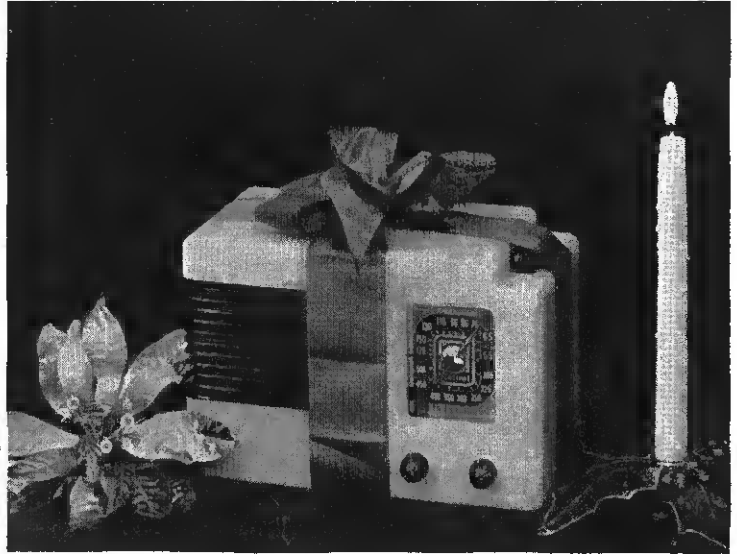
Consumers frequently buy Consoles and Combinations and Compacts while under the spell of the mistletoe because they have sadly needed new sets in their own homes for some time. The little man with the whiskers supplies the necessary extra push and, for this, all retailers are duly grateful.

But the real, honest-to-goodness advantage of the season is the unique opportunity it offers to sell people sets they intend giving to others who can use them (and will be delighted to have them) but might not spend their own dough to buy them in a month-of-Sundays.

This kind of business, the true gift business, is "gravy." It's "extra." It's clean. It's fought for by retailers of everything from Sachet to Statuary. More of it ought to be yours. And you would be doing the consumer, as well as yourself, a distinct favor in many cases if you got it.

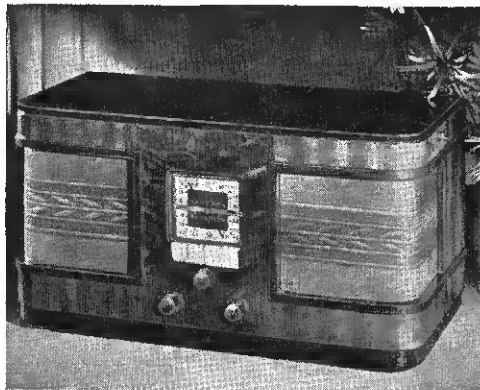
Do you realize how perfect radio is as a Christmas gift? And, what's more important, have you told everybody, and told them loud enough that it is?

Every radio has high eye-value, makes an impressive package. This is of primary importance to most gift-givers. Too expensive to compete with conventional stuff? Nonsense. Except for the five-and-dime variety of trash, radio is right in



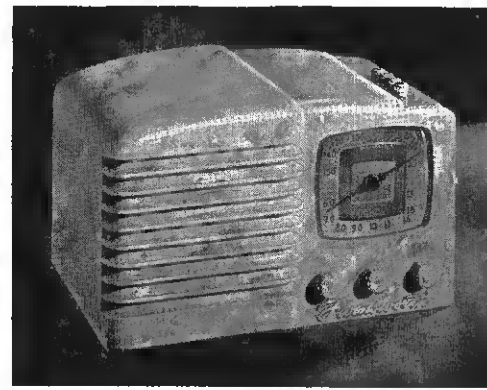
SENTINEL

195ULTA



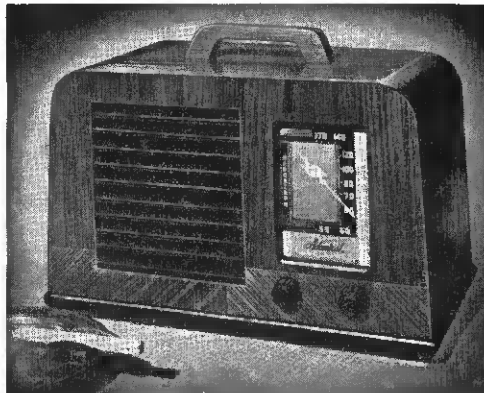
GENERAL ELECTRIC

H632



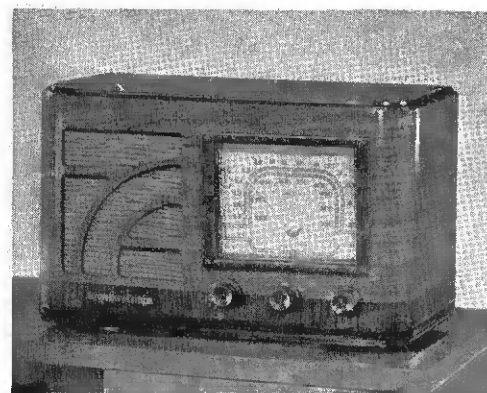
FARNSWORTH

AT21



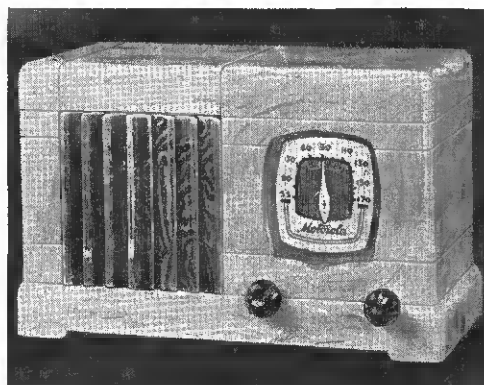
ADMIRAL

3845S



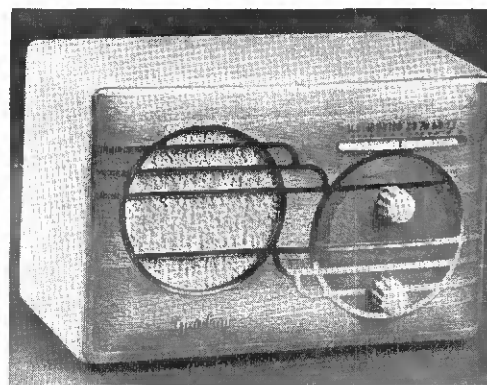
STROMBERG-CARLSON

400H



MOTOROLA

52C



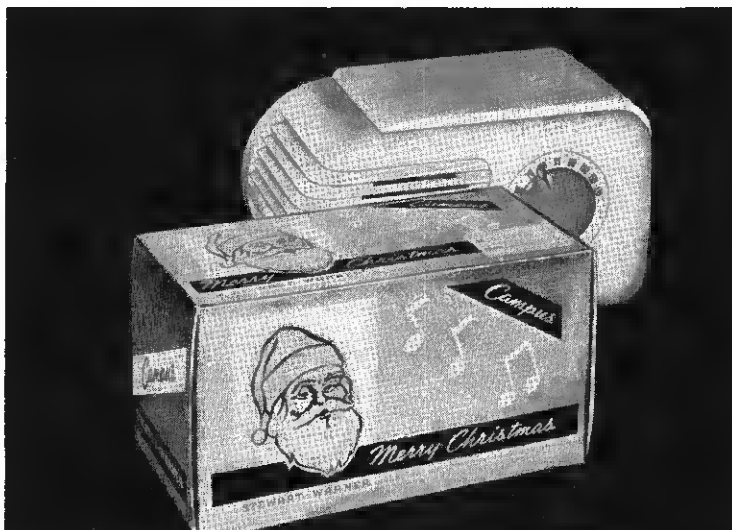
SPARTON

Cloisonne

**Small Sets That HAVE WHAT IT TAKES
Play Up the PERSONAL Models**

...How to Get Your Share

By
FRED MERISH



STEWART-WARNER

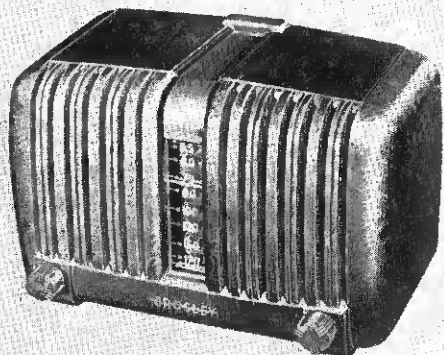
Campus

Why RADIOS Make PERFECT PRESENTS

They Have

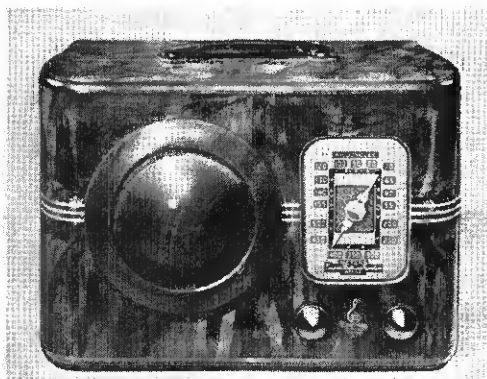
- 1—**EYE-VALUE...**
make an impressive "package"
- 2—**PRICE RANGE**
fit the giver's purse
- 3—**PERSONAL APPEAL...**
yet please entire families
- 4—**ACCEPTANCE...**
anyone can use another
- 5—**LUXURY...**
yet are extremely practical
- 6—**USEFULNESS...**
but not at the expense of novelty

and they offer a welcome
change from hackneyed gifts



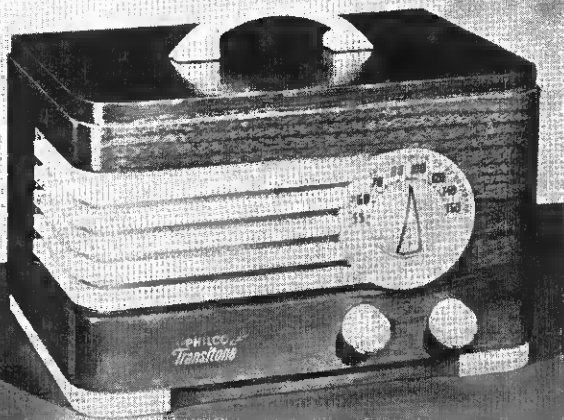
CROSLY

519A



EMERSON

DB315



PHILCO

PT43

RCA VICTOR
5Q55



WHY Give the Same Old Christmas Chestnuts?

line and, while there are no known statistics on the subject, I suspect that the average gift given these days is somewhere well within our standard price brackets. And we have merchandise expensive enough to click in competition with the best, too.

Personal appeal, something that a lot of gift-shoppers look for, will be found in any radio line without half trying. Yet these same lines provide perfect gifts for entire families, if that's the idea. Universal acceptance? We've got just the thing, for anyone can use a radio. Almost anyone in fact, can use another even if they have one. Luxury appeal is obvious. Can you think of anybody who would turn up the nose at such a gift? And Usefulness is where our stuff positively shines!

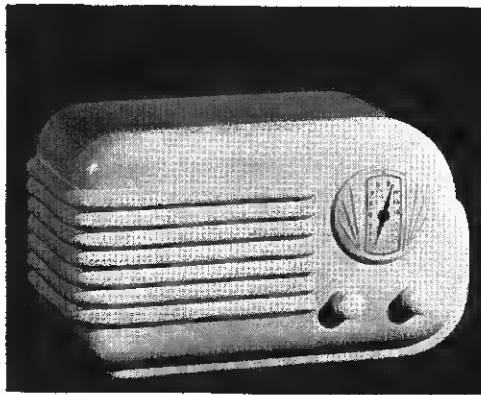
"Whirlwind" Campaign

Now for some practical suggestions about how to get your share of Christmas Gift Money . . . any and all of it . . . the stuff that's been held back by people who ought to have treated their families to new sets long ago or the true "gift" dough.

We've collected a lot of data about selling plans used by radio retailers last year, picked out those considered most generally useful.

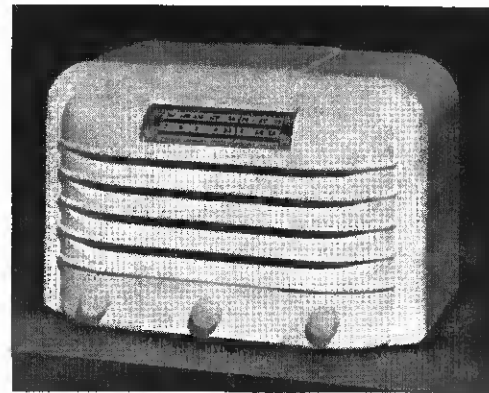
Here's the lot:

Outside sales work gets results around the holidays. A "whirlwind courtship" of prospects is the best bet, say many dealers interviewed.



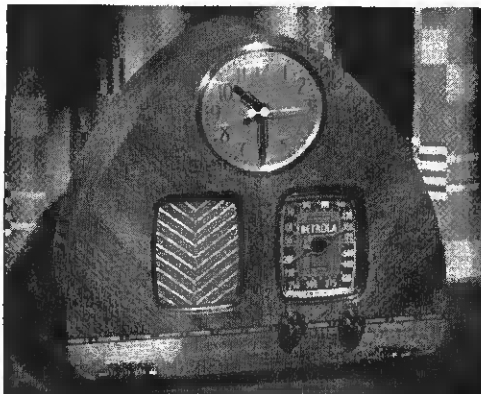
BELMONT

510



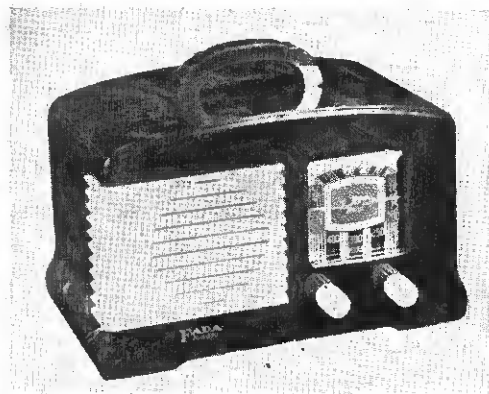
AUTOMATIC

440



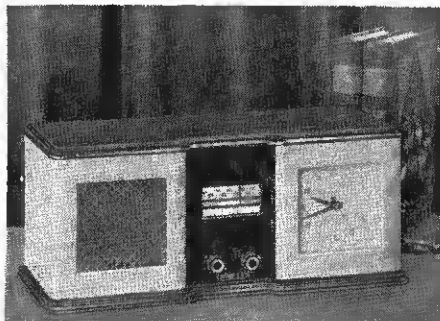
DETROLA

302



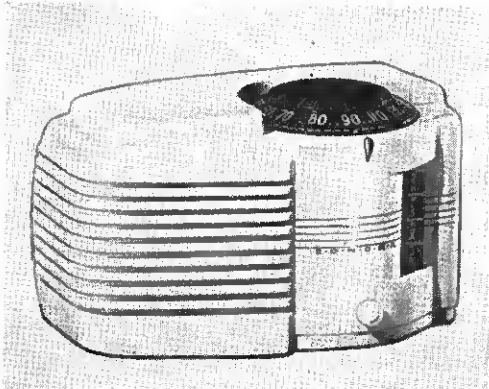
FADA

L56MA



TRAY-LER

325

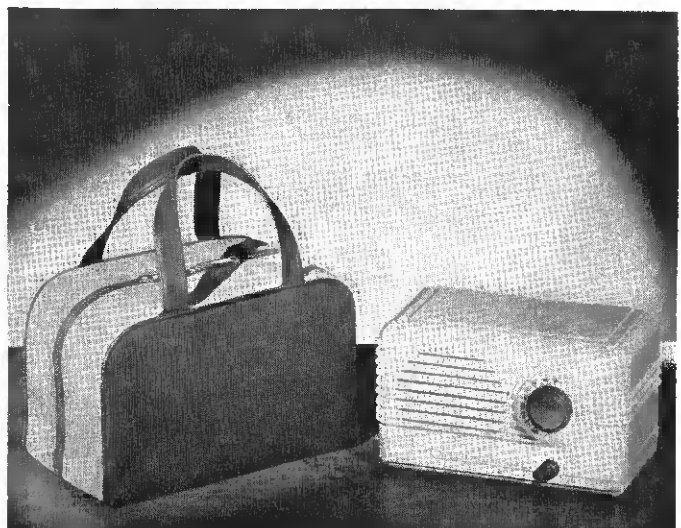


SONORA

TW49

WESTINGHOUSE

WR166



ARVIN

402A

Who COULDN'T Use One of These!



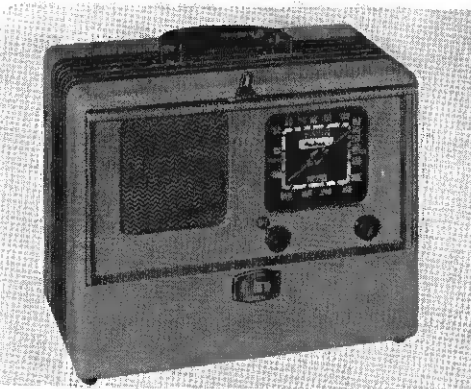
MAJESTIC

5BD



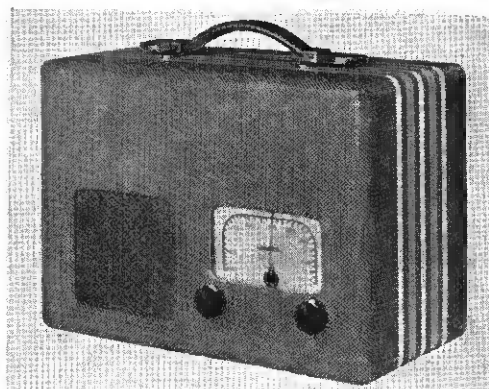
KADETTE

Port



ANDREA

21F5



HOWARD

10B

One dealer's campaign is typical. He mailed a series of three short, snappy sales letters to 350 prospects in the neighborhood, followed up 4 days apart, then sent a salesman to close sales before prospects went cold.

The letters were "staggered," permitting the salesman to call the day after the prospect received the last follow-up. His quota was 15 calls daily, enabling him to make a quick clean-up in 3 weeks. He did \$1,860 in sales of radios, with some mighty fine leads left over to follow up during the coming year.

The routine suggested is to see a prospect once and try to close. Unless exceptionally hot, the lead is temporarily abandoned, no call-back. Salesmen lose out by making too many follow-up calls around the holidays. If prospects are not sold immediately they usually spend their gift money for something else and are out of the market when the call-back is made.

Christmas Clubs, Etc.

The earlier you start merchandising, the better. You should be under way by the time the local

banks mail out Christmas Club checks. Some dealers advertised, "Christmas Club Checks Cashed Here" to "bait" this business.

The lay-away plan has advocates on items under \$20 bought for cash. Under this plan, the dealer holds a gift for a small deposit. Such sales are made early in the season and clinch business before somebody else gets it.

Get at least $\frac{1}{3}$ down and hold no longer than a week before Christmas. This assures completion of sale and eliminates the danger of carrying over the item after Christmas if the prospect should "reneg." If only a small deposit is taken, the prospect is likely to forget it and buy something else that suits her fancy better.

On large unit items, some dealers stimulate volume with a "No Payment Until Next Year" appeal, taking deposits in November and letting instalments slide until January. Dealers reported that, more and more every year, gift purchasers are buying radios over \$100, phonograph combinations and other large unit appliances on instalments. These gifts usually go to members of the family, a son buying mother a refrigerator, a daughter buying Dad a radio for his den, etc.

Customer Competitions

Competitions for customers and salespeople are excellent Christmas business-builders.

One dealer asked customers to calculate the cost of running a window-displayed radio for 100 hours, offering credits toward the purchases of radios to the 5 best calculators. A number of dealers used the old, "How many worn-out radio tubes in this window" contest.

Competitions for salespeople were largely of the bonus type for good sales work on the entire line, or a specified product. A dealer in farm territory offered credits to the 4 people with the oldest radios, by makes and models. The competition enlightened this dealer regarding the age of radios in his territory and gave him many leads to work on during the next year. All such ideas staged around the holidays are, in

(Continued on page 53)

Another PERFECT PRESENT PACKAGE

By RICHARD GILBERT

IF the phonograph record dealer doesn't make December 1939 the banner month in his business history, the fault lies at his own doorstep.

With public interest in records soaring to heights not reached in more than a decade; with awakened competition and aggressive promotion among the major manufacturers; with exploitation in newspaper and magazine columns (both in record reviews and advertising space) and over the air; with the inclusion of combination instruments in the lines of practically all radio manufacturers; and with a gift season ahead that promises to top sales in similar periods of the past few years—well, it looks as though all the record retailer need do today is simply let the public know that he has discs and phonographs to sell.

"Gift That Keeps Giving"

Records as gifts should be the keynote of your Christmas promotion. Stress this angle in your window and counter displays, in your advertising and sales talk. Put over the idea of "the gift that keeps on giving" in every possible manner. Dress your window with records wrapped as gifts. Put some seasonable cellophane and star-spangled wrappings around the albums of best-sellers displayed on your counter. And demonstrate vividly the great variety of music available on records (to please every taste) and also the availability of such non-musical recordings as those devoted to Shakespeare, poetry and radio dramatizations.

An easy way to do this is to select



FOR YOUR WINDOW—An *Album*, some *ribbon*, a *disc*. Multiply to fit space and you have a display that's effective yet inexpensive

your window items from the various classifications of records. Place the wrapped gift package slightly under, or along side of, a copy of the bare disc or album itself so that the titles may be read. Have some small showcards printed with the suggestions, "For the Opera Goer," "For Children," "For the Symphony Lover," "For the Hot Jazz Enthusiast," "For the Dancer," "For the Drama Student," "For Christmas Cheer," etc. Be sure to indicate the price—from the thirty-five-cent discs, through the dollar children's sets and lower-priced albums of popular and semi-classical music, to the six-fifty, eight- and ten-dollar symphony and chamber music recordings and the sumptuous two- and three-album collections of complete grand operas at twenty-five dollars and more.

Xmas "Vouchers"

And don't forget to acquaint your customers with *gift vouchers* (either those you have printed yourself or the ones in color supplied by the manufacturers). They can be purchased from you, and entitle the

eventual recipient to his own selection of records to the amount written in.

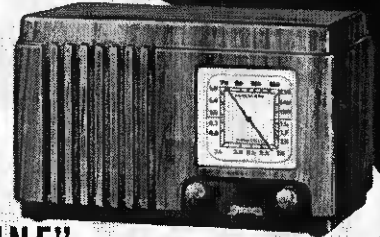
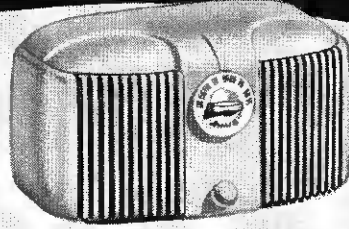
Gift vouchers are valuable in several ways. First, they get around the donor's natural reluctance to select a gift of such personal preference as music. Secondly, when the recipient cashes the voucher at your store; if he is not already known you have an opportunity to make a new and regular customer. Publicize the gift voucher idea on a small poster, showing the voucher, both in your window and in your store, and include mention of it in all your Christmas advertising.

Get Started Now

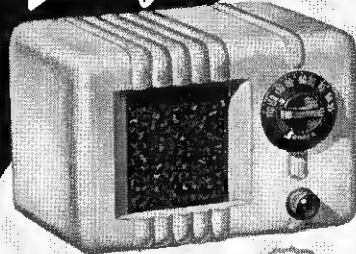
Mailing pieces should be sent out directly after Thanksgiving. In the event your business isn't large enough to warrant the printing of your own listing of records of all makes, use the manufacturers' special Christmas gift suggestion leaflets and new December supplements. Be sure these go out under the imprint of your store and, if possible, enclose an order blank and return envelope.

2 Great Sonora Opportunities

TV-48 - IVORY - ONYX - WALNUT, LIST \$10.95



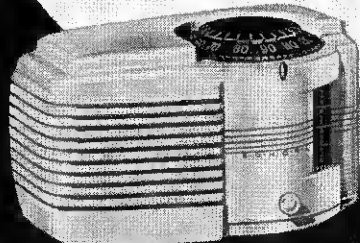
TJ-63 LIST \$21.95



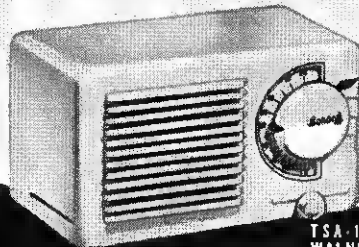
TP-108 - IVORY - WALNUT, LIST \$8.95

The "HOLIDAY PACKAGE LINE"

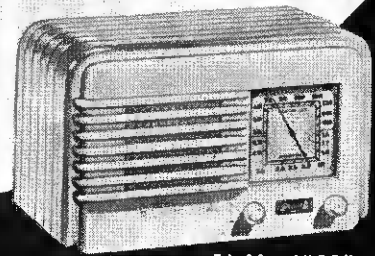
It's Hot—and it's Different! Here are six "Clear as a Bell" SONORA models that are "Holiday-Styled"—"naturals" for the big gift market—perfect packages for easy selling right over the counter! Jobbers—you can't beat this SONORA selection for resale to your dealers—it fits right in the groove for profitable holiday merchandising! Low lists (nationally maintained)—discounts that spell profits—no service problems—quick turnover—a national name known to millions—styling that halts the holiday shoppers—performance that's hot—you get just what you've been looking for in the SONORA "Holiday Package Line!" See below for Free Trial Offer and go into action NOW!



TW-49 - IVORY - ONYX - WALNUT, LIST \$15.95



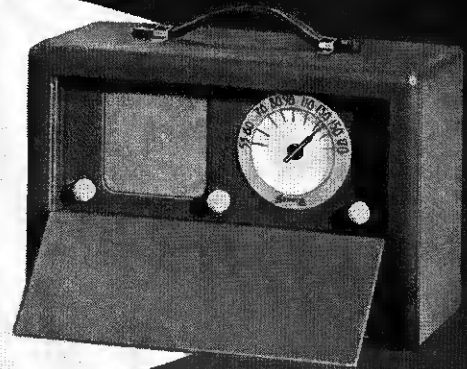
TSA-105 - IVORY - WALNUT, LIST \$12.95



TJ-62 - IVORY - WALNUT, LIST \$18.95

NEW "TRIPLE-PLAY" PORTABLE

Three radios in one—for 1.4 Volt—110 Volt A.C.—110 Volt D.C.—that's the new SONORA "Triple-Play" Portable—America's most versatile radio! An entirely new kind of portable—a perfect "Over-the-Counter Package"—released just in time for the holiday season. Just check these "specs": 6 tubes (not 5 or 4) in the smoothest-working, strangest Superbet circuit you could ask for; built-in "Sonoroscope"—no aerial or ground required; new car-type giant circular dial; 5" P.M. dynamic speaker; A.V.C.; Sure-Switch for changing from battery to electric current; beautiful new luggage style case that looks and feels expensive—only 14" x 9" x 6" has protective lid; weighs only 13 lbs. with batteries. A perfect "Holiday Package" at a list price of only \$29.95.



KD-75 LIST \$29.95

Sonora Reports ..

An increase in sales volume of 300% over the same season last year... the addition of new lines and production facilities... more than double the former factory space... concrete proof of healthy progress built upon steady devotion to sound principles of manufacturing and merchandising. Today, SONORA sets the trend for radio styling with designs that "click"—designs that have the industry asking: "What will SONORA create next?" Today, too, SONORA is setting standards for quality that win jobber, dealer, and consumer confidence...

FREE TRIAL OFFER TO JOBBERS ONLY!

We will ship you all or any assortment of the "Holiday Package Line" Radios above, prepaid, for a full two weeks inspection and Free Trial. Put them through their paces; compare them; play them; show them to your trade. The sets you keep will be billed at jobbers' prices; those you return will not obligate you in any way. This offer means business—act now!

SONORA RADIO & TELEVISION CORP.
2626 W. WASHINGTON BLVD.
CHICAGO, ILL. Dept. R.R.

Ship us the following models on your Free Trial Offer:

- TP-108 TV-48 TW-49
 TSA-105 TJ-62 TJ-63 KD-75
 Send Full Details of Complete Line.

NAME _____

ADDRESS _____

Sonora

RADIO & TELEVISION CORPORATION

2626 WASHINGTON BLVD • CHICAGO, ILLINOIS



PHOTO *Shorts*

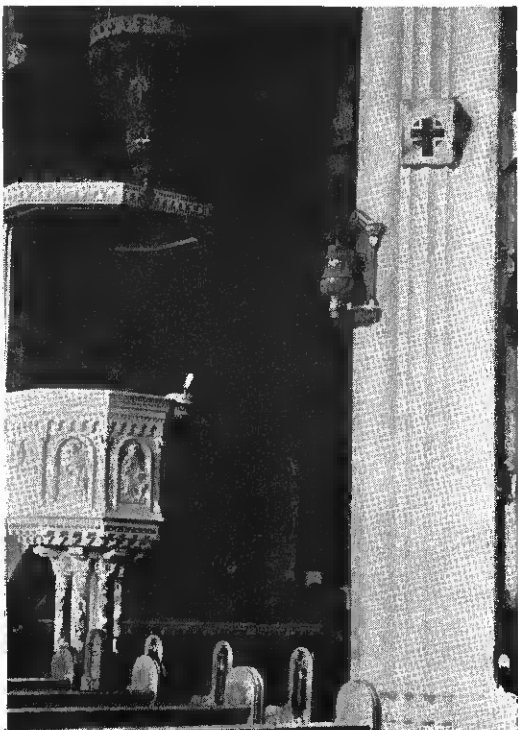
Pictures
from the News
to help you
SELL

AUTO SHOW INNOVATION

Stainless-steel antenna of this novel radio plugs directly into chassis (beneath instrument-panel), runs up windshield centerpost inside and through waterproofed bushing in roof. Many 1940 cars seen at Grand Central Palace are virtually without running-boards

SOUND, PETER AND PAUL'S

Scattered eight-inch dynamics housed in special plaques with symbolical crosses (below) facilitated installation of new RCA low-level system in this San Francisco cathedral



MODEL DISC-INSTRUMENT SALES WINDOW

Here's the way The Record Shop of Dallas simultaneously promotes the sale of both records and the instruments on which they may be played by concentrating on the two in its main display. The firm's just taken on Columbia's line



BUSINESS IS WHERE YOU CAN FIND IT

St. Louis' Louis Schopper turns up prospects by parking where people congregate, shooting their pictures with a movie camera while daughter Wiarda demonstrates portable radios. He invites them to his store to see the films run off



RADIO MAKES ANY ROOM MORE LIVABLE

Model bedroom designed by "Good Housekeeping" and displayed by Gimbel New York, Philadelphia, Milwaukee and Pittsburgh stores features a Philco, helps sell thousands of visiting housewives in these cities



FROM CHASSIS TO COMPLETION

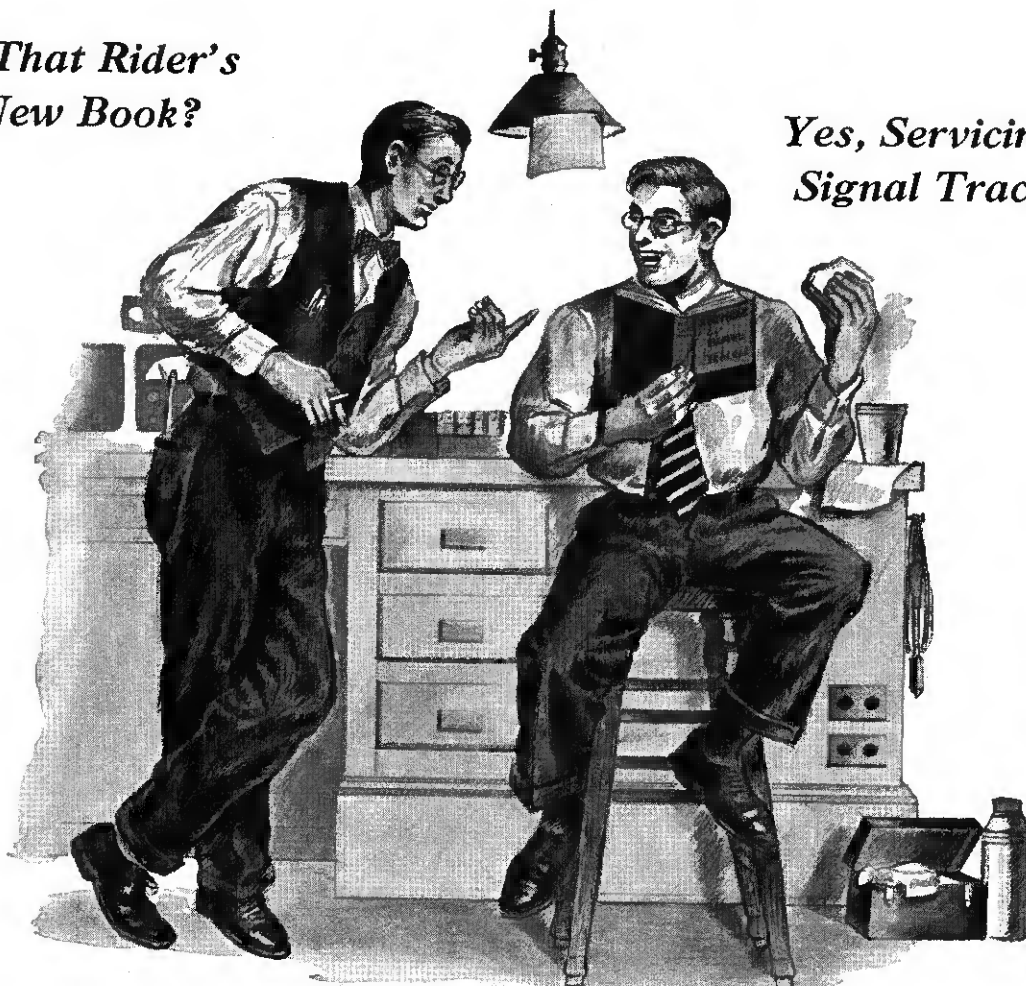
Effective idea used by Majestic to show quality of construction during Chicago's recent Electric Living Exposition would work at any exhibit. One particular model was shown in all stages from bare chassis to complete



HAVE YOUR CAKE AND EAT IT TOO

One way to display table types prominently without having them overshadow consoles is to put them right down on the floor like this, thinks the Holmes Electric Company of Boise, featuring G-E

Is That Rider's New Book?



*Yes, Servicing by
Signal Tracing.*

What d'ya think of it?

I think it's swell.

I don't mean the book, I mean do you think this new System of Rider's is any good?

Any good? Say, where have you been for the past two years! Don't tell me you don't know about servicing by signal tracing—it's the only true method of dynamic testing!

So what? I can find out what's wrong with a receiver by the same method I've used for ten years.

Sure you can, and you can deliver your jobs on horseback, but it's quicker and cheaper to use a car. Receiver designs aren't as simple as they were ten years ago. The sets we're getting in here right now are so complicated that this new system of Rider's is a Godsend.

Yea, for Rider.

OK, get smart about it. But just take my word, you better read up on it today, because you're going to be using it tomorrow. If you're gonna keep up with competition you've gotta shoot troubles a lot faster than you have been because every year it gets tougher and tougher to "outguess" the new sets when they go bad.

So, how's what you call servicing by signal tracing going to make it easier?

By tracing the signal!—the one thing that's fundamental in any make receiver.—Find out where that departs from normal and you have found the trouble.

Then that method could be applied to servicing P. A. systems, Television or most anything.

Sure, any type of electrical equipment through which a signal passes. It doesn't make any difference whether it's a new or old receiver or one they bring out next year—tuned r-f or super-het—three tubes or thirty—they all are diagnosed by the same procedure if you use the signal tracing method.

JOHN F. RIDER, Publisher
404 FOURTH AVE. • NEW YORK CITY
Export Div.: Rocke Int. Elec. Corp., 100 Varick St., N. Y. C. Cable: ARLAB

It seems too good to be true, it sounds so simple.

It's like a lot of things. You feel like saying, 'it's a wonder nobody thought of that before,' but when you understand it you can't quarrel with it—it's good.

What's the book tell you?

In the first seven chapters Rider tells, in his easy to understand style, about the behavior of a normal signal from the antenna post to the loudspeaker, and signal characteristics at the points between. The rest of the book explains the signal tracing method step by step.

Let's see that book!

Sure, but you can't borrow it. It only costs \$2.00 and besides it's about time you spent some time and money getting ready for tomorrow's business.

Is that all that book costs? Why it's got 360 pages. I'm going to the jobbers this afternoon. I'll pick up my own copy.—And I hate to admit it to you, but thanks a lot for a darn good tip.



Believe Me The Ten Rider Manuals

and the system of Servicing by Signal Tracing make a combination that can't be beat for faster, easier, better trouble shooting—and when I say that I'm saying they mean profits with a capital "P" They help every serviceman help himself to bigger money

TUBE Plan REACTION

Jobber response favorable. Many immediately established uniform re-sale schedules. Stock bought at old prices small. Initial retail reception good

LOWERED list prices and uniform distributor discount schedules adopted by most replacement tube manufacturers early in October and reported in these columns last month have been in effect 30 days or more.

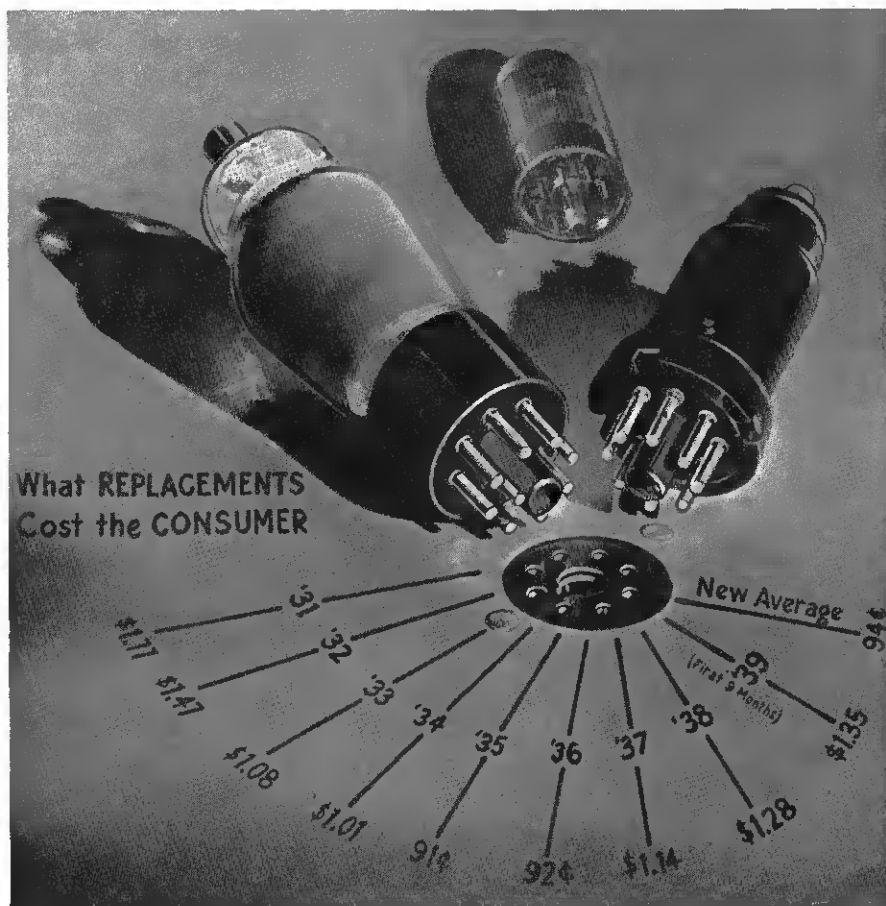
Feeling the pulse of jobbers (both those selling sets and those specializing in parts) we find that fully 80 per cent approve the plans, think they materially improve long-term profit possibilities for themselves and their trade.

Further exercising our nose for news, we find that 85 per cent have already established uniform re-sale discounts, most jobbers putting new retail schedules into effect immediately following the adoption of such plans by their own suppliers and the rest following suit before November 1. Interesting sidelight was the discovery that a majority have established the *same* re-sale discount arriving at this figure after studying new lists, their own price schedules and operating costs.

Little "Opportunist Buying"

Pointed out following announcement of new manufacturer schedules was the fact that many jobbers were offered the opportunity of "buying in" tubes at old prices before the new ones went into effect. It was thought, at that time, that stocks so purchased might last through the balance of the year but information now at hand indicates that while they may in a few isolated cases, most distributor shelves will be cleared by the middle of December.

Fifty-five per cent of the jobbers



contacted say their retail trade has reacted favorably toward the new lists and discounts and 25 per cent say it is as yet too soon to report any definite reaction from dealers and servicemen but anticipate no difficulty in convincing them that the new plans are desirable for all concerned. (Checking retailers independently, we find jobber reports on this question accurate. 70 per cent are favorably impressed by the new tube schedules and 16 per cent say they have not yet had time to form a definite opinion.)

Summed up very nicely in one typical letter supplementing field investigation is the average jobber's reaction. From an important operator, it reads:

"Some two years ago we put out a feeler over this section, asking dealers and servicemen what they thought of the then higher tube lists. 55 per cent at that time stated they wanted lower lists. Why? Because all through this section and, in fact, in nearly every county seat of every county in the state, there are chain

stores that have long been offering tubes at prices much below those possible for our customers. They had become a big factor because the price differential was too great.

"Our handicap is less severe now. We have accepted the new lower prices and are very happy about them. We find the majority of our trade in the same frame of mind."

A Few Honest Skeptics

All is not "beer and skittles," of course. One jobber states, and very intelligently, that:

"The retail trade is in most cases in favor of lower lists but in some cases has become used to getting large discounts. We will have to go through a period of getting dealers accustomed to legitimate discounts."

Another significantly writes as follows:

"We are hoping that the new plan will do what the tube manufacturers claim for it. As far as we personally are concerned, it does not appear to

(Continued on page 55)

BULLETIN

FROM TUNG-SOL LAMP WORKS INC.
SALES DEPARTMENT

NEWARK, N. J. October 19, 1939

NUMBER T-535-

LIST: T-3

SUBJECT: REVISION OF LIST PRICES AND COMPENSATION
 TUNG-SOL RADIO TUBES

When list prices were lowered May 1st we took an opposite course to competitors who were promoting high list prices and extraordinary discounts to dealers.

It had often been stated that no one manufacturer could reform the tube industry but it has been demonstrated that one manufacturer, with the help and complete cooperation of its wholesalers could take a constructive position and maintain it.

The industry trend toward constructive merchandising is one that we would naturally endorse and it is logical, therefore, that we should do so by revising Tung-Sol schedules of list prices and compensation to conform with those already announced by our major competitors.

List prices which will be effective beginning with November business are shown on the attached price card, Form T-11. Using per cent of sales by type, indicates that the reduction will amount to only approximately 3% of old list prices.

TUNG-SOL

*Vibrat
Test*



RADIO TUBES

Some Are BOUGHT, Some Are SOLD

HOME SPECIALTIES such as *Radios and Refrigerators* appeal to the selfsame prospects. But the technique of moving them is different

By CASWELL ODEN

THIS is a story about *selling*, selling *radios* and other home specialties and particularly household *electrical appliances*. It is "slanted" primarily for radio dealers and especially those interested in *refrigeration* but, in addition, rings in washers, cleaners and even furniture.

The specialties mentioned have much in common. They are readily sold to the same homes, particularly where radio "breaks the ice." There are, however, certain essential differences in consumer appeal and I have never seen them contrasted on this basis. I've often wondered why. For I have found in my own selling that by so contrasting the various household specialties certain facts that help me sell them *all* instantly come to light.

Contrast, in fact, *is* my story. . . .

Refrigerator Appliance "First"

I have already pointed out, in the "A-B-C of Refrigeration Salesmanship" (RRDec38), the difference between an article of merchandise which, generally speaking, is "bought" and one which is "sold." At some risk of being taken too literally, I say that radios are "bought," refrigeration "sold." I think this difference must be clearly recognized by the salesman for most effective work.

Washers, too, come within the classification of merchandise which is "sold." Among "sold" appliances,

the washer runs second only to refrigerators as far as *selling points* are concerned. How does this cold classification aid the dealer in his planning? Let's take the washer.

Because it does run second, because it ranks so high as an item of the "sold" variety, a dealer carrying washing machines may expect a sales volume in direct proportion to the amount of sales pressure (outside) brought to bear on this item. Likewise, the radio dealer, or refrigerator dealer not selling washing machines may take on the line with this assurance: stock on hand can always be disposed of by going out after business instead of waiting for it to come to you.

Now that may sound, to some of you, like saying, "The river will rise higher if it keeps on raining." But nothing could be farther from the truth. A dealer may sell a lot of merchandise, of a certain type, with relatively little effort; but it is equally true that he might not increase his volume very much, on this same merchandise, by going out after business.

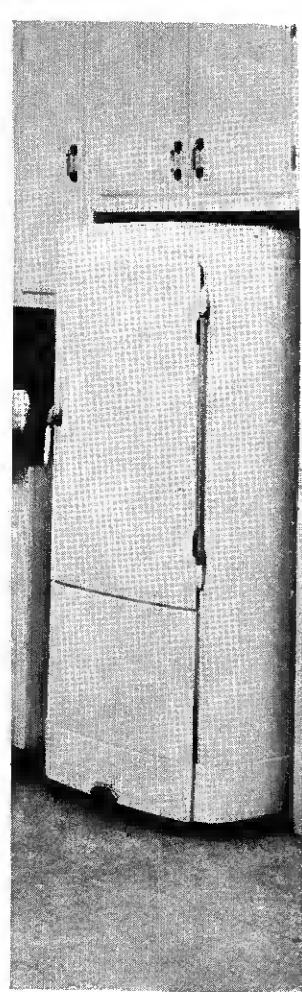
For what I have just said about the washing machine, you see, is not true of certain other types of household goods. For instance, we cannot sell a living room suite until somebody *wants* to buy one—whether we wait for him to come to us *or* go out and look for him! Nor can we sell a radio until somebody wants to buy one, for it too is, fundamentally, an item which is "bought." The radio,

however, does have other selling advantages (which have nothing to do with the ability to move it by *sales pressure*), and they will be touched upon later.

All Have Something

There are a great many phases to this question of what type of merchandise is "sold" (can be moved by sales pressure), and what type is "bought" (moves only by "suction," and cannot readily be moved by sales pressure because there is nothing to "press"). There are so many phases, in fact, when we make a *comparison* of several items, that we cannot clearly grasp the importance of any one *in its relation to all the others*, nor arrive at a summary that properly ranks each item, without something to guide us. So I have drawn up a chart. This chart will show you, at a glance, just how I think each appliance stacks up with other *types* of household goods in this respect.

I have selected five different items, two of the "bought" variety and three of the "sold." There are a great many other "in between," of course; but these five items cover the entire range, from the order-taker's



CHECK-CHART of SELLING-POINTS

	RADIO	REFRIG- ERATOR	WASHER	CLEANER	FURNI- TURE
Merchandise is.....	Bought	Sold	Sold	Sold	Bought
Saturation.....	High	Low	Low	High	High
Seasonal.....	Semi	Yes	No	No	Semi
Trade-In.....	Yes	Yes	No	Yes	No
<hr/>					
PRIDE OF OWNERSHIP..	X	X	X	X	X
UTILITY.....	X	X	X	X	X
COMFORT.....					X
ENTERTAINMENT.....	X				
<hr/>					
CONVENIENCE.....		X	X*	X	
WORK-SAVING.....		X	X*	X	
TIME-SAVING.....		X	X*	X	
ECONOMY.....		X	X†		

*If laundry is done by hand. †If laundry is sent out.

type of merchandise to the salesman's gift from heaven.

Except for the four top lines (classification of merchandise, point of saturation, seasonal, and trade-in) the items listed at the left are *selling points*.

There, in a nutshell, we have our comparative picture—as a *selling proposition*, something to interest a *salesman*. The washer, for example, ranks next to the refrigerator. Like the refrigerator, it can be "sold"; the saturation point is low; and it even tops the refrigerator in that it is *not* a seasonal proposition. (I rank the box first, however, because we can talk economy in *every* case; whereas *when* we can sell an item, while of

interest to a salesman, is not a selling point. Moreover, the refrigerator is not a seasonal proposition in some parts of the country.)

Like the refrigerator, the washer skips Comfort and Entertainment, and winds up with Convenience, Work-Saving and Time Saving if laundry is being done by hand—a terrific sales argument, to say the least; or with Economy if the laundry is sent out—ECONOMY, our irresistible sales talk.

Consider Poor Furniture

Compare all this with the suite of furniture. With the Living Room Suite we have no sales talk at all!

"Oh, but we do!" says the furni-

ture salesman. Of course we do, such as it is. Check the chart as I show you what it is. If somebody decides to *buy* a living room suite, most likely to *replace* his old one, maybe sometime next *fall*—we can intimate how *proud* he'll be of this one we're showing him, go into detail about the *utility* of the suite *itself* (the construction, the materials, and what a good buy it is at the price) and wind up by letting him sit in it to see how *comfortable* it is.

That's all. Our feeble efforts to sell may entertain him, but the suite won't. And convenience? It is really no more convenient to sit on a sofa than it is to sit on the floor. But it is more comfortable. (It's not even more comfortable if you're a Chinaman, or an Arab.)

The point is that we can't talk about convenience, or entertainment, or economy. The person must not only want the suite of furniture—but want it enough to *pay* for it.

We can talk a certain *kind* of economy, true. We can explain how much more economical it will be to buy this suite at \$300 instead of this other one at \$150! But we can't talk

(Continued on page 54)

Should

All Dealers SERVICE?

WHAT DO YOU THINK?

The Editors consider this question one of the most important confronting stores selling radios, invite Pro and Con Comment from readers

SELLING radios are stores handling this merchandise and closely allied items exclusively, dealers specializing in radio while at the same time pushing other products and stores to which sets represent just one of several important activities.

When the set business began, virtually all maintained their own radio installation and repair facilities. Department stores, closely followed by furniture stores, were first to try "farming out" all or part of such work. And, during the depression, some of the larger radio "specialists" followed suit. (Smaller dealers, hard-pressed for cash with which to buy receivers, frequently reversed the process and leaned even more heavily upon repair work for revenue.)

Some department and furniture stores have since re-instated their own repair services (many never gave them up) but opinion among this group is still sharply divided. Re-instatement of repair departments by the larger primary radio dealers (and, conversely, resump-

tion of set-selling by smaller dealers who only dropped them in the lean years as a temporary financial expedient) has been extensive, until today an easy majority of all stores selling radio also service it. (See figures on this page.)

Two Schools of Thought

One school of thought argues that:

1. *Service is the best, and cheapest, method of unearthing prospects for new merchandise sales.*

2. *Service, at first highly profitable, then in the "middle years" of the business often an expense, can again be made profitable in its own right.*

3. *People more readily buy new radios from organizations known to understand the equipment tech-*

nically by virtue of their repair experience.

Another school thinks:

(a) *More profit can be made by concentrating on merchandise sales to the complete exclusion of technicalities.*

(b) *Overhead can be reduced by turning all service work over to outside specialists on either a contract or "per job" basis.*

(c) *Repair calls constitute a constant minor irritation which, all things considered, is not compensated for by either the fees or the contacts involved.*

There is, of course, something to be said for both attitudes.

There are dealers who have built merchandise sales almost exclusively around service contacts and others who continually run up huge dollar-and-cent totals without engaging in such work. There are dealers who have made money on service throughout their entire experience in the radio business and others who have lost money on it almost consistently. There are merchandisers who have used their technical training to advantage in selling and those for whom it has been a handicap.

Much depends upon the type of store, more upon *method* . . . and by "method" we mean purely merchandising considerations such as the system of following up leads for new merchandise sales after service contacts, as well as specific service department questions such as the

(Continued on page 65)

THE PICTURE AS IT STANDS TODAY

84% Operate Their Own Repair Departments *

78% Do All Service Work Themselves

6% "Farm Out" Some Installation and Repairs

16% Turn Over All Technicalities to Others

* Average 2 technicians per store (including department managers). Owner does purchasing in 50% of stores, employee in 31% and both buy in 19%

EXTRA

THE ONLY AC-DC RECEIVER BUILT Especially for EUROPEAN Short-Wave BROADCAST!

Now.. this Amazing
new **TRAV-LER**

"WAR REPORTER"



\$19.95
LIST

Just at a time when the public is intensely interested in European news, comes this wonderful new TRAV-LER "WAR REPORTER", designed specifically to bring in overseas short-wave broadcasts. Never before have radio dealers been offered a receiver so ideally fitted to a market that is ripe for quick and easy sales. It's the chance of a lifetime to "cash in!"

Powerful, keenly selective, highly sensitive, it brings in European short waves with amazing clarity and volume. It gives customers the news in English when it happens practically every hour of the day from European capitols. In the home, in the office, everywhere, are millions who want this news first hand—a huge new market that didn't exist a few weeks ago! Now they can have it! Offer your customers the new TRAV-LER "WAR REPORTER" and watch your sales zoom upward! Profits, too!

Remember, this new TRAV-LER "WAR REPORTER" is not just another two-band set. It's a receiver scientifically built to do a specific job better than it was ever done before.

LOOK AT THESE OUTSTANDING FEATURES

- AC-DC
- 6-Tube
- 2-Band
- Automatic Volume Control
- Illuminated Slide-Rule Dial
- Beautiful cabinet—Walnut veneer with maple grille
- Dimensions: 11 $\frac{3}{4}$ " wide; 6 $\frac{3}{4}$ " high; 6 $\frac{1}{4}$ " deep.
- Weight, 8 lbs. packed
- List, \$19.95
- Your price, \$13.55
- Your profit, \$6.40

And its performance proves that it does just that—a triumph of radio engineering! In addition, it is unsurpassed as a Receiver for American broadcasts. So, consider this outstanding combination: (1) A public eager to devour more war news; (2) a sensational new, specially built receiver that brings Europe almost as close as the next block from a radio reception standpoint; (3) a price that puts TRAV-LER "WAR REPORTER" in the volume sales class; (4) a liberal margin that pays you big profits!

ORDER SAMPLE — DEALER HELPS — NOW!

Order a sample now, at your price of \$13.55 (list, \$19.95) to be billed through your distributor. In addition you'll get window streamers, newspaper mats, folders, and other material to help you sell. Write or mail coupon at once!

TRAV-LER RADIO & TELEVISION CORPORATION
Chicago, Illinois

RUSH COUPON FOR SAMPLE

TRAV-LER RADIO & TELEVISION CORPORATION
1036 W. Van Buren St., Chicago, Illinois

—Ship at once—TRAV-LER "WAR REPORTER", at \$13.55 each, to be billed through my distributor. Also send FREE Sales Helps.
—Send me all the facts about your new TRAV-LER "WAR REPORTER", including price, discounts, sales helps, etc.

Firm
Address
City State

TRAV-LER RADIO & TELEVISION CORP.
1036 WEST VAN BUREN ST. CHICAGO, ILLINOIS, U. S. A.

Push the tube line
that gives you



DEPENDABLE ALL WAYS

PROFIT DEPENDABILITY—Sylvania's policies are keyed to give you Profit Dependability. You get real merchandising support, too, which helps to multiply your profits by multiplying sales!

PRODUCT DEPENDABILITY—Every Sylvania Tube is a scientific engineering accomplishment—a first rate product that you can be proud to recommend. More than 80 factory tests assure the Product Dependability of every Sylvania Tube.

COMPANY DEPENDABILITY—Hygrade Sylvania Corporation owns and operates three modern plants . . . does business in 124 countries of the world and offers you a complete and profitable line of fine products including panel lamps.

SYLVANIA

SET-TESTED RADIO TUBES

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

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

DON'T BURN Your Fingers

By D. SELIKOW

THERE are legitimate and necessary collection and adjustment concerns which render a worthwhile and constructive service to radio dealers in collecting their delinquent accounts.

There are also, however, numerous collection agencies which through trick contracts, shrewd salesmen, and gross misrepresentation, fleece radio dealers throughout the country of thousands of dollars annually. In addition, they do much towards blackening the dealer's local reputation, and hurting his trade.

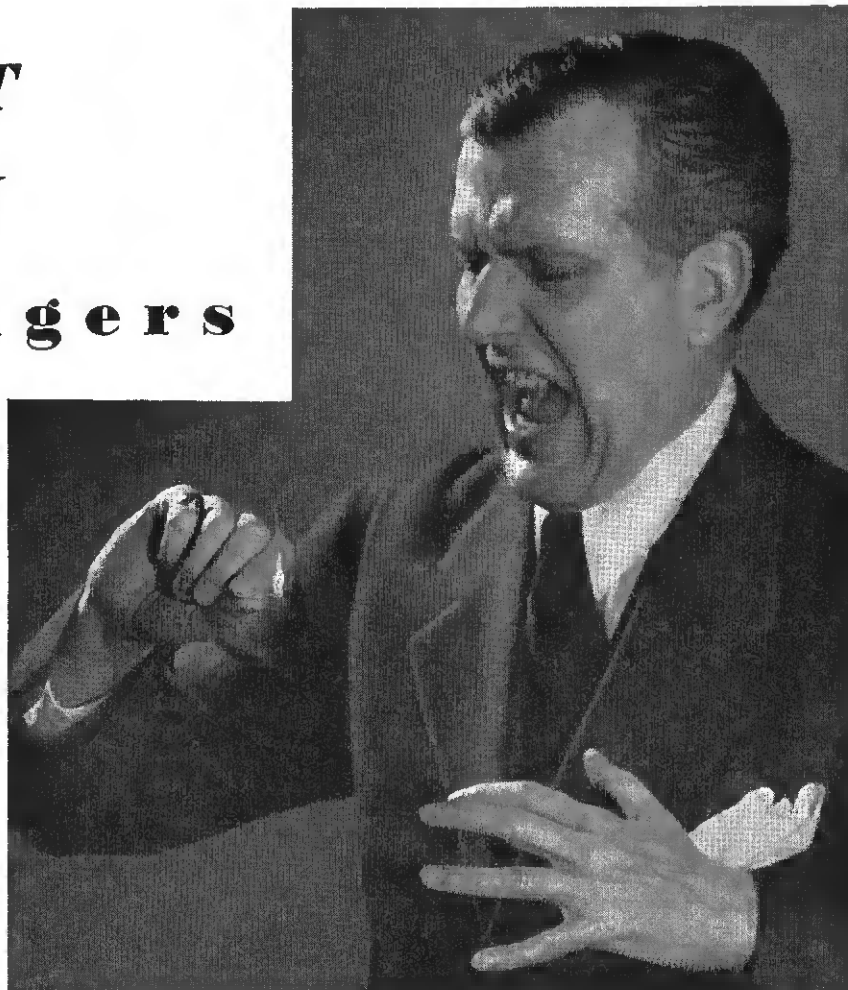
Most of these agencies are of a "long-distance" type. They are located several hundred miles away from the client, have a comparatively small office and limited staff but nevertheless, promise that they will contact debtors in a "personal, individual manner."

If a merchant allows himself to be duped, and succumbs to the tactics of such agencies, he may be greeted some 120 days afterward with the following final Statement:

84 accounts given for collection	total \$1600
21 accounts collected	total \$ 426

Charges by Agency

50% commissions (installment and attorney collection) on \$426 or..	\$ 213
25% commission on 19 accounts totaling \$700 considered "dropped" because of failure of client to submit original notes and itemized statements	175
\$1.00 minimum charge on 46 accounts which were "uncollectible or..."	46
Total due agency.....	\$ 434
Total due client.....	426
Net due agency.....	\$ 8



Hence a strange situation! The agency has collected as much as \$426.00 on Mr. Radio Dealer's delinquent accounts, and yet he does not receive a cent in return, but actually owes the agency money!

The chief stock-in-trade of such agencies is a crew of clever, glib speaking solicitors. They are equipped with impressive portfolios, chuckful of testimonials, cancelled checks, bank statements, and records galore all tending to prove that the firm manages to convert toughest accounts into good, solid cash.

"But how can you promise personal contact when you are located hundreds of miles from here?" the merchant asks. "I don't care to have my debtors sent a bunch of threatening letters and thereby antagonized."

The solicitor smooths away these arguments easily. There are no letters, he states. As soon as they receive the accounts, a corps of trained adjustors come into the creditor's territory. They consult with the client, and then interview each debtor tactfully and diplomatically.

(Continued on page 65)

How to Spot

LONG-DISTANCE COLLECTION RACKETEERS

Reported active in rural and industrial towns are unethical "city slicker" collection agencies offering gullible radio dealers personal service at low cost, actually conducting business entirely through violent dunning letters which jeopardize customer relations and charging exorbitant fees.

To help readers protect themselves despite frequent changing of names by such collection agencies *Radio Retailing* prints this description of typical racketeering tactics by a man who worked for one.



Dealer Survey

"GREATEST IMPROVEMENTS"

among 14 reasons why Philco is the radio dealer that dealers can depend on for superior service and long pull... and why they prefer Philco!

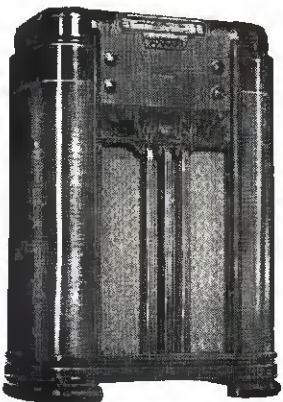
PHILCO



PHILCO 215RX. Features Wireless Remote Control of favorite stations... an exclusive Philco achievement! 12 tubes, American and Foreign reception, Built-in Super Aerial System and scores of other improvements. A "sell-up" profit maker!



PHILCO 180XF. "Best-Seller" of all 1940 consoles! Built-in Super Aerial System with Twin-Loop Aerial and triple-power Television Tube for super American and Foreign reception. Electric Push-Button Tuning. Gorgeous Walnut cabinet.

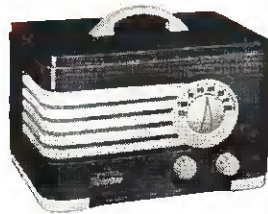


PHILCO 165K. An American and Foreign reception value-leader console, with Philco's exclusive Built-in Super Aerial System. Electric Push-Button Tuning, Cathedral Speaker, Tone Control, Automatic Volume Control. Big Walnut cabinet. One of many popular-priced models.

Year after year Philco is *first* with radio improvements that really count. First with the *public*... as shown by Philco's 10 straight years of leadership! First with the *trade*... as shown by an impartial nation-wide survey!

Consider some of Philco's recent achievements: Built-in Super Aerial System, with Twin-Loop Aerial and triple-power Television Tube; Wireless Remote Control—both exclusive with Philco! Loktal tubes; R. F. Stage in low-priced sets; SAFE low-priced Compacts; Self-Powered Portables; 1½ Volt Farm Radios; Wireless Record Players; DeLuxe Inter-Mix Record Changer—all Philco *firsts!* And these are only a few. No wonder "greatest improvements" is listed among 14 reasons why it pays to concentrate on Philco for turnover, volume and profit!

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



PHILCO Transitone PT-43 One of a complete line of powerful, fine-toned, low-priced compacts... featuring Philco-invented Loktal tubes and safety construction. AC-DC operation, built-in Loop Aerial. Walnut and plastic cabinet.



PHILCO PORTABLE 88T Another Philco *first!* Plays anywhere, indoors or out, without aerial or house-current. Powerful, clear-toned *foreign* as well as American reception. 5 Loktal tubes, R. F. Stage, built-in Twin-Loop Aerial. Airplane cloth case.



PHILCO RP-2 WIRELESS RECORD PLAYER. Philco invented! Plays records, with lid closed, through entire radio circuit *without wire connections* to set. Lifting and replacing tone arm starts and stops turntable. Fine Walnut cabinet.

Philco All Year 'Round for Profits All

Lists IMPROVEMENTS"

the one radio line
that profits over the
to concentrate on

PHILCO

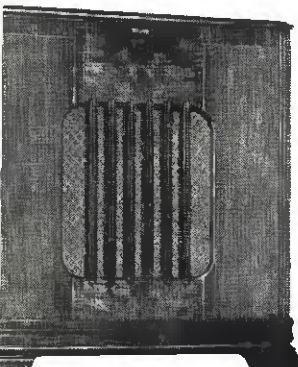
Why Philco gives you ALL 3

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

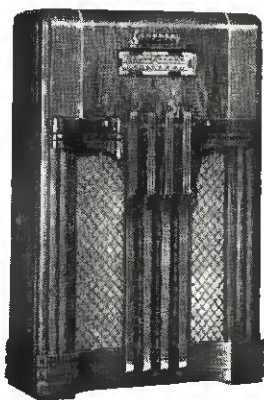
NEW PURITY OF TONE. Greater freedom from power noises and man-made static, even in noisy locations.

PER-POWER. Even gets *foreign* reception without an outside aerial. *Amazing performance!*

Get all three for full radio enjoyment. A mere built-in whatever it may be called, gives you just one or two. *Only Philco gives you ALL 3 . . . because only Philco has the Built-in Super Aerial System!*



PHONOGRAPH 509
Philco's spectacular De-Inter-Mix Record Changer plays 10" and 12" records together at one loading . . . a year of recorded music! Amer- and Foreign radio reception. Many super-value models.



PHILCO FARM RADIO 100F
Pioneered by Philco! Saves 2/3 of battery cost and current drain . . . gives electric-set performance, reliability, convenience and economy! New 1 1/2 Volt tubes, new-type circuit and speaker, new self-contained Battery Block.

DEALERS PREFER TO SELL PHILCO!

Reasons given by dealers in a national survey

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

We believe that technical features make the best sales story. For that reason we prefer Philco, the radio that gives more engineering improvements for the money.

BERMAN RADIO COMPANY, Boston, Mass.

There's a good reason why we prefer to push Philco. It is 1940's most highly developed radio set.

DOWNES, INC., York, Penna.

Philco's Built-in Super Aerial System is a truly great improvement. It gives new convenience and new performance, plus amazing noise reduction.

EASTERN INDIANA OIL & SUPPLY CO., Geneva, Indiana.

For new inventions and real worthwhile improvements, we like Philco for 1940 best of all.

B & A RADIO & TIRE CO., Los Angeles, Cal.

Philco has lead the field in the 8 years we have featured this line, chiefly because of finer merchandise -- tone, dependability, latest improvements, finer cabinets -- and good dealer profits.

KESSEL & RUMMEL, Saginaw, Michigan.

We have handled Philco radios for the past ten years, and our experience has taught us that every worthwhile improvement that has been made in the radio field has been made by Philco.

SMITH'S RADIO SHOP, Nashua, New Hampshire.

Philco's Built-in Super Aerial System is typical of the many improvements Philco has brought to radio. We're going the limit on Philco for 1940.

BORELL'S ELECTRIC & MAYTAG SHOP, Monroe, Wash.

Year 'Round

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

WESTINGHOUSE

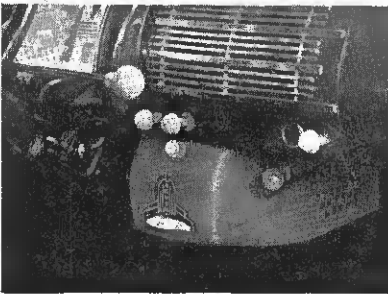


MODEL WR-274—Table type receiver with 6-button tuning; covers 550 to 1700 kc., 2.3 to 7 mc. Housed in handsome two-toned cabinet with corner grill. Price \$44.95.

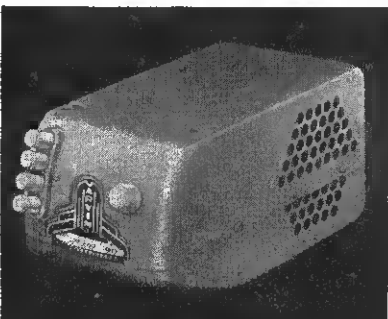


MODEL WR-474—Console phone combination set with separate loop antennas for domestic and foreign reception, no external connection to radio is necessary which permits the radio to be placed anywhere. Latest modern style cabinet with open and close cover. Price \$119.95. Westinghouse Electric Supply Co., 150 Varick St., New York.

ARVIN

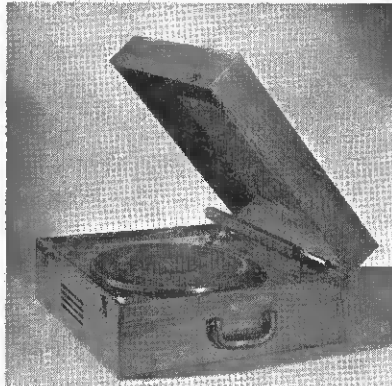


MODEL 510—Single unit 5-tube superheterodyne auto radio, thumb-wheel dial tuning, phantom filter and 5-inch electro dynamic speaker. Full automatic volume control, 2 watt power output. Installs under instrument panel. Price \$14.95 list.

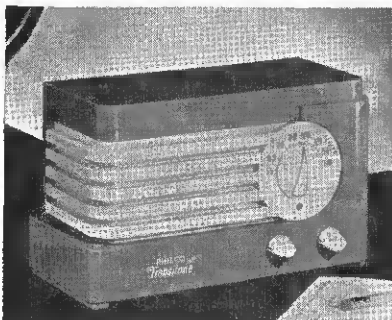


MODEL 610—Like model 510 this car radio is a single unit 5-tube superhet. As an added convenience it has push-button and dial tuning. Price \$17.95 list. Noblitt Sparks Industries, Inc., Columbus, Indiana.

PHILCO



RECORD PLAYER—New two-speed commercial wireless record player is designed for 78 and 33 1/3 RPM records of 10, 12 and 16 inch sizes. Contains an oversize powerful motor, extra long tone arm, crystal pick-up, and oscillator modulator chassis; handsome walnut cabinet; reproduction of recorded music can be obtained by tuning in the signal at 540-KC on any radio set; portable with strong leather handle.



TABLE—This transstone radio model is produced in 55 different two-color schemes including the colors of every American school and college; harmonizes also in bedrooms and dens; 5-tube superheterodyne; automatic volume control; loktal tubes; high-output speaker; standard broadcast and police calls. List \$11.95. Philco Radio & Television Corp., Philadelphia, Pa.

LAFAYETTE

TABLE MODEL BB-27—Suitable radio for the den or recreation room; six button or manual tuning; contains a built-in speaker; provision for phono or television; 6-tube a.c.-d.c. superheterodyne;

Preview of

cabinet of modernized mission design; size 14 1/2 x 6 3/4 x 8 1/2 inches. Radio Wire Television, Inc., 100 Sixth Ave., New York.



EMERSON

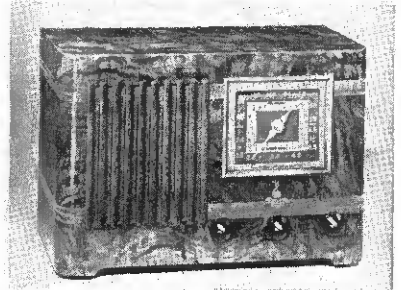


TABLE MODEL CG-318—A 5-tube a.c.-d.c. superheterodyne. Has standard broadcasts, all police bands, foreign and American short wave band; contains a "miracle tone chamber" with 5-inch electro dynamic speaker; automatic volume control; beam power output; rectangular shaped cabinet of rich veneers of selected butt walnut, curved over sides and front in "Staybent" construction; wide inlaid bands, at top and above base are of striped walnut with sepall. Price \$24.95 list.

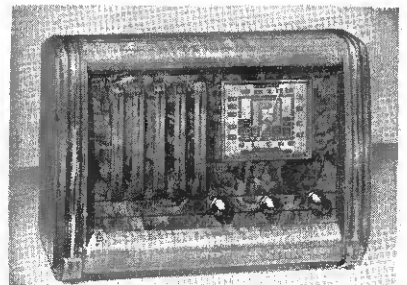
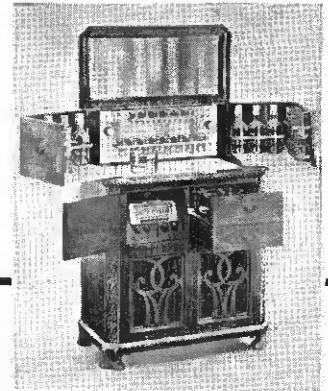


TABLE MODEL CS-317—A 6-tube a.c.-d.c. superheterodyne; American, foreign and police broadcasts; "miracle tone chamber" with 6 1/2-inch electro dynamic speaker; television terminal; automatic volume control; beam power output. Selected matched-butt walnut cabinet, trimmed with inlaid stripes; curved top and base are of figure-stripped walnut. Size 10 3/4 high, 14 3/4 wide, 8 1/4 inches deep. Price \$39.95 list. Emerson Radio and Phonograph Corp., 111 Eighth Ave., New York.

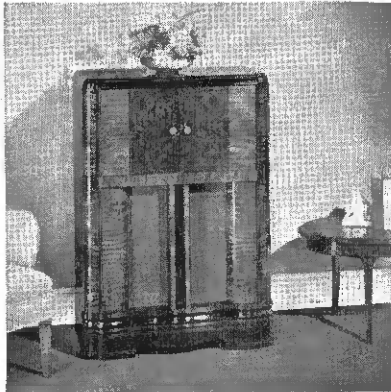
New Products

RADIOBAR

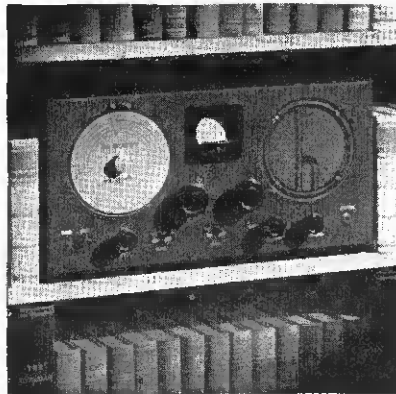


MODEL RP200—Enclosed bar combined with automatic record player and 8 tube radio chassis. Pushbutton tuning; short waves; drawer-type record player enclosure.

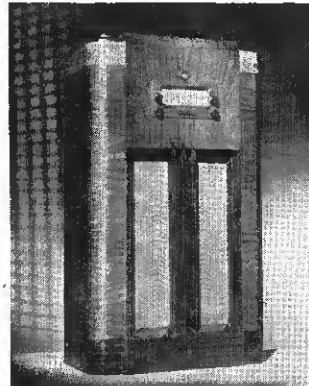
RCA



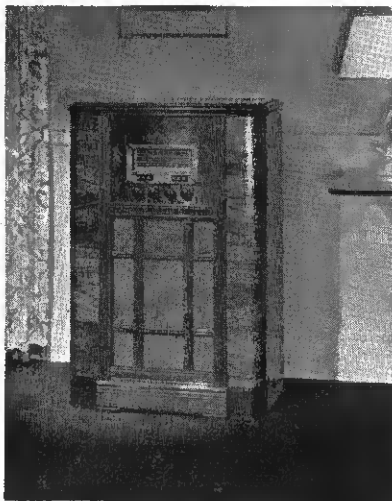
MODEL U-42—A two-band receiver with built-in loop. Automatic record changer and radio dial are concealed by double doors which close against special rubber welts which isolate extraneous record noises.



HOWARD



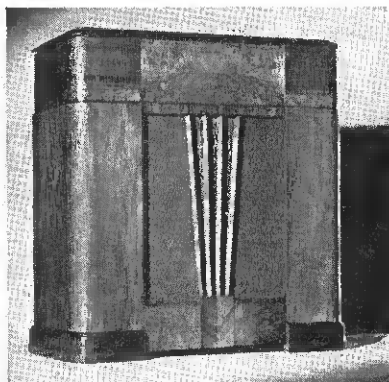
CONSOLE—Model 308C, 8 tube superhet tuning from 540-1700 kc. and 5.5-18 mc. Built-in loop antenna, 4 button push button tuning; 12 inch speaker; provision for television and phono; 7 watts audio output.



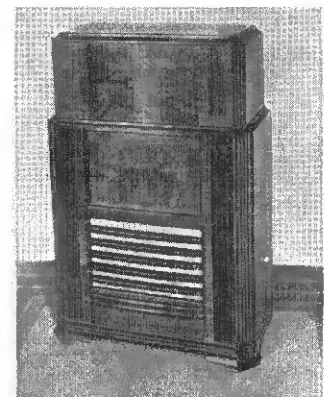
MODEL U-20—A 7 tube manually operated radio combination; built-in loop 12 inch electro dynamic speaker; American and foreign reception; newly-designed top-loading crystal pickup; phono turntable under top lid. RCA Mfg. Co., Camden, N. J.

HALLICRAFTER

SKY BUDDY—A four band communication-type receiver tuning from 44 mc. to 545 kc. Uses electrical band spread; illuminated dial; 5 inch dynamic speaker; beat frequency oscillator; built in line filter; six tubes; send-receive switch; head-phone plug; price \$29.50 list. Hallcrafters, Inc., 2611 S. Indiana Ave., Chicago, Ill.

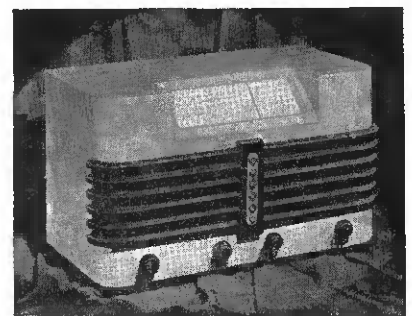


MODEL 308APC—Automatic record changer and 8 tube superhet. Tunes standard and foreign broadcasts; built-in loop; tone control; push button tuning; 12 inch speaker; push pull power output stage; built-in record compartment. Howard Radio Co., 1735 Belmont Ave., Chicago, Ill.



BAR—Completely enclosed cabinet bar for the home. Does not contain radio but ample room has been provided for same. Glass service for eight; list \$135. Radiobar Corp. of Amer., 296 Broadway, New York, N. Y.

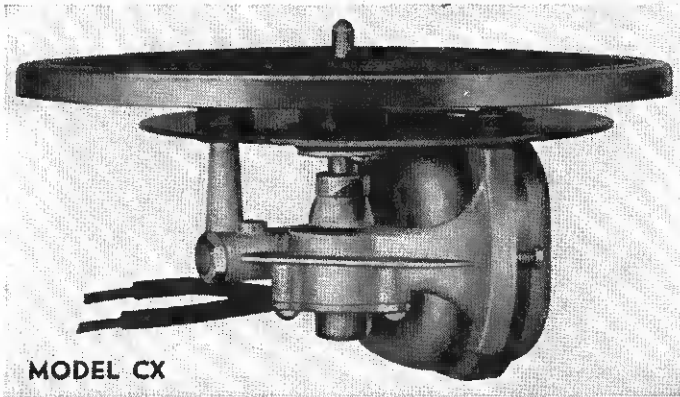
GUTMANN



RADIO CABINET—Genuine rawhide is specially processed to make it practical for covering radio cabinets. This rawhide is made from the hides of carefully selected cattle making an unusually good-looking cabinet; can be had in natural or in colors. Gutman and Company, Inc., Chicago, Ill.

RECOTON

NEEDLES—Designed for the specific purpose of giving maximum efficiency and fidelity to automatic record changers. Extra strong shank prevents needle breakage when subject to the strenuous demands of an automatic tone arm. Recoton Corp., 178 Prince St., New York, N. Y.



MODEL CX

Build for Volume Sales In Low-Cost Phonographs

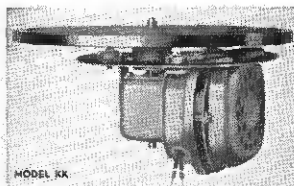
**Use Light-Weight
Even-Speed
"X" Series Motors**

PUT out your table models, portables and radio-phonograph combinations at popular prices—for quicker turnover—with light-weight, ready-to-install General Industries motors. Compact, with ample power for constant speed regardless of record drag. Silent in operation. Fan-cooled and ventilated—will not overheat in enclosed cabinets. Self-starting—required speed quickly reached. Try them in your new cases. Order motors to test, stating voltage and frequency of current used, and size turntable you want.

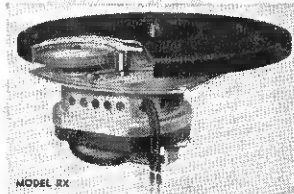
Model CX—Direct drive, induction-type, self-starting motor. Fan cooled. Fully enclosed, with silent, helical-cut gears running in oil bath in sealed housing. Patented drive sleeve gives double insulation. Delivered with mounting plate, ready to install. Choice of 8", 9", 10" or 12" turntable.

Model KX—Similar to Model CX, but lighter, smaller, lower in cost. Also ready to install, complete with mounting plate and same choice of turntable sizes.

Model RX—Rim-drive, self-starting, induction-type motor, rubber insulated. Driving spool, idler and turntable positively aligned in one plane, assuring efficient, trouble-free operation. Furnished ready assembled with mounting plate and 8", 9" or 10" turntable.



MODEL KX



MODEL RX

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Ken-Rad Radio Tubes are used by many radio manufacturers as original equipment because they are thoroughly dependable.

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Radio engineers have learned from experience that Pioneer Gen-E-Motor Corporation's dynamotors, gen-e-motors and converters provide the last word in dependable power supply units for air craft, police, marine and auto radios and public address systems. They are available in a wide range of capacities for every requirement. Designed and constructed to give maximum long life and service. Light weight and compact. For complete information fill out and mail coupon below.

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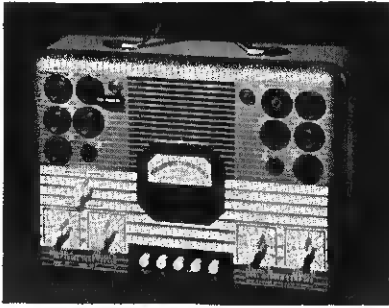
Please send me "Pincor" Silver Band Dynamotor Catalog and Data Sheets.

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Address

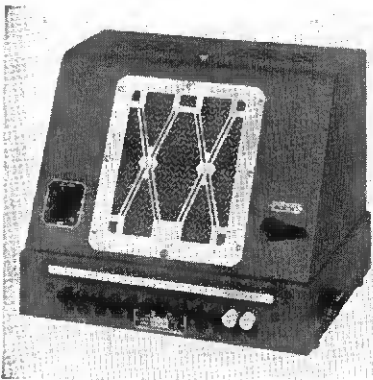
City State

WEBBER



DYNAMIC TESTER—As an added precaution against obsolescence, this tube tester has a 3/4 volt filament tap. This is in anticipation of a new tube to be operated in series with a similar tube across a 1.5 volts battery. Also 35, 50, 75, and 110 volt filaments are provided. Model 200SM features large, direct reading meter and may be used for either counter or portable service; price \$29.95. Earl Webber Co., 1313 W. Randolph Ave., Chicago, Ill.

OPERADIO



INTERCOMMUNICATOR—Type BH paging and intercommunicating system in one. Master has 10 pushbutton switches, one for each outlying station. A paging key is located on the side of the unit for calling all stations simultaneously. Finished in gray wrinkle trimmed in brushed aluminum; maximum power output 15 watts. Operadio Mfg. Co., St. Charles, Ill.

DETROLA



SALES GIRLS—Sally and Patsy display models of Everhard Rubber are 24 inches high, wear actual clothes. Sally, holding portable, sells for \$3.85; Patsy, the super sales girl, useful for display of anything from cameras to diamond rings can be had for \$3.90, complete with plate glass and clothes. Detrola Corp., Detrola Bld., 1501 Beard Ave., Detroit, Mich.

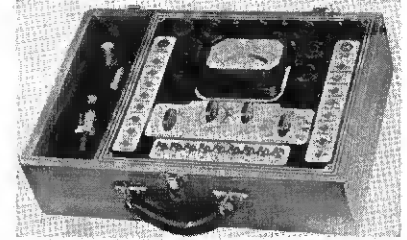
CLARION

SOUND SYSTEM—Model S-468T all purpose school system designed for program distribution and intercommunication in schools, hospitals, hotels and similar large buildings. Comprises 25 watt amplifier, tuner, master control panel, volume level meter, selector panel for 20 or 40 speakers, and many other features. Mounted in slate gray metal rack cabinet; lists at \$292.50. Transformer Corp. of Amer., 69 Wooster St., New York, N. Y.

WESTON

CHECKMASTER—Combination obsolescence-proof tube checker and multimeter. Provides filament voltages up to 120 volts; measures a.c. and d.c.

volts in 5 ranges of 7.5/50/150/500/1000; output measurements in 4 ranges of 1.5/7.5/50/500/1000; d.c. current measurements at 1/10/100 milliamperes; resistance at 0-10,000/100,000/1 meg./10 meg. Individual electrode switches on panel provide highly flexible means of testing ballast tubes. Only 3 main controls select proper conditions for tube testing. Weston Electrical Instrument Corp., Newark, N. J.



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Act at once—get at no cost!

- (1) A Jumbo Screw Driver
plus
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A great new WEBBER service to radiomen! We want you to plan your shop far in advance—thus getting the most for every dollar spent on test equipment.

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When this is received, The WEBBER Serviceman Advisory Council, composed of outstanding service authorities, will study your problems, and write a complete program for equipping your shop to meet every need of modern servicing.

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To every Serviceman whose shop meets standards prescribed by this experienced committee for servicing all 1940 receivers—will be awarded a large 12" x 9" two color display certificate attesting to his ability to give set owners accurate and dependable service.

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Just clip and mail the coupon shown below to get this handy screw driver, which retails for as much as fifty cents—as well as an analysis of your shop to help you plan for the future.



MAIL TODAY!



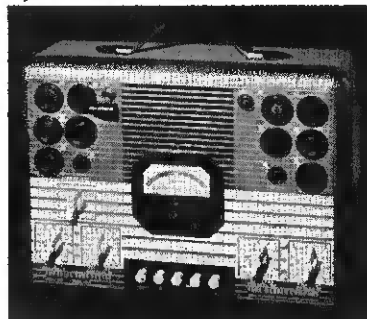
Send at once, with no obligation to me, the new WEBBER Shop Analysis, which entitles me to the FREE Jumbo Screw Driver, and an approval certificate for my shop.

Name

Address

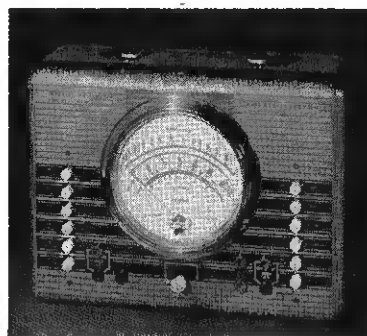
Webber "UNIT-MATCHED" design is a year ahead!

Every unit, including Tube Tester, Analyzer, Signal Generator and Cathode Ray Oscillograph is built on a uniform streamlined steel panel. Can be converted in a few minutes to rack mount or carrying case use. Now you can build up a neat and efficient shop.



Dynamic Tube Tester.....\$29.95

A real dynamic instrument reading GOOD or BAD on large 3 1/2" meter. Tests for dynamic mutual conductance, power output and emission. Filament voltages from 3/4 volt to 117 volts. Catalog lists sixteen other tube testers.



6 1/2"-Meter Analyzer.....\$33.75

The buy of the season. Offers every voltage current and resistance range—up to 3000 v. and 10 megs. Large chrome trimmed 6 1/2" meter with mirror type scale for easy reading. Catalog also lists combination tube checkers and analyzers with 6 1/2"-meter.

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Thousands of home recording sets are now in use. Thousands more will be sold this fall. Every owner of Presto equipment is a prospect for steady, year 'round repeat sales of discs and needles. You can get your share of this highly profitable business if you display Presto recording accessories prominently in your windows and on your record counter. They are attractively packaged, easy to set up, take little space.



ORANGE SEAL DISCS are recommended for high quality recordings, Monogram Discs for educational recordings.

SIZE	PLAYING TIME PER SIDE	LIST PRICES	
		ORANGE SEAL	MONOGRAM
6"	1 minute	\$.40	\$.25
8"	2 minutes	.55	.40
10"	3 minutes	.80	.60
12"	4 minutes	1.00	.75

PRESTO STEEL CUTTING NEEDLES

\$1.00 a box of 3. Dealer carton contains 12 boxes. Each needle cuts 8 to 10 records.

Sapphire cutting needles are \$6.00 each, have an average cutting life of 5 hours. Resharpener charge, \$2.00.



PRESTO STEEL PLAYING NEEDLES

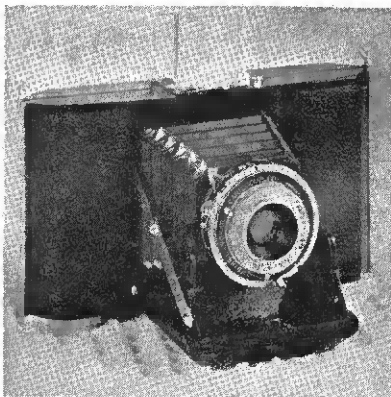
are highly polished and shaped to cause least wear on Presto recordings as well as ordinary phonograph records. Package of 25 needles, \$.25. Dealer carton contains 40 packages.



ORDER THROUGH YOUR JOBBER
OR WRITE DIRECT TO US

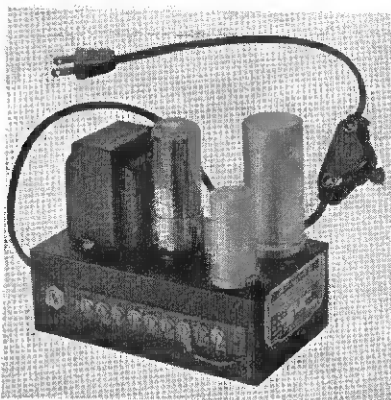
PRESTO RECORDING CORPORATION
242 West 53th Street, New York, N. Y.

ELECTRONIC PRODUCTS



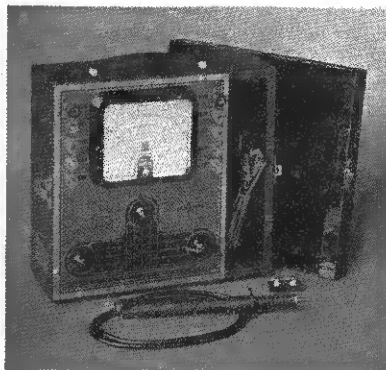
VOKAR—Proper exposure is assured by the built-in Varicoupled Control in this new camera which automatically sets the diaphragm in proper relation to shutter speed for varying light conditions. Uses standard #120 roll film of 12 exposures of a 2 1/4 x 2 1/4 negative. Finished in leather and bakelite; price \$15.00 and up. Electronic Products Mfg. Corp., Ann Arbor, Mich.

GTC



PORTA-POWER—Converts any two volt battery set to all electric operation. Supplies "A", "B", and "C" voltages up to 2 volts, 135 volts and 22 1/2 volts respectively. Ideal in rural districts which have just received electrification; operates on 105-125 volts 50-60 cycles; price \$9.95 list. General Transformer Corp., 1250 W. Van Buren St., Chicago, Ill.

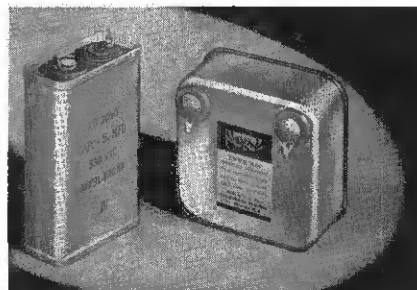
CLOUGH-BREngle



UNIMETER—Model 220 universal test meter with high voltage ranges. Special protection is provided on high ranges to avoid accidental shock by using a special test lead connector on the

instrument. This makes it impossible to use ordinary test leads when testing high voltage circuits. D.c. ranges to 10,000 volts; a.c. to 7,000 volts. Current range from 50 microamperes to 20 amps; resistance to 30 megohms. Clough-Brengle Co., 5501 Broadway, Chicago, Ill.

CORNELL-DUBILIER



MOTOR STARTING CAPACITORS—A complete line of condensers for all type motors. Type KG are made with high purity aluminum foil and Kraft paper impregnated with Dykanol "A." Type KH employ Dykanol "B" and are hermetically sealed in tinned steel containers. Cornell-Dubilier Elec. Corp., South Plainfield, N. J.

RME

RME-70—Communications type receiver tuning from 550 to 32,000 kc. in six bands. Incorporates electric band spread; tuning meter calibrated in R's; Crystal filter; iron core i.f.'s; resonator control; noise suppression. Sturdily constructed on cast aluminum base; in steel cabinet with black or gray crinkle finish \$231.00 list. Radio Mfg. Engineers Inc., 111 Harrison St., Peoria, Ill.

In AERIALS, RADIART
has the world with a
ring around it

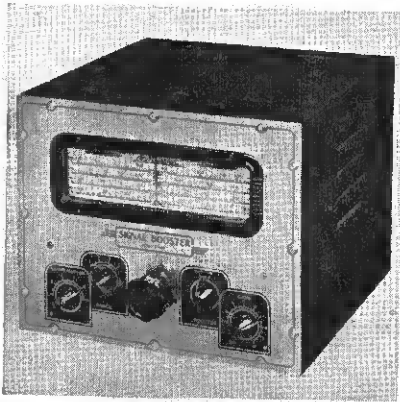


WATCH

for announcement of
**RADIART'S NEW
CORONA DISCHARGE
EQUALIZER**
(Patent Pending)

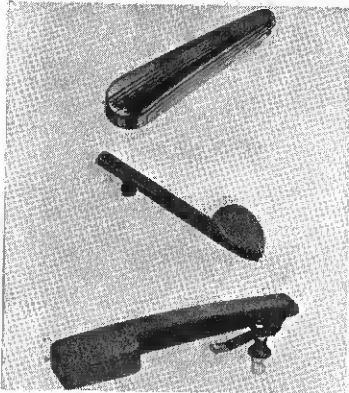
**RADIART AERIALS
ALWAYS BETTER
mechanically
ARE NOW BETTER
Electrically**

MEISSNER



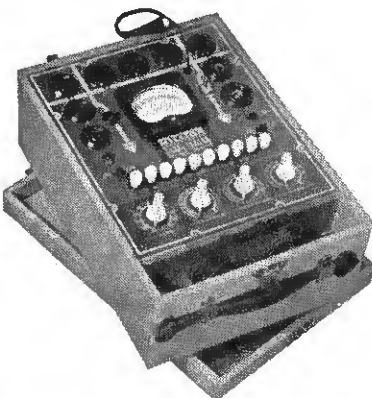
SIGNAL BOOSTER—Attached to any receiver tuning from 1600 to 31,000 kc this unit will bring in signals that were heretofore inaudible or very weak. Front panel switch permits operator to connect antenna to booster or directly to receiver. Housed in black crackle steel cabinet. Meissner Mfg. Co., Mt. Carmel, Ill.

RCA



PICKUPS—Model 9860 (top) housed in moulded plastic of ultra-modern design lists at \$5.45. Center unit, model 9869, is a deluxe instrument featuring top needle loading; price \$6.45. Model 9891 (bottom), which lists at \$4.95 uses viscaloid damping for greater fidelity. All are equipped with shockproof mounting parts. RCA Mfg. Co., Camden, N. J.

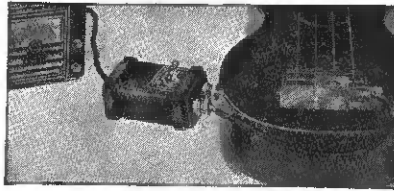
MILLION



TUBE TESTER—Model 8G, tests local, single ended and hearing aid types; 1.4 and 117 volt tubes. Checks emission of all types; filament

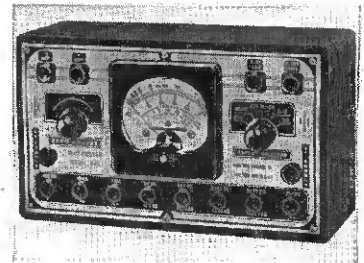
return circuit; spare sockets and voltage taps; finished in black and bronze with white markings. Million Radio and Television, 685 W. Ohio St., Chicago, Ill.

AMPERITE

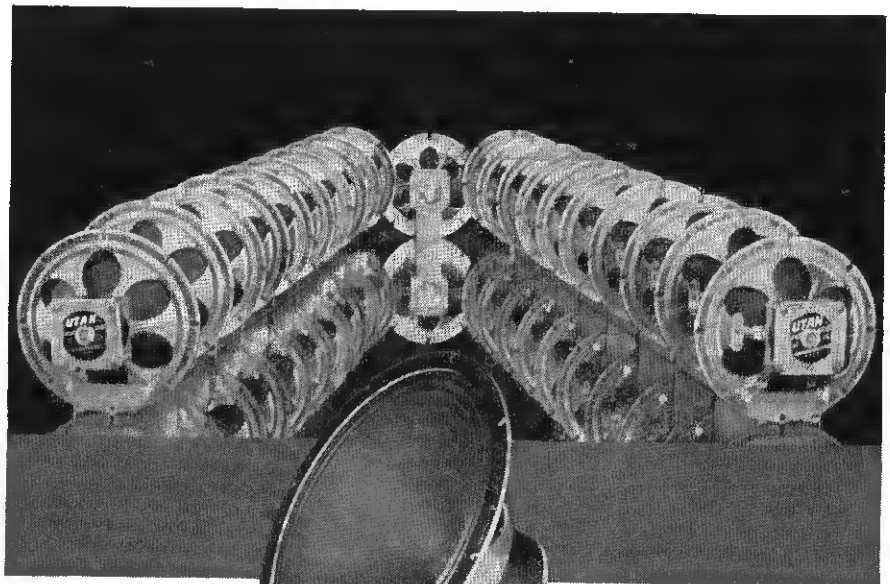


BOOSTER TRANSFORMER—For use with Kontak mike to amplify instrument through home radio set. Connection is made either through phono input or across volume control; price list \$3.00. Amperite Co., 561 Broadway, New York, N. Y.

RADIO CITY



MULTIMETER—Model 445 a.c.-d.c. unit combining many functions in one instrument. Measures d.c. volts in ranges of 0-5/50/250/500/2500; d.c. milliamperes at 0-1/10/100/1000; d.c. amps 0-10; a.c. volts 0-10/100/500/1000; ohms 0-500/100,000/1 meg; also output voltages. Uses 3 inch Bakelite case meter with 1000 ohms per volt movement. Price, \$9.95 net. Radio City Products Co., 88 Park Place, New York, N. Y.



UTAH SPEAKERS

GIVE YOU ASSURANCE OF AUDIENCE APPROVAL

You can use Utah speakers for every original equipment or replacement requirement with full assurance that they will give **PLUS** performance. Utah speakers have, for years, been passing successfully the many scientific tests of leading radio engineers. They are also out in front in the all-important consumer-listener tests, which determine the success or failure of sales and service work.

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of time and money. If you don't have a copy of the 32-page, illustrated Utah catalog write for it today.

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COMBINATION UNITS
SPECIAL TESTERS
TYPEWRITERS
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Without cost or obligation, send my copy of the ARCTURUS DEALER HELPS Folder and details of the ARCTURUS EQUIPMENT DEAL.

Name.....
Street.....
City.....State.....
 I am a dealer I am a serviceman. My jobber is.....

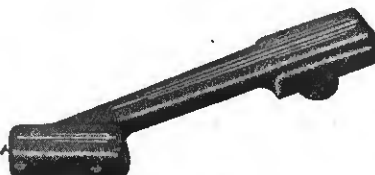
For your convenience this coupon can be pasted on a penny postcard
(OFFER GOOD IN U.S.A. ONLY)

PHILCO



COWL ANTENNA—Auto antenna with novel mounting system which eliminates drilling holes in the side of the body. Mounts by screws under hood; lead-in enters car in a like manner. Philco Radio and Television Corp., Philadelphia, Pa.

ASTATIC



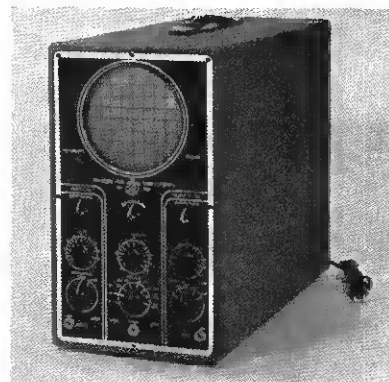
PICKUP—Crystal type pickup model AB-8 with Tru-Tan offset head to reduce tracking error. Waterproof crystal element; single hole mount-

ing; noise and feedback from vibration of motorboard effectively reduced; price \$10.00 list. Astatic Microphone Lab. Inc., Youngstown, Ohio.

TURNER

DYNAMIC MIKE—Model 33D with output level of -54 db. Available in 50, 200, 500, and high impedance. Mounting system permits tilting head 90 degrees. Frequency response stated at 40-9000 cycles. Complete with 25 foot balanced line cable. \$23.50 to \$25.00 list. The Turner Co., Cedar Rapids, Iowa.

RCA



OSCILLOGRAPH—A low cost 5 inch cathode ray oscillograph for testing and experimental purposes. Equipped with amplifiers of unusually wide range and has a horizontal sweep voltage range from 4 to 22,000 cycles. Housed in lightweight portable cabinet with all controls conveniently located on the front panel. RCA Mfg. Co., Camden, N. J.

Repair radios expertly

This book gives the essentials of theory and technique that clarify radio troubles and help you make quick, accurate repairs.

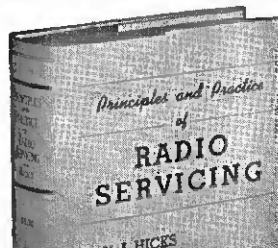
Just Out!

Principles and Practice of RADIO SERVICING

By H. J. HICKS

Radio Instructor, Hadley Vocational School
300 pages, 6 x 9, 212 illustrations, \$3.00

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.



Your Name Stamped in Gold on this Book FREE

At no additional cost to you we will stamp your name or a friend's name on the front cover of any copy of Simon's Radio Servicing ordered from this advertisement. Do you want to make a friend a gift combining personal thoughtfulness with real utility? Do you want a copy of this book that you will doubly prize? Then take advantage of this free stamping offer. Send the coupon today. (Proper remittance should be enclosed with order and, of course, stamped copies are not returnable.) This is a special Christmas offer, limited to acceptance before January 1, 1940.

McGraw-Hill Book Co., Inc., 330 W. 42nd St., N. Y. C.

Send me Simon's Principles and Practice of Radio Servicing according to the terms checked:
 With name stamped in gold. I enclose \$3.00 and understand that stamped books are not returnable. (Offer expires Jan. 1, 1940.)
 For 10 days' examination: without gold stamping. I will send \$3.00 plus few cents postage in 10 days or return book postpaid. (Postage paid if cash accompanies order.)

Print name to be stamped here

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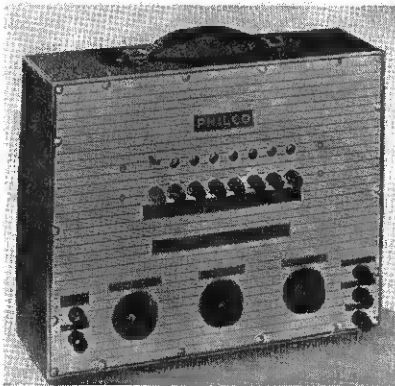
Name.....
Address..... Position.....
City and State..... Company.....
(Books sent on approval in U. S. and Canada only.) R.R. 11-39

G-E



VOLT-CHECKER—New adjustable prod for accurate battery testing. Produces a load equivalent to the starting load on a battery under test. Equipped with rubber lead permanently attached to a contact in the top of the prod. General Electric Co., Bridgeport, Conn.

PHILCO



SIGNAL GENERATOR—Especially designed for television; supplies video signal consisting of horizontal blanking and synchronizing wave forms with vertical blanking and serrated wave forms locked with 60 cycle line frequency. Provides r.f. carrier modulated by the above on any of 7 channels from 44 to 108 mc; known as Model 077-T. Philco Radio and Television Corp., Philadelphia, Pa.

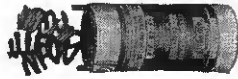
CONSOLIDATED



TUBE TESTER—MODEL 9000 dynamic conductance tube tester; accommodates all latest types including 117 volt filament tubes; also tests Christ-

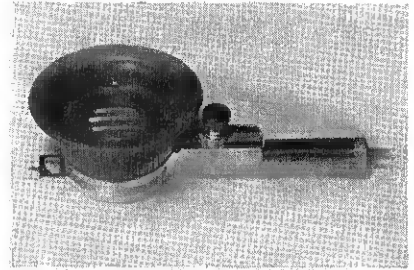
mas tree bulbs and pilot lamps. Finished in solid oak case which is easily converted from portable to counter model. Consolidated Wire and Assoc. Corp., 514 S. Peoria St., Chicago, Ill.

SPRAGUE



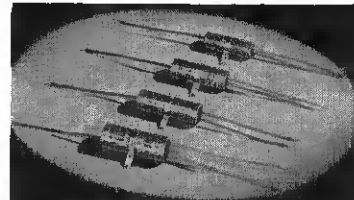
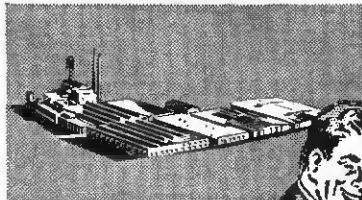
ELECTROLYTICS—New spade bolt type tubular cardboard dry electrolytics designed to serve as universal replacements; 8-8 and 8-16 mfd at 450 volts and 12-16 mfd at 200 volts. Sprague Products, North Adams, Mass.

UNIVERSAL



HANDI-MIKE—Special hand mike designed for police transmitter use. Frequency response has been arranged so that motor noises are damped out. Mounted in chrome case with ventilated rubber mouthpiece for close talking; press to talk switch, and 6 foot two-connector shielded cable. Universal Microphone Co., Inglewood, Calif.

When company and product are reliable
PROFIT is GUARANTEED



Into the capacitors it builds today, Cornell-Dubilier is pouring 29 years of specialized experience. The Consistent Dependability of C-Ds has won the confidence of capacitor users throughout the world. To meet this tremendous demand, turnover must be fast. Profits come biggest where volume sales come quickest.

You too can profit by standardizing on the complete line of Cornell-Dubilier Capacitors, Capacitor Test Equipment and Quietone Interference Filters.

Available at all leading distributors. Catalog No. 175A free on request.

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



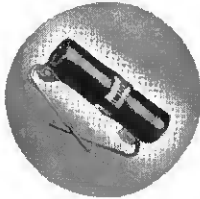
**CORNELL-DUBILIER
ELECTRIC CORPORATION**

1019 Hamilton Boulevard, South Plainfield, New Jersey
Cable Address: CORDU

OHMITE

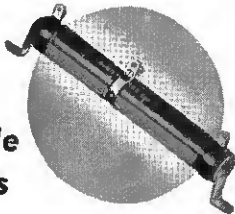
**Resistors for
Service Insurance**

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.

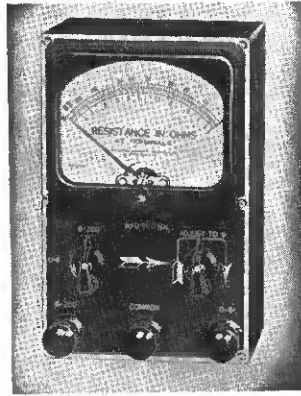
Get Ohmite Parts from Your Jobber. Send now for free Ohmite Catalog 17.

OHMITE MANUFACTURING CO.
4872 Flournoy St. Chicago, U. S. A.

OHMITE

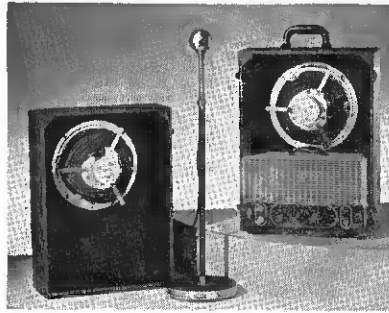
RHEOSTATS RESISTORS TAP SWITCHES

HICKOK



OHMMETER—Ultra low range ohmmeter for high accuracy on low resistance ranges. Uses 4 inch rectangular meter; range 0-6 and 6-600 ohms. Special low resistance leads of number 8 stranded rubber insulated wire with large surface clips. Hickok Elec. Inst. Co., 10514 Dupont Ave., Cleveland, Ohio.

WEBSTER ELECTRIC



SOUND SYSTEM—High quality amplifier of 4 stages; power output 12-13 watts at 5 per cent distortion. Automatic volume control; dual tone control; 129 db. gain for mike, 79 db. gain for phono. With two p.m. speakers and handsome carrying case. Webster Electric Co., Racine, Wis.

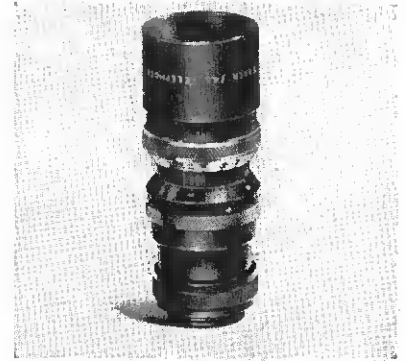
WESTERN

SOUND EQUIPMENT—Centralized, portable, and inter-communication systems for every type of service. Centralized systems include built-in superhet radio; push-button tuning, electric eye manual tuning; visual volume level indicator; world electric clock; monitor speaker; dual speed electric phonograph. Western Sound and Electric Labs., 311 W. Kilbom Ave., Milwaukee, Wis.

CLAROSTAT

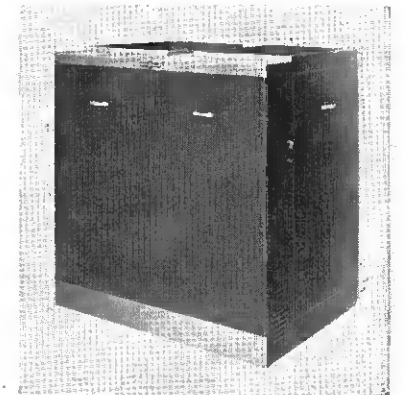
GLASOHMS—New flexible resistors with fibre-glass cores and braided covering of the same material. May be operated up to 1000 degrees F. without charring, burning or deteriorating. Units come in 1 and 2 watt sizes in resistance from 1/4 to 750 ohms per body inch and up to 500 feet long if necessary. Clarostat Mfg. Co., Inc., 285-7 North Sixth St., Brooklyn, N. Y.

UNIVEX



TELEPHOTO LENS—A new 125 mm. f 4.5 lens designed for the Mercury Camera. Magnifies distant objects more than 3 times. Special micrometer focusing brings distant objects into exact focus. Instantly interchangeable with 75 mm. or 35 mm. lenses; price \$65.00. Universal Camera Corp., 28-30 W. 23 St., New York, N. Y.

G-E



WARM AIR CONDITIONER—New oil-fired warm air conditioner type LB-22 utilizes a larger and slower speed fan, isolated from the frame of the unit by rubber mountings and canvas connectors. Air circulation in summer may be provided by running fan without burner. General Electric Co., Bridgeport, Conn.

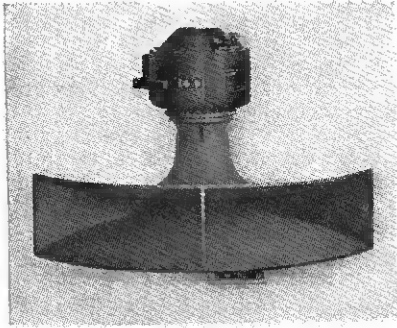
★ **POINT TO EXTRA PROFITS WITH** ★



Sentinel
QUALITY RADIO SINCE 1920



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



WESTERN ELECTRIC

HORN—A single horn which does the work of 4 trumpet type loudspeakers in distributing upper register sound in the horizontal plane. Sound radiation over 120 degrees horizontally and 40 degrees vertically. Western Electric Co., 195 Broadway, New York, N. Y.

ARISTON

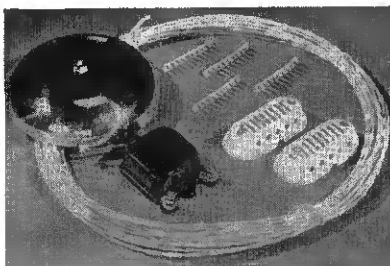
CONDENSERS—Newly developed line of bypass and electrolytic condensers; uses entirely new etching process assuring uniformity of foil and long life. Ariston Laboratory, Inc., Chicago.

CLARION



PORTABLE SOUND SYSTEM—Model C-448 system for sound men; theatrical troupes, and orchestras. Five channel mixing panel, streamlined appearance; auto luggage carrying case. Delivers 31-40 watts output; uses two 12 inch speakers and velocity mike, lists \$226.45. Transformer Corp. of Amer., 69 Wooster St., New York, N. Y.

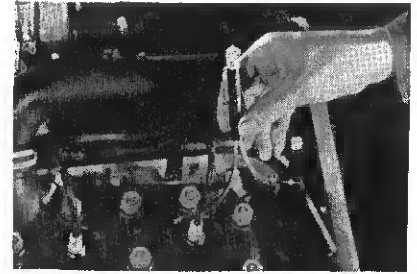
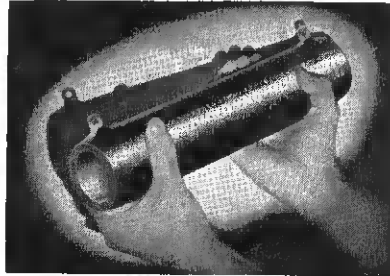
TACO



FIRE-SCOUT—A fire detecting system for the average household, shop, farm or factory; gives warning almost immediately when fire breaks out. Includes a number of sensitive thermostatic switches and gong. Thermostats are placed wherever danger of fire exist. When temperature at this position reaches a dangerous point, thermostat closes, actuating gong. In kit form with 3 detector heads, wire and gong, \$9.95 list; extra detector heads \$3.00 list. Technical Appliance Corp., 17 E. 16th St., New York, N. Y.

OHMITE

HEAVY DUTY RESISTORS—Large size 500 and 1000 watt vitreous enameled porcelain resistors; sizes up to 2 1/2 inches in diameter and 20 inches long; also supplied in the Corrib type with corrugated ribbon winding. Resistance wire is mechanically locked and brazed to terminals insuring good contact at all times. Ohmite Mfg. Co., 4835 Flournoy St., Chicago, Ill.



FLERON

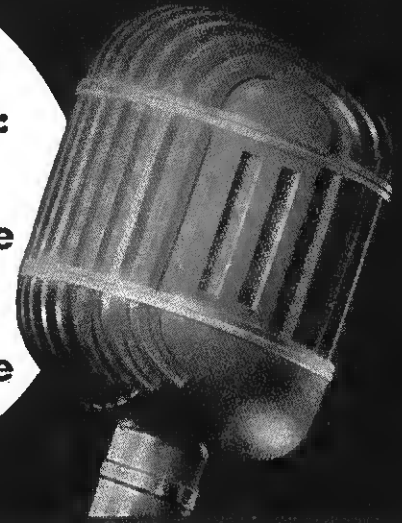
TESTER—A safe and convenient tester and polarity indicator for electrical and radio circuits from 80 volts to 550 volts a.c. or d.c. Uses neon bulb protected by Bakelite polystyrene housing. Insulated test leads have handy tips which make for operation ease. M. M. Fleron and Son, Inc., Trenton, N. J.

3-in-1 MIKE

Western Electric
639A gives you:

(ALL IN ONE UNIT)

1. A Cardioid Mike
2. A Ribbon Mike
3. A Dynamic Mike



For every Public Address or Broadcasting need

Here's the answer to operating problems you labeled "impossible"—Western Electric's 639A Mike!

Now, you can overcome even the poorest acoustic conditions because the 639A Cardioid has a large dead zone which blankets audience noise and minimizes feedback. It offers you new flexibility of

control—with its 3-way switch, you can have in addition to its Cardioid characteristics, bi-directional or non-directional characteristics.

Get the full details on how the 639A Mike can solve your toughest problems. Send the coupon now.



Western Electric
**CARDIOID
DIRECTIONAL MIKE**

GRAYBAR ELECTRIC CO., Graybar Bldg., New York.
Please send booklet describing Western Electric's
New 639A Mike. RR-11-39

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



AFTER DUCKS—Farnsworth's *Ernie Vogel* pins a hunting license on a companion's back

RMA Studies Major Problems

Will promote shortwave listening, continue joint drive with NAB, intensify excise tax fight

NEW YORK—Problems created by the European war, sales promotion and merchandising were paramount subjects of action by the Radio Manufacturers Association board of directors meeting October 10 and 11 here at the Hotel Roosevelt.

Plans for further promotion of shortwave radio, receiving sets and programs were outlined.

Engineering recommendations regarding future allocation and operation of television stations were approved.

Continuation of the NAB-RMA promotion was voted.

Aggressive continuation of the groups effort to have the 5 per cent federal radio tax was ordered.

Trade practice rules promulgated by

On the Newsfront

the FTC on July 22 were approved, with one minor reservation relative to tube definitions.

Conn Buys Federal Recorder

Band instrument firm acquires control. Pochapin continues as president

NEW YORK—C. B. Conn, Ltd., internationally known manufacturer of band and orchestra instruments located in Elkhart, Indiana, has purchased a controlling interest in the Federal Recorder Company, advises that Max M. Pochapin will continue as president and active head of the business. Roy Bennett remains manager of Federal's sales promotion activities.

Conn's executive vice president, Alfred L. Smith, says an extensive expansion program for Federal is under way and that the controlling company's research and experimental facilities, skilled technicians and strong financial position will back up increased activities of this firm already having two years of intensive experience in the recording field.

Federal's general offices and display studios will continue at 50 West 57th Street, New York City.

Emerson Poster Plugs Gift Appeal

NEW YORK—In full-color a 33 by 43-inch poster, just released by the Emerson Radio and Phonograph Corporation, bears the title: "The Ideal Gift," pictures 13 new sets with high Christmas gift appeal.

Majestic Trustee Appointed

Reorganization plan to be heard December 27

CHICAGO—Claude A. Roth has been appointed trustee of the Majestic Radio and Television Corporation by Federal Judge John P. Barnes, is to file a report November 20.

A plan of reorganization is to be submitted December 4, heard December 27.

Knowlson Heads Stewart-Warner

CHICAGO—James S. Knowlson, chairman of the Stewart-Warner Corporation board, has been elected president, succeeding Joseph E. Otis, Jr., resigned. He continues as chairman of the board.

Frank Ross, a vice-president of the corporation, was simultaneously named senior vice-president and a director of Stewart-Warner, succeeding Mr. Otis in these positions.

RCA Managers Meet

CAMDEN—Managers of RCA Victor's ten district sales offices covering the entire country met here during the first week of November to conclude plans for a comprehensive pre-Christmas sales, advertising and sales promotion campaign.

Among executives addressing the group were Fred D. Wilson, Henry C. Bonfig, Vance C. Woodcox, E. W. Butler, D. J. Finn, E. C. Cahill, George Ewald, L. W. Teegarden and W. W. Early.

SIXTEENTH BOARD of DIRECTORS R.M.A. 1939-40

<small>Geo. A. Scoville</small>	<small>Ernest Searing</small>	<small>P. S. Billings</small>	<small>W. R. G. Baker Director, Engineering Dept.</small>	<small>L. E. Osmon Chairman, Dept. of Finance</small>	<small>A. H. Gardner Chairman, Legal Department</small>	<small>James T. Buckley</small>	<small>Harry G. Sparks</small>	<small>David Sarnoff</small>
<small>Roy Burlew</small>	<small>Kay F. Sparrow</small>	<small>J. McW. Stone Chair, Dept. of Sales & Equip. Div.</small>	<small>B. G. Erskine Chairman, Tube Division</small>	<small>A. S. Wells President</small>	<small>James S. Knowlson Chairman, Sales Division</small>	<small>Ernest Alschuler Chairman, Dept. of Research</small>	<small>B. Abrams</small>	<small>E. E. McDonald, Jr.</small>
<small>David T. Schultz</small>	<small>James C. Daley</small>	<small>Octave Blake</small>	<small>Jerome J. Kahn</small>	<small>John W. Allen</small>	<small>Bond Geddes Chairman, Dept. of Sales</small>	<small>Leslie F. Mitter</small>	<small>Powell Crosley, Jr. Chairman, Dept. of Sales</small>	<small>G. W. Thompson</small>
<small>Paul V. Galvin</small>								

Philco In New Promotions

Execs increasing point-of-sale pressure, speeding up movement of entire line

PHILADELPHIA—The 1940 season looms as one of the best years in the company's history, according to Philco Radio & Television Corporation vice president Sayre M. Ramsdell, who revealed here November 1 that sales to date are far in advance of the corresponding period last year. Substantial improvement in business was attributed by Ramsdell to the stimulation of listening caused by European news, new equipment developments such as built in super aerial systems.

A new newspaper advertising campaign on the firm's wireless remote control has just been announced by advertising manager Ernest B. Loveman began October 19th, featuring a special trade-in allowance for a limited time. Parts and service manager Robert F. Herr simultaneously advised that, beginning immediately, Philco would start a campaign for wider education of servicemen, through special arrangements with NRL. Herr at the same time advised that a campaign was also under way to acquaint owners of obsolete antennas with the advantages of Philco Safety Aerials.

Promotion material poured from the Philco plant during the month, including a new series of 16 one-minute spot radio announcements for distributors and dealers, a newly-produced talking-movie comprising a series of 3 sales-scenarios, a new kit of five-point-of-sales displays especially designed to tie in with the current football season and European short-wave reception, a 24-sheet billboard celebrating Philco's "10 straight years of leadership" and a new radio log, with photographs of radio stars and leading personalities in the radio field.

Radiobar Direct-To-Dealer

Retailers offered new exclusive territory franchise

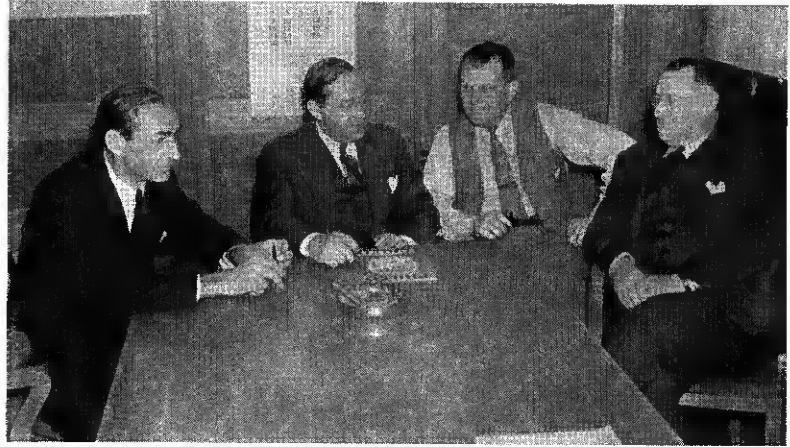
NEW YORK—Simultaneously with the announcement of 1940 models, the Radiobar Company of America with general offices at 296 Broadway has announced a new dealer franchise plan and direct factory-to-dealer distribution.

According to general sales manager C. T. Hillman, dealers will operate on an exclusive territory basis, selling all Radiobar models with or without factory installed radio chassis.

One new model combines bar, radio and automatic record-changing phonograph, is in a newly designed Chippendale cabinet.

Oak Buys Reliance

CHICAGO—The Oak Manufacturing Company of this city has just purchased the Reliance Die & Stamping Company, also of Chicago.



REPS VISIT PHILCO PLANT—Visiting the Philco plant at Philadelphia throughout October were field representatives and distributors intent upon important business conferences. Typical meeting was this, including (left to right): Distributors C. L. Van Zandt and Tom Williams, Philco execs Kennally and Carney

Meck Joins Webber

CHICAGO—John Meck has joined the Webber Company of 1313 W. Randolph Street, will direct this company's service instrument engineering and sales.

Meck has long been engaged in the instrument field, was formerly with Jewell, Clough-Brengle and more recently executive of a firm known as John Meck Industries, making both test equipment and sound equipment. The instrument activities of this firm have been combined with those of the Webber Company while its sound equipment line continues to be sold separately.

Lee Tele Sked Enlarged

LOS ANGELES—Thomas S. Lee's television transmitter W6XAO (picture on 45.25 and sound on 49.75 mc.) is to present standard 441-line programs every day except Sundays and holidays from 8 to 9 p.m. PST and also from 4 to 5 p.m. on Tuesdays, Thursdays and Saturdays, a total of 9 hours weekly and a

substantial increase in schedule over last year.

Tuesday, Thursday and Saturday evening transmissions will involve live talent, the rest film.

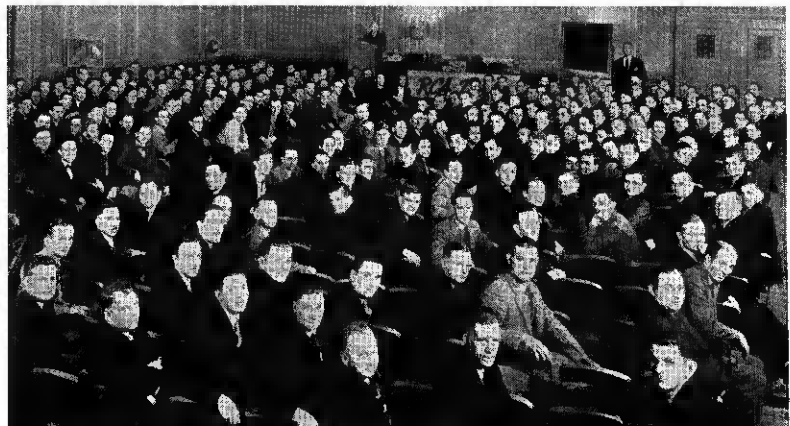
Chatten Rejoins Andrea

LONG ISLAND CITY—Louis C. Chatten has rejoined the Andrea Radio and Television Corporation after a short absence, will work under David Spector in a sales capacity.

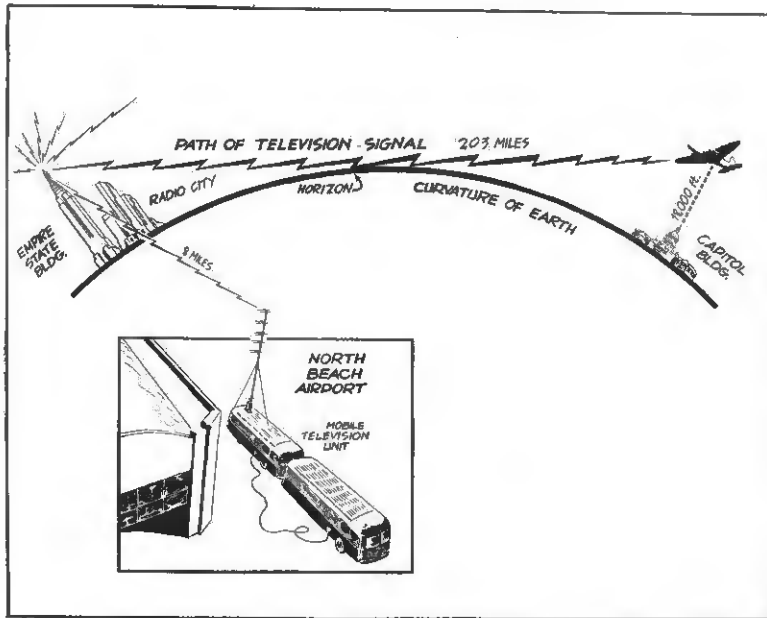
"Lou" had previously been associated with Frank A. D. Andrea for 14 years.

New NRPDA Members

NEW YORK—From Arthur Moss, executive secretary of the National Radio Parts Distributors Association, comes word that four new members have been accepted. They are: Wholesale Radio Parts Company of Baltimore, Rucker Radio Wholesalers and Columbia Radio Supply of Washington and the Johnston-Gasser Company of Richmond.



MR. RIDER ON HIS FEET—Over 400 dealers and servicemen turned out in Chicago to hear John F. Rider lecture at a recent meeting sponsored by RCA and its distributors. John gave them the latest dope on test equipment, went on to 39 more cities



HEIGHT IS EVERYTHING—From New York to Washington last month went an RCA television signal picked up 18,000 feet over the Capitol in a United Air Lines plane. Too bad every listener can't have a similar "skyhook."

Stewart-Warner Aids Santa

Ships Air Pal and Campus models in special Christmas gift boxes

CHICAGO—Two of Stewart-Warner's most popular radio sets in the lower-priced bracket, the "Air-Pal" and "Campus" models, will introduce an innovation in radio merchandising for the Christmas trade, according to L. L. Kelsey, radio sales manager. Both miniature sets will be encased in smartly designed, metalized Christmas gift boxes.

The Air Pal gift box, finished in blue, white and grained silver-foil, and the Campus Christmas carton, embossed in red, white and grained gold-foil, introduce a new trend in radio packaging, Kelsey believes. Both convey the radio-as-a-Christmas-gift idea with a clever Santa Claus and musical note motif imprinted on both sides of the two gift boxes.

The gift box idea is also applicable to Dionne Quints versions of the two models mentioned. And a larger model, the Senior Varsity, will be attractively cellophane-wrapped and tied with a red bow.

Shefler With Solar

BAYONNE—H. George Shefler has been appointed district sales manager in Phoenix, Arizona, for the Solar Manufacturing Corporation.

Kelsey Reports Combo Sales Up

CHICAGO — Combination sales are steadily increasing and a heavy demand for furniture models is developing in many trade centers, according to L. L. Kelsey, manager of Stewart-Warner's

radio division, who has just returned to his desk after a flying trip to New York, Boston, Pittsburgh, Omaha and Kansas City.

Landay Sales Formed

LOS ANGELES—Max Landay has formed the Landay Sales Company, at 416 West 8th Street, is looking for additional lines in the electrical field that he can handle as a manufacturers rep.

Miles Joins Howard

CHICAGO—Lt. Karl W. Miles, well-known designer of communication receivers, is now affiliated with the engineering staff of the Howard Radio Company.

G-E Men Advanced

Chapman, Snyder get new appliance department posts

BRIDGEPORT—In line with the recent consolidation of all General Electric Company appliance operations here H. L. Andrews, vice-president and executive head of the firm's appliance and merchandise department, has named George Chapman and Carl M. Snyder assistant managers. Chapman will assist in the administration of the appliance division, which includes design, manufacture and distribution of electric refrigerators, ranges, water heaters, dishwashers, disposals, electric kitchens, home laundry equipment, clocks, cleaners, fans, heating devices and miscellaneous appliances. Snyder will be responsible for sales and sales activities of the same line of products, together with radio and television receivers and tubes. D. C. Spooner will assist him.

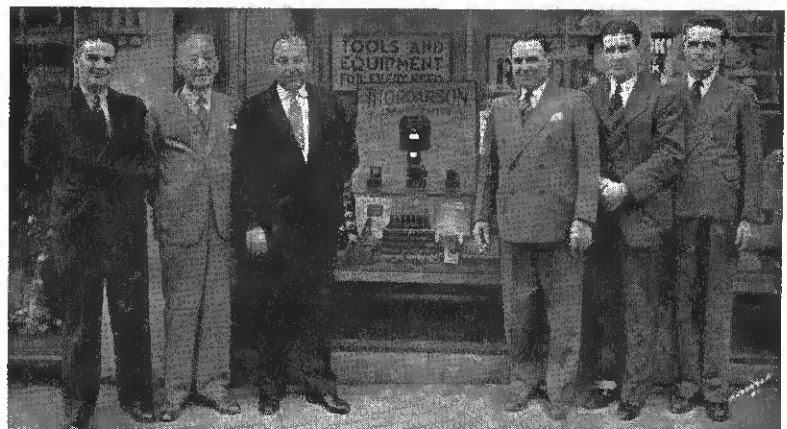
Simultaneously, Boyd W. Bullock, advertising manager of G-E's appliance and merchandise department, announces that J. W. Dunbar has been made supervisor of full-line appliance advertising, K. G. Patrick placed in charge of press relations for the entire appliance line.

Hytron Ups Ulrich

SALEM—Vinton K. Ulrich, who joined The Hytron Corporation in May as sales manager of the Hytronic Laboratories Division, has been appointed renewal tube sales manager.

Meissner Sales Rise

MT. CARMEL—From G. V. Rockey, vice-president and general sales manager of Meissner Manufacturing Company, comes word that at the end of the firm's fiscal year ending September 30 the jobbing division showed a sales increase of 72 per cent over a year ago. The month of September was the largest in the department's history.



KANSAS CITY PARTS JOBBER—Well known throughout the trade are (left to right): Thordarson's E. J. Rehfeldt and Frank J. Kysela, Jos. A. Burstein and M. W. Applebee of Burstein-Applebee, Douglas Fortune of Thordarson and E. L. Melton of B-A

New Refrig's Near Ready

Stewart - Warner, Gibson, Hotpoint, Westinghouse, Philco, Norge, G-E Set Dates

NEW YORK—Advice reaches here that on November 27-28 The Stewart-Warner Corporation will hold its annual national refrigerator sales convention at the Edgewater Beach, Chicago. Company distributors, their salesmen and servicemen, district managers and key officials of the company will attend the two-day convention, at which the 1940 line is to be introduced, according to household appliance division manager Charles R. D'Olive.

Gibson Electric Refrigerator Corporation advises from Greenville, Michigan, that its new models may be expected about December 1.

The Edison General Electric Appliance Company says the "Hotpoint" line will be shown for the first time to about two hundred distributors at a "Partners Meeting" scheduled to take place in Biloxi, Mississippi, beginning December 2.

Westinghouse Electric & Manufacturing Company announcements are expected "at the end of the year."

Philco Radio & Television Corporation will announce its new "Conservador" line at Palm Beach, during a mid-winter convention.

The Norge Division of the Borg-Warner Corporation will, we understand, have important new refrigerator models to announce about January.

General Electric plans to preview new models around the first of the year.

Hotpoint Execs Shuffled

CHICAGO—Changes in the Hotpoint organization, effective October 1, have just been announced by v-p and gsm R. W. Turnbull of the Edison G-E Appliance Company, Inc.

G. H. Smith, former refrigeration division manager, has been made general merchandising manager. F. B. Williams, former Atlantic district manager, has been made manager of the refrigeration sales division, with headquarters in Chicago. H. K. Dewees, former Minneapolis district manager, has been made sales manager of the Atlanta district.

D. C. Marble, range division manager, becomes manager of the product service division, covering all four Hotpoint home appliances. W. R. Schafer, for many years one of the firm's most active sales engineers, has been made manager of the range division. And A. Rebensburg becomes manager of merchandising research and the statistical division.

Three G-E Appointments

BRIDGEPORT—H. W. Bennett, a district radio specialist for the General Electric Company since 1930, has been transferred from his post as district radio sales manager in the Minneapolis office to the main office here as manager of radio tube sales.

T. F. Hall, associated with company

appliance activities for the past nine years and most recently manager of radio sales in the southwestern district at Dallas, has been transferred to Bridgeport as a member of the merchandising services section of the G-E radio and television department. Jack J. Broderick was simultaneously named manager of order service for the same division.

Steinway Further Broadens Effort

NEW YORK—Steinway & Sons, merchandising its own famous line of pianos exclusively at swank Steinway Hall at 109 West 57th Street until last month,

when acquisition of the Columbia line of phonograph records was announced, has also taken on RCA Victor discs and Victrola instruments, Capehart and Capehart-Panamuse machines.

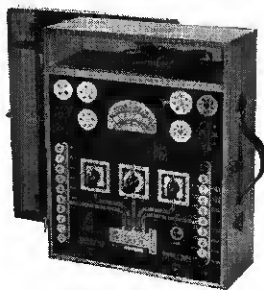
S-C Celebrates 45th

ROCHESTER—The Stromberg-Carlson Telephone Mfg. Co. is this month celebrating its 45th birthday with special merchandising events (details not announced up to presstime) for its dealers.

It was forty-five years ago, in November 1894, that Alfred Stromberg and Androv Carlson pooled one thousand dollars to form a company for the manufacture of telephone apparatus.

Your "Bread and Butter" INSTRUMENTS

It is desirable to have a completely equipped service shop, but your "Bread and Butter" instruments deserve your first consideration. Look around your own shop and see if your "Bread and Butter" instruments are satisfying your needs. (1) Will your tube tester



SUPREME 504

accurately test all the new tubes being announced; (2) is your set-tester complete, fast and reliable; (3) is your condenser tester accurate; (4) does your test-oscillator cover all the ranges needed; is it accurate and stable? The Supreme 504 and 571 meet all these basic requirements, and make a strong foundation upon which to build your business.



SUPREME 571

The Supreme 504 in a single unit answers your first 3 requirements without unnecessary bulk and at low initial cost. Correctly tests all present or future tubes regardless of tube base terminations or filament voltages. Patented filament return automatically re-connects all sockets for any possible tube base arrangement. New vari-volt selector provides 23 filament taps for testing all tubes from 1.5 volts to full line voltage. Fast tube test—just "follow the arrows" from roller chart.

The set testing functions of the Supreme 504 cover all ranges encountered in general service work. Seven D.C. voltage ranges from 0.1 to 2500 volts. Five A.C. voltage ranges from 0.1 to 1000 volts. Seven Direct Current ranges from 10 microamperes to 10 amperes. Five output ranges from 0.1 volt to 1000 volts. Five Ohmmeter and Megohmmeter ranges from 0.1 ohm to 20 megohms. Guaranteed over-all accuracy of 2% on D.C. and 3% on A.C.

All paper condensers checked for leakage up to 20 megohms. All electrolytic condensers checked for leakage at rated voltage on English reading scale. Settings on roller chart for every capacity and working voltage.

The Supreme Model 571 oscillator guarantees you (1) Accuracy, (2) Stability, and (3) Range.

By the use of variable iron core coils, calibration can be held well within 1/2 of 1%. To eliminate error in reading, a hair line illuminated shadow indication is used. A dual drive mechanism provides fast and easy setting of the precision cut tuning condenser. Use of air dielectric trimmers in a special circuit has eliminated frequency drift with change in line voltage and temperature to a point where it can be disregarded.

The Model 571 has five fundamental ranges which cover the following frequencies: 65 to 205 KC, 205 to 650 KC, 650 to 2050 KC, 2050 to 6500 KC, 6.5 to 20.5 MC. Harmonics of these ranges extend these frequencies to 82 megacycles. All these are read on two scales so that there is no confusion as to which is the proper band.

Besides these features, the Model 571 provides signals with two different levels of modulation: 30% and 75%. Double shielding throughout minimizes leakage.

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

SUPREME

EXPORT DEPT.
Associated Exporters Co.
145 W. 45th Street, New York
Cable Address: LOPREH, N. Y.

Dealer Helps

ELECTRIC SIGN—*Hygrade-Sylvania* has a new electric sign for its dealers and servicemen. Made up from suggestions received from the field. Available at \$1.25, it plays up the words: "Complete Radio Service," is 22½ by 8¾ by 3¾. Uses two 40-watt lamps, has "hanger" for dealer name.

PERSONAL, PRODUCTS—*Detrola* has just released a swank, spiral-bound booklet containing pictures of its entire executive personnel, scenes in the plant, the complete line of radio receivers with prices and specifications.

UNION LABEL—A new point-of-sale display by *Cornell-Dubilier* urges users to "Buy Union-Made Cornell-Dubilier Capacitors." Treated in blue and gold, it's a flasher-type display.

CHILDREN'S CATALOG—*RCA Victor's* children's record catalog has just been enriched by twelve new sets of recorded music and stories.

CONDENSER CATALOG—A new catalog has just been issued for jobbers and servicemen, listing a complete series of popular replacement *Ariston* "New Process" condensers. Write *Ariston Laboratory, Inc.*, Chicago, for free copies.

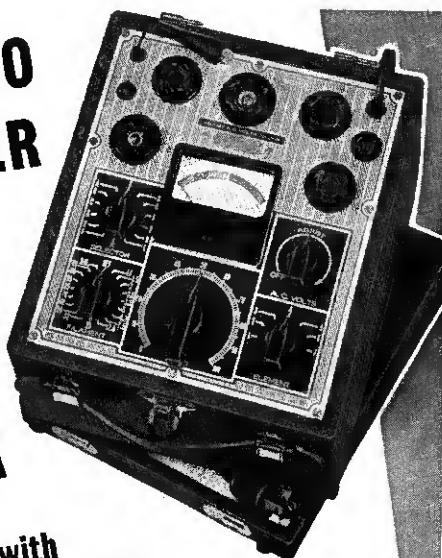


SHOWS FIELD REPS—A. A. Brandt, G-E merchandising service manager, showed field reps recently assembled at Bridgeport a new Christmas display for table type radios

**SERVICEMEN WHO
KNOW—PREFER**

Readrite
TESTERS **RANGER** METERS

MODEL 432-A



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

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

with
RED • DOT
Lifetime
Guaranteed Instrument

\$17.85 Net

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

MODEL 739

For More
Information Write
Section 1120
College Dr.



**POCKET VOLT-OHM-
MILLIAMMETER**

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

READRITE METER WORKS
BLUFFTON, OHIO

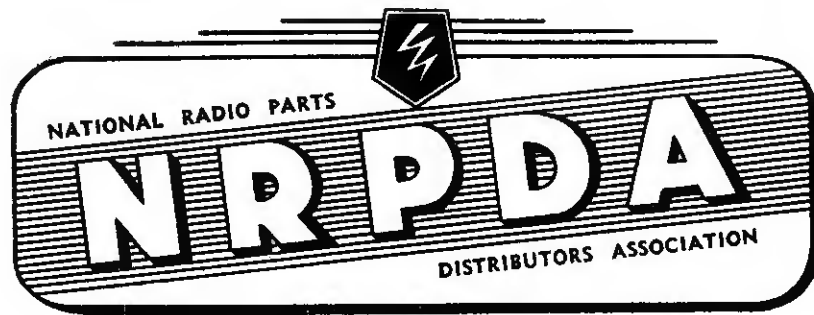
CAPACITOR CATALOG—*Solar Mfg. Corp.* of Bayonne, N. J. has just issued a new catalog for servicemen, known as 10A. Gives complete dope on dry, wet, paper, mica and trimmer capacitors and full data on Solar capacitor analyzers. Available from jobbers, or direct from factory if requested on business stationery.

SERVICE ENCYCLOPEDIA—*National Union Radio Corporation* advises that it now has ready for distribution a service equipment encyclopedia for use by distributors. Includes listings of the N-U tube line, information on gift merchandise, complete data on associated instruments, much technical data about shop accessories. Not available to retailers but the trade may examine the books at their distributors.

CAPACITOR MANUAL—Just off the presses and free to servicemen through their jobbers is a 240 page "Capacitor Manual for Radio Servicing" by *Cornell-Dubilier*. Set manufacturers names appear alphabetically and under each name models made are listed. For each model capacitor values, working voltages are noted and standard C-D types recommended for all circuits.



TIMELY AID—New 10-piece Galvin Manufacturing Corp. display package released just in time for Christmas use includes a lifesize Santa, price-cards, two window-streamers, large illuminated wreath (shown here grouped around "Sales Maker" merchandise display)



THE MARK OF AN ETHICAL MERCHANTISER OF ADVERTISED RADIO BRANDS

Here is a symbol which bears watching. It is your safeguard against practices which have tended, in the past, toward taking away profits which are legitimately yours.

Dealers and Servicemen who have had to contend with destructive practices in the past, will welcome the opportunity which is now afforded them to help eliminate these practices. NRPDA Jobbers are merchandisers of nationally advertised radio brands. They are jobbers who are interested in Industry problems which affect your business. In short, NRPDA members recognize their responsibility to you.

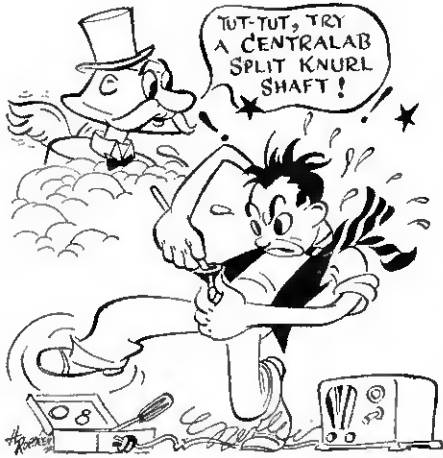
That is why we urge you to deal with jobbers who display the NRPDA symbol. There's an NRPDA Member in your territory Address the Executive Secretary for his name.

NATIONAL RADIO PARTS DISTRIBUTORS ASSN.

TEMPORARY OFFICE OF THE EXECUTIVE SECRETARY

5 WEST 86th STREET

NEW YORK, N. Y.



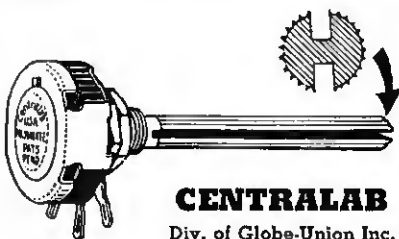
Centralab UNIVERSAL SPLIT - KNURL CONTROL

Sh! It's a dank dark secret. . . known only to several thousand service men. . . it takes a special shaft to fit the knobs on many of the new (1938-39-40) sets.

So, instead of tearing your heart out thinking up new cuss words, get in touch with your nearest Centralab jobber for a Universal Split-Knurl control with the shaft that cuts as easily as butter.

Shaft is brass— $3\frac{3}{8}$ " long from mounting surface. For switch type add Midget Radiohm switch covers K155, K156, K157, or K158.

Be sure you say "Centralab."



CENTRALAB
Div. of Globe-Union Inc.
Milwaukee, Wisc.

ANTENNA DISPLAY—Coincident with the announcement of its new line, The Ward Products Corporation of Cleveland has developed an attractive, compact counter display unit holding 3 different antenna models. Easy-to-sell-from and easy-to-buy-from, the display takes but 12 inches of counter space, is furnished free with equipment orders.

SERVICE DATA—*Aerovox* has just released its 1939-40 catalog of condensers, resistors and test instruments. Twenty-six pages overall, the booklet is unusually complete with respect to product details and pictures, describes and diagrams actual part sizes and mounting systems.

FALL CAMPAIGN AIDS—*Transformer Corporation of America*, maker of Clarion sound equipment, has several new fall sales campaign items available without charge to its customers. Includes a four-color window streamer depicting equipment applications, a consumer folder illustrating popular sound items with space for dealer imprint.

TELE, AUDIO, RECORDS—Among the many sales helps released this month by *RCA*: Book by service division entitled "Practical Television by RCA," practical dope for technicians (25¢). Six brightly colored decals featuring scenes from East and West Coast Fairs, designed to help sell Pick-Me-Up line of portables (10¢ per set). Personalized initial letters for portables (\$2.50 per gross). Poster card to fit around and on top of radio console to feature its television jack. Up-to-date supplement to the Victor record catalog containing a 31-page index of all Victor Red Seal and Victor records released up to and including June. Two children's record albums boosting both Victor and Bluebird groups.

Distribution News

STEWART-WARNER—Distributors just appointed include: *H. J. Sackett Electric* of Buffalo, *C. T. Berner Distributors* of Dayton, *Falheim Lumber* of Erie and *Hibbs Hardware* of Portsmouth.

DETROLA—*Freed and Saphin* of 230 Fifth Ave. will display this line, serve as the firm's Metropolitan division representatives.

NORGE—*W. H. Roth*, until last month vice-president and sales manager for Radio Specialty of Milwaukee, has sold his interest in that firm to form *Roth Appliance Distributors* at 647 West Virginia Street, specializing in Norge appliances.

FARNSWORTH—Recent distributor appointments include: *M. H. Kirchbaum* of Sioux City, *Bertram Motor Supply* of Boise and *Smith and Hirschmann* of



MOVES PLANT—*E. V. Sundt*, president, says *Littelfuse* has again had to enlarge its manufacturing facilities by moving to a new plant at 4757 Ravenswood, Chicago. Business is reported up 35 per cent

Rochester. *Chattanooga* has been added to the territory of *J. L. Perry* of Nashville and Knoxville assigned to *Southern Bearings and Parts* of Charlotte.

MAJESTIC—*Royal-Eastern Electrical Supply Company* of New York has just been appointed, handling the metropolitan area. Established in 1897, *Royal-Eastern* has been in radio virtually since the radio business started, is headed by *Stanley Goodman*.

AUTOMATIC—*Ben Stevens* of 1775 Broadway, New York, has been appointed metropolitan New York and northern New Jersey representative for this firm, will maintain a complete display of Automatic receivers at his General Motors Building offices.

SENTINEL—Three new jobbers have been appointed. *Brown Camp Hardware* of Des Moines; *Henkle & Joyce* of Lincoln, Nebraska; and *Zork Hardware* of El Paso.



OMAHA EPISODE—Celebrating the city's "Golden Spike" Anniversary, left to right: *Dan Fairbanks* of IRC, *John Brown* of H. C. Noll Co., *Joe McCarthy* of IRC



VOICE WITH SMILE—Ken-Rad's Roy Burlaw. This is the way he spent much of his time during the recent RMA meeting

AMERICAN ELECT. CABLE—Ben Joseph of 1440 Broadway, New York, well known rep, has been appointed sales engineer for this firm making all kinds of cords and wires for the radio and electrical trade, will cover the metropolitan area, New England, Philadelphia, Baltimore and Washington.

ADMIRAL—Lou Willis has rejoined Continental Radio and Television's organization, will cover his old territory: California, Nevada, Utah and Arizona, out of Los Angeles.

CHRISTMAS GIFT MONEY

(Continued from page 19)

fact, valuable for that purpose.

Trade-In Tricks

Trade-ins are likely to be headaches around the holidays if permitted to get out of hand.

In 1938, this plan minimized trade-in allowances on radios. The dealer, as a special Christmas offer, agreed to recondition the old unit

and install it for anyone the customer designated. Playing upon the holiday spirit, he suggested that the customer have the old unit sent to a hospital or to someone who could not afford one. Usually the holiday spirit conquered and this met with approval.

This particular plan is workable throughout the year but it is more potent at Christmas time because customers are then more inclined to give. On a radio transaction, should a customer refuse the offer, the dealer suggests that she allow him to recondition without charge, using the old radio as a second set in her own home. Dealers reported that trade-in allowances were reduced as much as 60 per cent during the holidays with this plan.

Radio In Business

Even commercialists are likely prospects around the holidays. Some shopkeepers install radios for Christmas because it steps up the holiday spirit and is an asset in getting trade.

Good prospects for Christmas radio business are shoe-shine parlors, barber shops, restaurants, candy stores, beauty parlors and cigar stores. Stores already using radios may need replacements and Christmas is a good time to suggest the switch-over.

Portable sets in 1938 were particularly big sellers as gifts to college students. The extra set for mother in the bedroom, for Dad in the den or the cook in the kitchen has plenty of gift appeal.

Accessories, Allied Lines

Where radio set sales could not be closed, some dealers found it profitable to suggest that prospects re-tube their old sets to assure tip-

Dual SPACE-SAVER ELECTROLYTICS



● Where space is decidedly at a premium, when the pocketbook is flat, and if only a normal-duty service is expected of components, then by all means consider the DANDEE mid-gatean electrolytics. Nothing could be more ideal to fit such conditions.



And in addition to the extensive listings of single-section units, in 25, 50, 150, 250, 350 and 450 v. D.C.W., from 4 to as high as 100 mfd., you now have the dual-section units for still greater space savings, as follows:

DUAL DANDEES

Type	D.C.W.V.	Size	List Price
8-8	450	1x2 5/16	\$1.05
8-16	450	1x2 5/8	1.30
8-8	200	3/4x2 5/16	.80
8-16	200	13/16x2 5/16	1.00
16-16	200	7/8x2 5/16	1.15
8-8	150	9/4x2 1/2	.80
8-16	150	7/8x2 1/2	.85
20-20	150	7/8x2 3/16	1.05
10-10	50	11/16x1 11/16	.80
10-10	25	3/8x1 1/2	.60



NEW CATALOG . . .

Just off the press—the new 1939-40 edition. Lists Dual Dandees and many other new types. Ask your local jobber for your copy—or write us direct.

AEROVOX
CORPORATION
NEW BEDFORD, MASS.
IN CANADA AEROVOX CANADA, Limited, Hamilton, Ont.

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

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

Licensed under patents of the
Brush Development Company



WEBSTER ELECTRIC COMPANY
RACINE, WISCONSIN, U.S.A. Est. 1909
Export Dept.: 100 Varick Street, New York City. Cable Address: "ARLAB" New York

Webster Electric

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

NEW FREE



over 240 Pages!
COMPLETE REPLACEMENT INFORMATION

Read how to get your free copy of the C-D Manual that reduces required capacitor types to a minimum . . . speeds service work—

The book that took months to prepare . . . the book that provides the serviceman with a reference source stripped of non-essentials, is ready now and free to you. All standard set data was checked in order that replacement information might be complete. You'll find the Manual, in its concise and orderly form, an invaluable guide in determining proper capacitor replacement for any type receiver.

Set manufacturers' names appear alphabetically. Model data covers capacitor values, working voltages and standard C-D capacitor types required for replacement (number of standard types has been reduced to an absolute minimum), references to illustrative circuits (over 165 are given in the back of the Manual), manufacturer's original part numbers, and the volume and page of Rider's in which complete schematic circuit is to be found for general checking purposes.

Find out from your Distributor how you can obtain this valuable 240 page "Capacitor Manual for Radio Servicing". There are no strings attached to the offer. Here is something for nothing—a book to save you time, quicken turnover, give you a single trustworthy source for all capacitor stock requirements. See your C-D Distributor today.



Typical page from Manual

CORNELL-DUBILIER
ELECTRIC CORPORATION
1019 Hamilton Blvd., So. Plainfield, N. J.
Cable Address: "CORDU"

top reception during the holidays. Tube sales during the 1938 holidays were increased as much as 70 per cent with this suggestion. It is also a good way to keep sales of repairs and parts at tops during the holidays.

Querying eastern radio retailers on the subject of holiday merchandising, we learned that they will carry a wider assortment of companionate sellers this Christmas than ever before. Past experience, they say, has convinced them that holiday radio sales and net profits are greater when the dealer carries a varied line of gifts and the figures submitted verify this contention. Interviewed retailers who carried a well-rounded stock of gifts last Christmas averaged 60 per cent more net profit and 30 per cent more radio volume than those who carried a limited assortment of related lines.

Retailers told us that such gift items as movie cameras, electric clocks and other small appliances, refrigerators and other large appliances, recorders, private telephone systems, phonographs, records, P.A. equipment, inter-communicators, car radios, even wind chargers and air conditioning units, aid radio sales at Christmastime because they increase store traffic.

One retailer estimated that movie equipment stepped up store traffic 15 per cent around the holidays. Another dealer reported that he sold 14 radios during the first 2 weeks in December to "walk-ins" who were coaxed into his showroom with his "buy" appeal on electric clocks, private telephone systems and other lines related to radio in a merchandising way. In 3 of these instances, the "walk-ins" switched their gift preferences from related lines to portable radio, the remaining 11 making dual purchases. The dealer "plus-sold" them.

One item that sold particularly well was a door communicator by which those outside the home can communicate with those inside. With this device, a housewife can talk from the kitchen to anyone outside without going to the door, a big step-saver and a safety factor in these days when women are sometimes victimized after opening doors for strangers.

If the dealer takes time to investigate, he will find that this field offers a number of different allies possessing good gift appeal.

Radio sets themselves are the

most ideal Christmas gifts we can think of but promotion need not stop there.

SOME ARE BOUGHT

(Continued from page 29)

the same kind of economy we talk when selling a refrigerator, or a washer.

Radio's Appeal Unique

We are much better off with the radio—not because it is easier to sell, but because it is more readily bought. Most people will make startling sacrifices, if necessary, to buy entertainment. True, this makes it easier for the salesman to get the order; but it doesn't make the radio easier to sell than the washer.

If it was not for the penchant of people for entertainment radio would have virtually no sales talk at all. (Check the chart again.) If somebody decides to buy a radio, to replace his old one, when it begins to get cool and he's going to spend more time inside—we do the same thing we do with the suite of furniture, except that in the place of Comfort we have Entertainment. And even so, the person probably has the entertainment already but merely wants it with a little less static.

At any rate, here again, we can't talk economy as we can with the refrigerator and washing machine. The person must want the radio—and want it enough to pay for it.

The advantage with the radio, of course—aside from the fundamental buying factor of entertainment—is that we can put it in a home on trial and let it sell itself—or at least increase the person's desire to the point where we have an easier time getting the order.

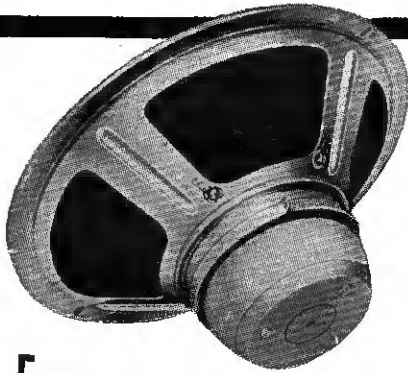
The entertainment factor, plus the home demonstration, is what makes the radio a good proposition for an outside salesman—not the fact that a radio is easy to sell. The desire for entertainment alone is what makes the radio a bigger seller than, say, the washing machine—in spite of the fact that the washer is easier to sell!

Washer No "Slouch"

Of course, the point of saturation will never be as high with the washing machine as it already is with the radio; many women do not want to do their own laundry, even with a

SOUNDS SWELL NOW!

which means: more profit to you thanks to CINAUDAGRAPH



EVERY time you replace with a Cinaudagraph Speaker you've made a customer for life, and created an "ad" money couldn't buy.

The name of the speaker? They seldom ask. They aren't interested. But when you hear that, "Sounds swell now" from customers' lips, you know it's only the beginning and you can thank Cinaudagraph. For there'll be more business and new customers coming . . . increased profit and prestige for you.

Quality does it—quality that costs no more today. That's why Cinaudagraph—with its complete line of electro-dynamic and permanent magnet speakers for every "replacement" and "sound" purpose for both indoor and outdoor applications—is the name for you to remember. Say it, next time you see your jobber.

CINAUDAGRAPH CORPORATION
STAMFORD, CONNECTICUT

washing machine, no matter how much it costs to send it out. But this is nothing to worry the dealer selling washers, or the one who wants to sell them. There are still countless women doing wash by hand (who can afford to buy them), and still countless women sending it out (who would buy washers if we really sold them).

And sell washers as well as radios and refrigerators to them we can. Look at that chart! The washing machine is on a par with the vacuum cleaner (which men are selling *exclusively*, mind you) where women wash by hand; and it outranks the cleaner where they send wash out. True, the vacuum cleaner can be carried from door to door—but that is a selling *advantage*, not a selling *point* concerning the intrinsic value of the merchandise itself.

Test Your Own Selling

Check my chart carefully and see if the comparison of selling points doesn't give you ideas that will put more punch in your selling, regardless of which of the listed household specialties you handle.

I think you will find the contrast between two items that are "tops" in their respective niches — radio (which is "bought") and refrigeration (which is "sold")—particularly enlightening if you have never analyzed your lines this way.

It was for me.

TUBE PLAN REACTION

(Continued from page 25)

offer as much immediate profit as we formerly enjoyed because we operated on net prices based on not less than — per cent gross profit in any quantity. In order to keep some of our accounts we will have to be satisfied with — per cent profit on the new deal. . . .

"Most dealers agree that prices have been unsound but would have welcomed a slightly higher price showing better profits. This present plan would, however, be entirely satisfactory if a fair trades agreement on prices could be enforced. . . . Our suggestion would be to fix the retail dealer discount schedule so all are uniform, eliminating deals and special concessions."

Many jobbers said they hoped manufacturers would make the new schedules stick.



When you see these RCP Test Instruments you'll know what we're driving at. For the easily checked fact is—in addition to being fine instruments, they've got the professional look that impresses customers and builds business. Look at the models illustrated. All are with wanted features . . . priced within easy grasp, they're merely three in a complete line of low-cost RCP testers designed to bring you up to date and send your profits soaring.

RCP COMBINATION TUBE AND SET TESTER MODEL 801

NOWHERE COULD YOU BUY these two essential instruments individually and get the same high quality at the same low price. Large 4½" meter tests all new and old tubes and ballast tubes; hot individual interelement short and leakage tests. Noise Test. Line regulation 103 to 135 volts; direct meter indication. Model 801 provides four A.C. and four D.C. voltage ranges 0/10/50/500/1000; D.C. milliammeter 0/1/10/100/1000, D.C. amps 0/10. Also D.B. meter and output meter. Four ohm-meter ranges 0/500/5000/1,000,000/10,000,000. Polarity reversing switch. Fused D'Arsonval Meter Alnico Magnet, Double fused line. Compact, light, with slip hinge cover case. Complete with tube, battery and test leads. Net. . . . **\$27.95**



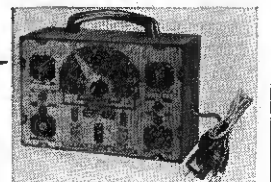
RCP MULTITESTER AC-DC MODEL 445

IN A CLASS with testers selling for twice the price! Actually, it is the equivalent of 25 different instruments. Five range DC voltmeter 0/5/50/250/500/2500. DC milliammeter 0/1/10/100/1000. DC Ammeter 0/10. AC voltmeter 0/10/100/500/1000. Ohmmeter 0/500/100,000/1 Meg. Special low ohm scale reads 0.1 ohm. Four decibel ranges —8 to +15/12 to 35/26 to 49/32 to 55. Meter sensitivity 1 Milliampere or 1000 ohms per volt. Selector Switch operated. Complete with batteries. Net. . . . **\$9.95**



RCP SIGNAL GENERATOR MODEL 702

EVEN FINER PERFORMANCE than RCP's former signal generator. Accurate, stable. All wave coverage from 95 Kc to 100 Mc. Output modulated at will. 30% modulation at 400 cycles, sine wave from self-contained independent 400 cycle circuit. Attenuation in microvolt calibration by means of five step ladder attenuator. Triple shielding. Highly attractive professional appearance. AC operated. Net. . . . **\$22.95**



FREE!

A Brand New Catalog No. 121, has just come from the press. Send for a copy today. Find out how complete this Quality test instrument line is, and how little it costs to "go modern" with RCP.



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

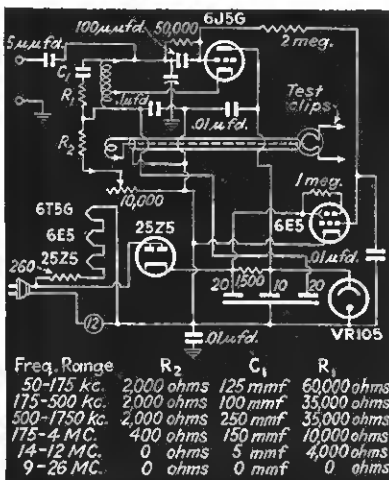
L-C Checker

Designed to aid the serviceman and experimenter in solving common problems involving inductance and capacitors, the tester by Aerovox shown here permits some rather unusual test functions.

Fundamentally the circuit is somewhat similar to the well known grid-dip type oscillator. A 6J5G oscillator, operating in the range from 50 kc. to 26 mc., is the source of the r.f. signal. Rectified grid voltage across the grid-leak of the oscillator is used to control the 6E5 tuning eye indicator. A 25Z5 serves as rectifier supplying plate voltage, and the VR 105 voltage regulator functions to keep this voltage constant.

Tightly coupled to the tuned circuit is a low impedance link which connects the oscillator to the test clips. The action of this link is one of the most interesting parts of the unit.

Since the test clips consist of a one turn loop coupled through the link to the oscillator, any capacity connected across the clips tunes this loop. If the frequency of the oscillator is varied over the dial (assuming the correct capacity range is chosen on the dial) at one point the oscillator will come in resonance with the tuned loop. The loop then acts as an ab-



sorption circuit pulling some of the r.f. from the oscillator circuit. This results in a decrease of rectified voltage across the grid-leak, causing a change in the tuning-eye opening. Different capacities shunted across the loop would result in different resonant points. As the dial of the oscillator is calibrated in capacity and frequency, the condenser size is indicated as well as the resonant frequency.

In standard radio circuits the capacity, leakage and other function of a condenser may be checked without unsoldering the condenser even though there are other condensers shunted across it. This seems incred-

for the Service Department



ible but nevertheless is a fact. Since the test clip loop is a very low impedance circuit the condenser leads themselves contain appreciable inductance (even though only an inch or two long) by comparison. Thus the impedance of these leads is sufficient to isolate any other capacities in the circuit. Connection to the condenser under test must be made as close as possible to the unit. The test clips do this as they slide over the condenser and make contact where the leads enter the end seal.

By disconnecting the test clip loop the link itself becomes useful for checking inductance and resonant circuits.

In addition to the above tests, other service functions such as alignment of r.f. and i.f. stages are possible.

meability tuning, especially in compact receivers, are; economy of space, freedom of microphonic tendency which is quite prevalent when gang condensers are confined to small cabinets; better signal to noise ratio since tighter coupling can be made to the antenna circuit without serious mistracking and better oscillator stability because better i. c. ratios may be chosen.

Alignment of the set is accomplished by moving the antenna coil up or down along the string. By inserting a screwdriver in the hole on the mounting plate so that the edge of the blade meshes with the gear teeth of the coil support, and turning the screwdriver slowly, a micrometer adjustment is possible.

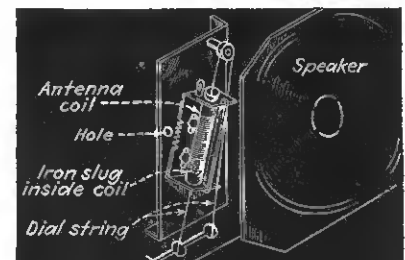
Trolley-Line Tuner

A novel tuning system is used in the Belmont Model 510. It is much simpler as can be seen, and contains several other advantages.

A conventional dial string is actuated by the dial, but instead of turning a condenser, the string varies the inductance of the antenna and oscillator coils by moving an iron slug in and out of the inductance. Two slugs on the same string tune each coil simultaneously.

Only the antenna coil is shown; the oscillator coil is located under the chassis, an arrangement giving better electrical characteristics.

The advantage of this type of per-



Audio Frequency

THE PHOTO above is a corner of the shop of Mission Electric Co., San Francisco. Six servicemen specialize in auto and home set repair.

only about $\frac{1}{8}$ in. space from the top of the base pins to the electrode leads inside the tube. The leads within the tube are reduced in diameter, to facilitate forming them by machine for proper connection to the tube electrodes. The exhaust tube is located at the top of the bulb. All of the types are of the single-ended construction; i.e., no top cap connection is used.

These tubes use the pins on each side of the missing eighth pin for their filament connections. The negative filament, pin No. 1, has tied to it suppressor grids, and whatever shielding is incorporated in the tubes. Pin No. 1, therefore, is intended to be the ground connection. Pin No. 7 goes to the positive filament. Filament current is .05 amp. for all except the 1S4 which is .1 amp.

1R5 Converter

The design of the miniature 1R5 converter type is based on that of the 6SA7. The use of this design principle provides much better performance at low plate voltage than any conventional pentagrid converter designed for the same low voltage. The 1R5 has a remote cut-off voltage of -9 volts, and an improved oscillator transconductance of 1200 micromhos.

1T4 R-F Pentode

Internal shielding is incorporated in the 1T4 so that a bulb shield is not required. The grid-to-plate capacitance is less than .01 mmf. when the tube is used with a shielded socket.

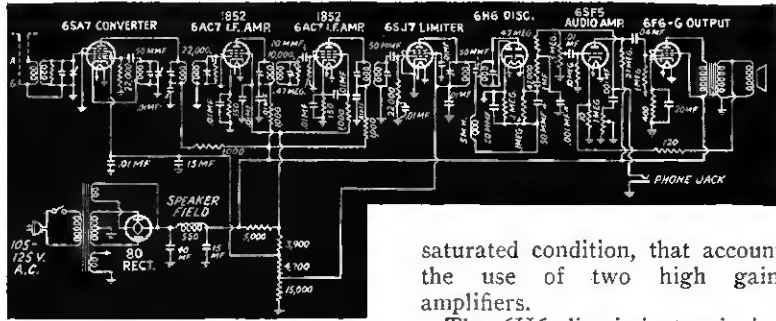
1S5 Diode Pentode

Consideration was given to the design of a diode triode, but the higher gain which can be obtained from a pentode at low B-supply voltage was an important advantage. 1S5 will give about three times as much amplification as can be obtained with a triode designed to give ample output voltage for the grid of the power tube at the life end point of 45-volt battery. Electron coupling and capacitance coupling between the diode and pentode sections have been kept at a minimum.

1S4 Power Output Pentode

Although the other tubes are intended for operation at zero bias, a bias is necessary for satisfactory operation of a power output pentode.

This requirement calls for a tube of high efficiency and good power sensitivity. The 1S4, when operating self-bias at a bias equivalent to -4 volts, gives a power output of 50 milliwatts, with only 3.5 milliamperes plate current.



Frequency Modulated Receiver

Little has been available to the serviceman with respect to the "innards" of a frequency modulated receiver. Here is the schematic of a Stromberg-Carlson model.

As can be seen the circuit looks surprisingly similar to any other receiver. The 6SA7 offers nothing more unusual than a resistor across its input circuit to broaden response. The i.f. stages have a similar resistor and are identical to any 2.1 mc. i.f. with the exception that the 1R52 type tube is used for much higher gain; an essential requirement to such a receiver.

The 6SJ7 and 6H6 are the only two stages which the serviceman has not had the opportunity to work on before. The purpose of the 6SJ7, called the limiter stage, is to prevent any amplitude signals from passing and at the same time permit frequency modulated signals to flow through. This action prevents practically all noise from reaching the second detector since noise is fundamentally amplitude modulated. It does this by operating under a saturated condition, so that any increase in signal to the grid produces no change in plate current. Thus, any amplitude modulated signals present at the grid are missing at the plate circuit since it is impossible for the plate current to increase. A good deal of signal voltage is necessary to operate this tube in a well

saturated condition, that accounts for the use of two high gain i.f. amplifiers.

The 6H6 discriminator is in reality the second detector. This may be likened to an a.f.c. circuit worked backward. Whereas an a.f.c. circuit converts changes in d.c. voltages to corresponding changes in frequency, the discriminator here converts changes in frequency to corresponding changes in voltage, or in other words, to audio voltage.

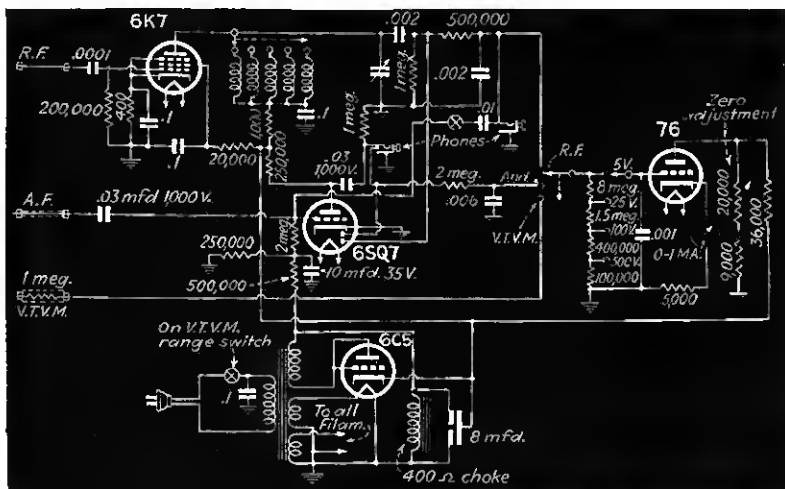
Channel-Analyzer

A compact signal tracing instrument has been devised by Superior which uses only 4 tubes. R.f., a.f. and vacuum-tube volt-meter terminals are provided for checking a signal at any stage in a receiver.

In the r.f. channel a 6K7 with resistance coupled input and tuned plate circuit serves as an r.f. amplifier. The tuning range of this is from 100 kc. to 18 mc. This feeds a 6SQ7 diode detector which rectifies the signal, impressing it on the triode section of the same tube. From here it feeds the 76 vacuum tube voltmeter serving as indicating device. Provision is made for phones so that the signal may be listened to as the testing progresses.

The audio channel is amplified by the triode of the 6SQ7 and likewise feeds the 76 as an indicator.

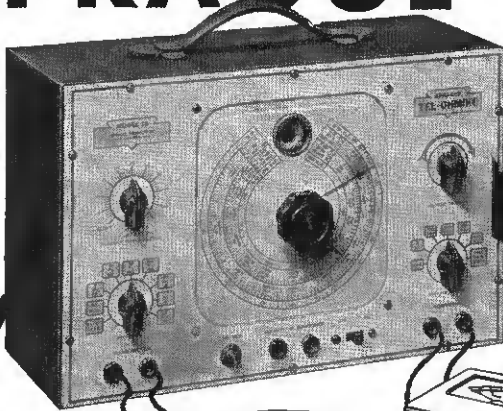
On the v.t.v.m. range direct connection is made to the 76. Ranges from 5 to 500 volts are possible, these ranges may be used on the r.f. and a.f. tests also.



SPRAGUE TEL-OHMIKE

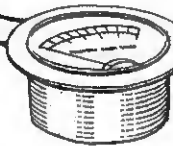
CONDENSER and RESISTOR ANALYZER

It Shows Up Intermittent Opens



YOU BUY THIS

YOU ALREADY HAVE THESE



By using the milliammeter and voltmeter you already own with Tel-Ohmike, you have a modern, obsolescence-proof instrument worth \$50 for a net price of **\$29.70** only

TEL-OHMIKE saves you money, not only by providing you with a basic instrument which allows you to use the meters you already own, but it saves you valuable working time. It enables you to make more complete and more accurate tests of ALL the characteristics of condensers and resistors in less time, than ever before at any price! TEL-OHMIKE measures capacity from .00001 mfd. to 2000 mfd. It measures leakage current and power factor of electrolytic condensers; it measures insulation resistance up to 10,000 megohms. It analyzes air, paper, mica, oil, dry and wet electrolytic condensers under their exact working voltages!

It measures resistance from 0.5 ohms to 5 megohms. All balance indications are given by a "magic eye" tube and all measurements are taken from large, direct reading scales. TEL-OHMIKE indicates open and short circuited condensers, and shows up intermittent open condensers and resistors. TEL-OHMIKE establishes new standards in economy and efficiency in test equipment design. See it at Sprague jobbers, or write directly for a free bulletin.

TWO NEW SPRAGUE LEADERS

KOOLOHM RESISTORS

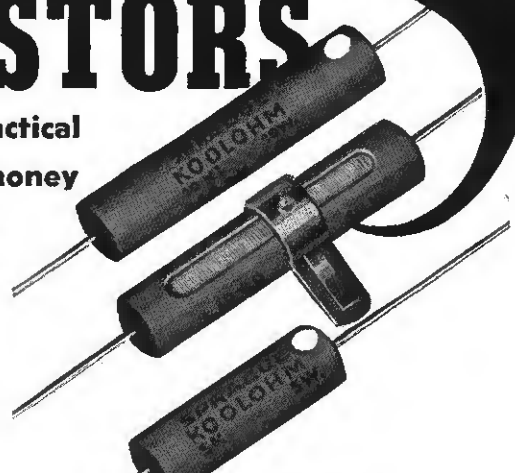
The biggest improvement in 20 years -- with more practical useful features than any other resistor -- for no more money

Here are the wire wound resistors you have been waiting for—resistors you can use anywhere at full wattage ratings, even for the highest resistance values—resistors that are completely insulated and operate cooler—resistors that are different in construction and outstandingly superior in performance. All wire in KOOLOHMS is coated before winding with Rubencote, a new heat-proof, moisture-proof insulating material. This permits tightly interleaved windings, larger wire sizes, higher resistance values in less space, and perfect insulation throughout. No fine resistance wires! No cements or enamels! Moisture-proof ceramic jackets provide rugged me-

chanical protection and high voltage insulation.

Resistance values guaranteed to plus or minus 5% accuracy. Non-inductive KOOLOHMS with zero inductance even at 50 MC, and distributed capacitance of only 2.5 mmfd., are available at unheard of low prices! All units have Teledot indicators.

Your jobber now has Sprague KOOLOHMS in 5-watt fixed types; 10-watt fixed, 10-watt Non-inductive and 10-watt adjustable.



TELEDOT WATTAGE INDICATOR

Koohms take overloads better than any other resistors—yet, for double safety, the red dot (Teledot) on the ends of units automatically changes color and warns you when 25% overload occurs. No guesswork. Teledot tells you!

The Dot Changes Color

WIRES TOUCH . . . BUT DON'T SHORT!

Note the interleaved winding pattern of Sprague Koohms made possible by perfect insulation of the wire itself. Note also (cut-away view) how units are protected mechanically, and insulated electrically, by a hard ceramic outer shell. No danger of chipping or breakage.



BY THE MAKERS OF FAMOUS SPRAGUE CONDENSERS

SPRAGUE PRODUCTS CO.
North Adams, Mass.

Marine Radio Interference

By ALLISON I. KURTH

THE initial step in filtering a ship is to decide on some common ground terminal, to which all filter grounds and the radio ground can be run. If there is a metal plate on the bottom of the ship it is, ordinarily, the best thing to ground to. However, care must be taken not to start electrolysis by grounding any point on the batteries to this outside plate.

A non-inductive condenser of several microfarads capacity, connected with heavy braid between the plate and the engines of the ship will usually prevent electrolysis from this source, and then the engines will be the best ground.

When a plate outside is not available, usually the engine, which is connected to the water by the propeller, and shaft is the best ground. Of course, on a metal ship the hull itself is best and should always be used.

In making up any of the filters described here, (some are available commercially) remember that all filters have d.c. resistance, and that some voltage drop will occur in the device. This lost energy will show up in the form of heat, and can easily be computed by accurately measuring the resistance in ohms, and estimating the current in amperes that will pass through the filter. The watts dissipated will equal the resistance times the square of the current. If this calculated dissipation is over a very few watts, allow adequate ventilation.

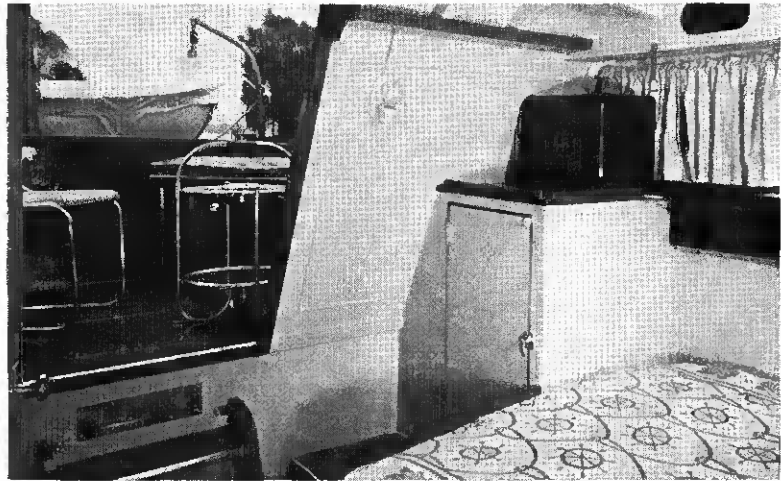
Never use electrolytic condensers in such filters if you want a permanent job. The changing characteristics and relatively poor power factor of these condensers will introduce more problems than they will solve in this class of service. Also, many filters will be installed where the polarity of the d.c. is doubtful and where even small leakage to common ground will produce bad effects.

Mica condensers of large size are most efficient, but usually expensive. Good paper wound condensers, always of the non-inductive type, will be cheap to use, and therefore be most satisfactory for all around work.

Filter Types

A circuit that is very much used in the average filter is shown in Fig. 1. This is inexpensive to build, and is efficient.

If greater efficiency is needed, or the unit is to be used as a line filter



working into a radio, the type at Fig. 2 will usually be a distinct improvement, provided that the entire filter is connected to the common ground with heavy braid, run as

FACTS YOU'LL WANT TO FILE

Radio reception, useful for entertainment, weather reports and navigational aids aboard most small boats, suffers appreciably from interference caused by ignition and electrical appliances.

General lack of knowledge needed to combat this situation, on the part of boatmen and the average serviceman, inspired this article.

Common sources of man-made interference can be filtered, isolated or eliminated entirely, resulting in a low noise level.

Tricks in wiring, grounds, and construction of the proper filters are discussed here.

directly as possible. At this point, it should be noted that when a filter is grounded with small wire, its efficiency will be cut to a small fraction of what it should be. Try using a long piece of small wire for a ground, then cut the length in two, and try again. Then, take a piece of braid as short as possible, and try that. The result will be a surprise to many. Also, always keep the input and output wires of a filter as far apart as possible. Sometimes no bad effects will be apparent, but there is a chance for leakage of some r.f. interference from one line to the other.

A minor variation which gives surprising results in many cases is the

addition of a condenser across the lines as in Fig. 3. Incidentally, this type is the one that we almost always use in our stock line.

Usually the job of filtering should start by connecting a unit at the radio. A really efficient filter unit for this purpose can be made up using a pair of chokes and a .1 mfd condenser on the input or line side of the filter with .5 mfd or larger on the output or radio side of the filter. (Other values may prove more effective in certain installations). The condenser across the line usually is a .25 mfd.

When building up this unit, be sure the chokes will carry double the usual current for the radio, and allow ventilation for heat dissipation. The ground end of all condensers should be soldered directly to the braid which in turn should be grounded. Some type of terminal should be attached to the unit, and when it is installed it should be placed as close as possible to the common ground connection. It is much better practice to extend the input and output d.c. lines and locate the filter so that the ground is short. Of course, care to prevent pick-up of further interference by the line running to the radio is necessary.

It is not considered essential to shield the wire from the filter to the radio, unless it has to be run in contact with some other line that carries a high interference level. However, if this line is shielded, connect the end of the shield to the filter on one end, and to the ground terminal of the radio on the other.

All the filters mentioned up to this point have assumed that the noise

has come into the radio largely on the d.c. supply and on the larger boats this condition usually exists. But if the hull of the ship is made of wood, there is nothing to prevent radiation of interference from every piece of wire on the ship; and the antenna will pick up this interference. On a small boat the careful location of the antenna, and routing of the lead-in will do wonders toward improved reception.

Engine Filtering

One of the most common troubles on small boats is the pickup of spark-plug interference. A single high resistance suppressor in the distributor can be inserted but should not be universally used. The boat owner or captain should be told that it is in place, and shown how to remove the suppressor in case of trouble.

An ordinary wire wound resistor is frequently more satisfactory as a suppressor. About 1000 ohms resistance of the familiar 10 watt type usually works very well. If the resistance is lowered, less effect will be noticed on motor performance, but there will be an increase in radiated noise. Try several sizes, and choose the one which has least effect on the motor while still suppressing as much noise as may be necessary. If irregular noise is encountered, reset the gaps in the spark-plugs so that all have uniform openings. Check the spark-plug wires for broken spots and poor insulation.

The real secret in minimizing motor radiation is the careful separating of all high tension leads from the vicinity of low or battery tension leads, and shielding as much as is possible. Run high tension or spark-plug leads through a copper tube or some metal guide on top of the motor. Be sure that no wire which does not carry this high voltage is run in the same guides or shield. Move all wires which go to the battery or to the control panel as far as possible from these high tension leads, and insert a filter in all leads which run to other places on the boat.

It is a good idea to wind a three layer choke with number 14 B&S wire on a half inch dowel about three inches long. Connect this choke in series with the incoming battery supply line, as shown in Fig. 4. The condenser used on this should be able to withstand a lot of heat, because it will be mounted on the motor itself. Of course, if the coil is mounted on a bulkhead some distance from the engine, move it to the motor and mount it permanently.

A peculiar phenomena that is difficult to explain may show up at this time. If when a second condenser

connected in a given circuit seems to increase the interference, instead of decreasing it, it may be that the condenser has been placed so that the wire being filtered is resonated to the frequency we wish to suppress. The remedy is obvious. Simply change the location of the second condenser, or install a third and if necessary a fourth to break up the resonant condition.

Radiation from the wiring is easiest to control if the wiring is in conduit or lead duplex. In this case, ground all pieces of conduit or lead to the common ground and to each other wherever it is convenient. Then check all breaks in the lead or all joints in the conduit. A piece of braid around each bad spot will give a good r.f. connection. If this grounding of the conduit is well done, it is often possible to ground small filters to the conduit with good results.

Getting back to the motor, an electric fuel pump is the second thing to filter. Usually a single condenser of the kind used on automobile generators will suffice.

The small generator used to charge the starting and ignition batteries is usually easy to filter. A single generator condenser between the hot terminal and ground is usually all that is necessary. If this does not clear

up the trouble, remember that a bolt through the frame of the machine is not always a good r.f. ground; fasten a piece of heavy braid to the generator and under some nut on the engine. This is more often true of fuel pumps, where alloys are used, and gaskets insulate the machine from the engine itself.

Chokes

A piece of half inch diameter iron rod about eight inches long with a slot for holding the wire in one end will be useful in winding chokes. Most of the ones used here are made by winding three layers of cotton enamel wire to form a choke in which the bottom layer is about four inches long. When the winding is completed, it is slipped off of the iron winding form and mounted on strong terminals. If it is to be subjected to severe vibration, a second support in the center will hold it very well. The sizes of wire we use for most filters is given in the following table:

Amperes	Size, B&S gage	Circ. Mils
3	18	1624
6	16	2582
12	14	4107
18	12	6530
22	10	10380
30	8	16510
35	6	26250
40	4	41740

The above wire sizes are for use where ventilation is adequate, in open air. Be sure that all inflammable materials are protected from the heat which will be dissipated.

If the stove has a motor driven blower or small motors are used for various other services, connect small condensers from the brushes to the frame of the motor, and put a small condenser of about .05 mfd capacity across the line to the motor.

One annoying thing when filtering is the fact that the receiver you are trying to quiet will not ordinarily show any difference in the interference level as the work progresses because the automatic volume control will increase the sensitivity of the set to correspond to your efforts. The handiest tool in my kit is a portable receiver with a manually operated sensitivity control. This receiver is equipped with ear phones, and a long shielded cord on them, so that I can test every improvement I make. If you use one, and I certainly do recommend it, arrange a scale on the sensitivity control (or rig up a signal strength meter) so that the improvement can be shown by a definite change before and after the work.

If you can get someone in authority to witness this change you will have a satisfied customer.

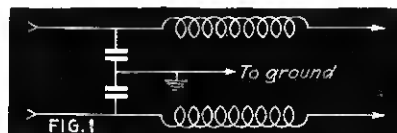


Fig. 1. Simple filter satisfactory for most purposes



Fig. 2. A more effective filter for general use

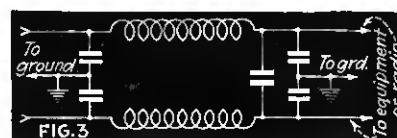


Fig. 3. The most useful and also the most effective filter

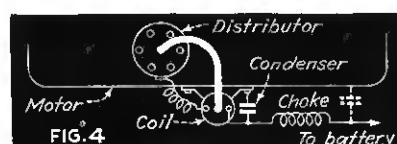


Fig. 4. Method for suppressing ignition interference

Signal Tracing INSTRUMENTS

Model	Price (Net)	Frequency Range (KC.)	Type Amplifiers*	Minimum and Maximum R. F. Voltage Measurements	Number of Channels	Input Resistance (Megs.)	Input Capacity (MMF.)	A. F. Checking?	Oscillator Checking?	Gain Measurements?	Resistance Measurements?	Indicating Device†	Number of Tubes	D. C. Measurements?	Dimensions
Hickok Elec. Inst. Co., 10514 Dupont Ave., Cleveland, Ohio 153 \$122.00 100-17000 T .00003-100 5 Hickok 16 1.5 Yes Yes Yes No M 11 Yes 16x13x9															
Jackson Electrical Instrument Co., 129 Wayne Ave., Dayton, Ohio 660 \$79.50 100-16000 T .01-100 3 Jackson 10 2 Yes Yes Yes No M 7 Yes 17x8½x7¼															
Meissner Manufacturing Co., Mount Carmel, Ill. Analyst 10-1154 \$60.00 95-1700† T .00005-50 5 10 1.0 Yes Yes Yes No E 13 Yes 9½x13½x10½ † Oscillator channel tunes from .6 to 15 mc.															
Million Radio and Television Labs., 685 W. Ohio St., Chicago, Ill. Million SY \$37.50 60-2000 R .1-100 4 2-6 Yes Yes No Eye 11 Yes 10x8x6															
Radio Instruments Mfg. Co., 625-35 W. Monument St., Jackson, Miss. Rimco Dynalyzer 701 \$79.50 95-15000 T .001-100 2 10 1.0 Yes† Yes Yes Yes M 6 Yes 15¼x9¾x7¼ † Built-in dynamic speaker additional to meter test.															
RCA Manufacturing Co., Inc., Camden, N. J. Rider Chanalyst 162 \$107.50 95-15000 T .0001-300 5 ... 1.2 Yes Yes Yes No† 4-E,1-M 12 Yes 9x14x9¾ † Measures wattage consumption of set.															
Superior Instruments Co., 136 Liberty St., New York, N. Y. Superior Channel Analyzer \$19.75 100-18000 T .1-500 3 11 8.5 Yes Yes Yes No M 4 Yes 13x10x6															
Supreme Instrument Corp., Greenwood, Miss. Supreme 562 \$78.50 100-15000 T .01-100 2 15 3 Yes† Yes Yes No M 6 Yes 15½x11½x9 560 \$129.50 .03-3000 T .01-90 3 15 3.0 Yes Yes Yes Yes § 9 Yes 15½x11½x12 † Built-in dynamic speaker additional to meter test. § Cathode-ray tube.															

* T = Tuned, R = Resistance-coupled. † E = Tuning eye. M = Meter.

Vacuum Tube VOLTMETERS

Model	Price (Net)	Frequency Range (KC.)	Input Resistance (Megs.)	Input Capacity (MMF.)	Voltage Maximum and Minimum Measurements	Number Zero Adjustment Controls	Total Number Controls	Type* Test Prod.	Number Tubes	Minimum and Maximum Resistance Measurements	Indicating Device	Dimensions
Hickok Elec. Inst. Co., 10514 Dupont Ave., Cleveland, Ohio 110 \$54.00 .06-150000 4 4 Hickok .1 to 150 v. ac .1 to 7500 v. dc 1 3 § 3 Meter 11x13x7 § Tube on a.c., test lead on d.c.												
Million Radio and Television Labs., 685 W. Ohio St., Chicago, Ill. Million XM \$28.95 .06-15000 10 60 .05-3000 1 1 Co-Ax 2 Meter 6x10x13												
Radio City Products Co., Inc., 88 Park Pl., New York, N. Y. Radio City 660 \$18.85 200 0.1-6000 1 3 1 0.1 to 1000 meg. Eye 10¾x6¼x5½												
RCA Manufacturing Co., Inc., Camden, N. J. Rider Voltomyst 163 \$57.50 DC 16-160 5000* .05 to 5000 2 2 Test lead 3 .1-1000 meg. Meter 7½x12x9¼ * This is a d.c. instrument only.												
Solar Mfg. Corp., Bayonne, N. J. Exam-eter EX-1-60 \$39.00 .06-† 20 3.5 .5-3500 1 3 Tube 4 50-7.5 meg. Calibrated 11x9¼x12¼ † Also checks capacity and insulation resistance. dial												
Televiso Co., 341 N. Pulaski Rd., Chicago, Ill. Televiso VG-6 \$25.00 .03-50000 10 7 .1-600 1 2 Co-Ax 2 Meter 10x6x7½												
Triplet Electrical Inst. Corp., 122 Main St., Bluffton, Ohio Triplet 1252 \$48.33 10 5 3-300 1 3 Tube 3 Meter 7¾x6¼x5¾ 1251 47.67 10 60 3-300 1 3 Tube 3 Meter 7¾x6¼x5¾												
Weston Electrical Instrument Co., 614 Frelinghuysen Ave., Newark, N. J. Weston 66904-50000 5.8† 4 .2-160 1 2 Test lead 3 Meter 5½x8¼x5½ † At 1000 kc.												

* Tube, co-axial cable or test lead.

Take along a "LAB"



- and sell MORE service

TRIPLET MODEL 1604 \$49.84 COMPLETE

You are "ready for anything" when you back up your service with this Super Set-Tester. Look it over and see for yourself that the sure way to better service profits is through more service.

Model 1604 features Twelve AC and DC ranges;

0-10-50-250-500-1000-2500 (DC at 25,000 ohms per volt; AC at 1000 ohms per volt); 0-50 DC Micro-amperes; 0-1-10-50-250-500 DC Milliampere; 0-1-2-20 DC Amperes; 0-500 Low Ohms; 0-20,000, 0-200,000 ohms, 2 and 20 megohms. Complete Free Point Tester makes all series and parallel meter connections through seven sockets, including Loctal and Bantam Jr.

types; Condenser tester and provisions for Decibel readings... Contains Red • Dot Lifetime Guaranteed Indicating Instrument... Exclusive Resistance Measurements Circuit (Patented), with only one adjustment for all resistance ranges. Dealer Net Price\$49.84

Model 1200-E

Model 1200-E Volt-Ohm-Milliammeter with 25,000 ohms per volt D.C. voltage ranges; D.C. Current, A.C. volts and ohms readings . . . Dealer Net Price.....\$31.17

Model 1200-A with 2000 ohms per volt D.C. Voltage ranges . . . Dealer Net Price.....\$23.84

Model 1200-C with 5000 ohms per volt D.C. Volt ranges . . . Dealer Net Price\$26.84



Model 666-H

Model 666-H Pocket Volt-Ohm-Milliammeter for field work, radio technicians, amateurs, industrial engineers, research. 5000 volts AC-DC; Completely Insulated . . . Case and Panel of Bakelite . . . With RED • DOT Lifetime Guaranteed Measuring Instrument Dealer Net Price..\$14.50



Write for Catalog—Section 2012, Harmon Avenue

THE TRIPLET ELECTRICAL INSTRUMENT COMPANY
Bluffton, Ohio

TRICKS

AIRLINE 198

Inoperative . . . open .1 mfd condenser connected between wave band switch and first lug (from front of set) on rack of three trimmers mounted on coil assembly.

AIRLINE 320

Distortion at low volume . . . change the .5 meg second detector screen resistor (R5) to .7 meg.

AIRLINE 403

Distortion . . . check 15 mmf i.f. coupling condensers for change in capacity.

BELMONT 778, SERIES B

Intermittent or dead on low frequency end . . . suspect bakelite condenser across terminal of low frequency trimmer for open.

PHILCO 57

Noisy tuning . . . look for wax between variable condenser plates. This is caused by the power transformer mounted directly above condenser.

PHILCO 60

Intermittent hum . . . suspect paper .25 mfd condenser from the last filter to ground, housed in metal condenser pack.

PHILCO 60

Dead, full voltage at rectifier, only 50 volts at set side of speaker . . . look for poor insulation on primary white lead of second i.f. where it crosses bracket.

PHILCO 89

Continuous crackling . . . look at second i.f. primary for partial open.

PHILCO 90

Dead on high frequency end of dial . . . connect 10,000 ohm resistor across oscillator cathode resistor.

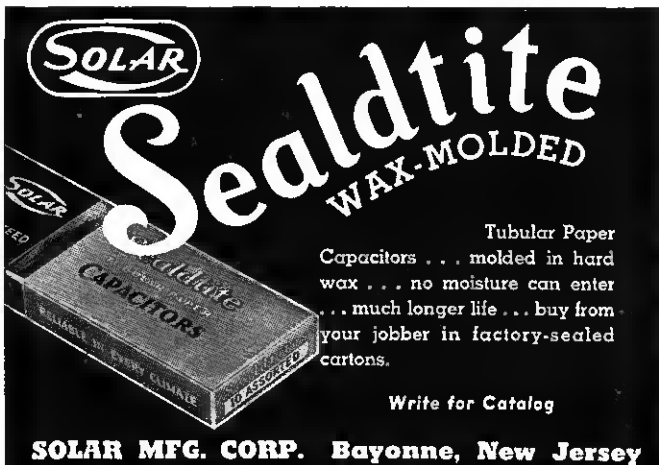
ZENITH PORTABLES

When the a.c.-d.c.-battery portables work on the battery but are dead on the line, check the 117Z6G tube first. If this checks O.K. then look for an open resistor next to the cathode of the 117Z6G which feeds the filaments of the other tubes. The filaments of these tubes are all in series and get their filament voltage from the rectified plate voltage of the rectifier tube. The resistor is in series with the filaments and frequently opens up, being only of 1 watt capacity.

When set operates weakly and everything else checks O.K. change the speaker. The permanent magnet on these sets seems to deteriorate rather rapidly and produces the above effect.

Another thing to look for with weak reception is a moist loop cable. The covering of the loop cable is made of some material which readily absorbs moisture, causing high radio leakage. Later models of this set have changed the covering.

When sets work O.K. on the line but are dead on battery, look for poor switch contact at the back of the plug receptacle on chassis. The regular electric plug has to be plugged into this receptacle on back of set before it will work on the batteries.



SOLAR
Sealdite
WAX-MOLDED

Tubular Paper Capacitors . . . molded in hard wax . . . no moisture can enter . . . much longer life . . . buy from your jobber in factory-sealed cartons.

Write for Catalog

SOLAR MFG. CORP. Bayonne, New Jersey

MUELLER Has—
A Complete New Line of Alligator Clips

All Popular Types Insulated and Uninsulated

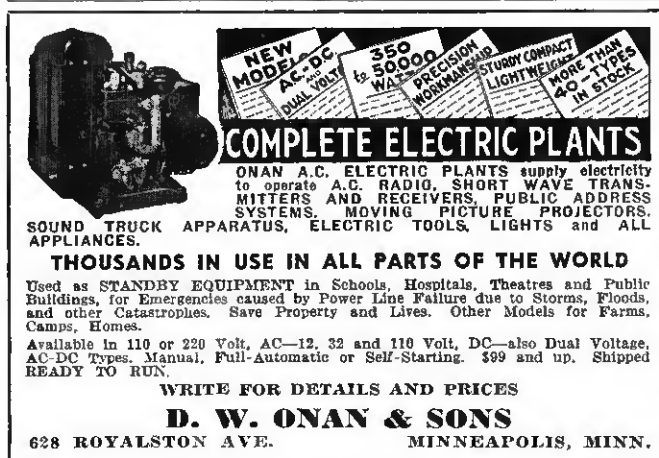
IMPROVEMENTS!



Plus a Unique Solid Copper R. F. Alligator!

Send for Free Samples and Sheet 701

Mueller Electric Co. 1584 E. 31st St. Cleveland, Ohio



NEW MODEL AC-DC DUAL VOLTAGE
350 to 50000 WATT
PRECISION WORKMANSHIP
STURDY COMPACT LIGHT WEIGHT
MORE THAN 40 TYPES IN STOCK

COMPLETE ELECTRIC PLANTS

ONAN A.C. ELECTRIC PLANTS supply electricity to operate A.C. RADIO, SHORT WAVE TRANSMITTERS AND RECEIVERS, PUBLIC ADDRESS SYSTEMS, MOVING PICTURE PROJECTORS, SOUND TRUCK APPARATUS, ELECTRIC TOOLS, LIGHTS and ALL APPLIANCES.

THOUSANDS IN USE IN ALL PARTS OF THE WORLD

Used as **STANDBY EQUIPMENT** in Schools, Hospitals, Theatres and Public Buildings, for Emergencies caused by Power Line Failure due to Storms, Floods, and other Catastrophes. Save Property and Lives. Other Models for Farms, Camps, Homes.

Available in 110 or 220 Volt, AC—12, 32 and 110 Volt, DC—also Dual Voltage, AC-DC Types, Manual, Full-Automatic or Self-Starting. \$99 and up. Shipped **READY TO RUN.**

WRITE FOR DETAILS AND PRICES
D. W. ONAN & SONS
628 ROYALSTON AVE. MINNEAPOLIS, MINN.

THE ONLY COMPLETE LINE OF INTERCOMMUNICATION

Tokphone
Send For Catalogue

REGAL AMPLIFIER MFG. CORP.
14-16 W. 17th ST., NEW YORK

SHOULD ALL DEALERS SERVICE?

(Continued from page 30)

theory and practice of billing.

Needed for thorough exploration of the subject are more facts and figures relative to present-day dealer experiences with service, more opinions from dealers who are merchandising radio sets.

Figures given here, presenting the picture as it stands today, constitute the first logical step. Further facts will follow in coming issues and these pages, meanwhile, are offered as an open forum.

DON'T BURN YOUR FINGERS

(Continued from page 33)

matically. The debtor is allowed to pay in accordance with his circumstances, at times as low as 50 cents a week.

"We go still further," he explains. "If the debtor can't pay at once, but has good security, we'll finance his account." "You, however, will be paid up in cash, immediately. In that way," he continues, "the debtor gets his extension; you get cash in hand; while we'll eventually get our money."

It all sounds convincing. However, the merchant wants to know other things. Must he sign a contract? Who receives the money? If the agency does, how does he know that they will pay him?

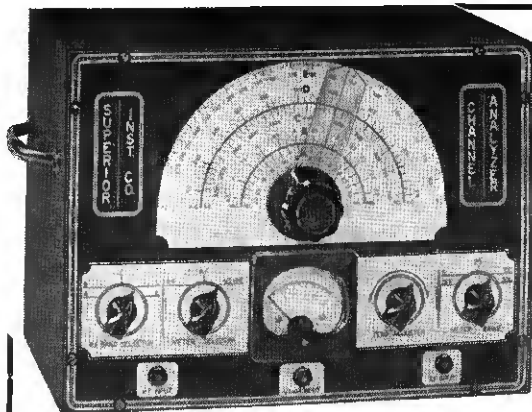
The salesman parries these questions. No, no, the client need not sign any contract, he states. And all payments are received by the client and none by the agency.

The dealer is impressed. "How much does this service cost me?" he asks.

Cost? Did he think that he has to pay anything? The salesman laughs enthusiastically. Why, there is no cost at all! The merchant need not pay a single copper coin. The agency stands all the risk and makes all the investment. Only where collections are actually made, is a nominal commission of 25% charged.

"In fact," he adds, "you take absolutely no risk at all. If you are dissatisfied with the way we collect—why, we'll return the accounts to you within 60 days. Isn't that fair enough?"

The radio dealer agrees that it is. He mulls the matter over in his



THE NEW CHANNEL-ANALYZER

Follows the SIGNAL from
Antenna to Speaker
of Any Set

The well-established
and authentic
SIGNAL TRACING

method of locating the very circuit in which there is trouble, and the very component that causes the trouble, is now for the first time available at a price any radio serviceman can afford, and in an instrument that has been expertly designed and calibrated. The years of experience SUPERIOR has had in making fine test equipment are behind the CHANNEL-ANALYZER, the instrument that does what the usual test equipment cannot do, that raises servicing to a new high plane of speed and accuracy and marks the owner as one of the advanced operators in his field.

THE CHANNEL-ANALYZER WILL—

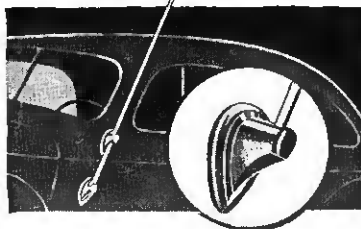
- Follow SIGNAL from antenna to speaker through all stages of any receiver ever made.
- Enable "LISTENING IN" to locate cause of distortion. The CHANNEL-ANALYZER has a Jack for insertion of earphones so that you can listen to the signal directly from any stage and, therefore, discover the stage in which the distortion takes place.
- Instantly track down exact cause of intermittent operation.
- Measure both Automatic-Volume-Control and Automatic-Frequency-Control, voltages and circuits without appreciably loading the circuit, using built-in highly sensitive Vacuum-Tube Voltmeter. The Vacuum-Tube Voltmeter may also be used as an independent instrument.
- Check exact gain of every individual stage in receiver.
- Track down and locate cause of distortion in R.F., I.F. and A.F. amplifiers.
- Check exact operating voltages of each tube.
- Locate leaky condensers and all high resistance shorts, also show opens.
- Measure exact R.F., Osc. and I.F. frequencies, amount of drift and comparative output of oscillators in superhets.
- Track down exact cause of noise.

Superior Channel-Analyzer comes housed in shielded cabinet and features an attractive etched aluminum panel. Supplied complete with tubes, three specially engineered shielded input cables, each identified as to its purpose. Also full operating instructions. Size 13"x10"x6". Shipping weight 19 pounds.

ONLY **\$19.75**

SUPERIOR INSTRUMENTS CO.
136 LIBERTY ST. DEPT. R-R. NEW YORK, N. Y.

BRACH AUTO AERIALS



Radios' Smartest Auto Aerials
Are Made by Brach

New streamline design; smooth, noiseless; anti-rattle construction. Made of chrome-plated Admiralty brass. Approved and recommended by leading auto manufacturers.

See our new 92-inch Cowl Aerial with concealed mounting insulators.

Send for Latest Catalog
Covering Complete 1940 Line

L. S. BRACH
MANUFACTURING CORPORATION

World's Largest Makers of Antenna Systems

55-67 DICKERSON STREET
NEWARK, N. J.

Servicemen!
MAKE MORE MONEY
renting

LAFAYETTE P.A.

Every special event in your area is an opportunity for you to make money today renting and installing sound systems. The auto show, prize fight, football game, political campaign—these are just a few of the pressing needs for P.A. Cash in on them all with Lafayette—the P.A. line that costs less to own.



EASY TO BUY. Lafayette offers a complete line of modern sound systems priced surprisingly low. Because they pay for themselves more quickly, because they're outstanding in dependability, outlasting many units that cost twice the money, your profits are greater with Lafayette. Send today for new FREE 1940 catalog. See this amazing P.A. line, note the features, and the prices.

Radio Wire Television Inc.
formerly WHOLESALE RADIO SERVICE, INC.

NEW YORK, N. Y. • CHICAGO, ILL. • ATLANTA, GA.
100 SIXTH AVENUE • 301 W. JACKSON BLVD. • 215 PEACHTREE ST.
BOSTON, MASS. • BRONX, N. Y. • NEWARK, N. J. • JAMAICA, L. I.


LAFAYETTE PUBLIC ADDRESS
EQUIPMENT

Radio Wire Television Inc.
Dept. 7419-100 Sixth Ave., New York.
Rush FREE Lafayette Catalog No. 78.

NAME _____
ADDRESS _____
CITY _____ STATE _____


PASTE COUPON ON PENNY POSTCARD

JIM QUAM
Says



We made munitions in the last war, but, while this experience left us with a heritage of precision manufacturing practice, it is my fervent hope that we will not have to do it again. If we must kill people I would rather we talked them to death, than blow them to bits. I sometimes wonder if we realize to what extent radio is supplanting artillery in this war. The pounding of propaganda is just as effective as the bursting of bombs, and not nearly as messy. They have even had loud speakers directed at opposing forces in the front lines! Radio is playing a major part in drafting the new map of Europe—and a bloodless part.

QUAM-NICHOLS CO.
33rd Place & Cottage Grove CHICAGO 1574 Broadway NEW YORK



DYNAMIC CONDUCTANCE TUBE TESTER



Model 9000 TESTS Loktal Tubes
Single-Ended Tubes
117-Volt Tubes

Here is proof that Consolidated offers **QUALITY at LOW PRICE.** The Model 9000 tests the newest tubes, as well as the older ones, and yet is priced to dealers at only \$37.50.
See it at Your Jobber's Today!

CONSOLIDATED WIRE AND ASSOCIATED CORPORATIONS
514 S. Peoria St. Chicago, Ill.

mind for a few moments. He can't see how he can lose. He draws out his books and the solicitor copies down the names of delinquent debtors. If the merchant's attention is distracted the solicitor also furtively jots down names not intended for him. These are current paying accounts which can't be called "delinquent." The solicitor does this because he gets paid by the account. The agency will condone this because such accounts are quick pay.

Debtors are contacted in about one week. It is not, however, through personal contact. Rather through terse, threatening letters, instructing them to pay up in ten days or suffer court action, property seizure, or adverse publicity. Pay only to the agency, the debtors are told. The agency, they are informed, now owns their accounts through "legal assignment." The client is mentioned only as an "original creditor."

The merchant discovers these tactics when he is confronted by infuriated debtors. He then communicates with the agency, and if they answer him at all, they'll suggest he consult the contract that he signed.

He insists, of course, that he signed no contract; but they will oblige by sending him a copy. And, following analysis of this instrument, he realizes that he was what Barnum called "born every minute."

This contract—and he now knows that the innocent verification list which he signed is a contract—states, above all, that the agency is not responsible for claims made by their agents.


Another clause provides that, instead of 25% commissions, 50% commissions will be charged where accounts must be collected in installments or through attorney "assistance." Since almost every account is paid in installments, or every debtor is sent at least one routine letter by the agency attorney, 50% commission is charged in almost every instance.

Provision is also made that accounts are considered "dropped" if the client fails to supply the agency with written proof of the indebtedness upon request. This means that if the client neglects or refuses to send original notes, itemized statements, or other proof of indebtedness, his accounts are considered dropped and assessable full commissions.

True, accounts are returnable within 60 days, but only if, according to the contract, they are "not in process of adjustment." This decision rests within the judgment of the agency so that accounts might be "in process of adjustment" for years.

How do such agencies get away with these tactics? How can they swindle business people year after year and still remain within the law? Principally, because they manage to word their contracts shrewdly within the technicalities of the law. Where Pennsylvania State recently forbade "assignments" of accounts, the agencies contravened this prohibition by calling themselves "attorneys-in-fact."

Such collection agencies concentrate upon rural and industrial communities in securing accounts. They have learned that the rural inhabitant can be cowed with threats of "court action" and "adverse publicity." They know, also, that the resident of an industrial town will pay up pronto when he is told that his employer will be contacted and his wages garnisheed.



RADIO

*When the store-front flashes
RADIO and other
modern home equipment . . .
it's a sign of the*

**LIVEST DEALER
IN TOWN!**

*He likes RADIO RETAILING best
because it helps him most in
selling everything electrical.*

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

McGRAW-HILL PUBLISHING COMPANY, INC. Publication Office: 99-129 North Broadway, Albany, N. Y. Editorial and Executive Offices: 330 West 42nd Street, New York, N. Y.

SEARCHLIGHT SECTION

EMPLOYMENT and BUSINESS OPPORTUNITIES—SURPLUS STOCKS—RESALE MERCHANDISE

LEGAL NOTICE

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACTS OF CONGRESS OF AUGUST 24, 1912, AND MARCH 3, 1933

Of Radio and Television Retailing, published monthly at Albany, N. Y., for October 1, 1939.

State of New York) ss.
County of New York)

Before me, a Notary Public in and for the State and county aforesaid, personally appeared D. C. McGraw, who, having been duly sworn according to law, deposes and says that he is the Secretary of the McGraw-Hill Publishing Company, Inc., publishers of Radio and Television Retailing, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, as amended by the Act of March 3, 1933, embodied in section 537, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, McGraw-Hill Publishing Company, Inc., 330 West 42nd St., N. Y. C. Editor, O. Fred Rost, 330 West 42nd St., N. Y. C. Managing Editor, W. MacDonald, 330 West 42nd St., N. Y. C. Business Manager, H. W. Maceer, 330 West 42nd St., New York City.

2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one per cent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company, or other unincorporated concern, its name and address, as well as those of each individual member, must be given.) McGraw-Hill Publishing Company, Inc., 330 West 42nd St., N. Y. C. Stockholders of which are: James H. McGraw, 330 West 42nd St., N. Y. C. James H. McGraw, Jr., 330 West 42nd St., N. Y. C. James H. McGraw, James H. McGraw, Jr., and Curtis W. McGraw, Trustees for: Harold W. McGraw, James H. McGraw, Jr., Donald C. McGraw, Curtis W. McGraw; Curtis W. McGraw, 330 West 42nd St., N. Y. C. Donald C. McGraw, 330 West 42nd St., N. Y. C. Anne Huges Britton, 330 West 42nd St., N. Y. C. Mildred W. McGraw, Madison, N. J.

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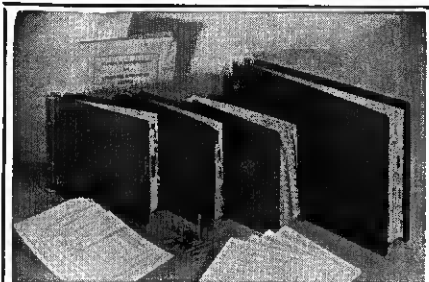
3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the twelve months preceding the date shown above is. (This information is required from daily publications only.)

D. C. McGraw, Secretary.
McGRAW-HILL PUBLISHING COMPANY, INC.
Sworn to and subscribed before me this 25th day of September, 1939.

H. E. BEIRNE,
Notary Public, Nassau County, Clk's No. 84, N. Y.
Clk's No. 98, Reg. No. 0-B-90.
(My commission expires March 30, 1940)



BOOKKEEPING SYSTEM Especially Designed for APPLIANCE-RADIO DEALERS

A direct, easy-to-understand system, devised by an expert accountant in your line of business. It is in practical use by many dealers everywhere.

Provides for cost of sales, operating expenses, inventory to date, cost of repossessions, cost of rebuilding, loss on trade-ins and every conceivable situation of your very own business.

Also system for smaller store.
Write today for descriptive folder.
THE KNAPHURST COMPANY
501 S. Jefferson Street Chicago, Illinois

New "SEARCHLIGHT" Advertisements

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

Address copy to the
Departmental Advertising Staff
Radio and Television Retailing
330 West 42nd St., New York City

**FREE
RADIO
CATALOG**

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

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

Where You Tell Us...

Problem in Mathematics

We were told a few years ago that tube types were to be standardized.

Manufacturers apparently first reached common ground by agreeing that tubes should have (a) a base, (b) a shell and (3) a set of elements. Next, it seems, a mathematician was called in to compute the greatest possible number of variations on the basic theme. This done, production began as soon as a plausible excuse for each new type could be found. It still goes on.

How long is this going to keep up?
DECATUR, ILL. ADAMS RADIO SERVICE

There certainly is need for standardization and manufacturers are quite aware of it. Just how to go about the complicated job of limiting (if this is the way to start) without shutting off design of types involving important new features as these are found is not so obvious. Suppose the job was yours. How, specifically and in detail, would you do it?

Numbers Game

Help! Help! We can't see the numbers on the glass of radio tubes. Manufacturers put them on the glass instead of on the base. We spend more time looking for them than we actually do in testing.

YATES APPLIANCE COMPANY
CARNEGIE, PENNA.

Old, Old Story

As a radio dealer for the past five years I have become acquainted with this retail business and have tried various methods of keeping the unit sale as high as possible. . . . I think that if radio factories would cultivate such terms as "quality," "unit sale" and "profit" rather than mere "volume" I could get farther in this direction. . . .

I would rather sell one fifty dollar set than five ten dollar ones and believe



"Can't you put that damn thing down for even five minutes?"

New Yorker

that if all the thought and energy devoted to competing with one another by manufacturers was directed along these lines the public would readily buy higher priced sets. . . .

AUBURN, N. Y. J. T. STEIGERWALD
F. H. Steigerwald & Sons

Our's No Indian Headdress

The October issue, on page 61 ("What Will It Cost to Fix It?"), contains an article we believe to be the best that could be told at this time to the public.

One of the principal difficulties encountered by all servicemen is skepticism on the part of the consumer. The majority believe the cause of receiver trouble is always minor; that repair cost will be but nominal; that it can be fixed in a few minutes in their home; that the necessity for removal does not exist and that familiarity with the work will enable the serviceman to immediately state the cost even though it is obvious that there is a major trouble and that removal to the shop is necessary.

All of these "resistance thoughts" are so thoroughly overcome by page 61 that were each customer to read the page and see the non-assembled "mess" of parts pictured thereon she would undoubtedly "let her hair down" and have confidence in servicemen really trying to do a job.

This page should be used by all servicemen. If one could be handed to each customer its eloquence would far exceed the average serviceman's ability to tell the story.

Please accept our bouquets and make room for another feather in your cap.

NEW YORK A. E. RHINE

Popular Page 61

Let's have more articles such as "What Will It Cost to Fix It" on page 61 of your October issue.

This is the most constructive piece I have seen in any radio magazine. It is just what I have been preaching for years.

C. R. PALMER

On page 61 of October issue you devoted a page describing and illustrating radio set parts.

Do you have or contemplate having a larger chart suitable for window use? If so, would you kindly rush me one and I'll remit for same by return mail.

MAYVILLE, N. D. NORMAN E. NELSON

Sorry, we cannot supply "blow-ups" at this time but we are supplying reproductions of this page (original size) at cost to many servicemen who have ordered them for neighborhood promotion work.

Only What We Print

I would like to know if you have any blueprints on Public Address Systems, 40 to 75 watt size.

CHARLES A. GARNER
WASHINGTON, D. C.

The only blueprints we have are the originals from which we make our Service Department cuts. We stick close to our knitting, put all the hot new circuits we can within the magazine each month, do not maintain any supplementary circuit service. We'd like to accommodate but just getting out this magazine keeps us as busy as a one-armed paper hanger with the hives.

Call Us Hawkshaw

My husband subscribes to your magazine and while I was looking through the September issue I became very much interested in the picture on page 14, in the lower lefthand corner, where there is a radio man checking a set that has been installed in a home.

Beside the radio is a striped modern chair. I am very anxious to know who the manufacturer of this chair is, or what retail shop it came from, as I have for a long time tried to find one like it without success.

WASHINGTON MRS. DAVID GREENBAUM
Lite-Right Electric Co.

Don't give up hope even though you haven't heard from us. That chair is in the home of a couple that went to Europe (or somewhere) just after the picture was taken. The photographer thinks it was made up special from the drawings of a swank New York designer and that maybe he can find out who this designer was when the owners get back in town. If he does we'll let you know.

All Worn Out

Our copy of your March issue, in which there was a story called "Are New Radios Good Enough?" is worn out from sales work.

Please send me another and advise charges.

OLA, ARK. GERALD EVANS

Matchless Section

I should like to express my approval for the matchless Service Section in your magazine. . . .

The "Television Test Leads" described in the October issue are the most unique innovation for performing dynamic tests on televisions, transmitters and other high-voltage apparatus—safely.

The author should be complimented for his unconventional departure from an old accepted fallacy, namely that test leads are unable to shock just because they are test leads.

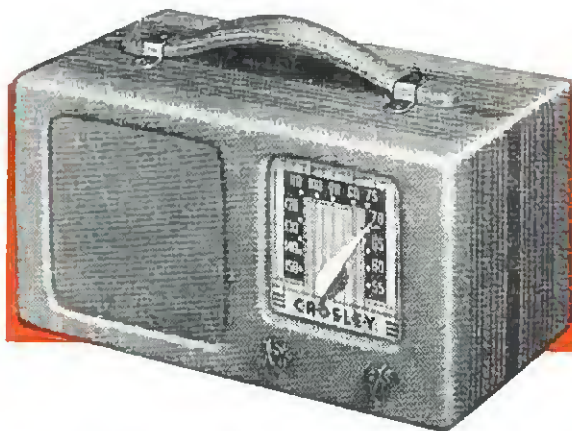
Let's have more constructional articles. I like 'em.

BRONX, N. Y. SAM KRONITZ

Saving of batteries by plugging in AC-DC current when available make **CROSLEY** portables highly saleable!

MODEL B-549A (Right) A fast seller because it has so many uses in the home and out of the home—appeals to ALL members of the family—and presents a great big value in its saving of batteries when a light socket is available to plug in the AC-DC extension. It's a splendid radio. You'll find its performance in reception and clarity of tone delight all who hear it.

The switch over from batteries to AC-DC electric current is automatic, which is a leading selling feature. Weight only 12 lbs. Complete with 200 hour batteries **\$24.95** it's "hot." It moves swiftly at



YOU'RE there with a CROSLEY

MODEL B-439A (Above) Here we have the minimum in portables without sacrificing good quality, tone, volume and performance. 11 lbs. in weight. Size 11 x 6 1/4 x 5 3/4 inches. Airplane luggage fabric adds smartness. Sold with batteries good for 200 hours. **\$18.95**

PORTABLE COMBINATION

MODEL B-5549A (Right) is an unmatched value and a strong Christmas item because it's a 24-lb. combination of the 549A chassis and a husky spring wound motor. Equipped with the automatic switch over from batteries to AC-DC current when outlets are available, it promises economy in operation. 1 to 8 records can be stowed away inside with everything snug and tight for toting anywhere. **\$39.95** Complete with 200 hour batteries.



The Crosley line is ALL fast moving with superhets at \$9.99, 2-band 7-tube superhets at \$19.99. Other table models to \$29.95. Consoles from \$39.95 to \$69.95 to deluxe combination consoles with Caphart record changers at \$114.50.

Prices slightly higher in South and West.

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

Howard
Says —

HERE'S *Your*
CHANCE TO CASH IN!
Howard is expanding fast—More live dealers needed to handle increased retail demand. To Speed Up Profits for every radio dealer. Howard is temporarily slashing \$50.00 from the list price of one of its finest and most popular models. Read every word of this Startling Offer. Then Act!

OFF GOES \$50⁰⁰ PER RECEIVER''

2 TUBE MAGNIFICENT CONSOLE

design, beauty and performance, this symphonic full range superheterodyne is an outstanding tribute to Howard craftsmanship and engineering genius. A sensational value at its regular established list price of \$129.95, the Howard Model 518S at the new low temporary price of \$79.95 immediately becomes the most spectacular buy in all America.

Now \$79⁹⁵
LIST

REGULAR ESTABLISHED
List Price -- \$129.95
(Western Price Higher)

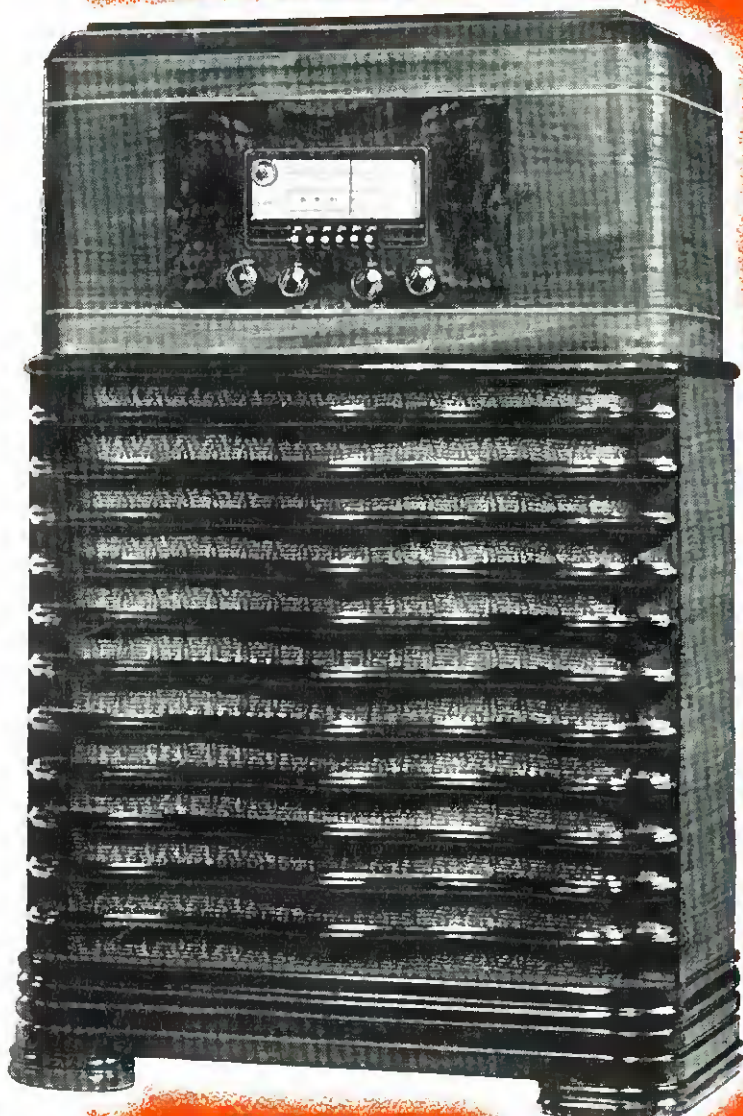
MORE FEATURES . . . BETTER PERFORMANCE

Produced by America's only manufacturer of both household and communication receivers, the Howard Model 518S includes such quality features as: Bass Boost Amplification . . . an exclusive Howard achievement which amplifies bass without reducing treble—12 Inch Jensen Auditorium Speaker—Beam Power Push Pull Output—Television Audio Channel and Phonograph Pick Up Connection—Exclusive Howard Built-In Antenna which is an integral part of the receiver—Accurate Six Station Push Button Tuner coupled to a 3 gang tuning condenser through an automatic clutch flywheel tuning system—Copper Plated Chassis—540 KC to 22,000 KC Tuning Range—R. F. Amplifier Stage—Cathode Ray Electronic Tuning Eye—Superb Large Console Cabinet of Choice Walnut and Fancy Veneers—Underwriters' Laboratory Approval.

ACT NOW FOR QUICK DELIVERY!

Dealers: Get in touch with your nearest distributor or communicate with Howard Radio Company direct to obtain full details of liberal discounts, etc. pertaining to this amazing and limited offer. Desirable territories available to progressive dealers and distributors for the complete fast-selling, competitively priced line of Howard table models, consoles and automatic combinations.

ALL WAVE—3 BANDS
560 TO 13 METERS
REAL FOREIGN RECEPTION



MODEL 518S
Dimensions: 28³/₄" x 43" x 14" Deep.

HOWARD

RADIO CO.

1731-35 Belmont Ave., Chicago, Ill.
Cable Address HOWARDCO, U.S.A.

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